

MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

2

NCS TIB 85-10



# NATIONAL COMMUNICATIONS SYSTEM

AD-A164 432

## VOLUME III TEST DATA ELECTROMAGNETIC PULSE TESTING OF PROTECTION DEVICES

### SECTION 1 HIGH ENERGY PULSE- DEVICE FAILURE TEST

50 OHMS IMPEDANCE  
25,000 VOLTS - 4000 AMPS  
100 JOULES

OCTOBER 1985

This document has been approved  
for public release and sale; its  
distribution is unlimited.

DTIC  
FEB 20 1986  
S E D

AD A164432

2

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION Unclassified			1b RESTRICTIVE MARKINGS None		
2a SECURITY CLASSIFICATION AUTHORITY			3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release distribution unlimited		
2b DECLASSIFICATION/DOWNGRADING SCHEDULE					
4 PERFORMING ORGANIZATION REPORT NUMBER(S) NCS T1B 85-10, Vol. III, Section 1			5 MONITORING ORGANIZATION REPORT NUMBER(S)		
6a NAME OF PERFORMING ORGANIZATION Electrospace Systems, Inc.		6b OFFICE SYMBOL (if applicable)	7a NAME OF MONITORING ORGANIZATION National Communications System Technology & Standards		
6c ADDRESS (City, State, and ZIP Code) 1725 S. Jefferson Davis Hwy., Suite 501 Arlington, VA 22202-0660			7b ADDRESS (City, State, and ZIP Code) Washington, D.C. 20305-2010		
8a NAME OF FUNDING/SPONSORING ORGANIZATION National Communications System		8b OFFICE SYMBOL (if applicable) NCS-TS	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DCA100-85-C-0010		
8c ADDRESS (City, State, and ZIP Code) Washington, D.C. 20305-2010			10 SOURCE OF FUNDING NUMBERS		
	PROGRAM ELEMENT NO. 331 27K	PROJECT NO.	TASK NO. D1.6	WORK UNIT ACCESSION NO. ORDL D008	
11 TITLE (Include Security Classification) <i>Volume III</i> Electromagnetic Pulse <del>Transient Threat</del> Testing of Protection Devices for Amateur Military Affiliate Radio System Equipment (U) <i>Section 1. High Energy Pulse - Device Failure Test - 50 CHMS Transformer</i>					
12 PERSONAL AUTHOR(S) Dennis Bodson, NCS; Joseph Frizzell and Thomas Higdon (ESI); Walter Rabke (Consultant)					
13a TYPE OF REPORT Technical		13b TIME COVERED FROM TO		14. DATE OF REPORT (Year, Month, Day) 1985, October, 31	15. PAGE COUNT
16 SUPPLEMENTARY NOTATION <i>2</i>					
17 COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Amateur Radio Equipment EMP, Lightning Protection, Electromagnetic Pulse (EMP) Protection Devices Test, EMP, Lightning, Transient Electrical/Magnetic Pulses.		
19 ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>This technical report discusses the vulnerability of equipment used by amateur/MARS radio operators in the United States to disruption or damage by transient electromagnetic effects such as lightning, voltage surges, and electromagnetic pulse (EMP) waves. It also reports the results of two test programs; one to evaluate existing transient suppression devices and components, and one to evaluate the response of amateur radio equipment to an EMP transient environment.</p> <p>Based on the test results, the report recommends procedures and a low-cost installation scheme which will significantly increase the operational survivability of amateur type communications equipment in a lightning or EMP environment.</p> <p>This report consists of three volumes. Volume I (200 pages) contains the test results and recommendations for transient protection of amateur radio equipment. Volume II</p>					
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a NAME OF RESPONSIBLE INDIVIDUAL Dennis Bodson			22b. TELEPHONE (Include Area Code) (202) 692-2124	22c OFFICE SYMBOL NCS/TS	

DTIC  
SELECTED  
FEB 20 1986

UNCLASSIFIED

Block 19 Continued - ABSTRACT

(136 pages) contains supporting documentation including: the test plans for the two EMP tests, descriptions/specifications of the tested transient suppression devices and the amateur radio equipment, and photographs of the test facilities and test set-ups. Volume III (1290 pages) contains the raw test data in the form of oscilloscope photographs attached to the test data sheets for both test programs, as well as, written test descriptions and bench check measurements from the equipment test program. For most purposes Volume I should provide sufficient information. Volume II would be required to obtain more detailed descriptions of the test programs and tested devices and equipment. Volume III would only be required if a separate analysis of the test data is being made.

UNCLASSIFIED

<b>Accession For</b>	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Avail and/or	
Dist	Special
A-1	



NCS TECHNICAL INFORMATION BULLETIN 85-10

ELECTROMAGNETIC PULSE/TRANSIENT THREAT TESTING OF PROTECTION  
DEVICES FOR AMATEUR/MILITARY AFFILIATE RADIO SYSTEM EQUIPMENT

OCTOBER 1985

PROJECT OFFICER

DENNIS BODSON  
Senior Electronics Engineer  
Office of Technology  
and Standards

: APPROVED FOR PUBLICATION:

*Marshall L. Cain*  
for MARSHALL L. CAIN  
Assistant Manager  
Office of Technology  
and Standards

FOREWORD

The National Communications System (NCS) is an organization of the Federal government whose membership is comprised of 22 Government entities. Its mission is to assist the President, National Security Council, Office of Science and Technology Policy, and Office of Management and Budget in:

- o The exercise of their wartime and non-wartime emergency functions, and their planning and oversight responsibilities.
- o The coordination of the planning for and provision of National Security/Emergency Preparedness communications for the Federal government under all circumstances including crisis or emergency.

In support of this mission the NCS has executed a Memorandum of Understanding with the American Radio Relay League. Its purpose is to establish a broad framework for a cooperative and close working relationship with volunteer radio amateurs for support of national emergency communications functions. It is intended through joint coordination and exercise of the resources of both organizations, to enhance the nation-wide posture of telecommunications readiness for any conceivable national emergency. This particular Technical Information Bulletin is one of a series aimed at developing an awareness in the radio amateur community of practical, low cost EMP protective procedures, devices, and equipment which may if utilized significantly enhance the probability of amateur radio resources escaping serious damage during emergency situations involving EMP events.

Comments, on this TIB are welcome, and should be addressed to:

Office of the Manager  
National Communications System  
ATTN: NCS-TS  
Washington, DC 20305-2010  
(202) 692-2124

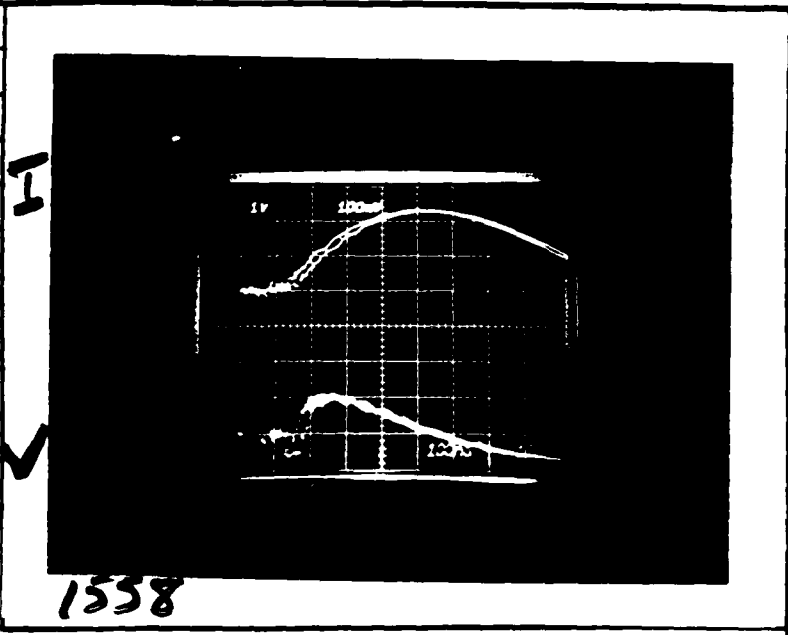
VOLUME III

CONTENTS

- Section 1 HIGH ENERGY PULSE - DEVICE FAILURE TEST 50 OHMS IMPEDANCE,  
25,000 VOLTS, 4,000 AMPS, 100 JOULES
- Section 2 HIGH IMPEDANCE/HIGH VOLTAGE TEST 50 OHMS, 4500 VOLTS
- Section 3 LOW IMPEDANCE/HIGH VOLTAGE TEST 5 OHMS, 4500 VOLTS, 1000 AMPS
- Section 4 LOW IMPEDANCE/LOW VOLTAGE TEST 5 OHMS, 600 VOLTS, 120 AMPS
- Section 5 EQUIPMENT AND DEVICES OSCILLOSCOPE PHOTOGRAPHS
- Section 6 EQUIPMENT AND DEVICES BENCH CHECK MEASUREMENTS
- Section 7 EQUIPMENT AND DEVICES TEST DESCRIPTIONS

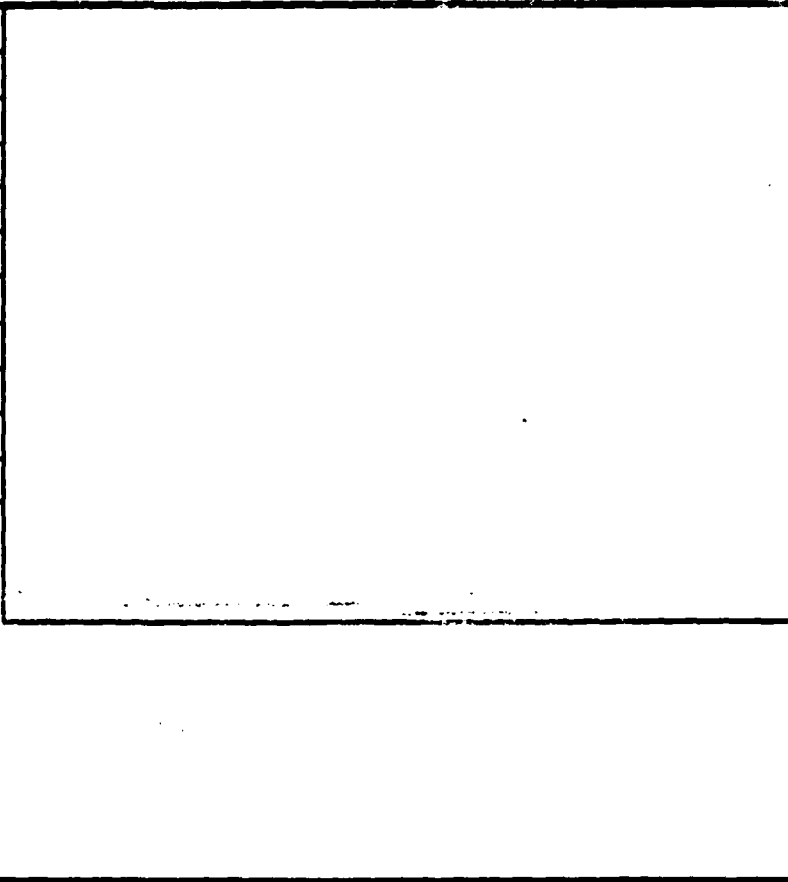
# HV REF - STANDARD

Date	6-20-85
Test Point	REF I + V
Amplification	0 dB
Attenuation	40 dB
Horizontal	100 ns/div 1
Vertical	.IV (2000A) ns/div 1
Horizontal	100 ns/div 2
Vertical	.IV (800V) ns/div 2
Configuration	-20 dB
Pulser Level	25000V
Data Link	
Comments:	1558



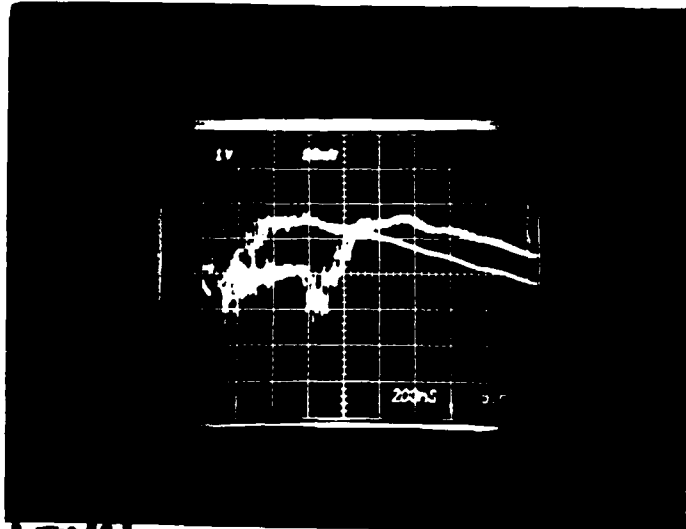
IGNORE ALL HASH BEFORE START OF CURRENT PULSE (I) OR 150 NANO SEC'S. ON ALL HV TEST'S (T25-TESTS)

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	





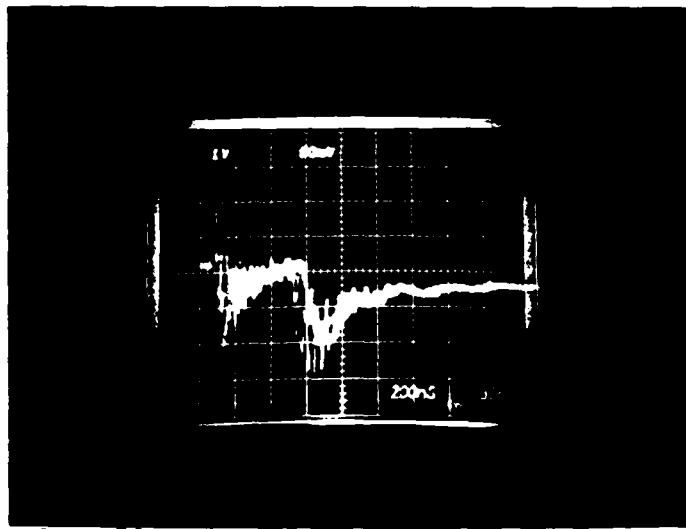
Date	6-20-85
Test Point	SC - REF
Amplification	dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V(400V) ns/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25,000V
Data Link	
Comments:	1544



1544

GRND CLIP OPEN -  
 PROBE ON GRND STRAP

Date	6-20-85
Test Point	SC - REF
Amplification	0 dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V(400V) ns/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25,000V
Data Link	
Comments:	1543

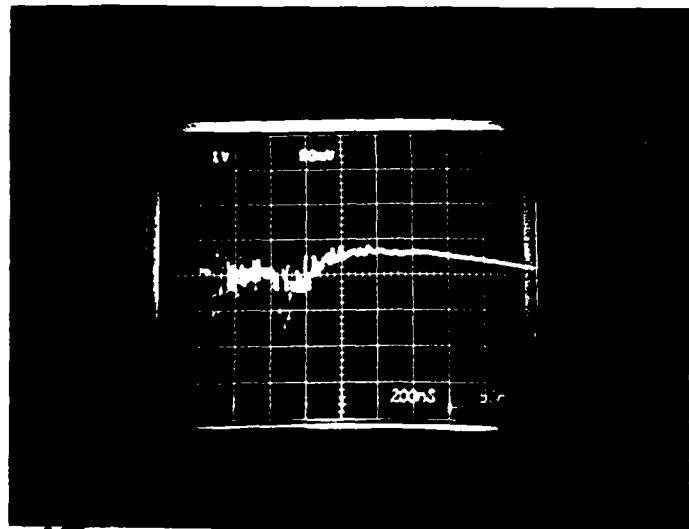


1543

SAME AS 1542 WITH V PROBE LEAD  
 VERTICAL -

Date 6-20-85  
 Test Point SC REF  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1552

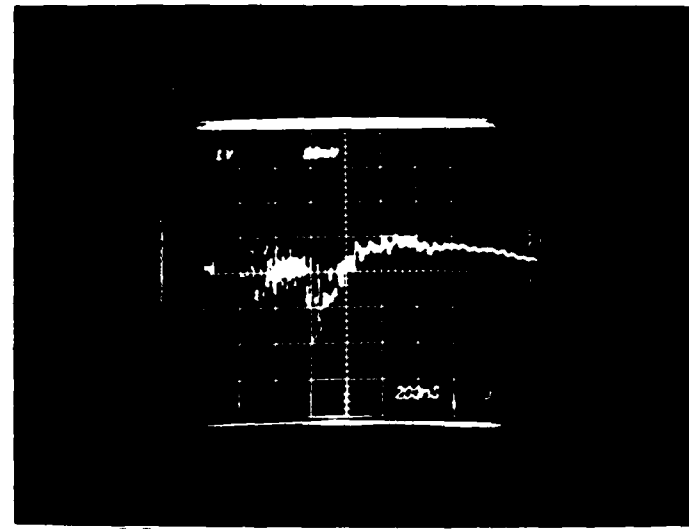


1552

GND REF

Date 6-20-85  
 Test Point SC REF  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

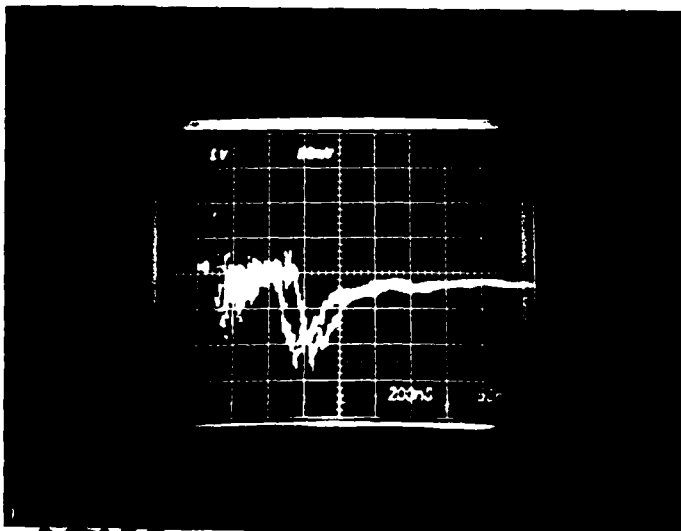
1553



1553

GND REF

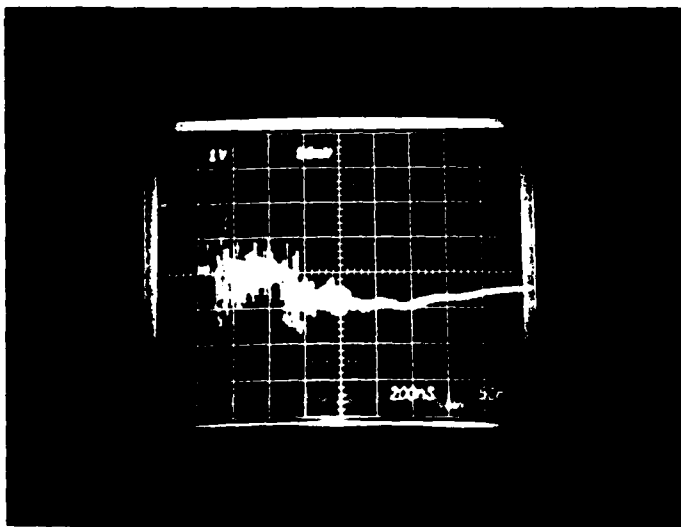
Date 6-20-85  
 Test Point SC - REF  
 Amplification           dB  
 Attenuation           20 dB  
 Horizontal           50 ns/div 1  
 Vertical .05V (400V) ~~ns~~/div 1  
 Horizontal           ns/div 2  
 Vertical           ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1541



1541

PULSE CLIP TO BRAID GROUND CLIP ON STRAP

Date 6-20-85  
 Test Point SC - REF  
 Amplification           0 dB  
 Attenuation           20 dB  
 Horizontal           50 ns/div 1  
 Vertical .05V (400V) ~~ns~~/div 1  
 Horizontal           ns/div 2  
 Vertical           ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments: 1542

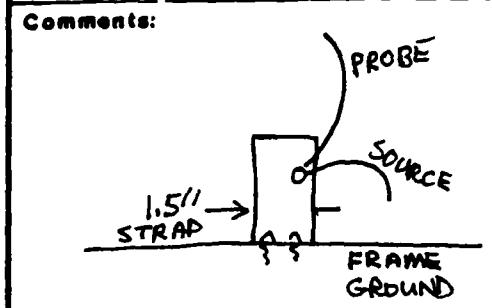
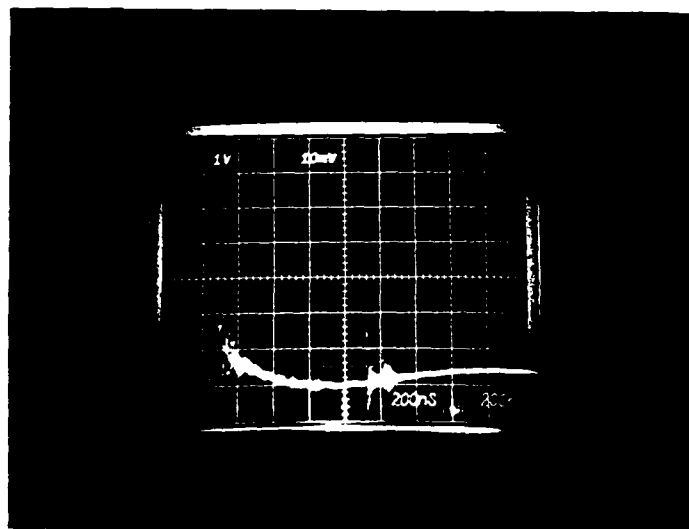


1542

PROBE TO BRAID  
 GND CLIP NOT CONNECTED

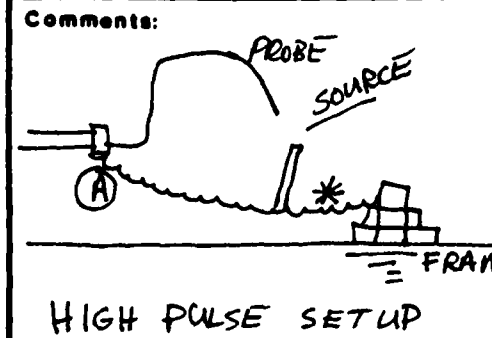
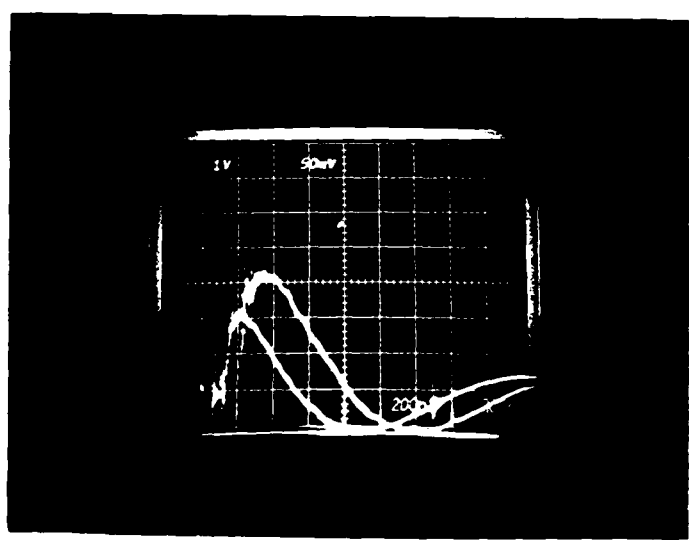
# HV GROUND REFERENCE

Date	6-20-85
Test Point	REFERENCE-HV
Amplification	0 dB
Attenuation	-20 dB
Horizontal	200 ns/div 1
Vertical	.01V(80V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25000V
Date Link	



LOW IMPEDANCE  
GROUND REFERENCE

Date	6-20-85
Test Point	REFERENCE HV
Amplification	0 dB
Attenuation	-20 dB
Horizontal	200 ns/div 1
Vertical	.05V(400V) mV/div 1
Horizontal	400V ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25000V
Date Link	

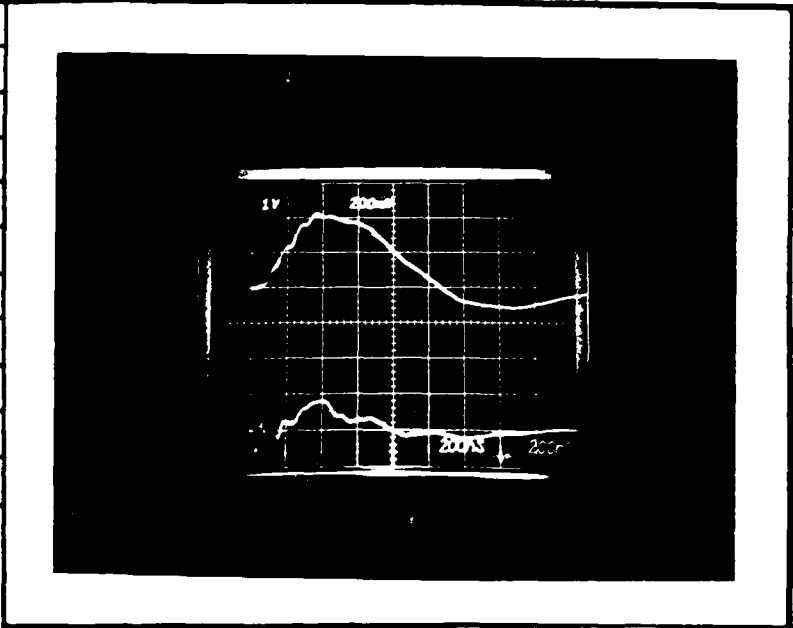


\* THIS SECTION ~3" BRAID HAS BEEN REPLACED WITH RG 213 BRAID ~1/2" D  
 ORIG WAS RG 58 BRAID ~1/4" D (1600V VS 1200V)  
 FOR LOW PULSE, GROUND POINT A TO FRAME

HIGH PULSE SETUP

# HV- REFERENCE

Date	6-20-85
Test Point	REFERENCE
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000 A/V) $\mu$ A/div 1
Horizontal	200 ns/div 2
Vertical	.2V (1600V) $\mu$ V/div 2
Configuration	-20dB
Pulser Level	25,000V
Date Link	

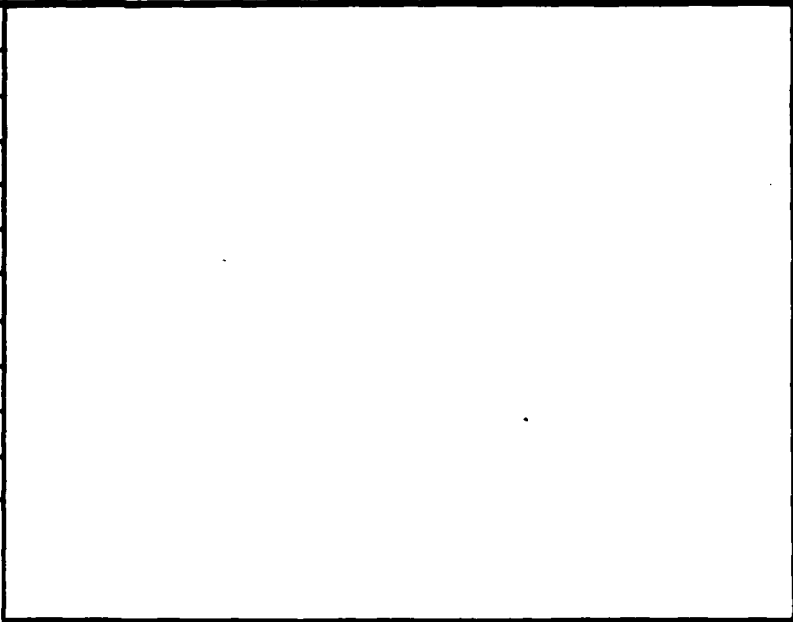


Comments:

SHORT CIRCUIT REF GND TO STRAP

TIME: 0803 6/20

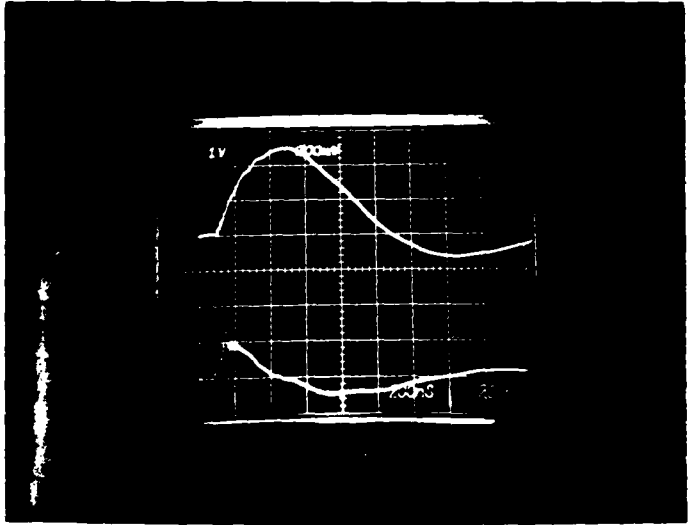
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Date Link	



Comments:

# HV REFERENCE

Date	6-20-85
Test Point	REFERENCE
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000V) $\mu$ V/div 1
Horizontal	200 ns/div 2
Vertical	.2V (1600V) $\mu$ V/div 2
Configuration	-20dB
Pulser Level	25,000V
Data Link	

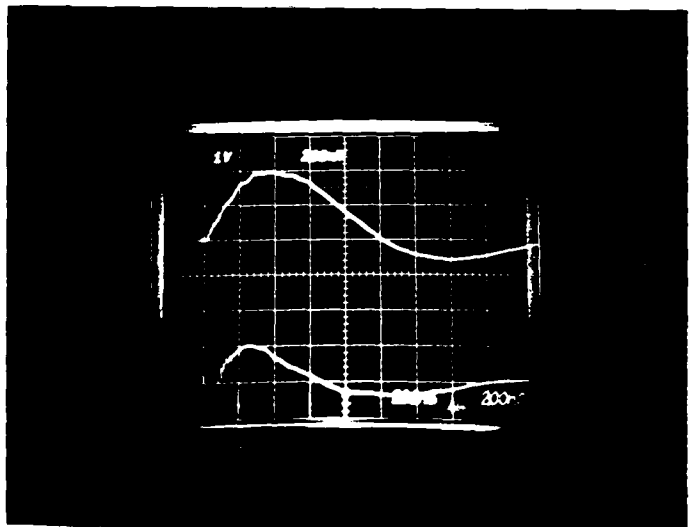


Comments:

SHORT-CIRCUIT  
(SC) REF - INTO GRND PLATE THRU 1.5"  
STRIP - MINIMUM VOLTAGE -

TIME: 0840 - 6/20

Date	6-20-85
Test Point	REFERENCE
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000V) $\mu$ V/div 1
Horizontal	200 ns/div 2
Vertical	.2V (1600V) $\mu$ V/div 2
Configuration	-20dB
Pulser Level	25,000V
Data Link	



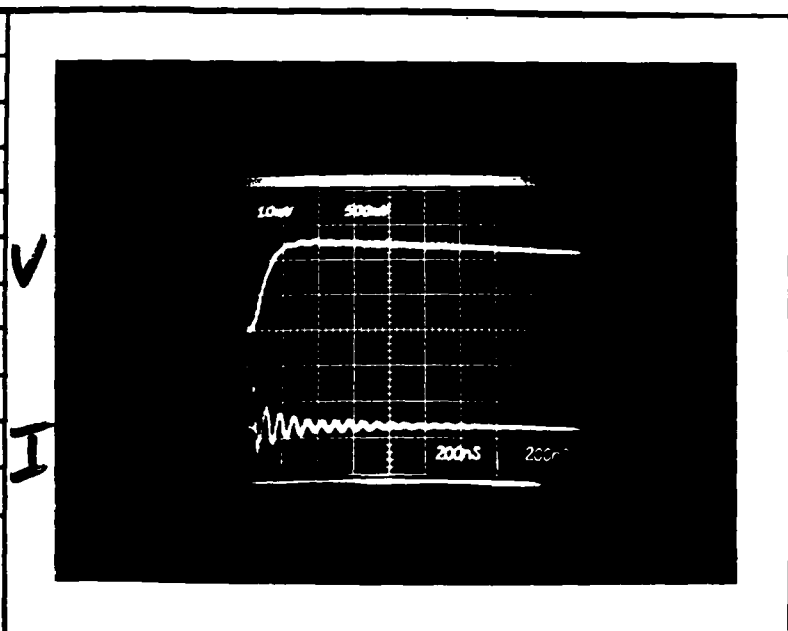
Comments:

SHORT CIRCUIT (SC) REF - TO GND THRU CLIP.

TIME: 0757 6/20

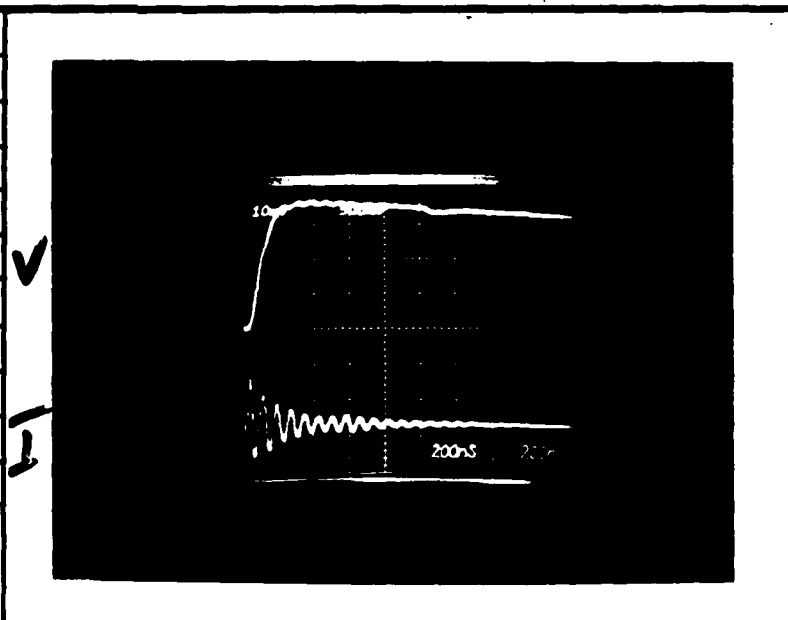
# HV REFERENCE PULSES

Date	6-13-85
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	.5V (4000V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	10KV
Data Link	
Comments:	



VOLTAGE ON TDP SCALE

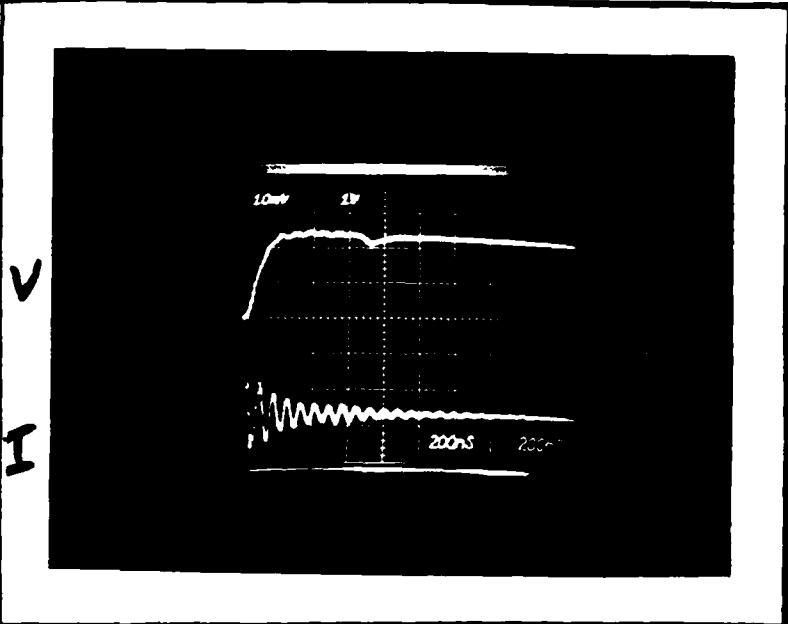
Date	6-13-85
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	.5V (4000V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	15KV
Data Link	
Comments:	



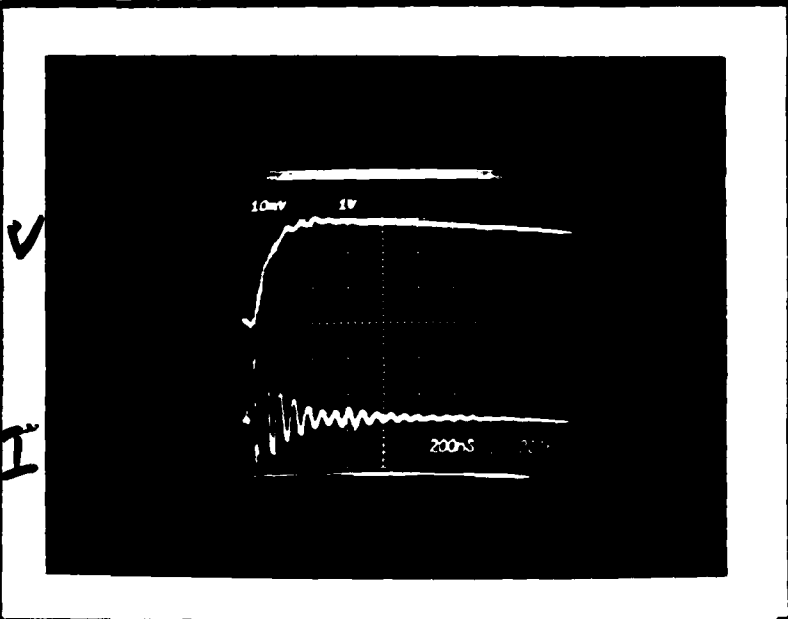
VOLTAGE ON TDP -

# HV REFERENCE PULSES -

Date	6-13-85
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	1V (8000V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	20 KV
Data Link	
Comments:	1234



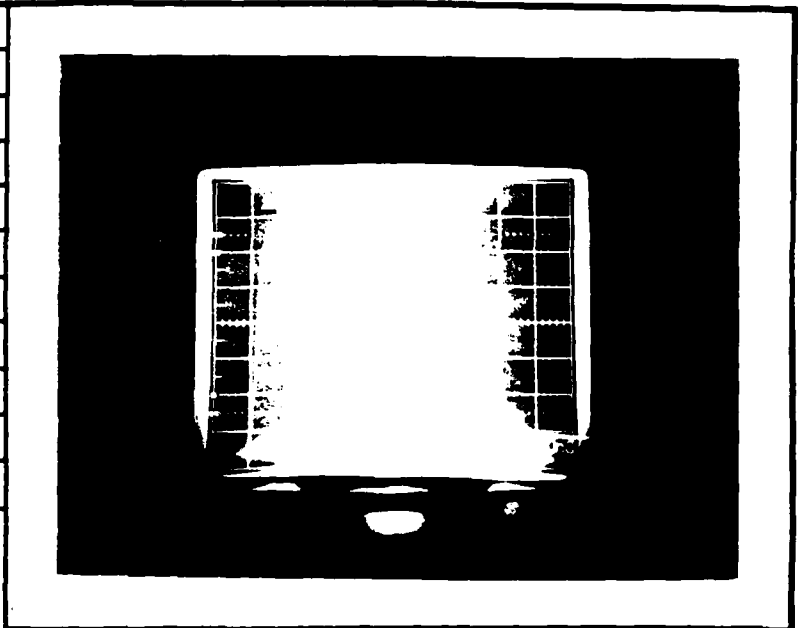
Date	6-13-85
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	1V (8000V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25 KV
Data Link	
Comments:	1235



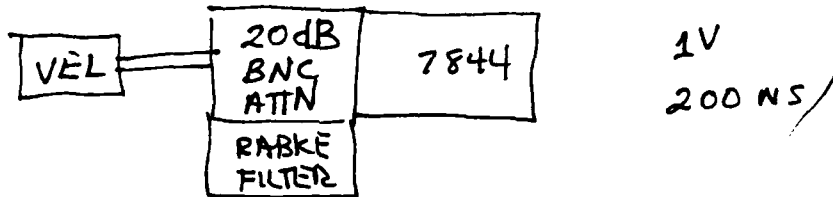


# PROBE - CALIBRATION - HV

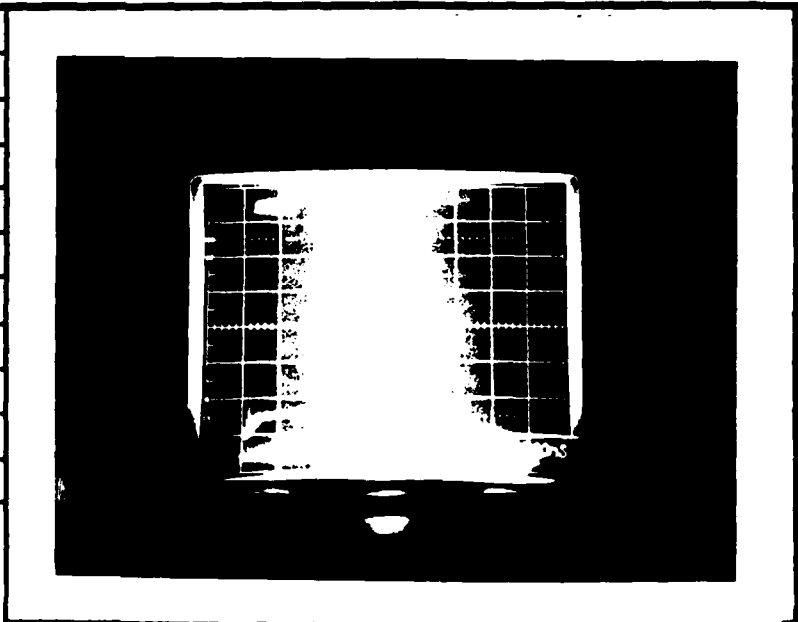
Date	6-13-85
Test Point	
Amplification	dB
Attenuation	20 dB
Horizontal	200 ns/div 1
Vertical	1V mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	60V
Data Link	
Comments:	1230



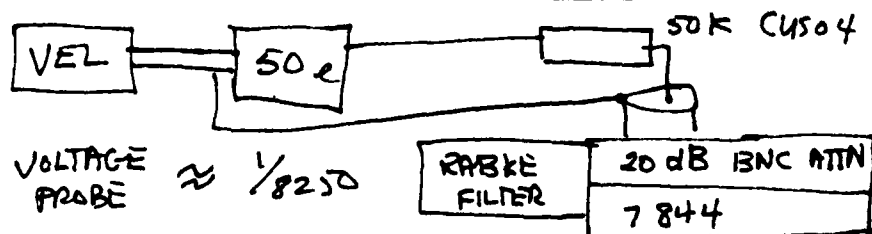
19.5 dB on net anal -



Date	
Test Point	
Amplification	dB
Attenuation	20 dB
Horizontal	200 ns/div 1
Vertical	10 mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	60V
Data Link	
Comments:	1231

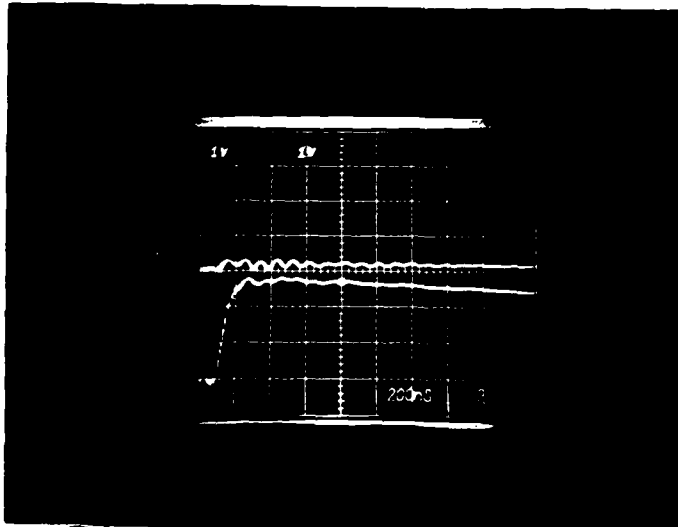


1/8750



# HV - REFERENCE

Date	6-19-85
Test Point	REFERENCE
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000V) mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) mV/div 2
Configuration	-20dB
Pulser Level	25,000 V
Date Link	
Comments:	

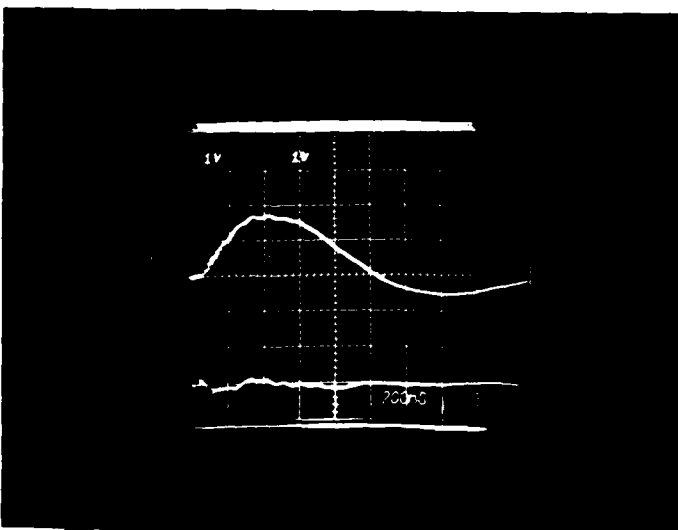


1510

• REF TO 50Ω 2 LOAD

WITH DIRTY AIR GAP

Date	6-19-85
Test Point	REFERENCE
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000V) mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) mV/div 2
Configuration	-20dB
Pulser Level	25000 V
Date Link	
Comments:	

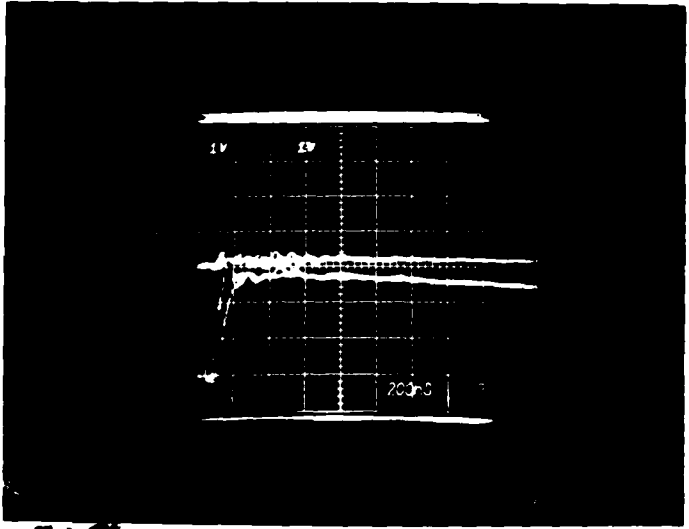


1516

REF TO GND

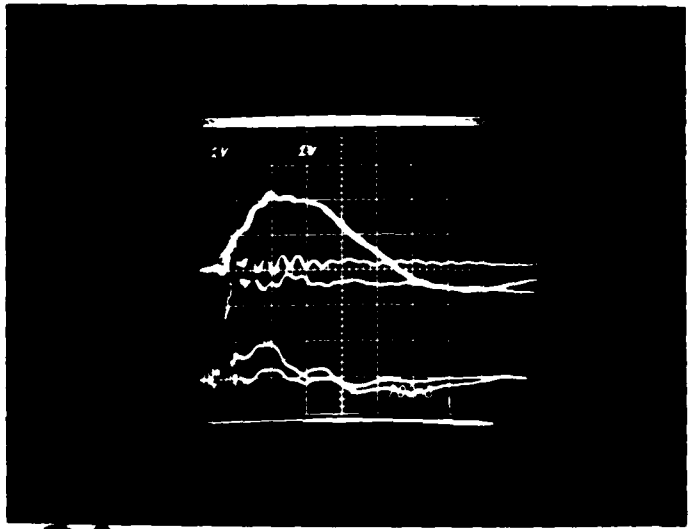
WITH A CLEAN AIR GAP

Date 6-19-85  
 Test Point TB-T25-1/5-2  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~ms~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1508



1508

Date 6-19-85  
 Test Point TB-T25-6/10-2  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (1600V)~~ ~~ms~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1509

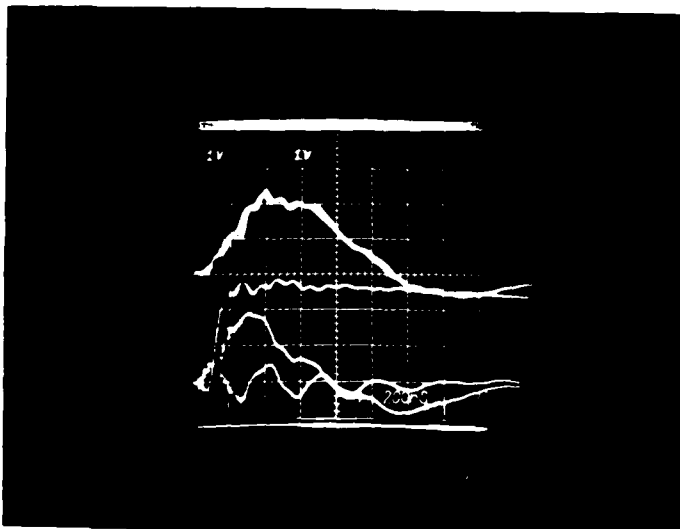


1509

1 PULSE @ 1V / (8000V)  
 1 PULSE @ .2V / (1600V)

"PULSER RINGING"

Date 6-19-85  
 Test Point TR-T25-2-3  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000<sup>A</sup>) div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link



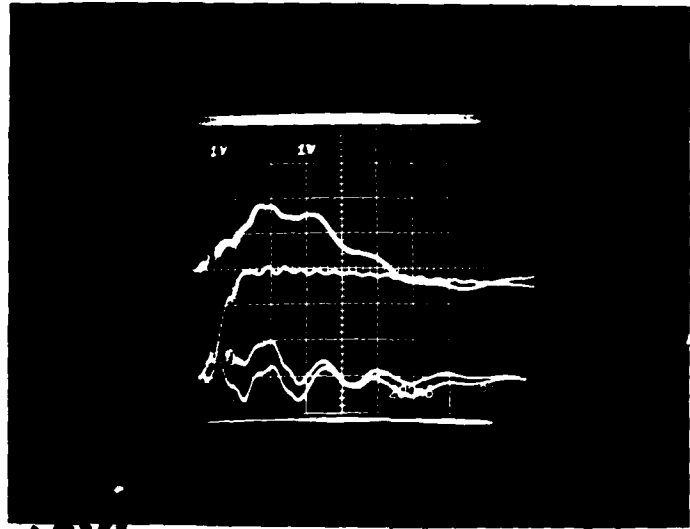
Comments:  
 REF V @ 1V / (8000V)  
 DATA @ .1V / (800V)

"PULSER RINGING"

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link

Comments:

Date	6-19-85
Test Point	TR-T25- -4
Amplification	0 dB
Attenuation	40 dB
Horizontal	<del>200</del> 200 ns/div 1
Vertical	1V (2000 V) V/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) V/div 2
Configuration	-20 dB
Pulser Level	25000V
Data Link	

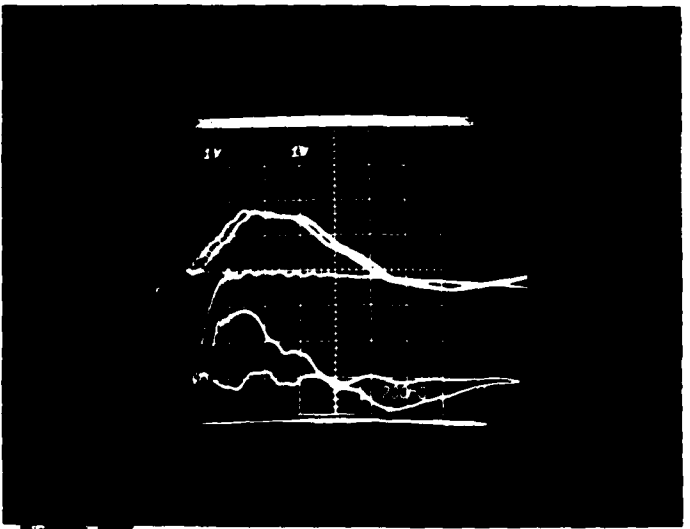


1514 -

"PULSER RINGING"

REF @ 1V (8000V)  
 DATA @ 1V (8000V)  
 DATA @ .2V (1600V)

Date	6-19-85
Test Point	TR-T25-2-5
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000 V) V/div 1
Horizontal	<del>200</del> 200 ns/div 2
Vertical	1V (8000V) V/div 2
Configuration	-20 dB
Pulser Level	25,000V
Data Link	

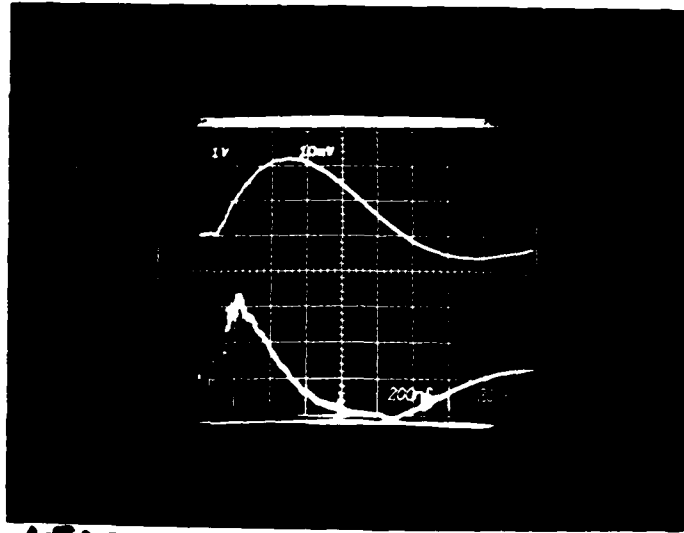


1515

DATA - 1V (8000V)  
 DATA - .1V (800V)

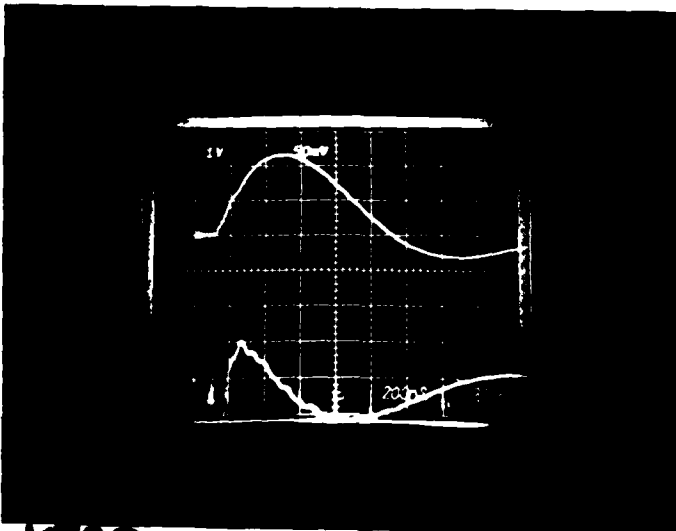
REF

Date 6-20-85  
 Test Point TR5-T25-1-0  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (20000) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical (.01V) (80V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1532



1532

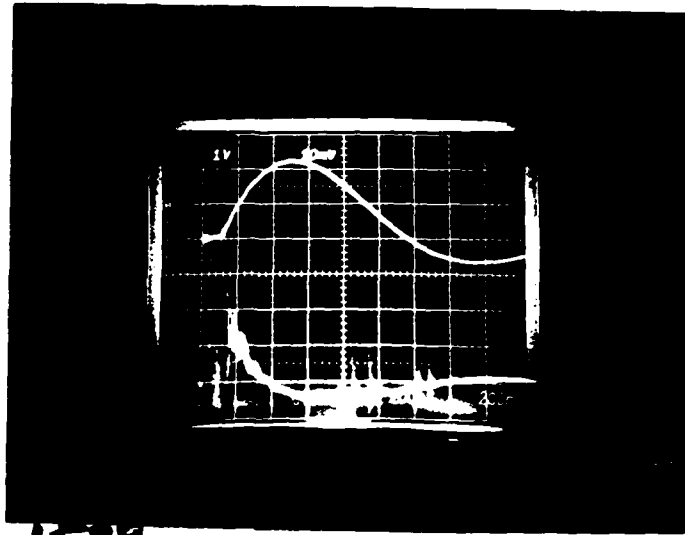
Date 6-20-85  
 Test Point GND-REF-TR5-  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (20000) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical (.05V) (400V) mV/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1533



1533

Date 6-20-85  
 Test Point TR5-T25-2-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000V)  /div 1  
 Horizontal 200 ns/div 2  
 Vertical .01V (80V)  /div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link  
 Comments:

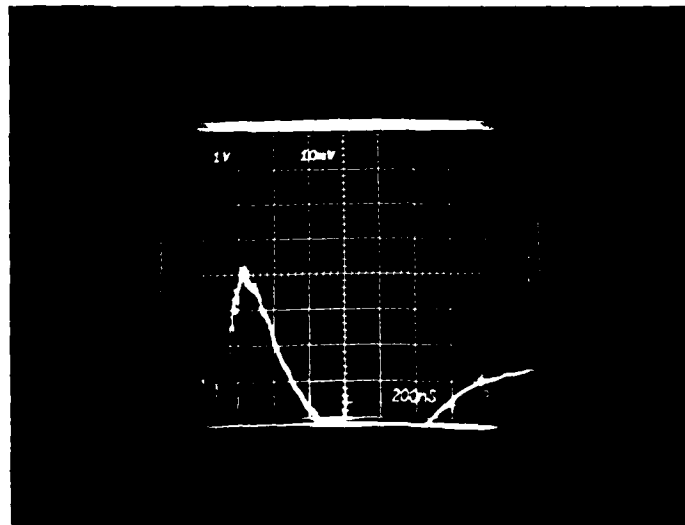
1529



1529

Date 6-20-85  
 Test Point TR6-T25-L-  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical .01V (80V)  /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25,000V  
 Data Link  
 Comments:

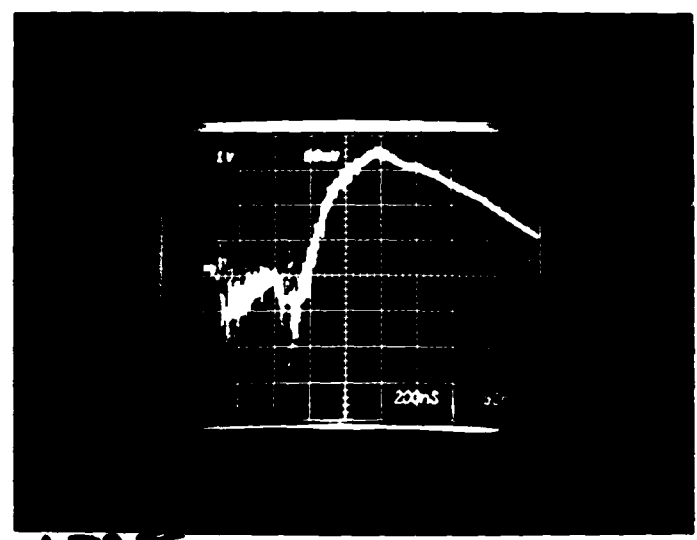
1530



1530

Date 6-20-85  
 Test Point TR5-T25-1-0  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25,000V  
 Data Link  
 Comments:

1535

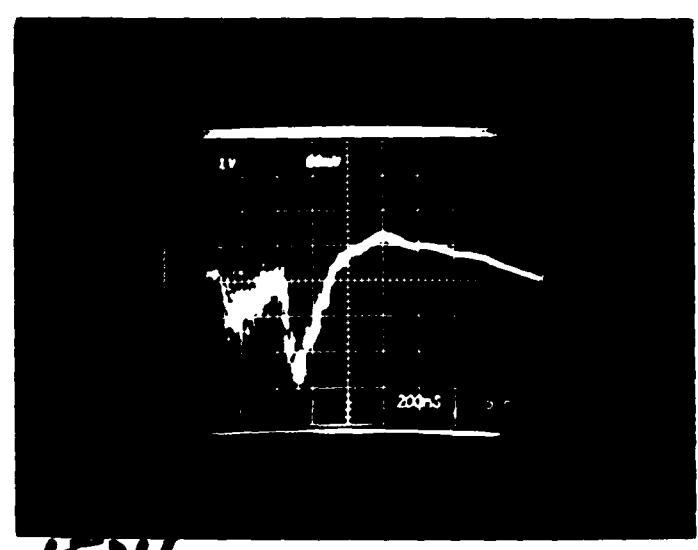


1535

TIME

Date 6-20-85  
 Test Point TR5-REF-SC  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05(400V) /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1534



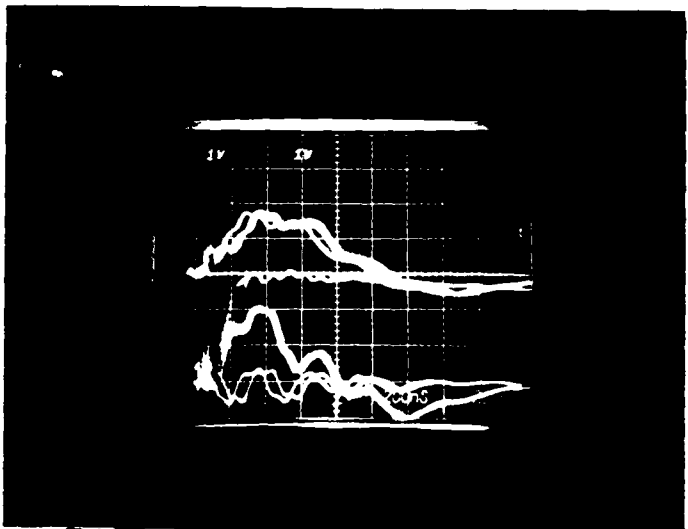
1534

SHORT CIRCUIT REF

TIME: 1315 6/20



Date 6-19-85  
 Test Point TR-725-2-5  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 V) V/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) V/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link



Comments: 1515  
REPEAT

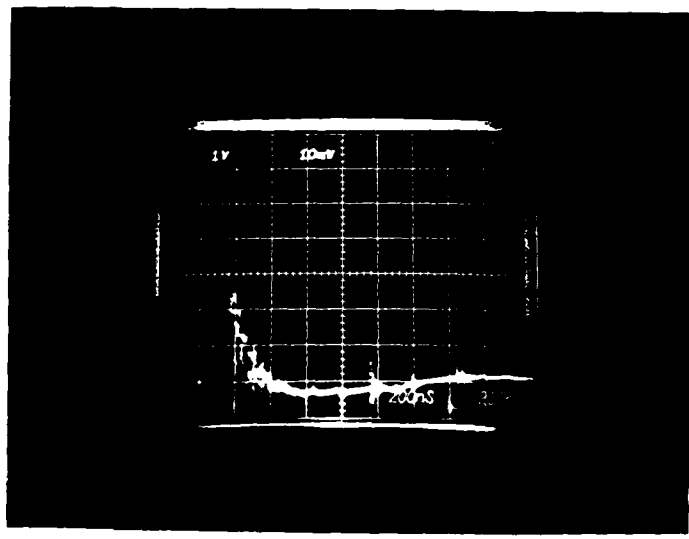
1515 REPEAT

DATA @ 1V (8000V)  
 " @ .1V (800V)

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link

Comments:

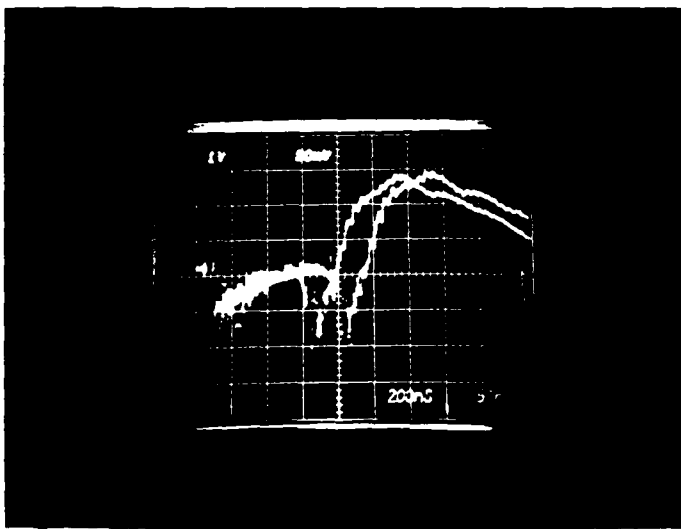
Date 6-20-85  
 Test Point TR6-T25-  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25,000V  
 Data Link  
 Comments:



Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

Date 6-20-85  
 Test Point TR6-T25-  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 25000V  
 Data Link  
 Comments:

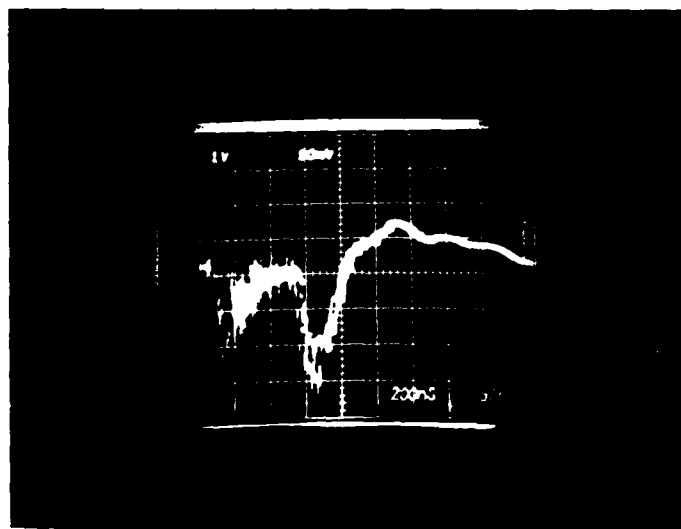
1536



1536

Date 6-20-85  
 Test Point REF  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 25,000V  
 Data Link  
 Comments:

1537

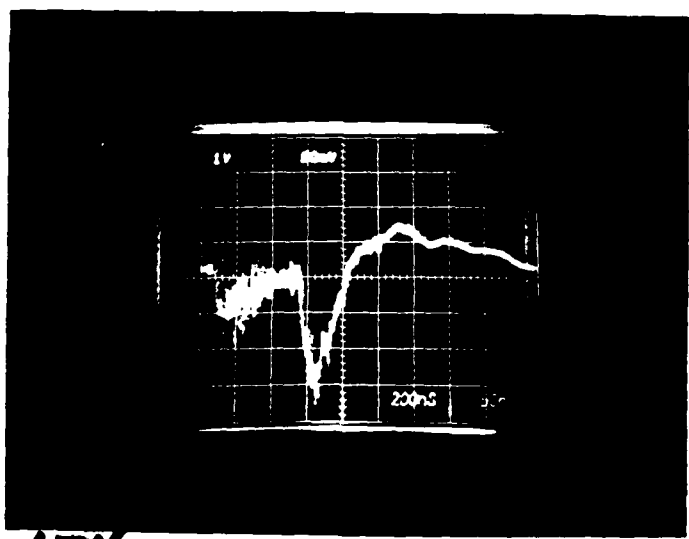


1537

SHORT CIRCUIT REF

Γ

Date	6-20-85
Test Point	TR7- REF-SC
Amplification	0 dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V (400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000
Data Link	



Comments: 1540

1540

SC - REF

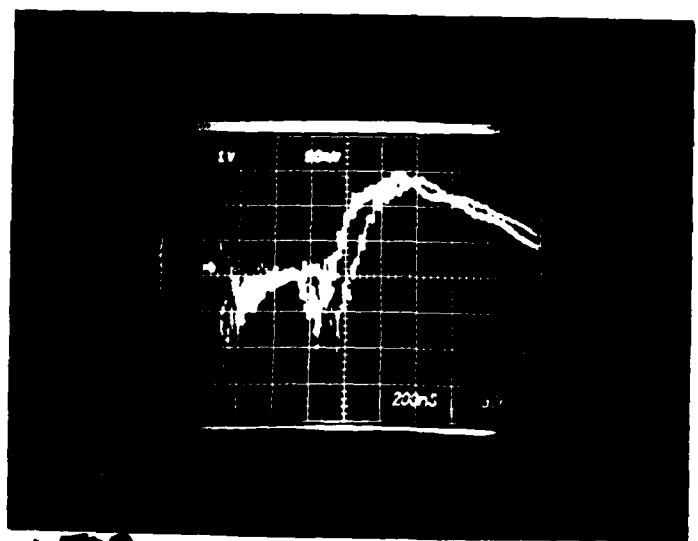
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	

Comments:

Date 6-20-85  
 Test Point TR7-T25-2-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 25000V  
 Data Link  
 Comments:

1539

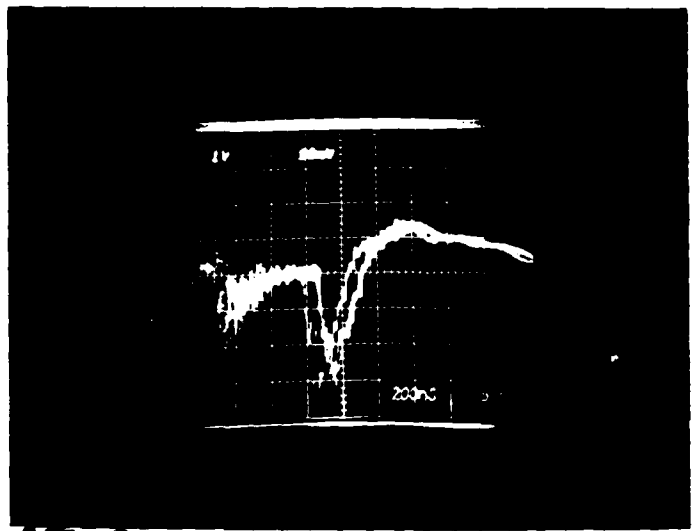
1539



Date 6-20-85  
 Test Point TR SC REF (2)  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 25000V  
 Data Link  
 Comments:

1538

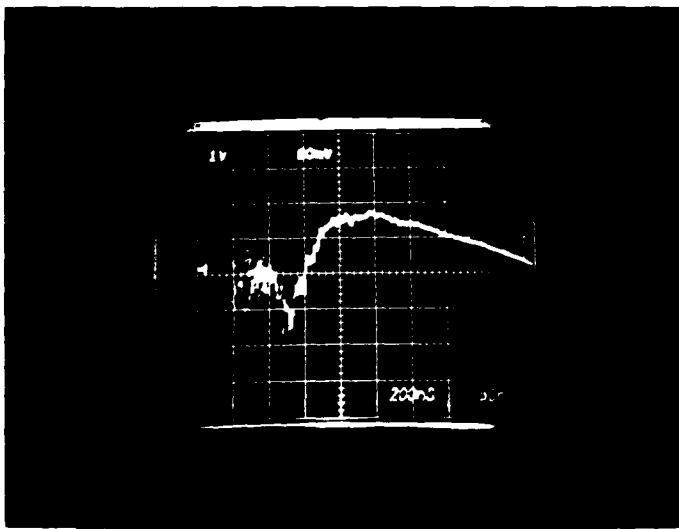
1538



SC-REF -

Date	6-20-85
Test Point	TR8 - SC REF-1
Amplification	dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V (400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25000 V
Data Link	
Comments:	

1545

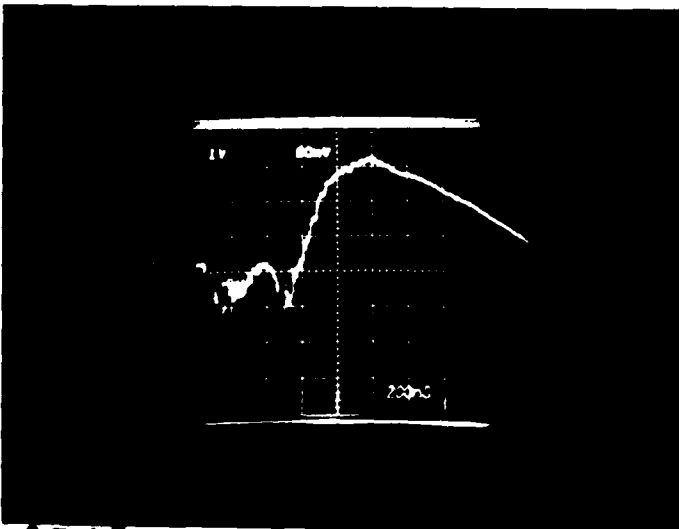


1545

SC REF

Date	6-20-85
Test Point	TR8 - T25-
Amplification	0 dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V (400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	
Comments:	

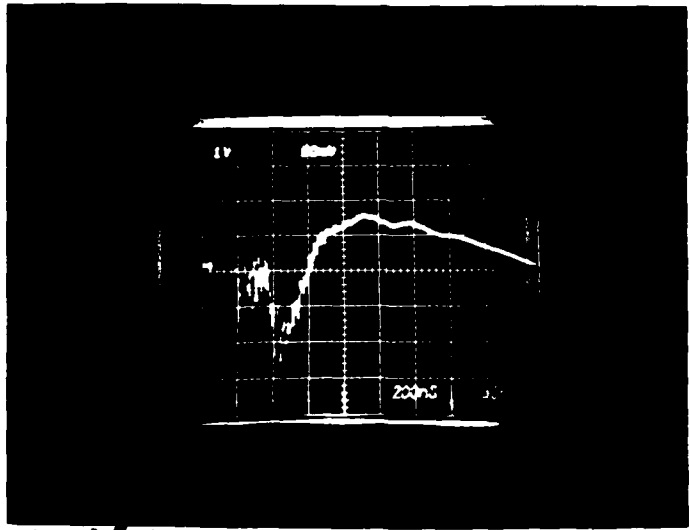
1546



1546

Date 6-20-85  
 Test Point TR8-SC REF-2  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical 0.5V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1547



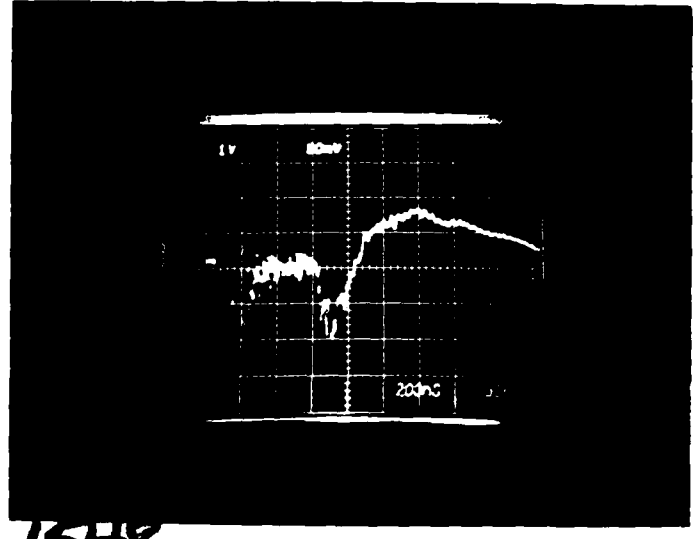
1547

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

Date 6-20-85  
 Test Point TR-9-~~B~~SC REF-1  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1548

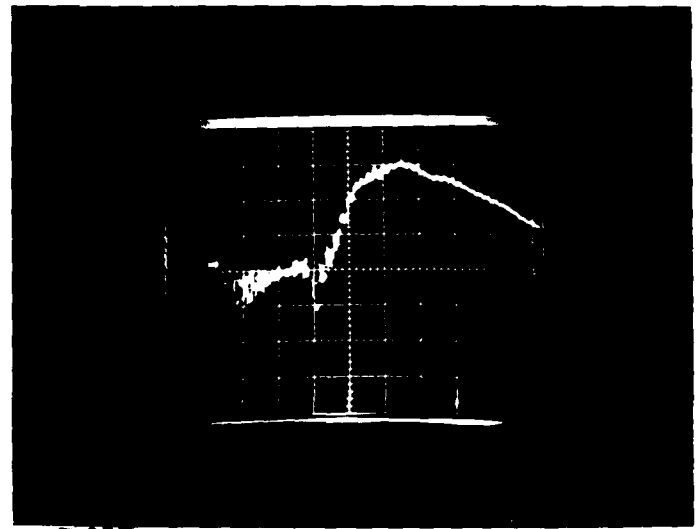
- REF -



1548

Date 6-20-85  
 Test Point TR9-T25-1-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

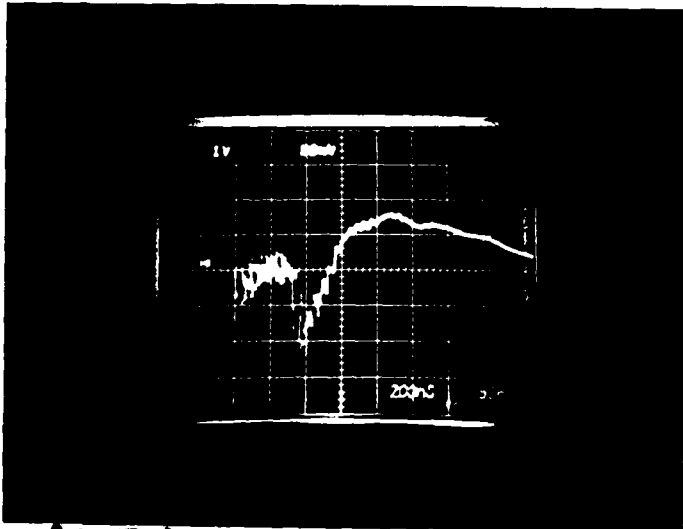
1549



1549



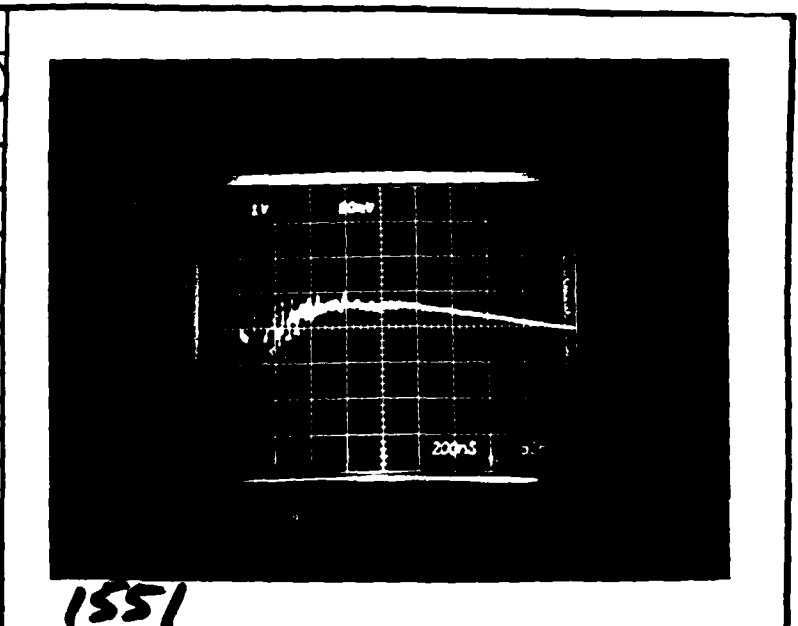
Date	6-20-85
Test Point	TR9-REF-SC
Amplification	0 dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V(400V) <del>100V</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25000V
Data Link	
Comments:	1550



1550

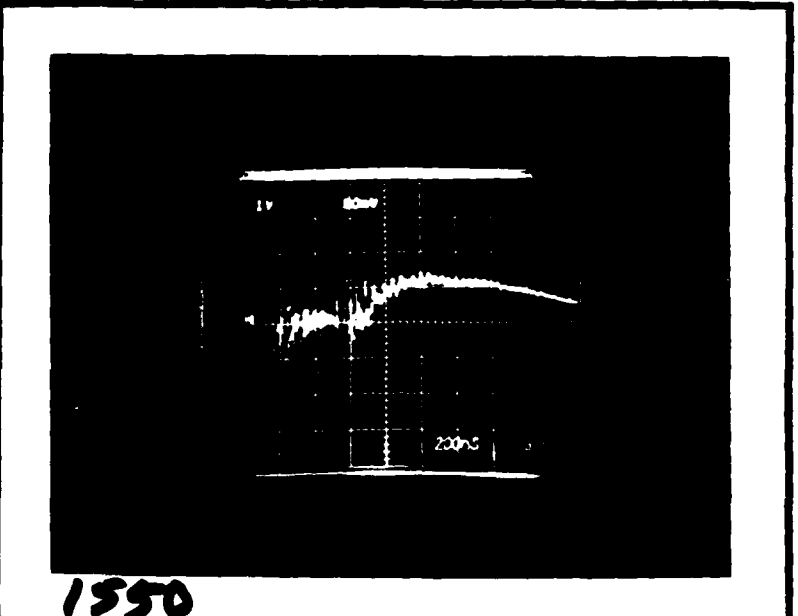
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	
Comments:	

Date 6-20-85  
 Test Point TR10-SC-REF  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) ~~100V~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25,000V  
 Data Link  
 Comments: 1551



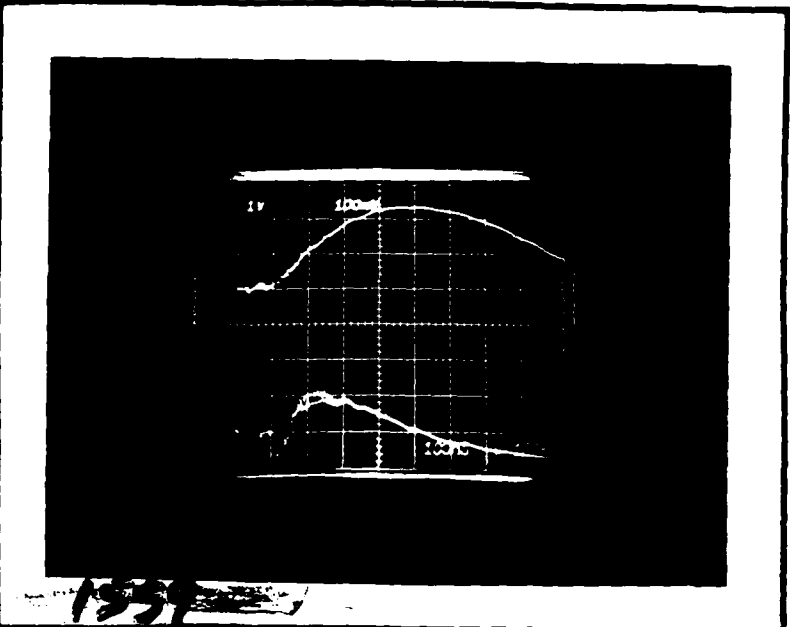
REF

Date 6-20-85  
 Test Point TR10-T25-1-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal .05V(400V) ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 2500V  
 Data Link  
 Comments: 1550



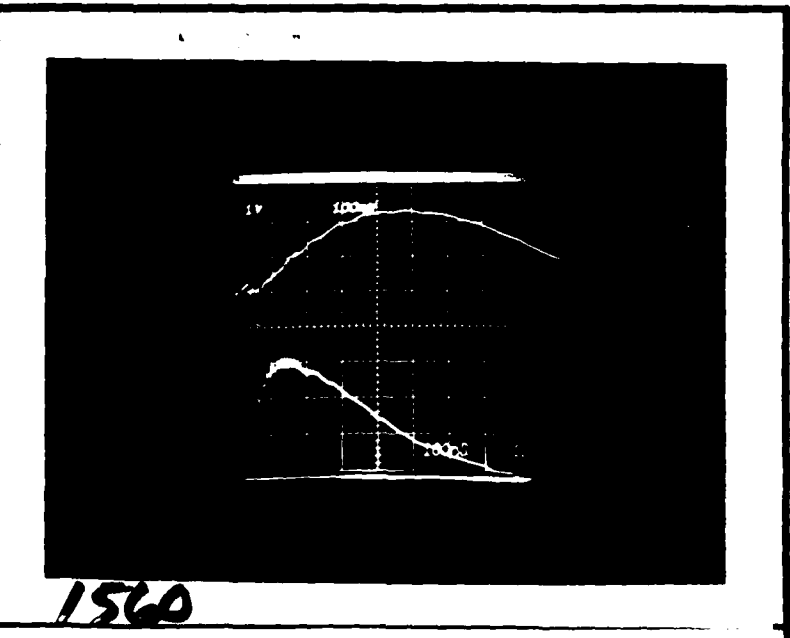
TR-10

Date 6-20-85  
 Test Point TR11-SC REF  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000<sup>A</sup>V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V (800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



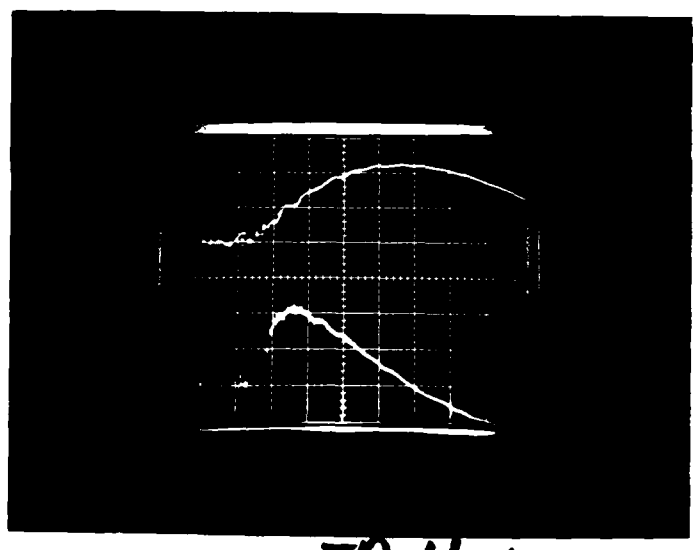
Comments:  
 1559

Date 6-20-85  
 Test Point TR11-T25-1-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000<sup>A</sup>V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V (800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



Comments:  
 1560

Date 6-20-85  
 Test Point TR11-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V(2000 A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V(800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link

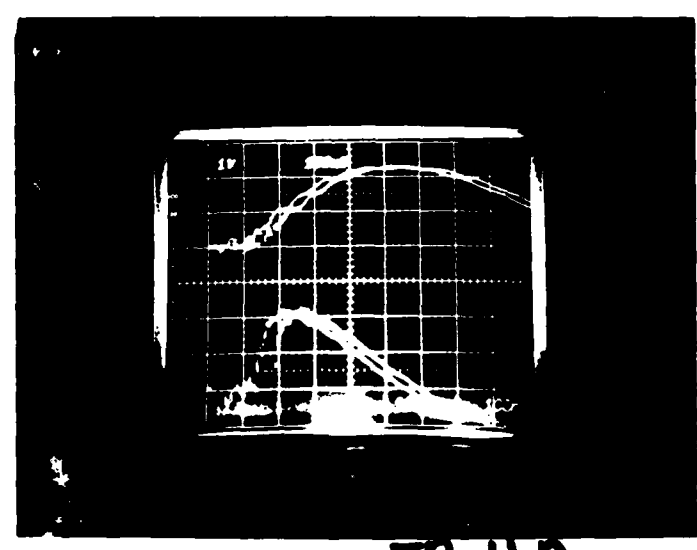


TR11+

Comments: 1563

SOLDERED SHORT TR11+ SHORT BAR WIRE

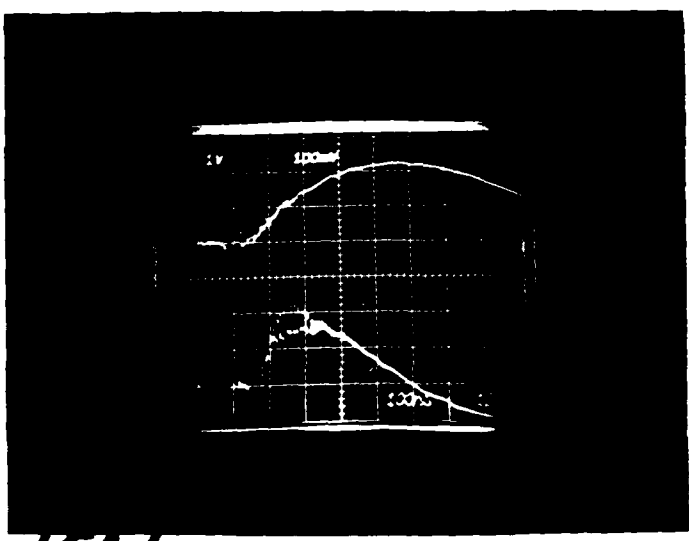
Date 6-20-85  
 Test Point TR11A-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V(2000 A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V(800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



TR11A

Comments: 1564

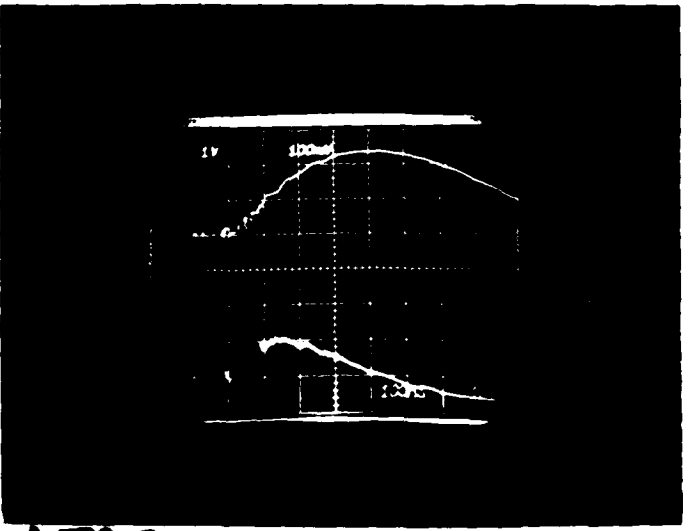
Date 6-20-85  
 Test Point TR11-SHORT BAR  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25000V  
 Data Link



1562

1561

Date 6-20-85  
 Test Point TR11-GND REF  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25000V  
 Data Link



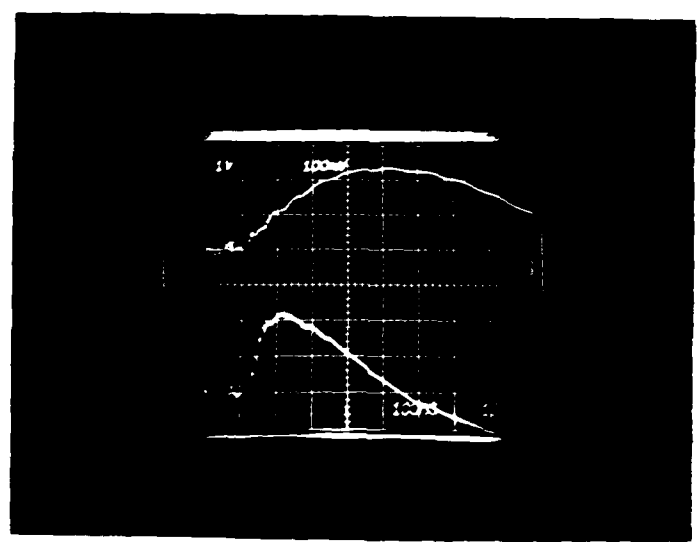
1562

1562

SC GND REF

Date 6-20-85  
 Test Point TR12-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) /div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) /div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link

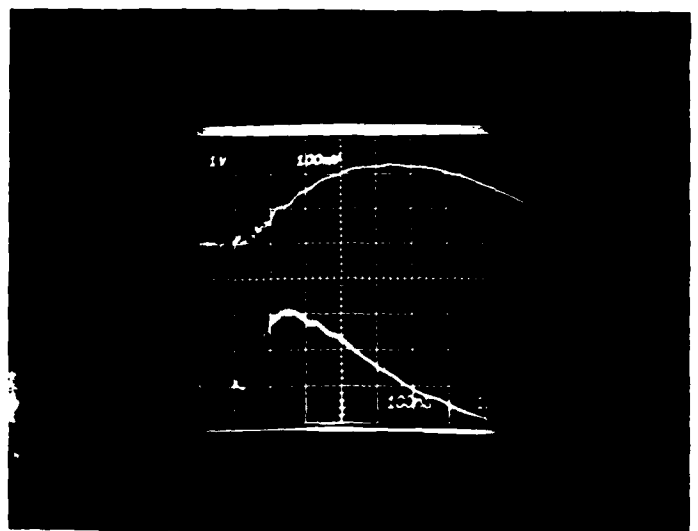
Comments: 1564  
 9



TR-12

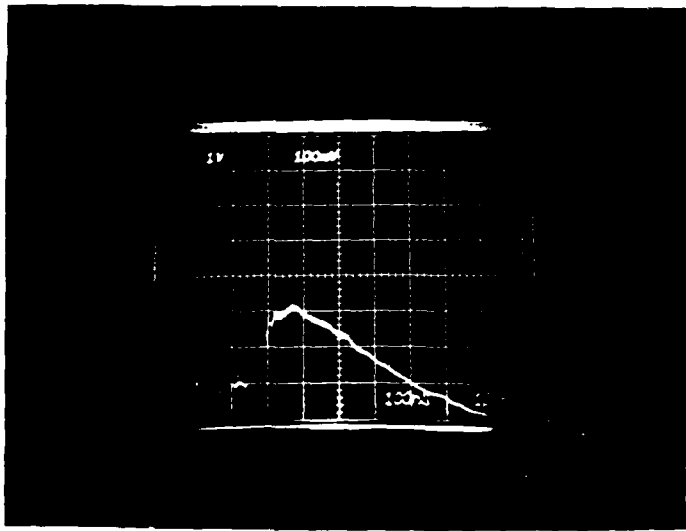
Date 6-20-85  
 Test Point TR12-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) /div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) /div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link

Comments: 1565



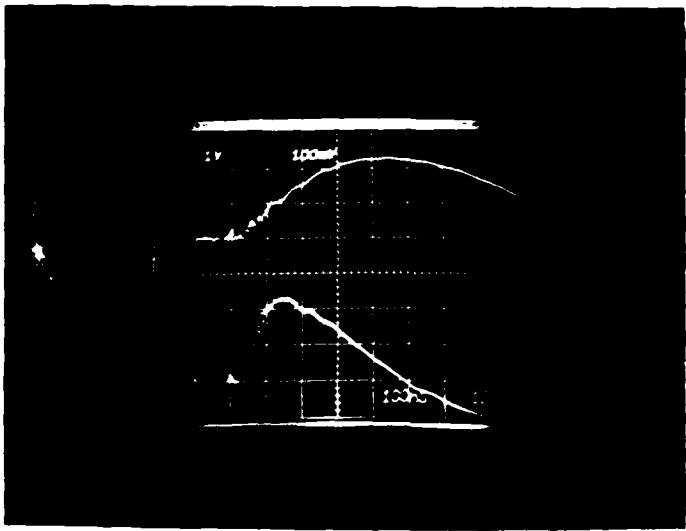
1565 TR 12A

Date 6-20-85  
 Test Point TR13-725  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V(2000 A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V(800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1566



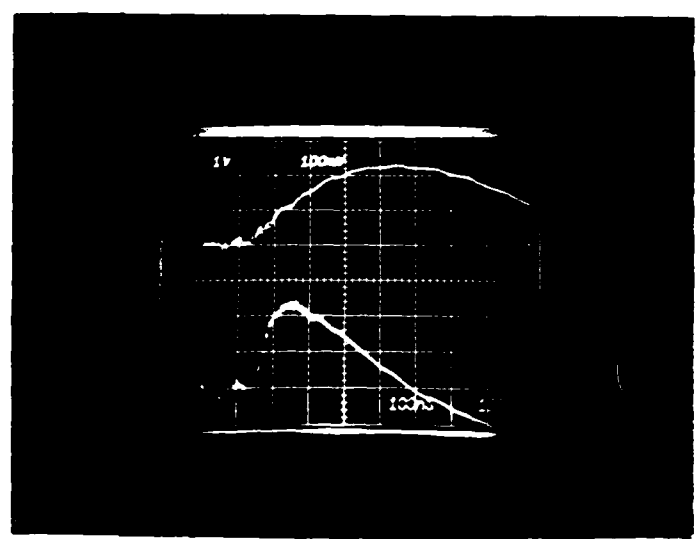
TR 13

Date 6-20-85  
 Test Point TR14-725  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V(2000 A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V(800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1566



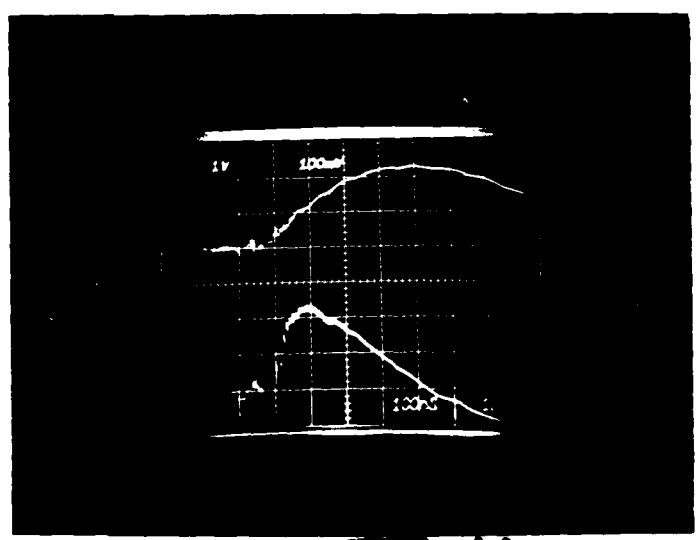
TR 14

Date 6-20-85  
 Test Point TR15-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000A) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V (800V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1567



TR 15

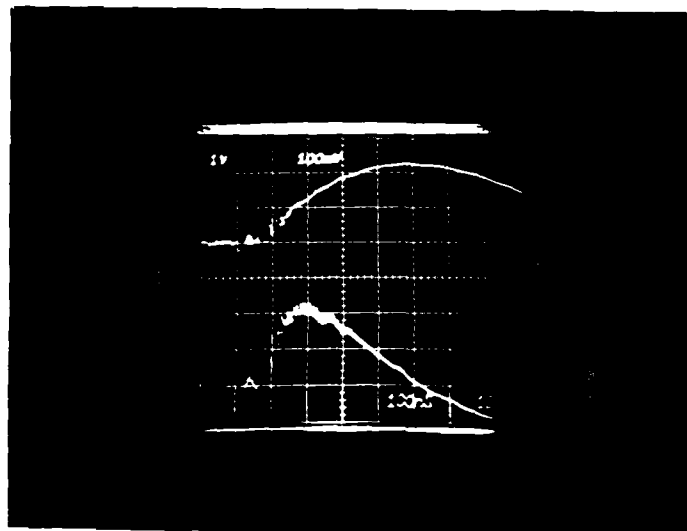
Date 6-20-85  
 Test Point TR16-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 1V (2000A) ns/div 1  
 Vertical 100NS mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V (800V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25 000 V  
 Data Link  
 Comments: 1568



TR 16

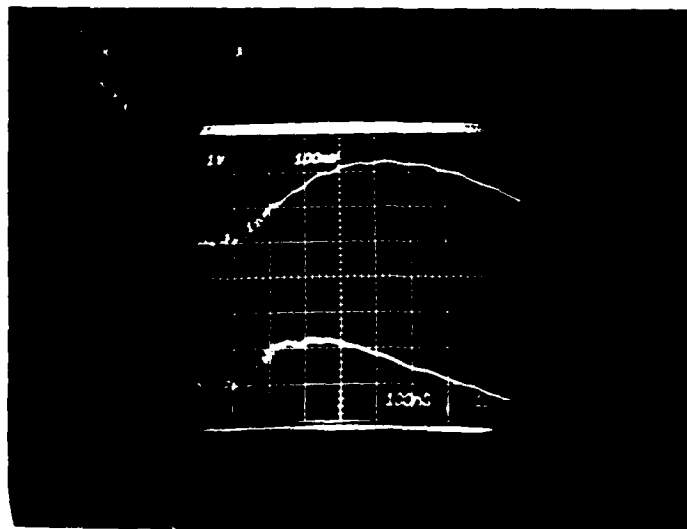


Date	6-20-85
Test Point	TR17-T25
Amplification	dB
Attenuation	dB
Horizontal	100 ns/div 1
Vertical	1V (2000 $\mu$ V) mV/div 1
Horizontal	100 ns/div 2
Vertical	1V (800V) ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1569



TR 17

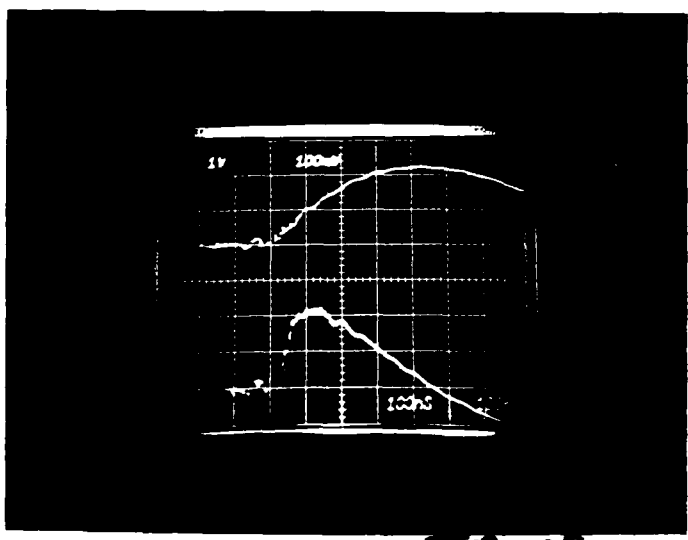
Date	6-20-85
Test Point	TR18-T25
Amplification	0 dB
Attenuation	20 dB
Horizontal	100 ns/div 1
Vertical	1V (2000 $\mu$ V) mV/div 1
Horizontal	100 ns/div 2
Vertical	1V (800V) ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1570



TR 18

Date 6-20-85  
 Test Point TR 19-T25-  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) ~~ns~~/div 1  
 Horizontal 100 ns/div 2  
 Vertical .01V (800V) ~~ns~~/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments:

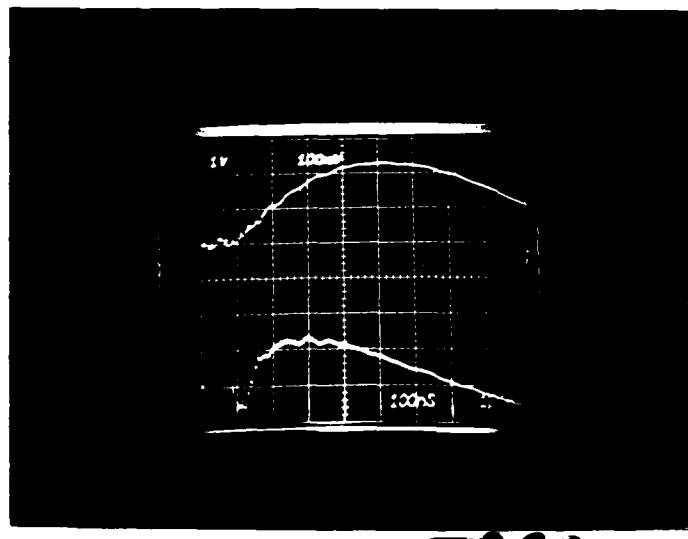
1571



TR 19

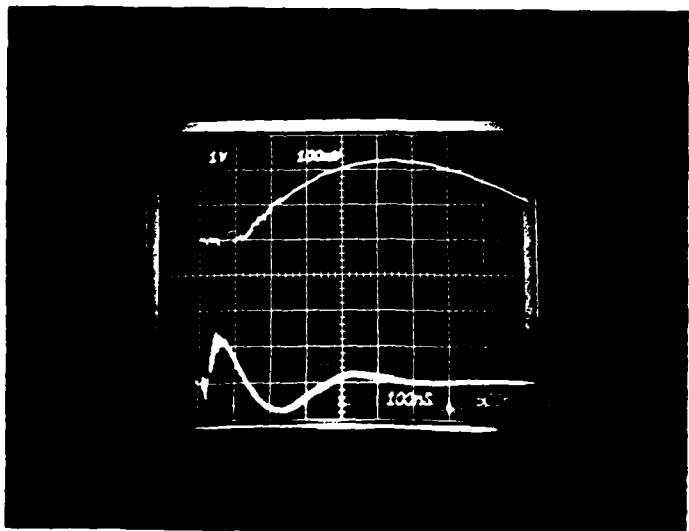
Date 6-20-85  
 Test Point TR20-T25-  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) ~~ns~~/div 1  
 Horizontal 100 ns/div 2  
 Vertical .01V (800V) ~~ns~~/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1572



TR 20

Date 6-20-85  
 Test Point TR20A-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000<sup>A</sup>/V) mV/div 1  
 Horizontal 500 ns/div 2  
 Vertical 1V (800<sup>A</sup>/V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link

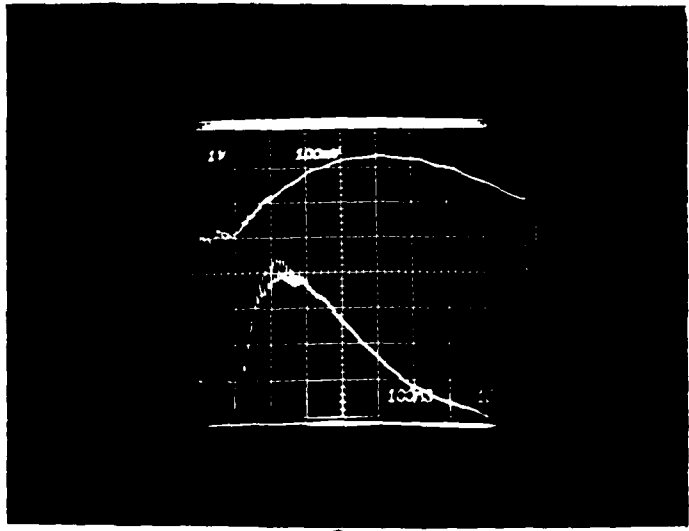


TR 20A

Comments:

1273

Date 6-20-85  
 Test Point TR 21-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000<sup>A</sup>/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800<sup>A</sup>/V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link



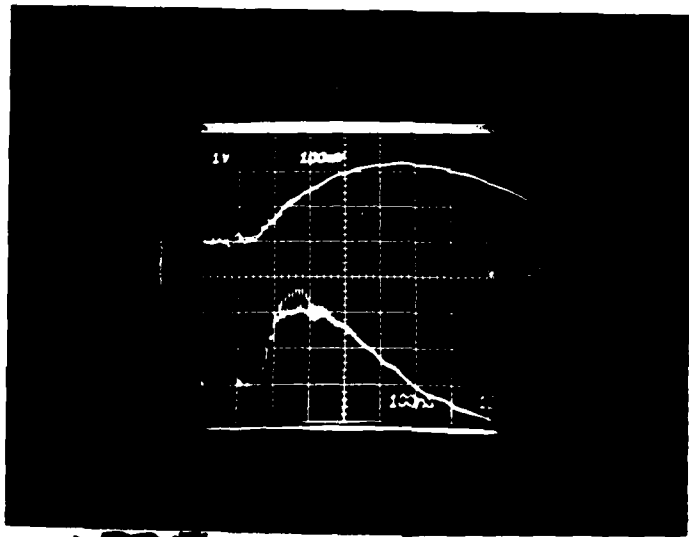
TR 21

Comments:

1574

Date 6-20-85  
 Test Point TR22-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link

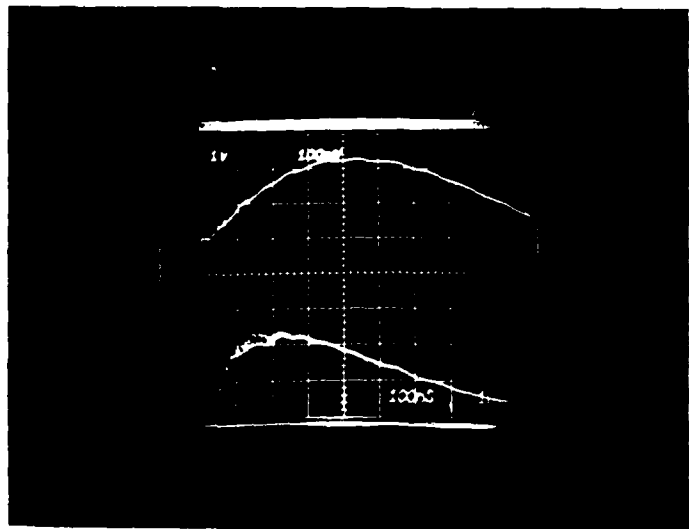
Comments: 1575



1575 TR 22

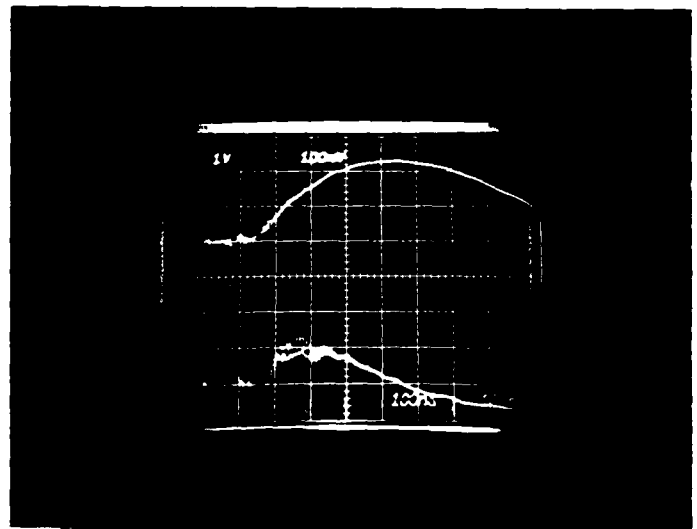
Date 6-20-85  
 Test Point TR23-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) mV/div 2  
 Configuration  
 Pulsar Level  
 Data Link

Comments: 1576



TR 23

Date 6-20-85  
 Test Point TR24-T25  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000 $\mu$ V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical 1V (800V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25000V



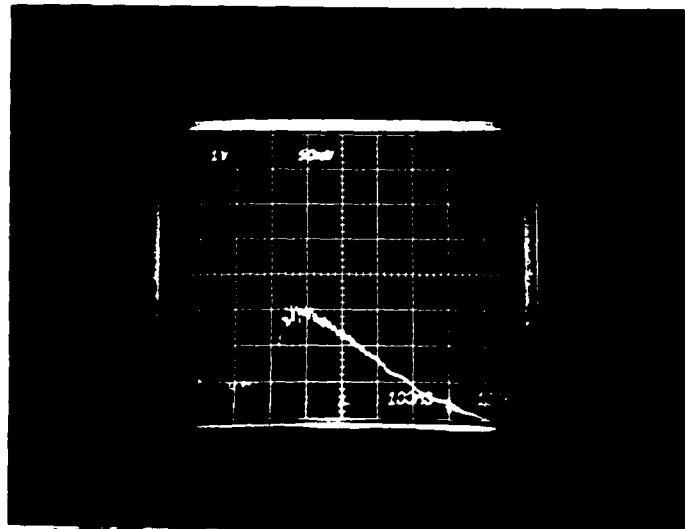
TR-24

Data Link  
 Comments: 1577

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link

Comments:

Date 6-21-85  
 Test Point TR25-T25-SC/GND  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05V (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link

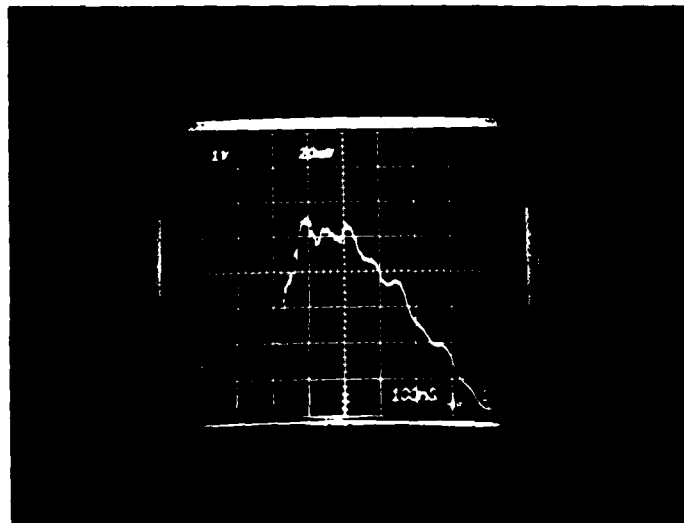


1595 TR 25

SC REF GND

Comments: 1599

Date 6-21-85  
 Test Point TR-25-T25-1-φ  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 100 ns/div 1  
 Vertical .02V (160V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link

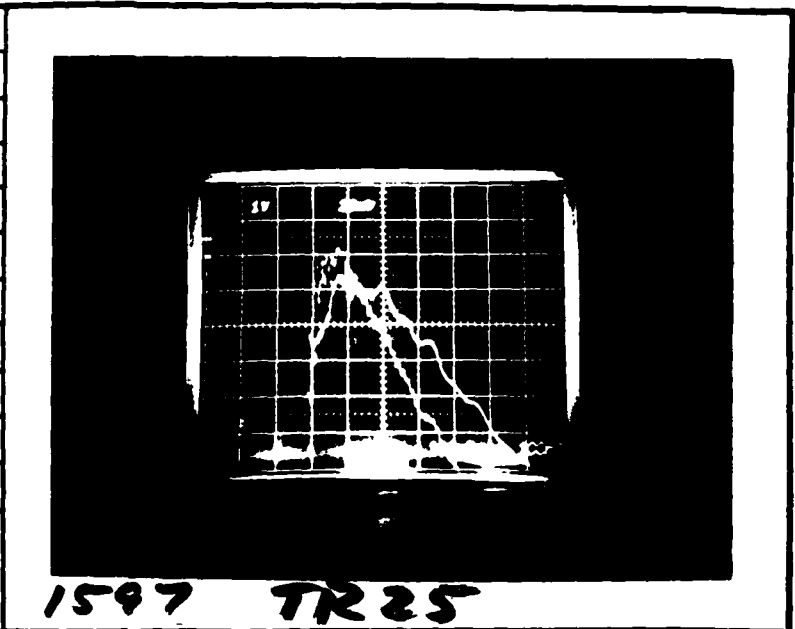


1596 TR 25

DEVICE TR 25

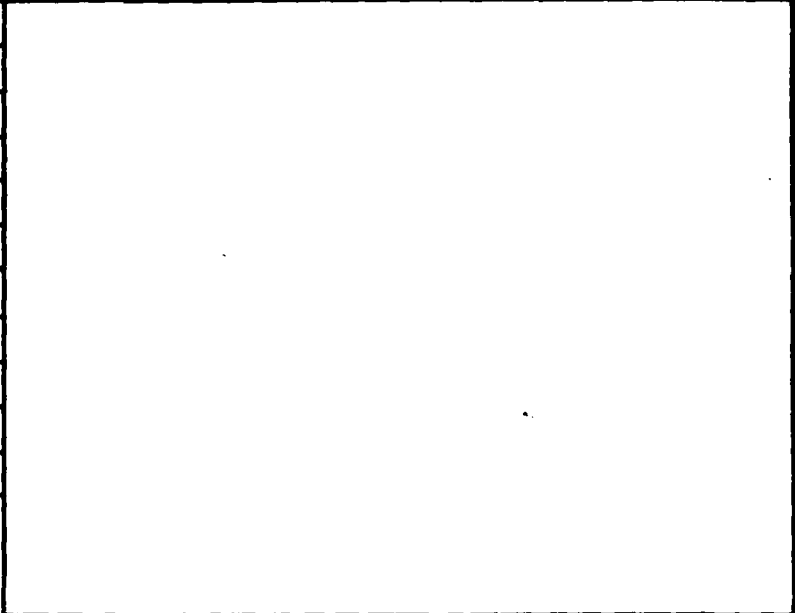
Comments: 1596

Date 6-21-85  
 Test Point TR25-T25-  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 100 ns/div 1  
 Vertical .02V (160V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link



Comments: 1597

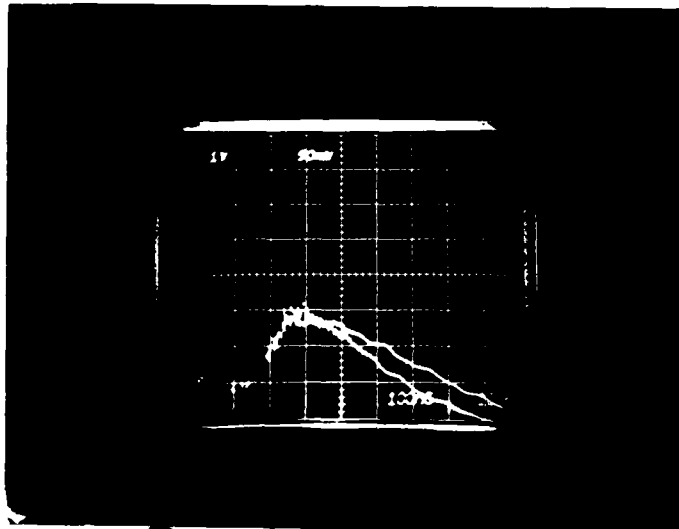
Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link



Comments:

Date	6-21-85
Test Point	TR25-T25
Amplification	0 dB
Attenuation	20 dB
Horizontal	100 ns/div 1
Vertical	.05V(400V) mV/div 1
Horizontal	ns/div 2
Vertical	.05V(400V) ns/div 2
Configuration	
Pulser Level	25000V
Data Link	

Comments: 1594

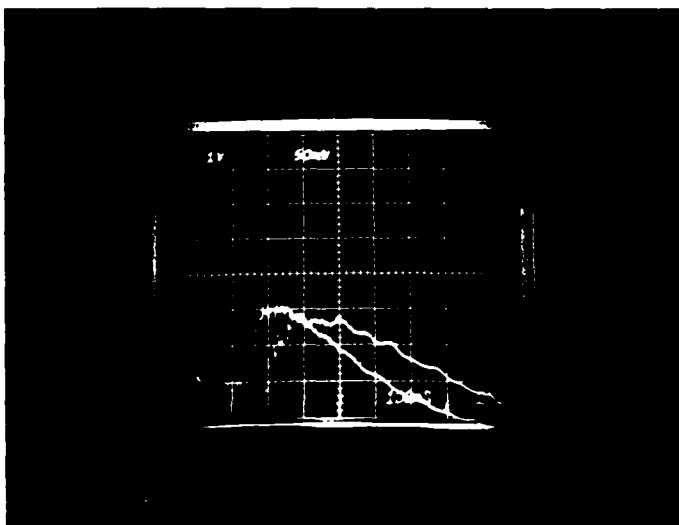


1598 TR25

DATA + GND

Date	6-21-85
Test Point	TR25-T25-
Amplification	0 dB
Attenuation	20 dB
Horizontal	100 ns/div 1
Vertical	.05(400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	

Comments:



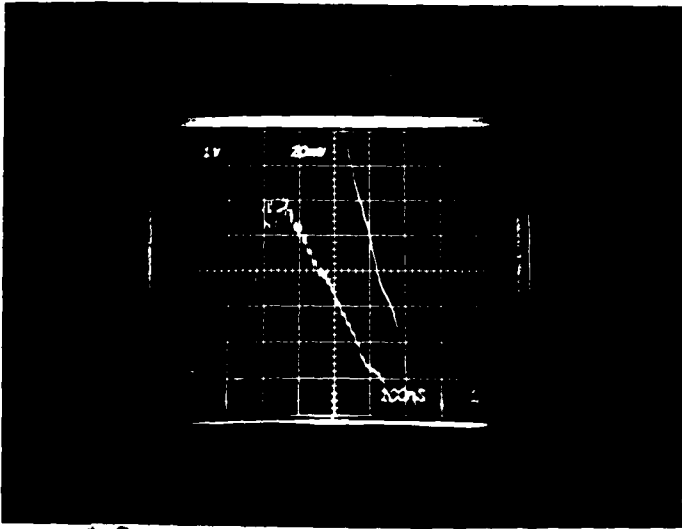
1599 TR25

GND + DEVICE -

TR25 = SG FAT COLL (CLOSE UP)

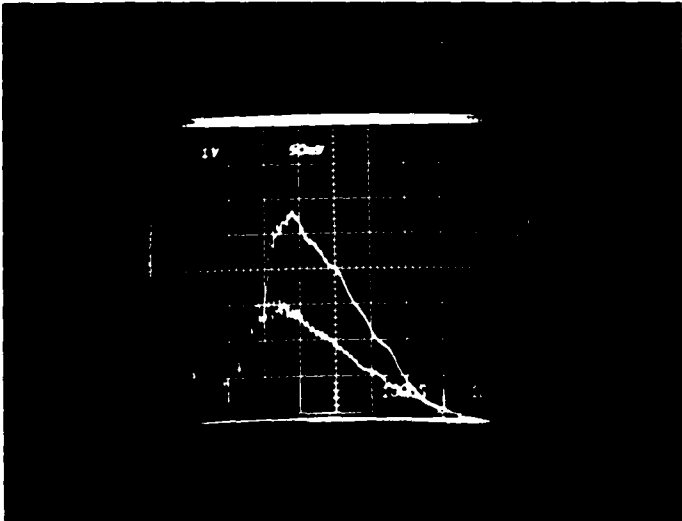


Date 6-21-85  
 Test Point TR26 - T25  
 Amplification dB  
 Attenuation dB  
 Horizontal 100 ns/div 1  
 Vertical .02V (160V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1600



1600 TR 36

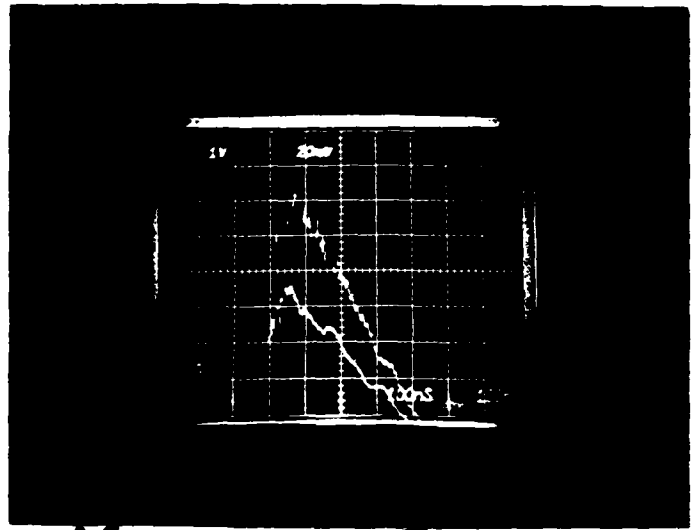
Date 6-21-85  
 Test Point TR26 - T25  
 Amplification dB  
 Attenuation dB  
 Horizontal 100 ns/div 1  
 Vertical .05V (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical .05V (400V) mV/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1601



1601 TR 36

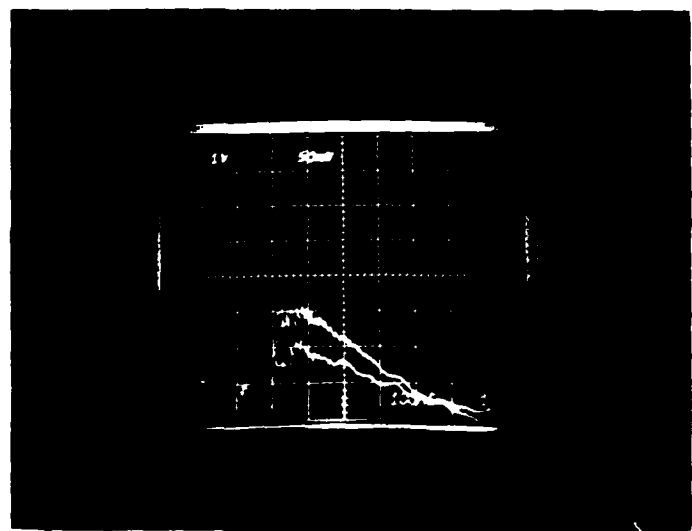
TR 26 - SG + SMALL OPEN COIL

Date 6-21-85  
 Test Point TR27 -  
 Amplification dB  
 Attenuation dB  
 Horizontal 100 ns/div 1  
 Vertical .02V (160V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:



1602 TR 27

Date 6-21-85  
 Test Point TR27 -  
 Amplification dB  
 Attenuation ~~dB~~ dB  
 Horizontal 100 ns/div 1  
 Vertical ~~0.02V~~ mV/div 1  
 Horizontal ns/div 2  
 Vertical .05V (400V) mV/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

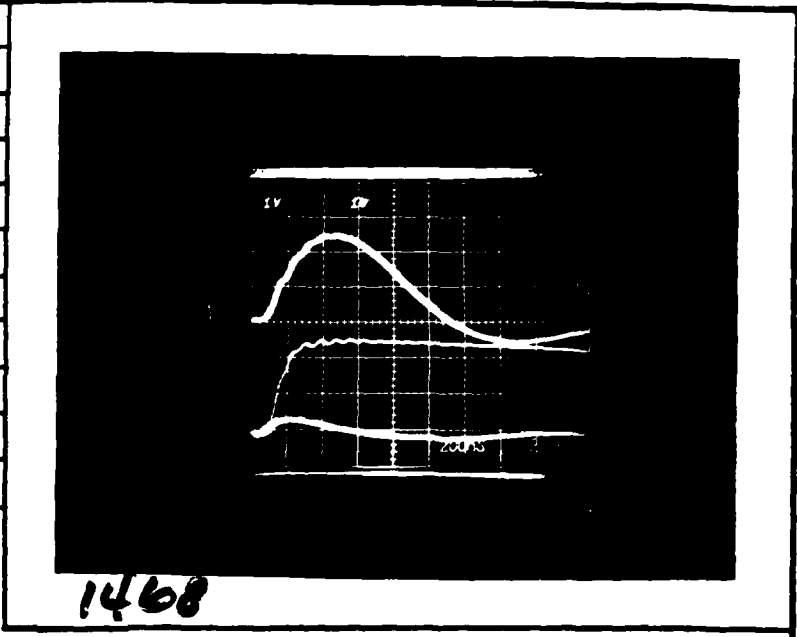


1603 TR 27

TR 27 = SG + BULLET COIL

Date 6-18-85  
 Test Point 1-T25-1/5-~~Ø~~  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

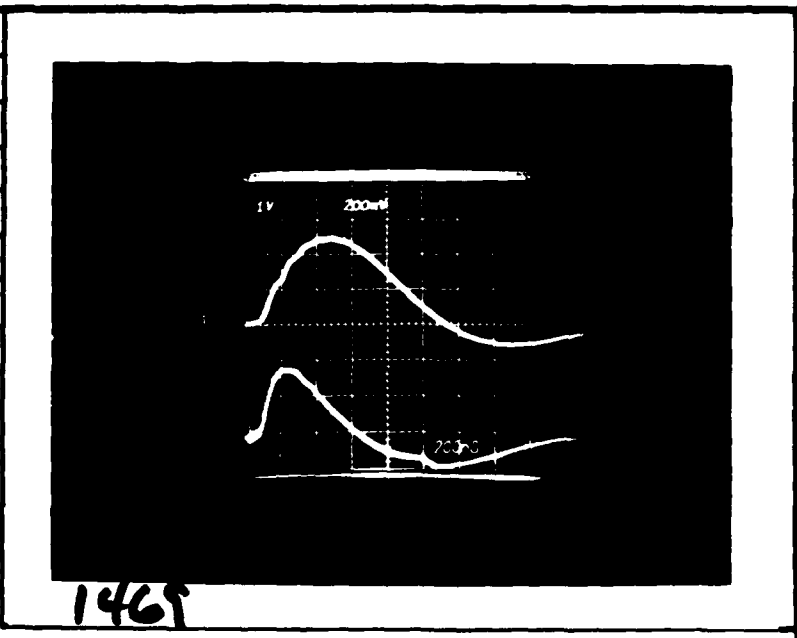
Comments: 1468



1468

Date 6-18-85  
 Test Point 1-T25-910-~~Ø~~  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

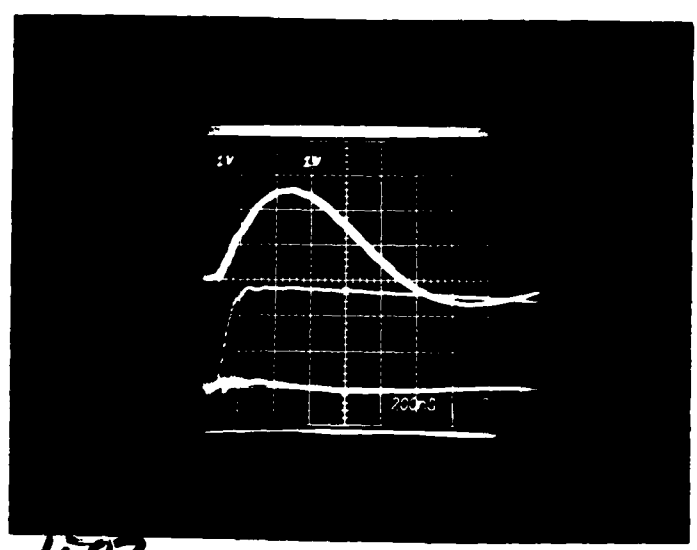
Comments: 1469



1469

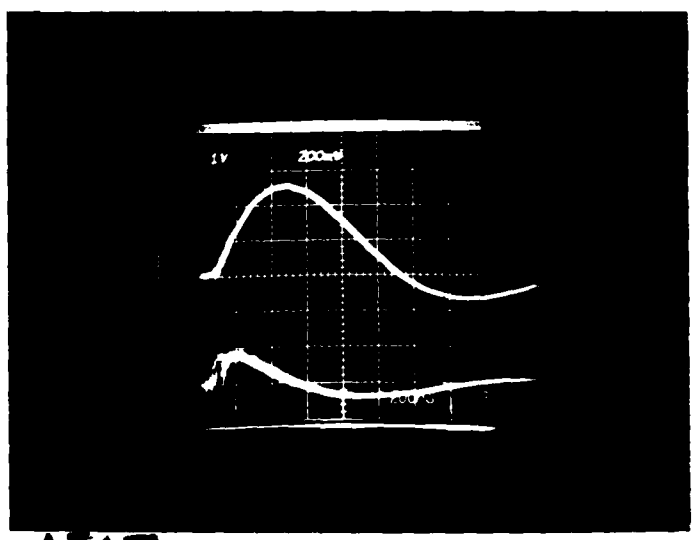
VERTICAL @ .2V (1600V) per div.

Date 6-19-85  
 Test Point 2-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000AV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1507



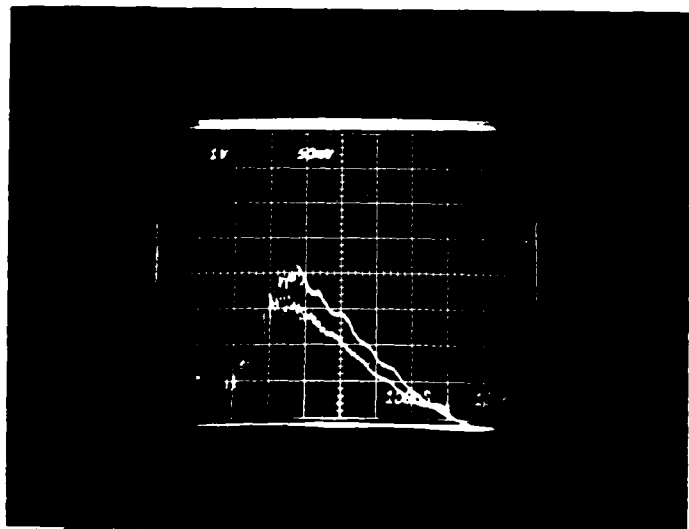
1507

Date 6-19-85  
 Test Point 2-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000AV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1508



1508

Date 6-21-85  
 Test Point 3-T25- -φ  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:



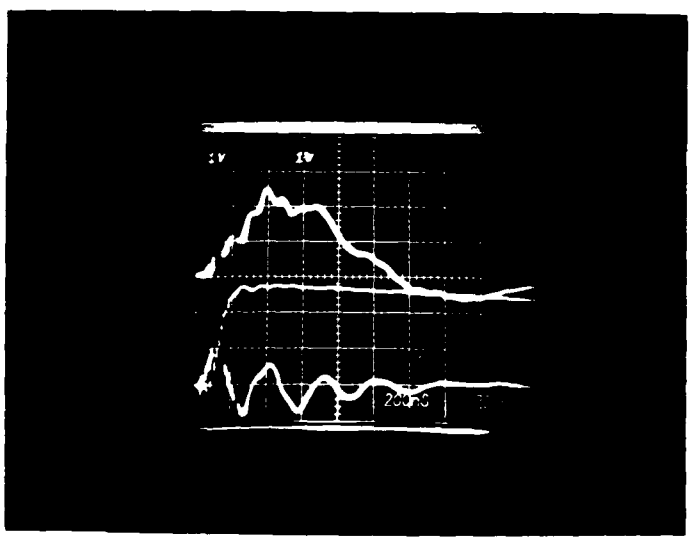
1583

DATA =  
 SG GND =

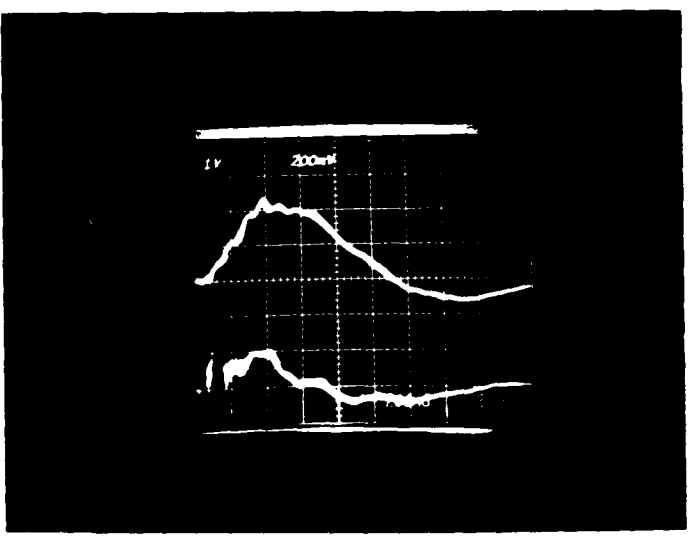
DATA + SC GND REF-

Date 6-21-85  
 Test Point 3-T25- -φ  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

Date 6-19-85  
 Test Point 3-T25-1/5-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



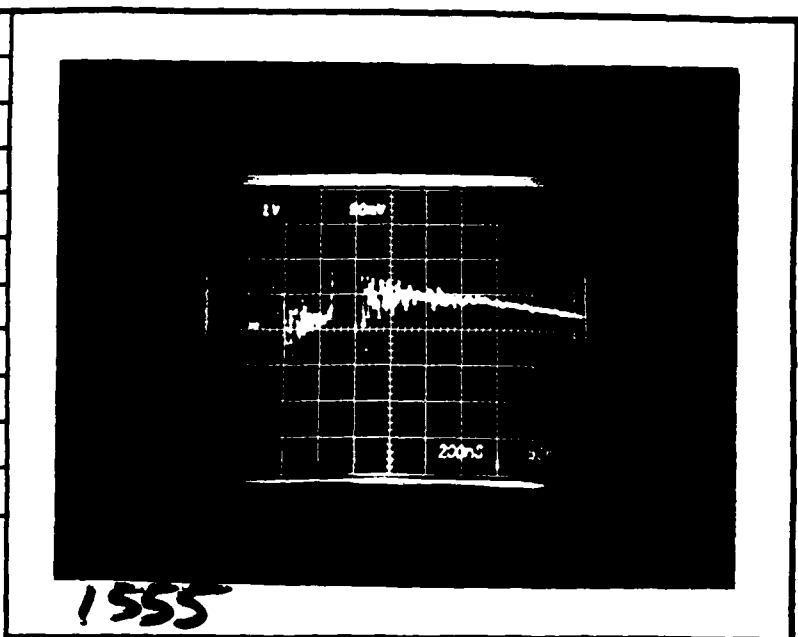
Date 6-19-85  
 Test Point 3-T25-6/10-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



"PULSER RINGING"

Date 6-20-85  
 Test Point 6-T25-R<sub>1</sub>- $\phi$   
 Amplification  $\phi$  dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25,000V  
 Data Link  
 Comments:

1555

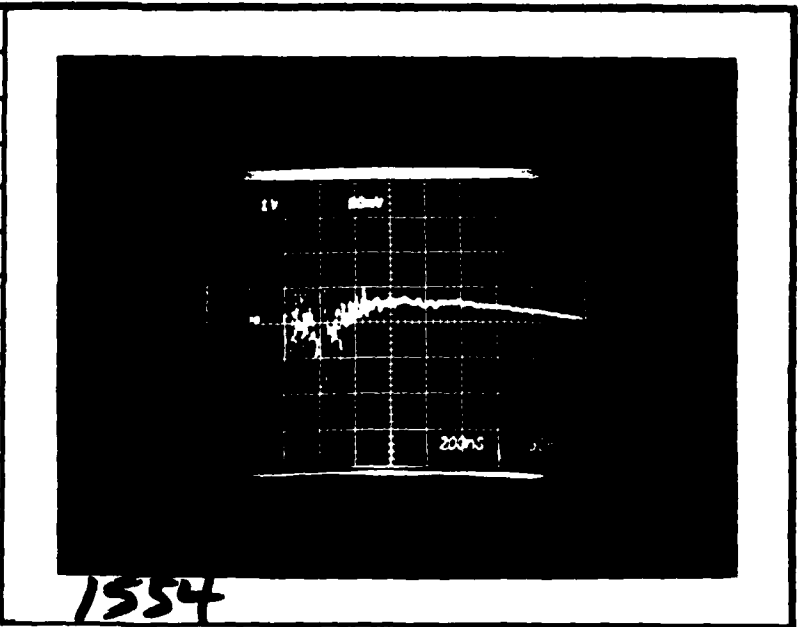


1555

~~W/GND REF~~

Date 6-20-85  
 Test Point 6-T25-SC REF-  
 Amplification  $\phi$  dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

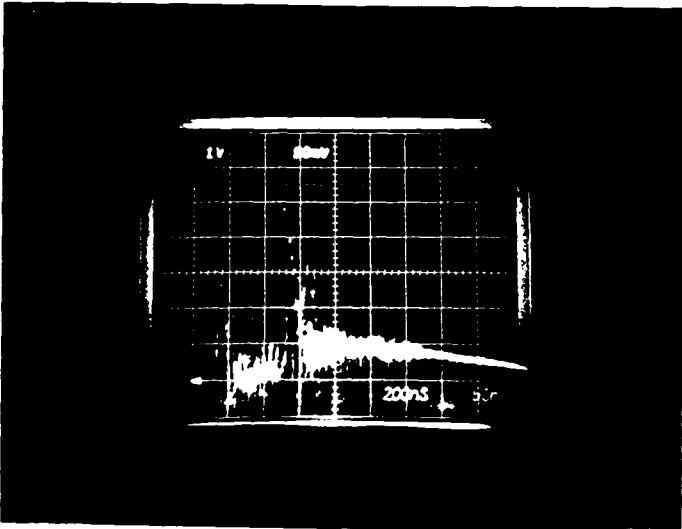
1554



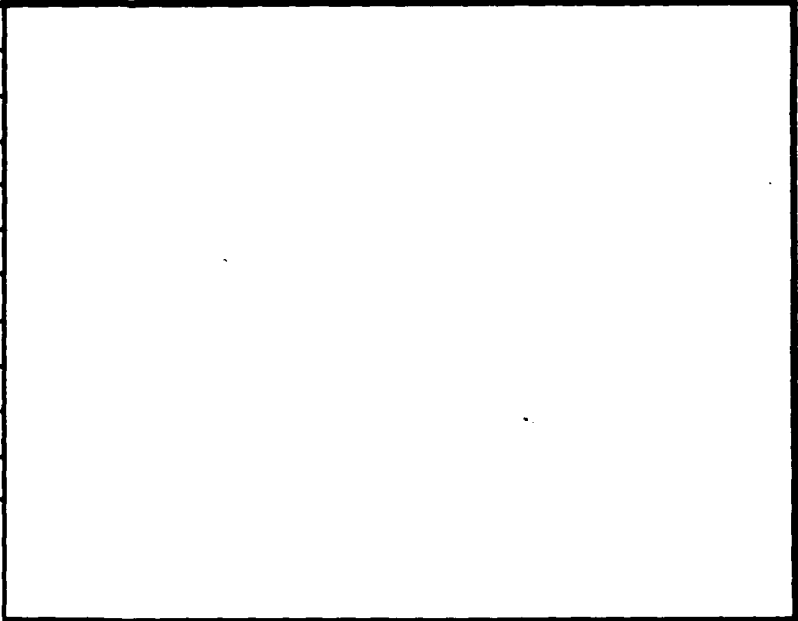
1554

SC GND REF FOR 6 -

Date	6-20-85
Test Point	6-T25-R <sub>2</sub> -φ
Amplification	8 dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	.05V(400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1556

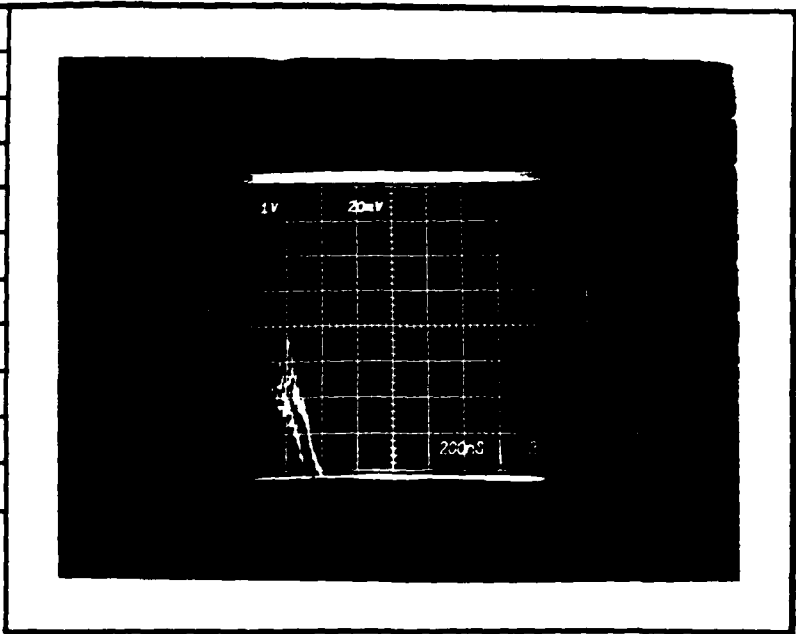


Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	

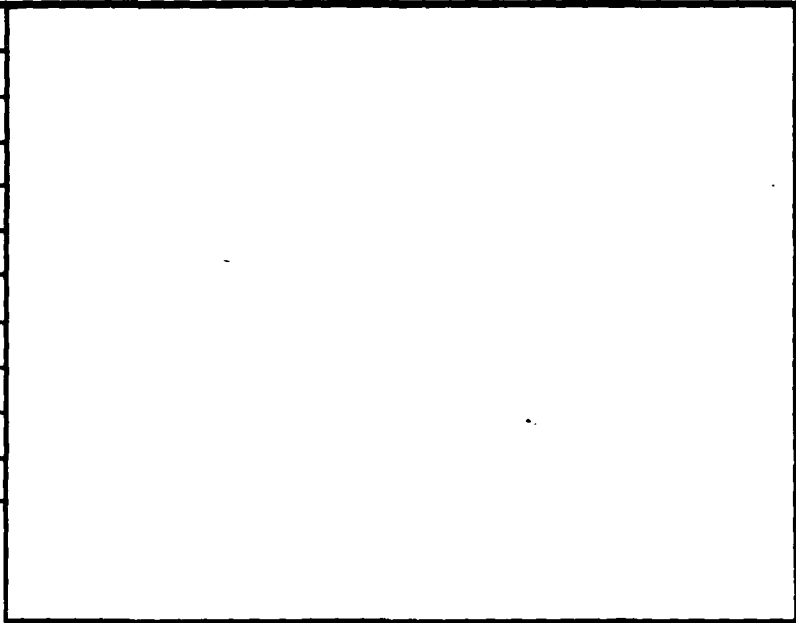




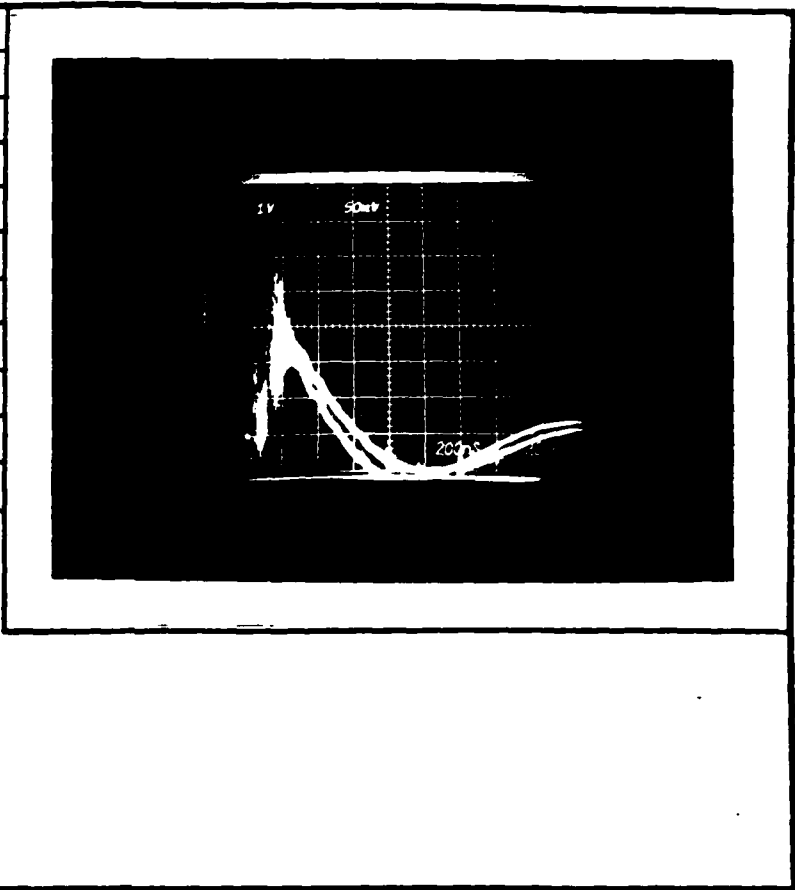
Date	6-20-85
Test Point	6-T25-15-Ø
Amplification	0 dB
Attenuation	-20 dB
Horizontal	200 ns/div 1
Vertical	.02V(160V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25,000V
Data Link	
Comments:	



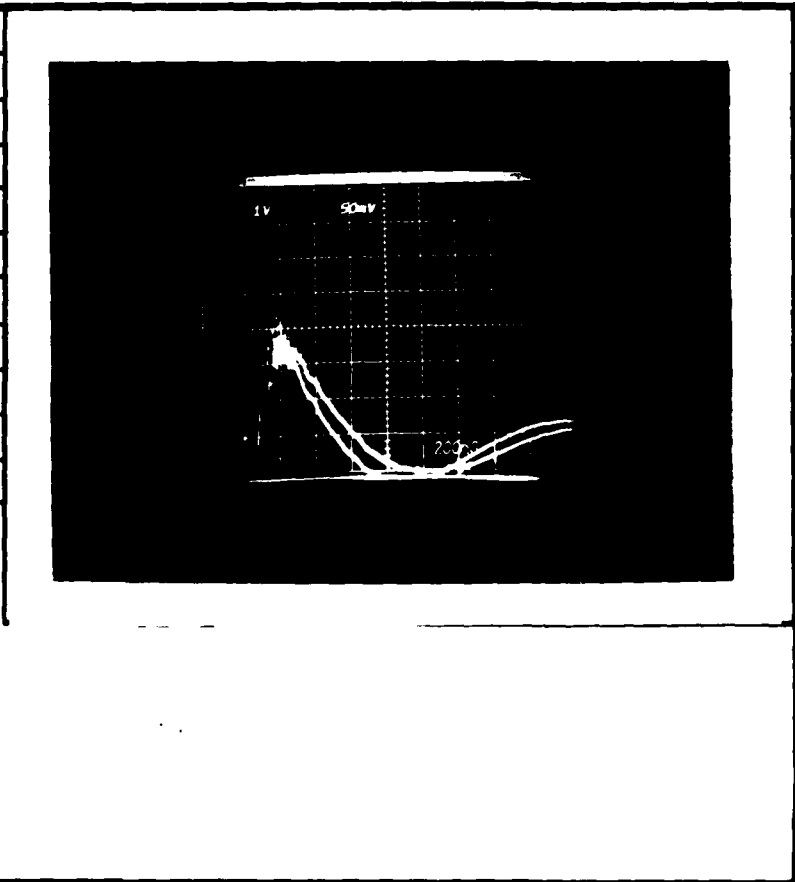
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



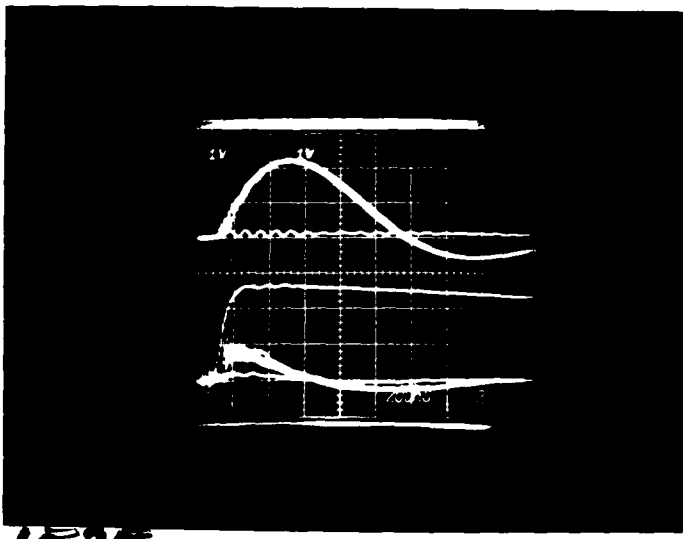
Date	6-20-85
Test Point	6-T25-1/2-Ø
Amplification	0 dB
Attenuation	-20 dB
Horizontal	200 ns/div 1
Vertical	.05V(400V) /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25,000V
Data Link	
Comments:	1527



Date	6-20-85
Test Point	6-T25-14-Ø
Amplification	0 dB
Attenuation	-20 dB
Horizontal	200 ns/div 1
Vertical	.05V(400V) /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25,000V
Data Link	
Comments:	

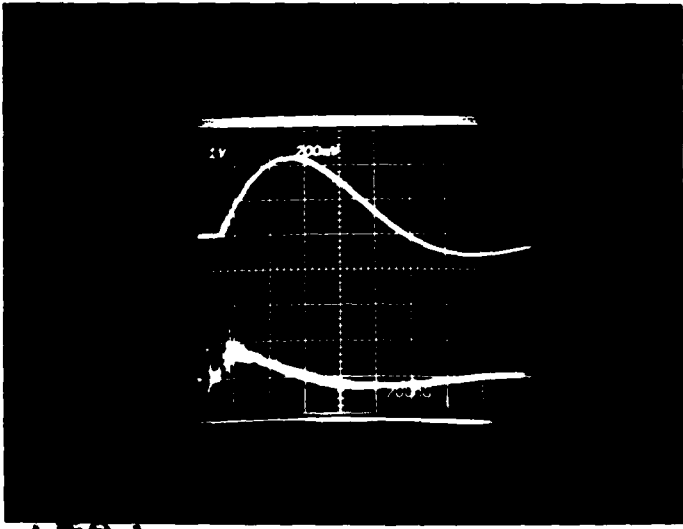


Date 6-20-85  
 Test Point 6-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



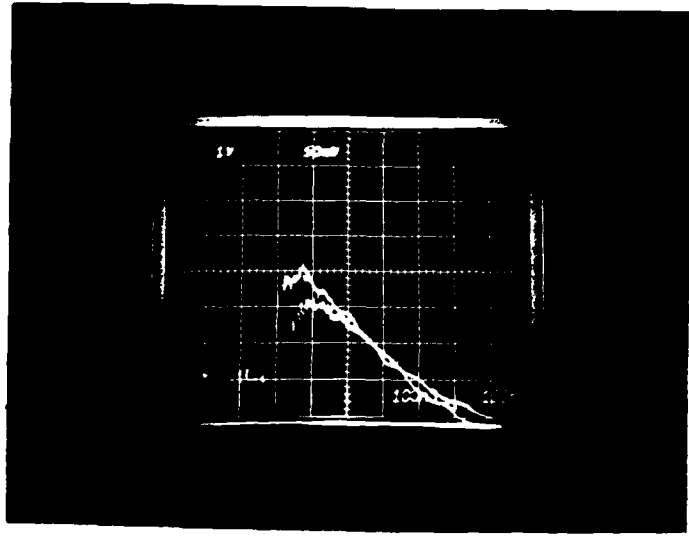
1525

Date 6-20-85  
 Test Point 6-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1526

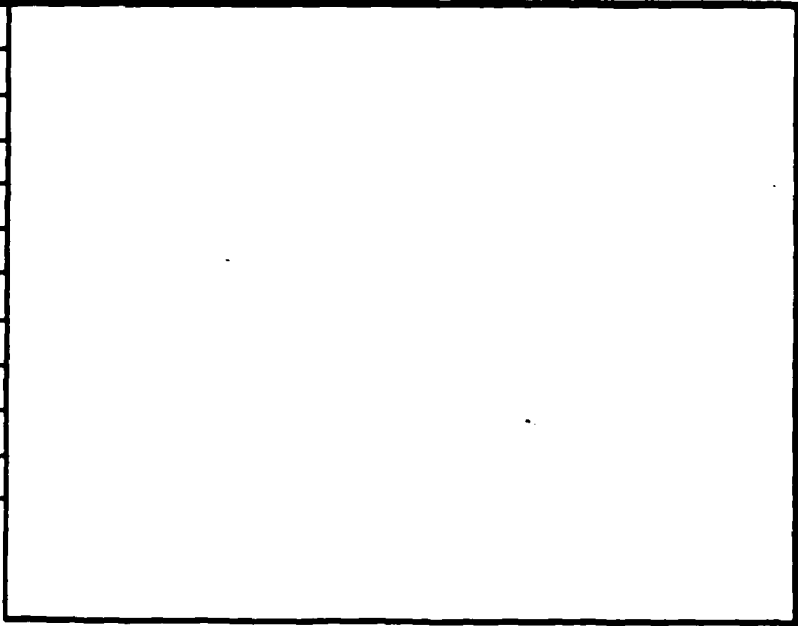
Date 6-21-85  
 Test Point 7-725-R/1-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05<sup>V</sup>(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:



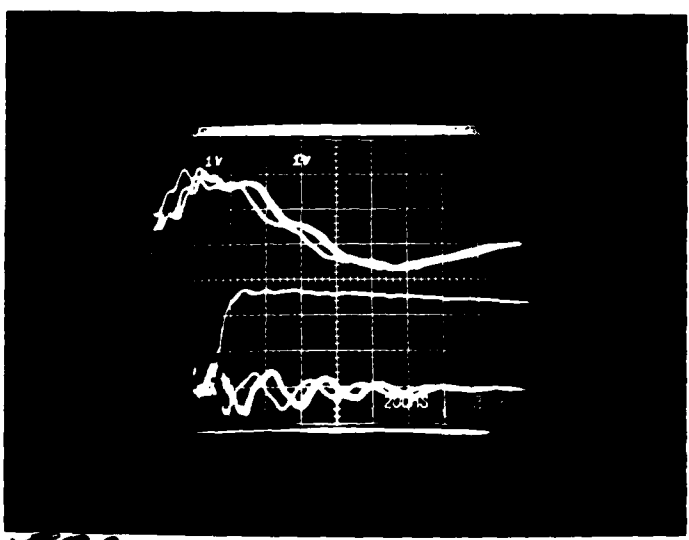
DATA = 1150  
 SG GND = 800  
350V

DATA ← SC GND REF -

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

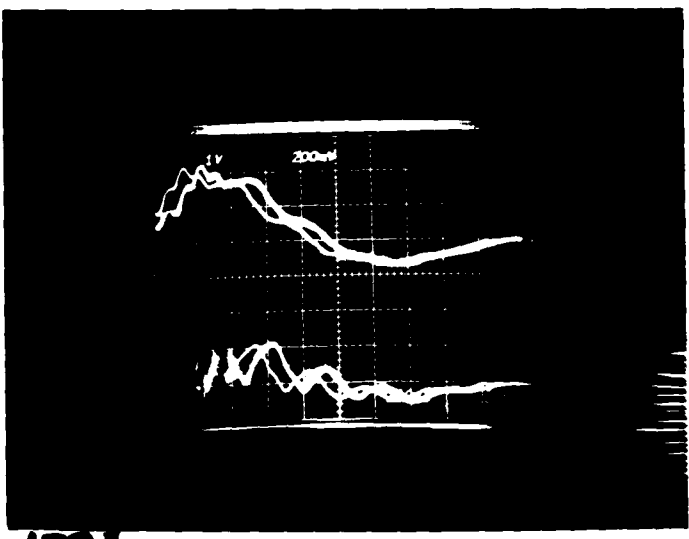


Date 6-19-85  
 Test Point 7-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ns/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



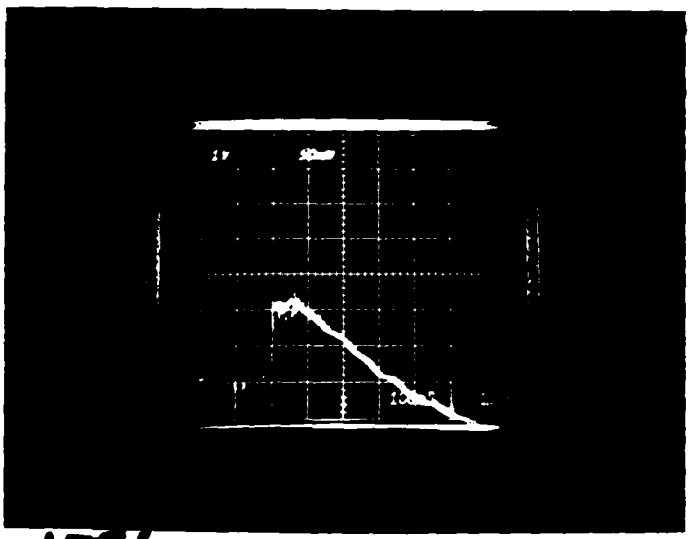
1523

Date 6-19-85  
 Test Point 7-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ns/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1524

Date	6-21-95
Test Point	8-T25-R/1-Ø
Amplification	0 dB
Attenuation	20 dB
Horizontal	100 ns/div 1
Vertical	.05V (400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	25000 V
Data Link	

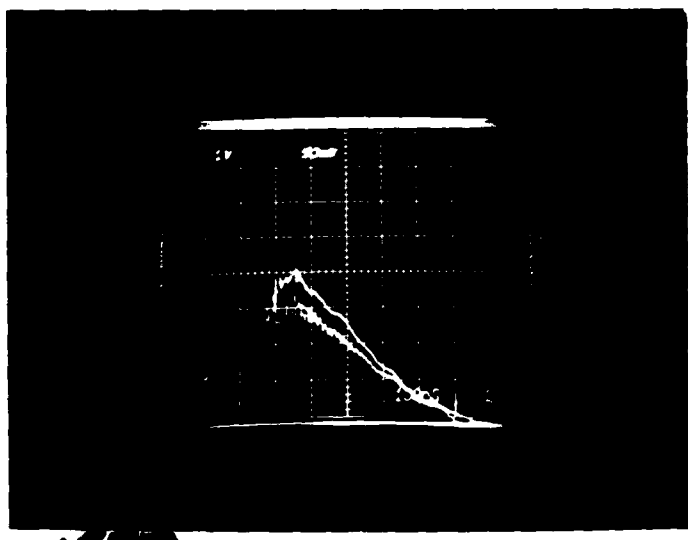


1586

DATA + SC GND REF

Comments: 1586

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	

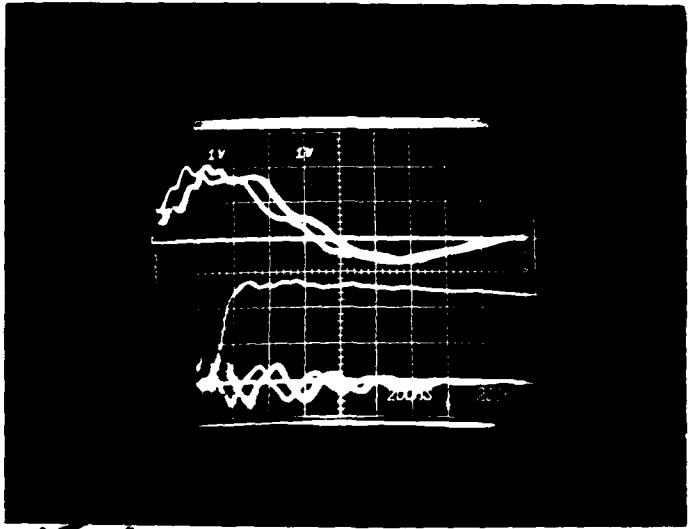


1587

REPEAT ABOVE

Comments: 1587

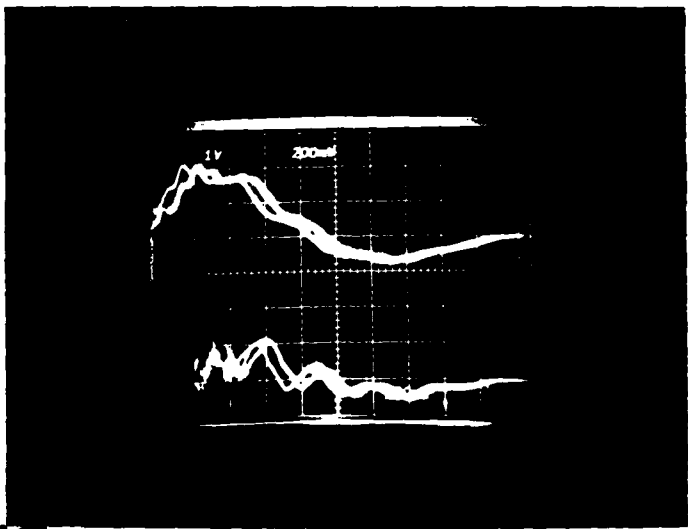
Date 6-19-85  
 Test Point 8-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: 1521

1521

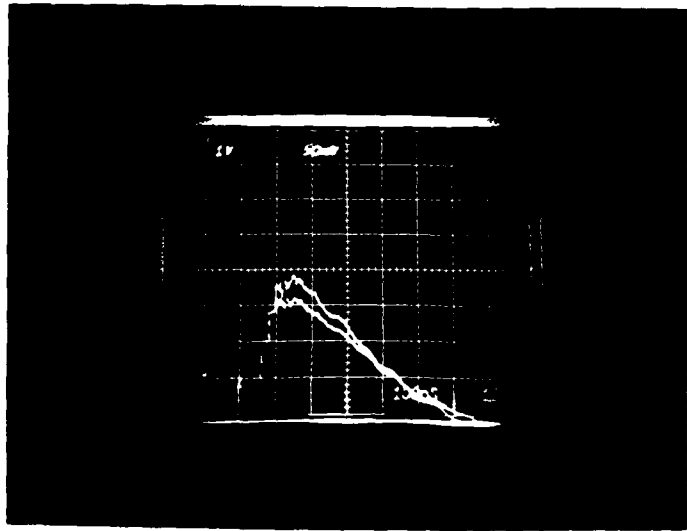
Date 6-19-85  
 Test Point 8-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: -12

1522

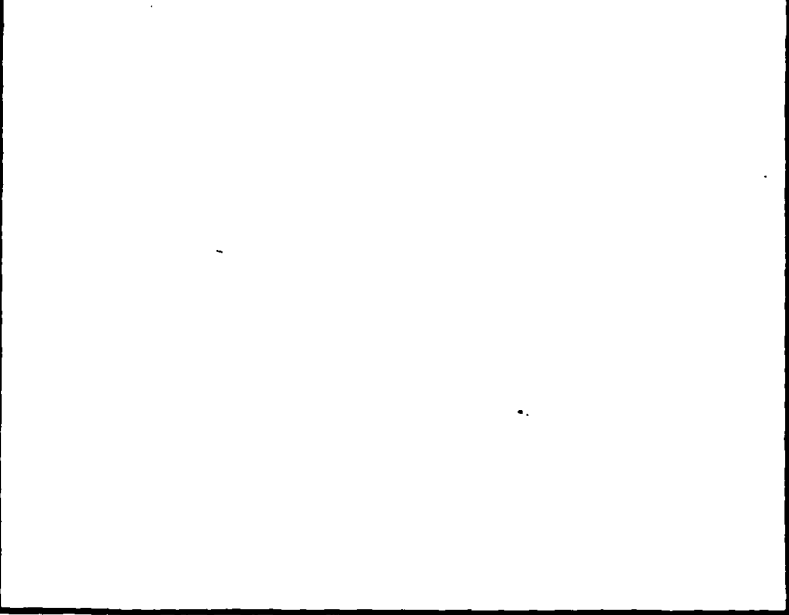
Date 6-21-85  
 Test Point 9-T25-R1-Ø  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:



DATA + SC GND REF -

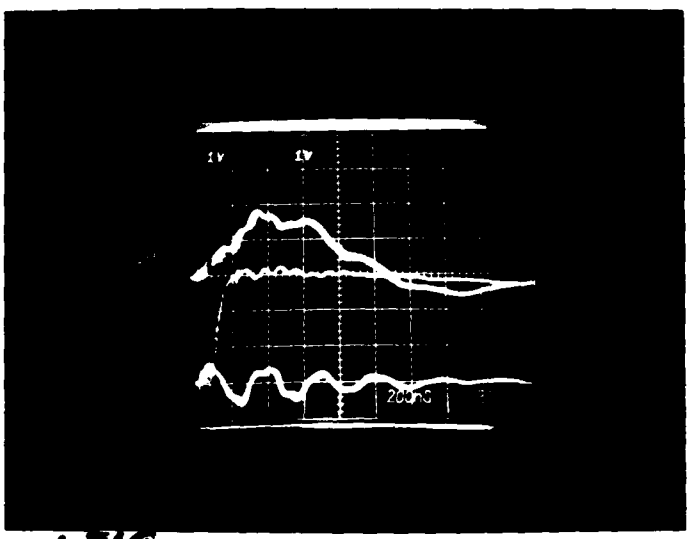
$$\begin{array}{r}
 \text{DATA} = 1100 \\
 \text{GND} = \frac{800}{300 \text{ V}}
 \end{array}$$

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:



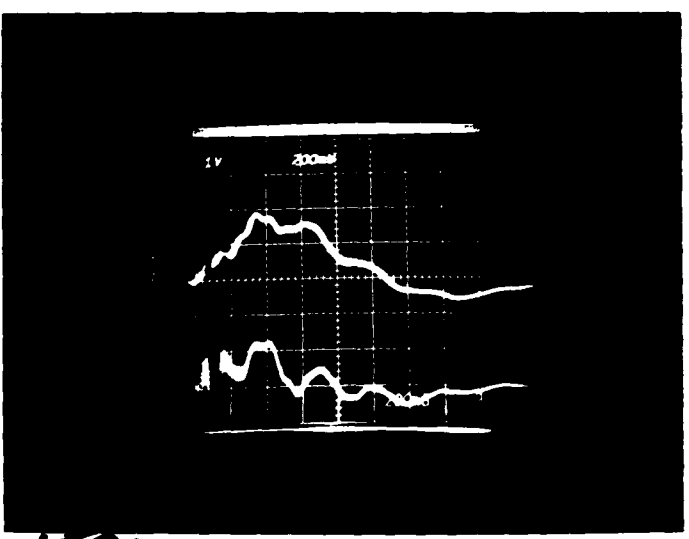


Date 6-19-85  
 Test Point 9-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1519

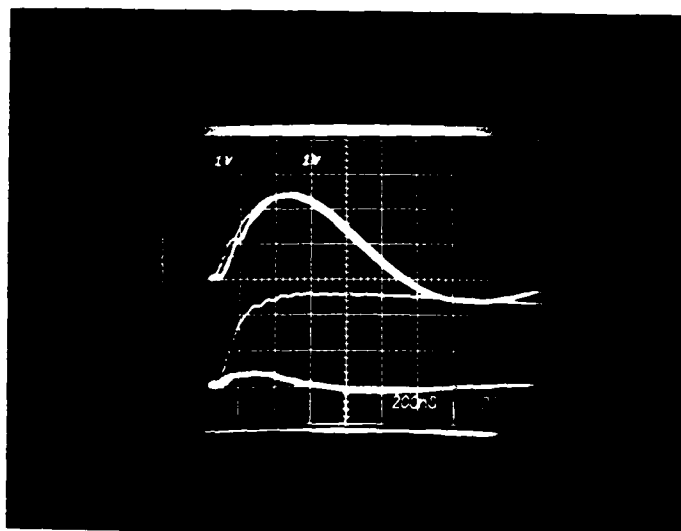
Date 6-19-85  
 Test Point 9-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1520

Date 6-17-85  
 Test Point 10-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1357



1357

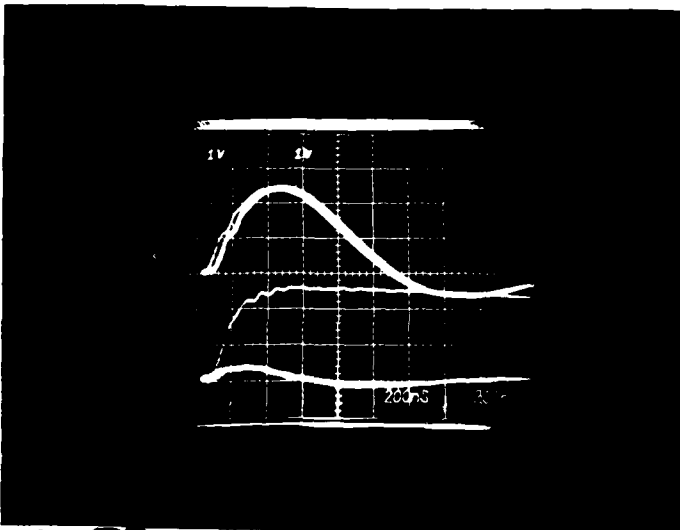
Date 6-17-85  
 Test Point 10-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1358



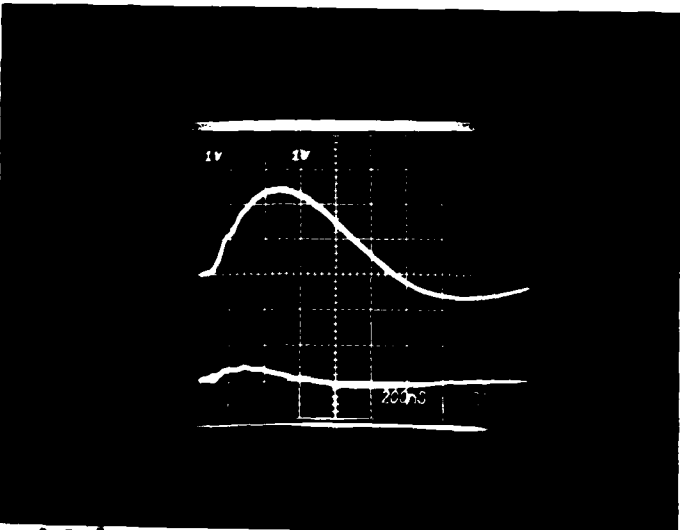
1358

Date 6-17-85  
 Test Point 10-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



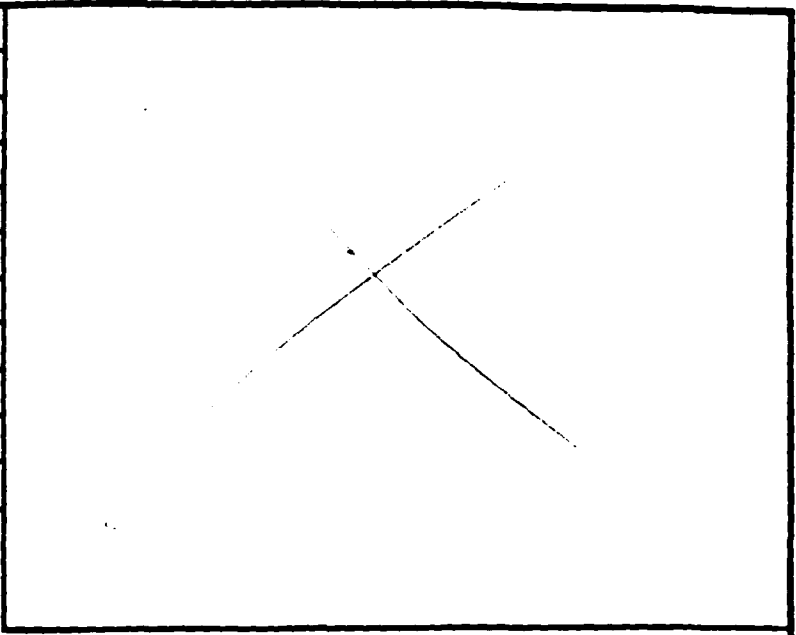
1359

Date 6-17-85  
 Test Point 10-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

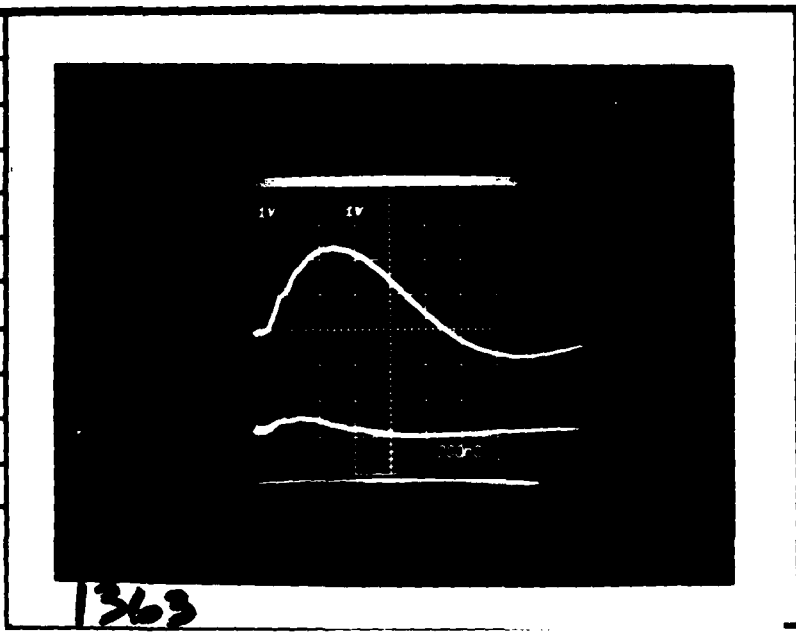


1360

Date 6-17-85  
 Test Point 10-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1361  
 1362

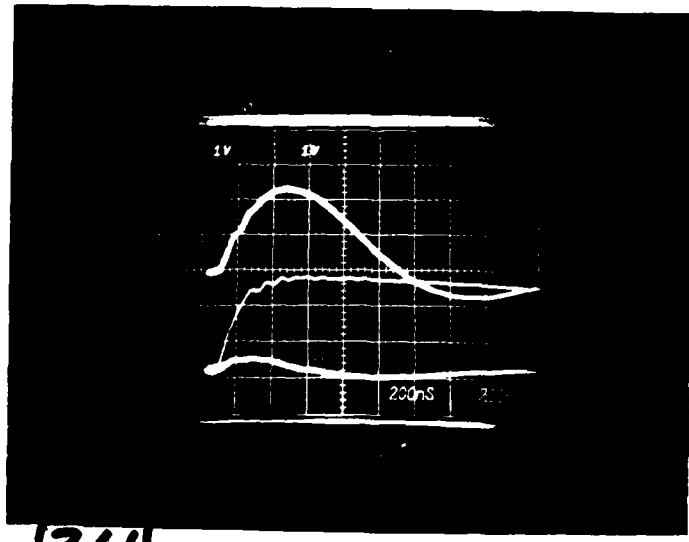


Date 11/15  
 Test Point 10-T25-4A-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1363



Date 6-17-85  
 Test Point 10-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

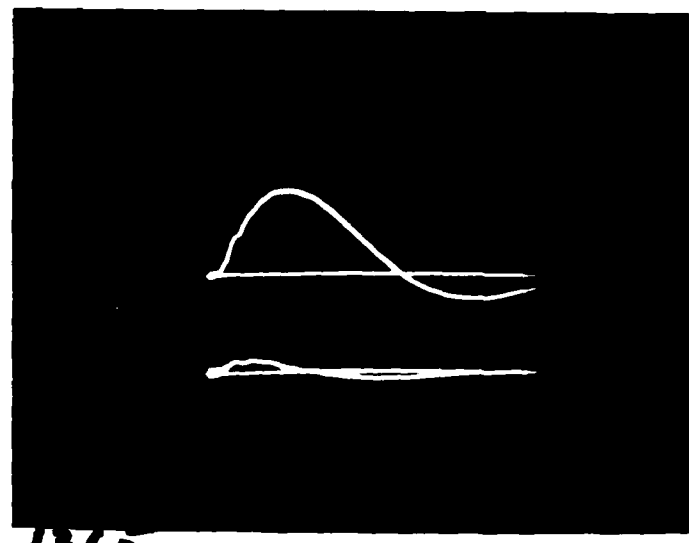
Comments: 1364



1364

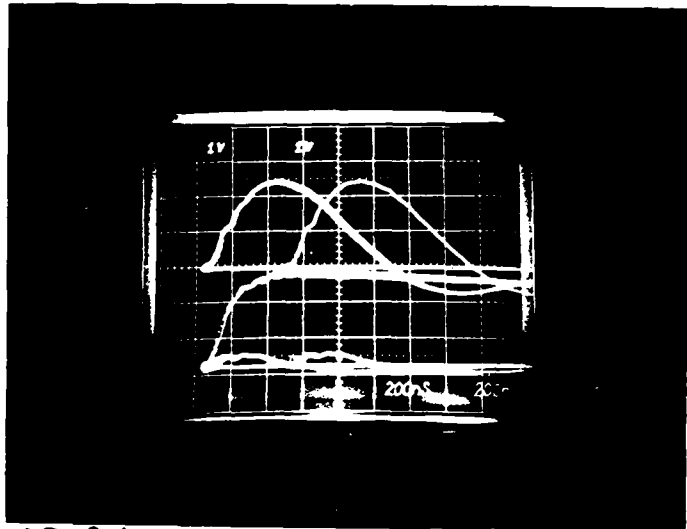
Date  
 Test Point 10-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1365



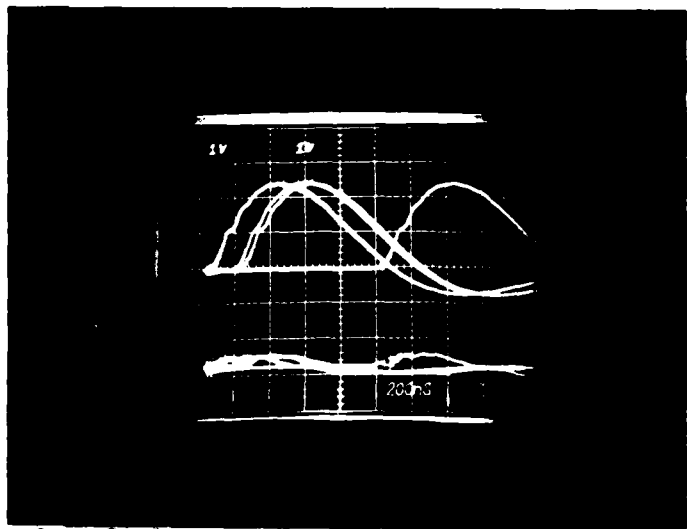
1365

Date **6-17-85**  
 Test Point **10-T25-1/5-E**  
 Amplification **0 dB**  
 Attenuation **40 dB**  
 Horizontal **200 ns/div 1**  
 Vertical **1V (2000A/V) /div 1**  
 Horizontal **200 ns/div 2**  
 Vertical **1V (8000V) /div 2**  
 Configuration **-20 dB**  
 Pulsar Level **25,000 V**  
 Data Link  
 Comments: **1366**



**1366**

Date  
 Test Point **10-T25-9/10-E**  
 Amplification **0 dB**  
 Attenuation **40 dB**  
 Horizontal **200 ns/div 1**  
 Vertical **1V (2000A/V) /div 1**  
 Horizontal **200 ns/div 2**  
 Vertical **1V (8000V) /div 2**  
 Configuration **-20 dB**  
 Pulsar Level **25,000 V**  
 Data Link  
 Comments: **1367**

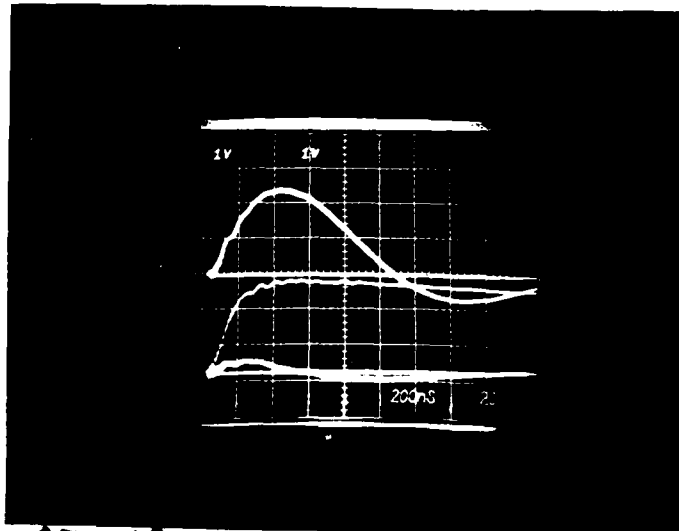


**1367**

Date 6-17-85  
 Test Point 11-T25-1/5-J  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:

1376

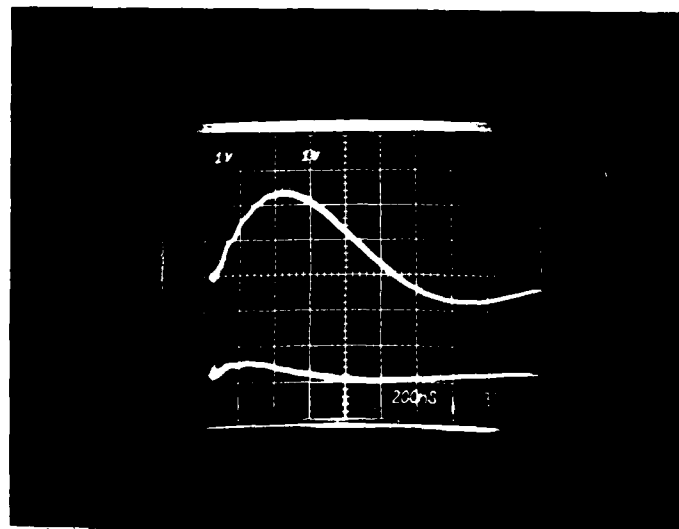


1376

Date 6-17-85  
 Test Point 11-T25-9/10-J  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:

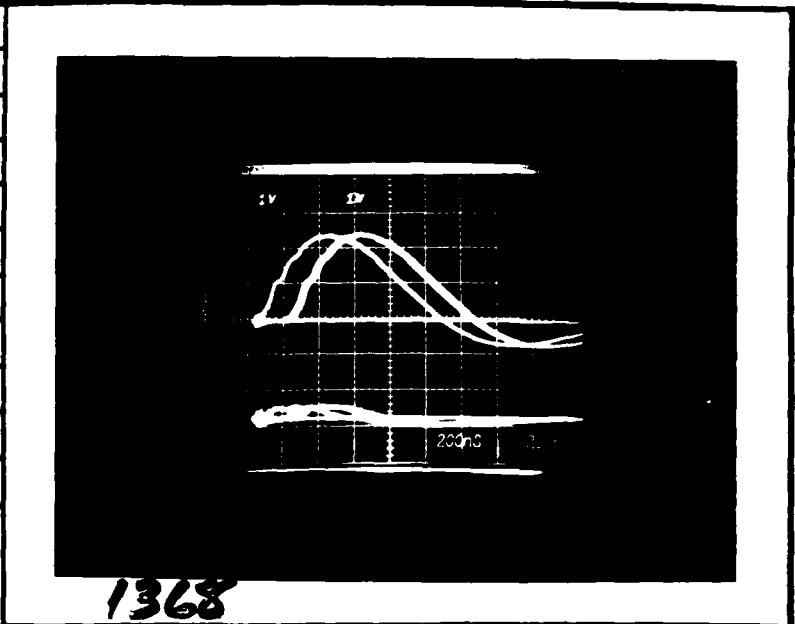
1377



1377

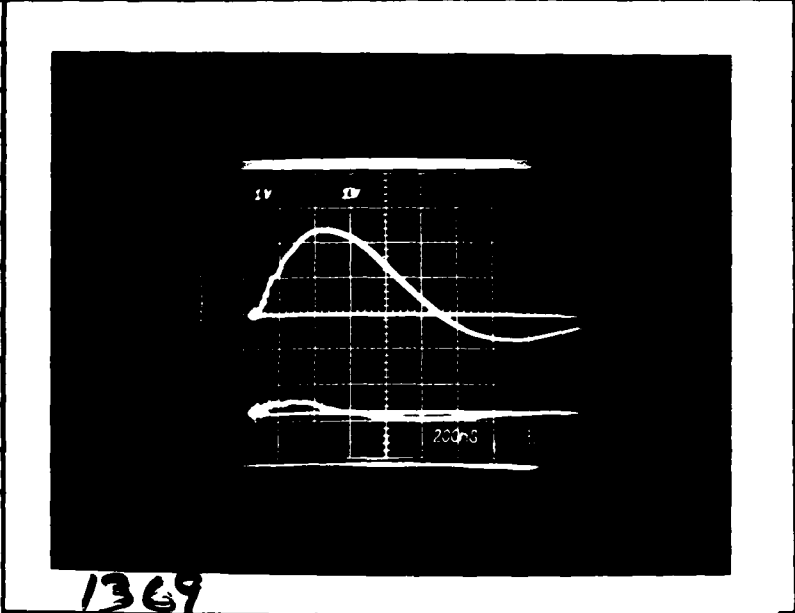
Date 6-17-85  
 Test Point 11-T25-1/5-F  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1368



Date 6-17-85  
 Test Point 11-T25-9/10-F  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

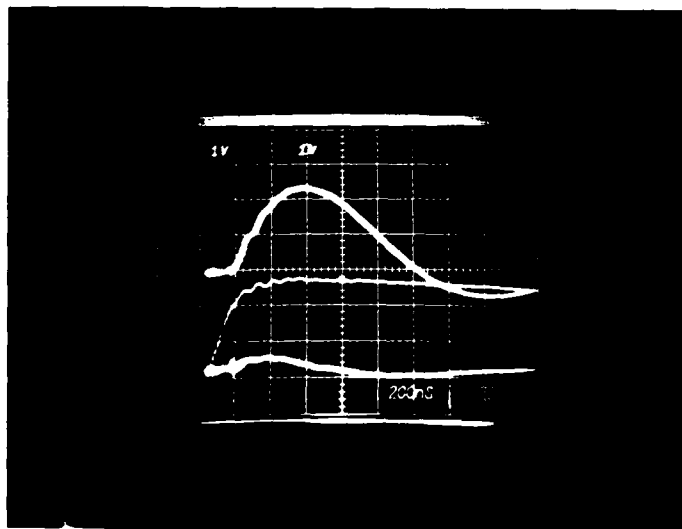
Comments: 1369





Date 6-17-85  
 Test Point 11-T25-15-G  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

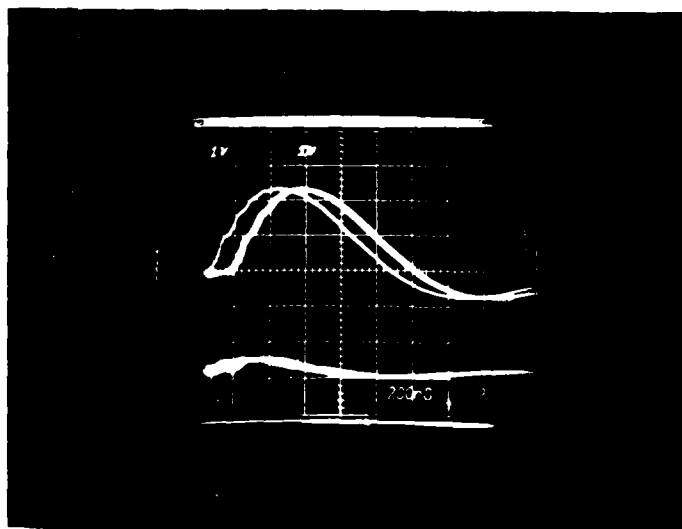
Comments: 1370



1370

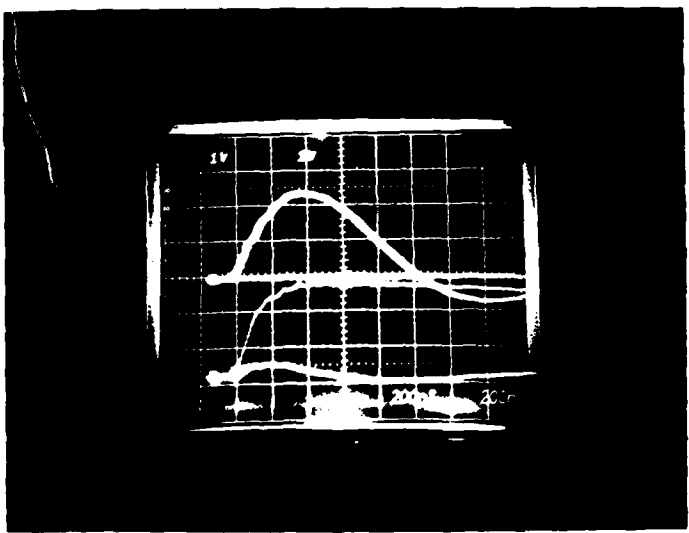
Date 6-17-85  
 Test Point 11-T25-10-G  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1371



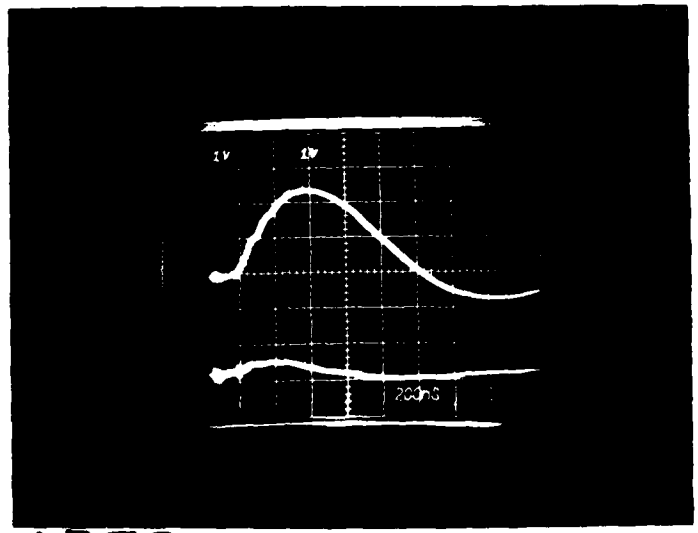
1371

Date 6-17-85  
 Test Point 11-T25-1/5-H  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



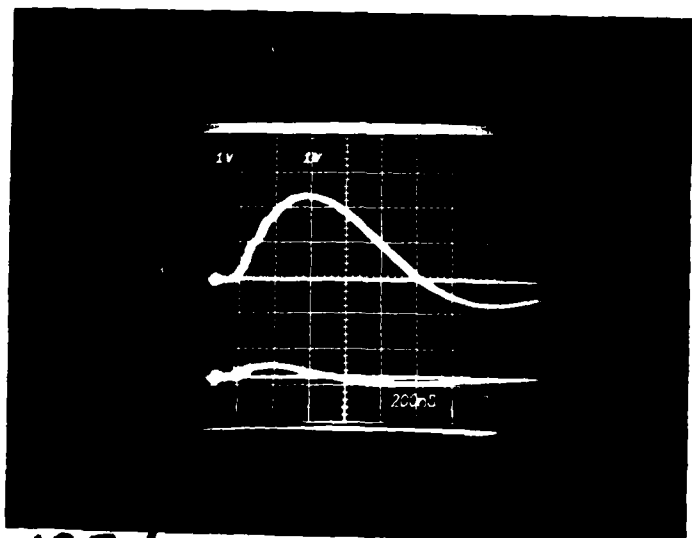
1372

Date 6-17-85  
 Test Point 11-T25-1/10-H  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



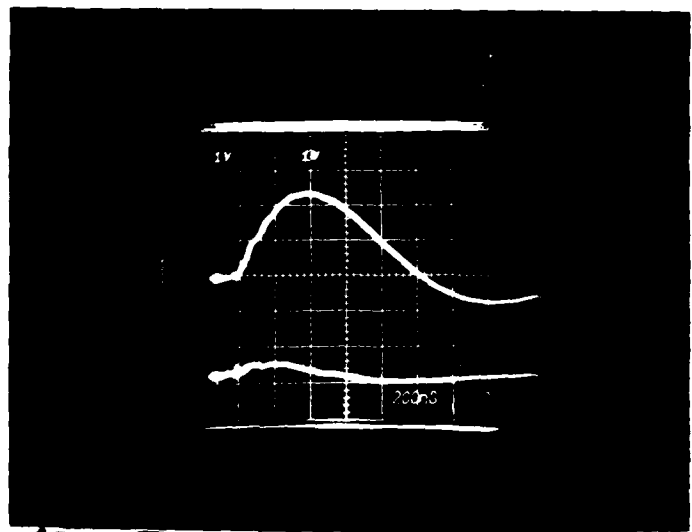
1373

Date 6-17-85  
 Test Point 11-T25-1/5-I  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



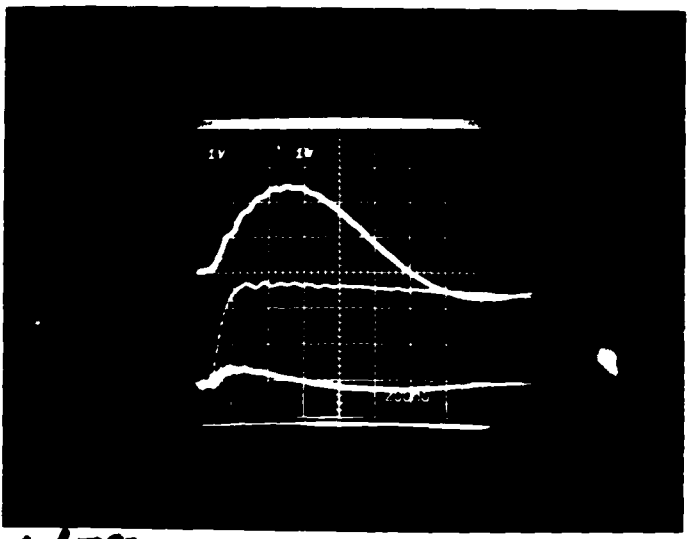
1374

Date 6-17-85  
 Test Point 11-T25-9/10-I  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1375

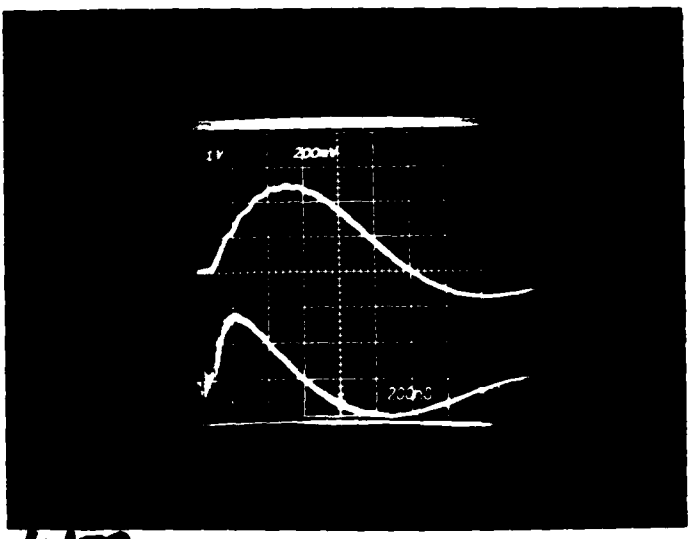
Date 6-18-85  
 Test Point 12-T25-1/5- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical  $1V(2000A/V)$  mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical  $1V(8000V)$  as/div 2  
 Configuration -20 dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1478



1478

"COMMON" LEAD TEST

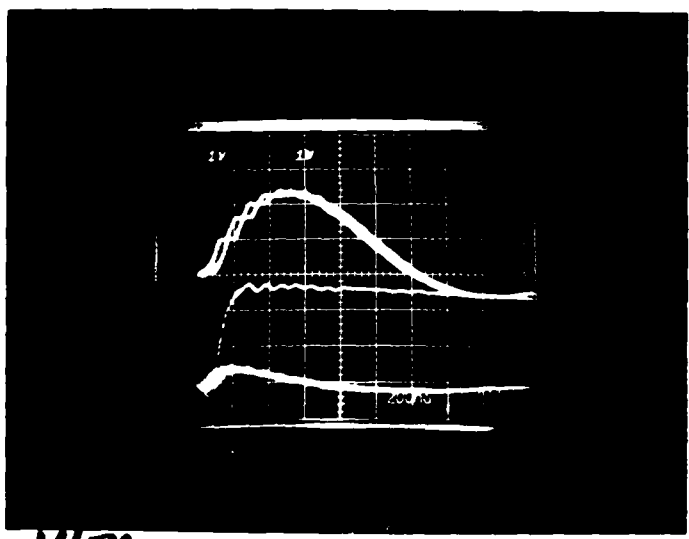
Date 6-18-85  
 Test Point 12-T25-1/10- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical  $1V(2000A/V)$  mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical  $.2V(1600V)$  as/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link  
 Comments: 1479



1479

"COMMON" LEAD TEST

Date 6-18-85  
 Test Point 12-T25-1/5-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~am~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~am~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

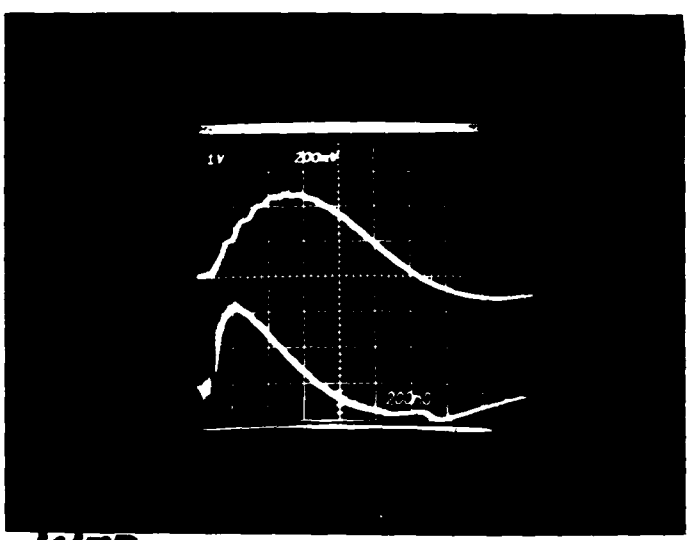


1476

Comments: JOSLYN -173

"HOT" LEAD

Date 6-18-85  
 Test Point 12-T25-910-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~am~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ ~~am~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1477

Comments: JOSLYN-

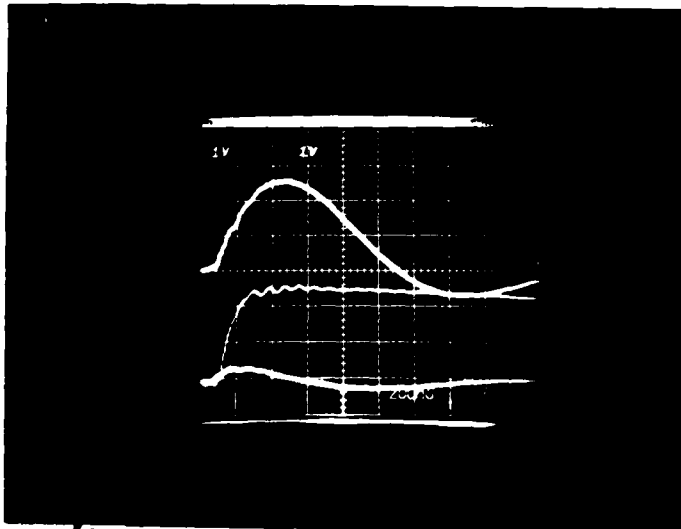
"HOT" LEAD

VERTICAL Y @ .2V (1600V) per div.

ARC BETWEEN FRONT + BACK PLATES / COVERS.

Date 6-18-85  
 Test Point 14-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

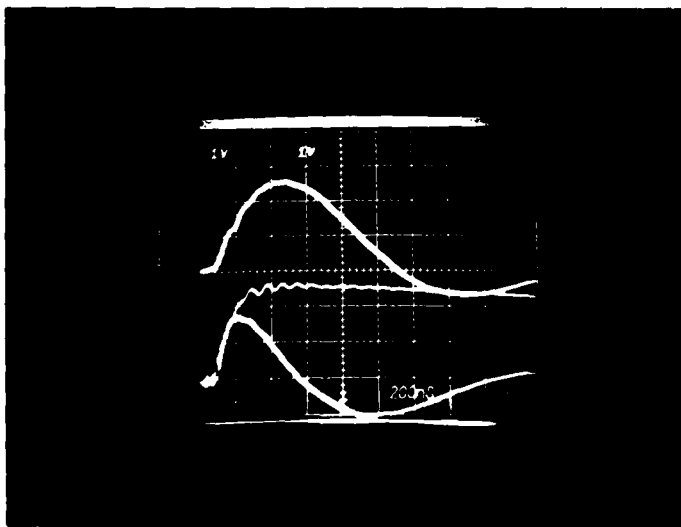
Comments: 1470



1470

Date 6-18-85  
 Test Point 14-T25-9/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1471

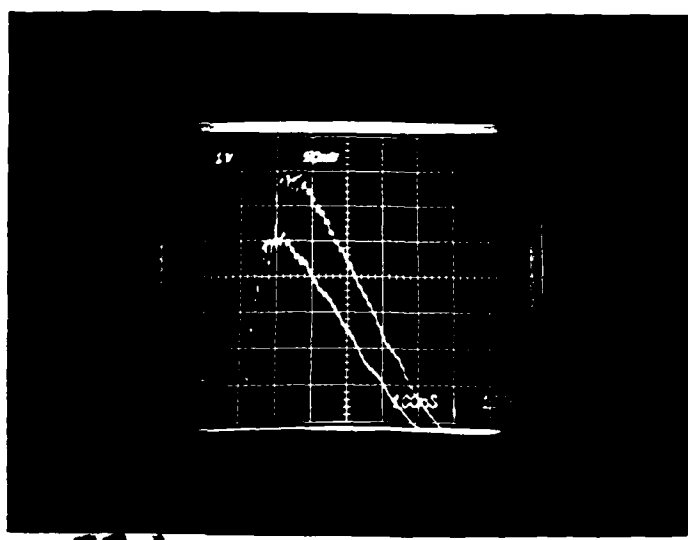


1471

VERTICAL @ .2V (1600V) per div.

Date 6-21-85  
 Test Point 19-T25-R1-A  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical .05V(400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:

1571

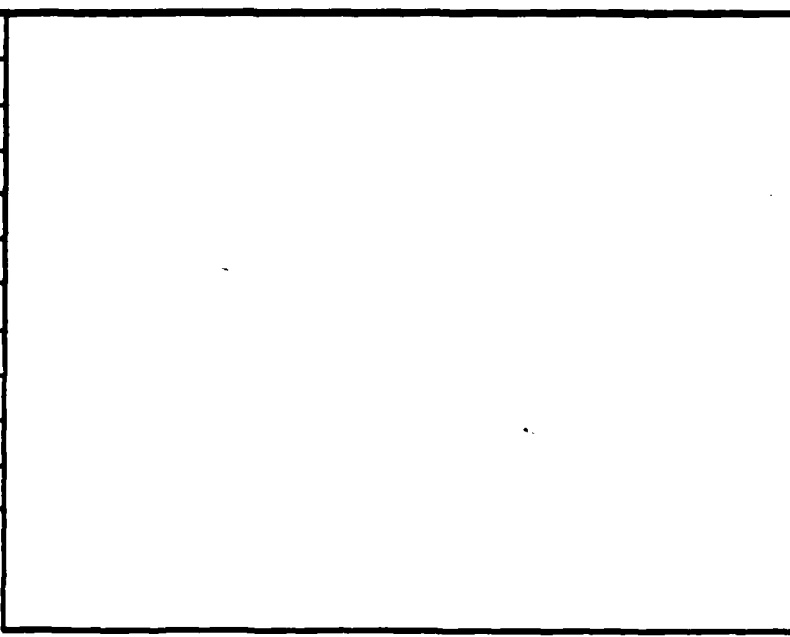


1591

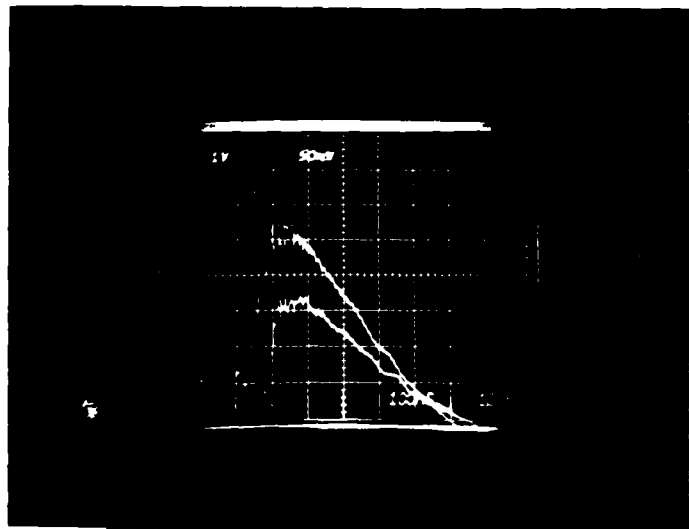
DATA + S @ REF GND

?  $\frac{1}{2}$

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:



Date **6-21-85**  
 Test Point **23-T25-R1-A**  
 Amplification **0** dB  
 Attenuation **20** dB  
 Horizontal **100** ns/div 1  
 Vertical **.05V (400V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level  
 Data Link

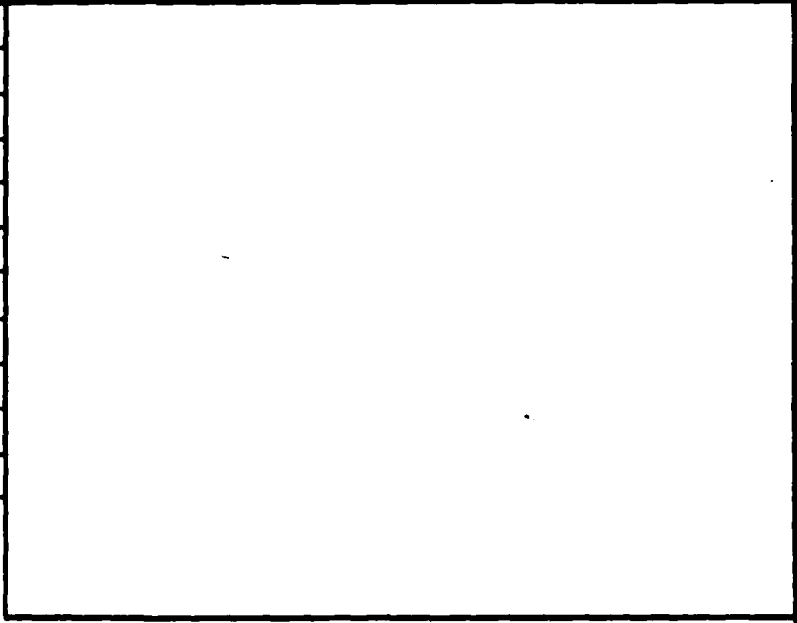


1572

DATA+ SC REF GND

? 1/

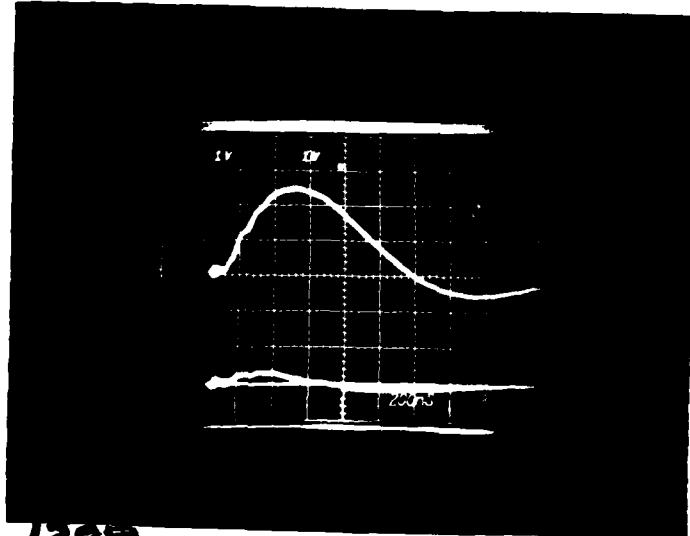
Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level  
 Data Link  
 Comments:





Date 6-17-85  
 Test Point 25-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

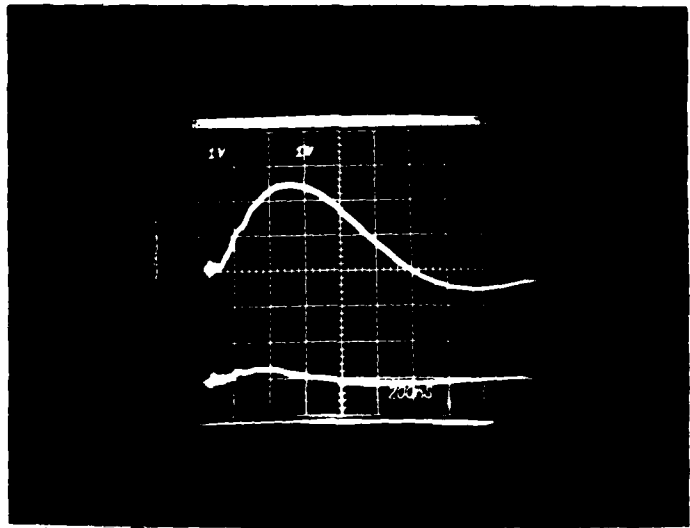
1387



1387

Date 6-17-85  
 Test Point 25-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

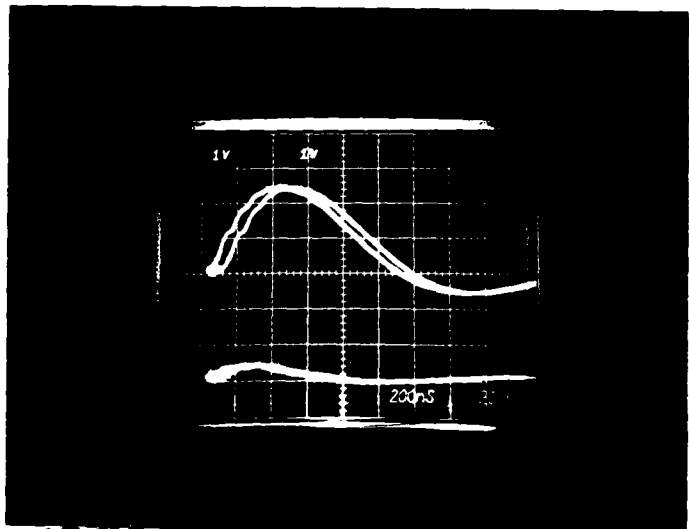
1388



1388

Date 6-17-85  
 Test Point 26-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

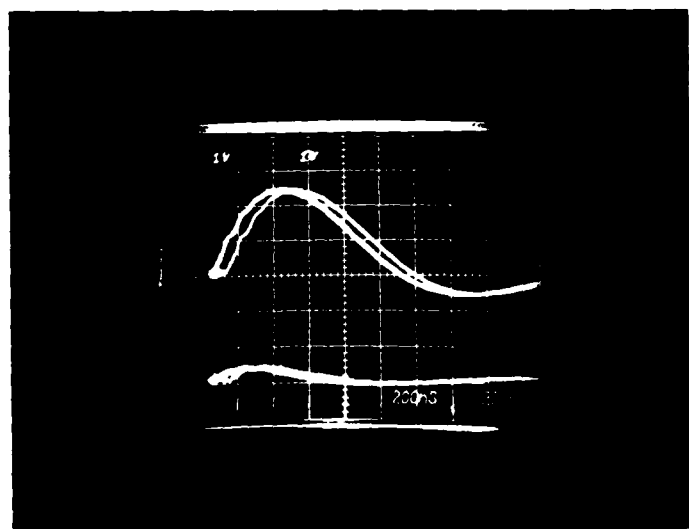
Comments: 573



1378

Date 6-17-85  
 Test Point 26-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

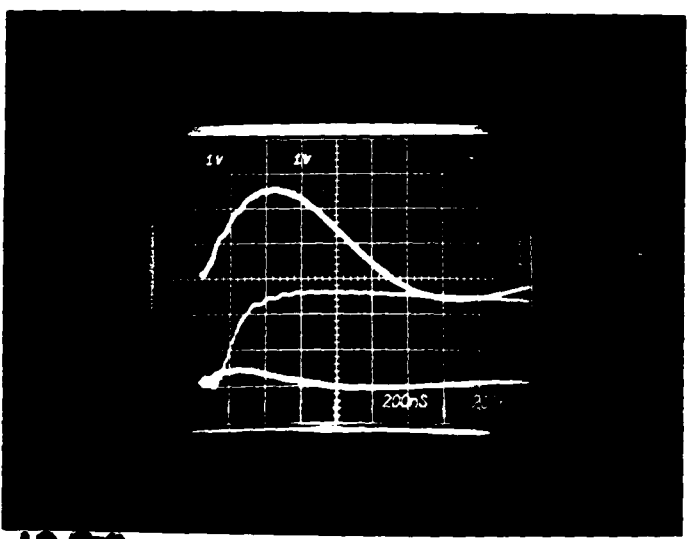
Comments: 1-71



1379

Date 6-17-85  
 Test Point 26-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

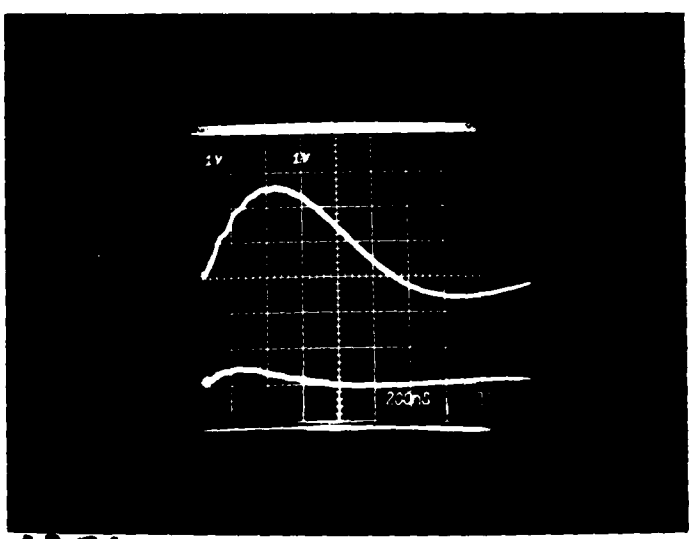
Comments: 1380



1380

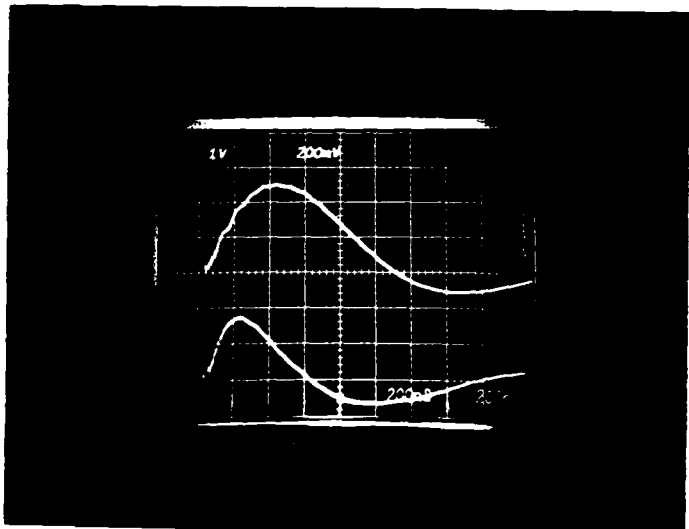
Date 6-17-85  
 Test Point 26-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1381



1381

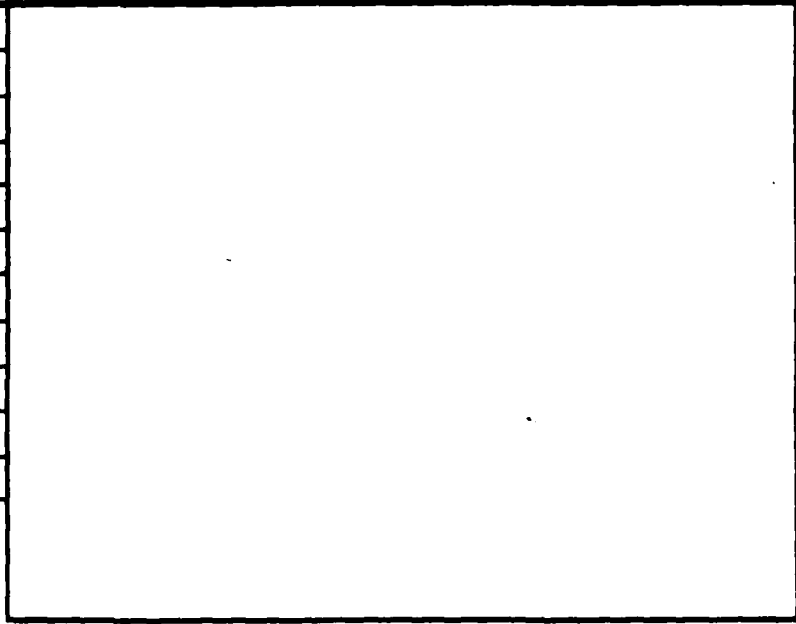
Date 6-17-85  
 Test Point 26-725-11-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link  
 Comments: 1382



1382

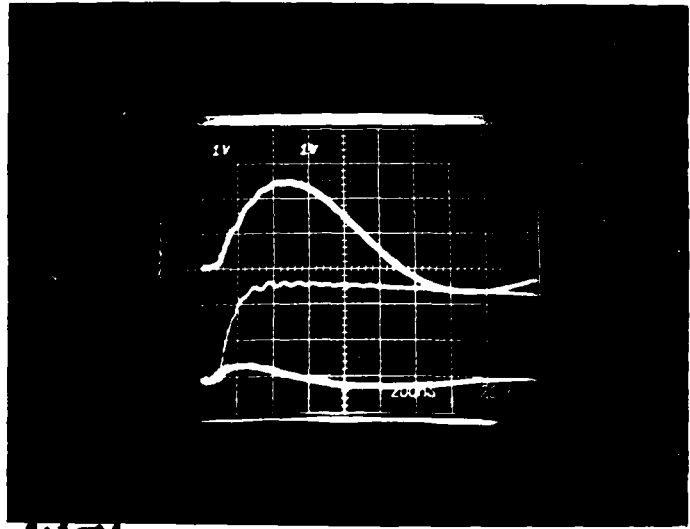
VOLTAGE @ 12V (1600V) per div

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:



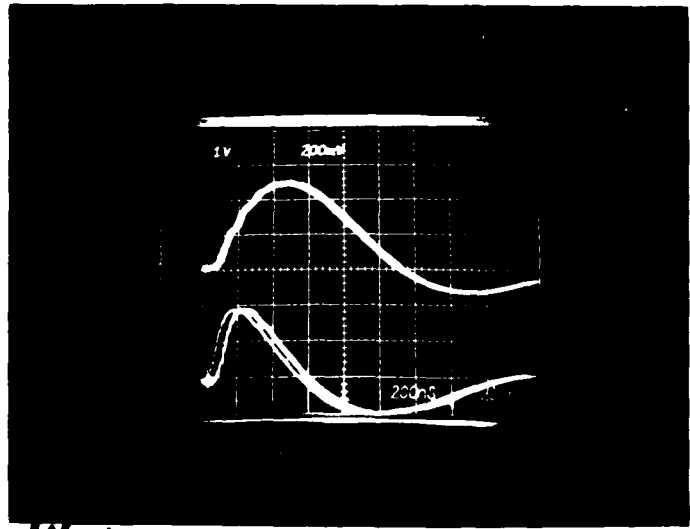
(REPEAT TEST)

Date 6-18-85  
Test Point 26-T25-1/5-C  
Amplification 0 dB  
Attenuation 40 dB  
Horizontal 200 ns/div 1  
Vertical 1V (2000A/V) /div 1  
Horizontal 200 ns/div 2  
Vertical 1V (8000V) /div 2  
Configuration -20 dB  
Pulsar Level 25,000 V  
Data Link  
Comments:



1471

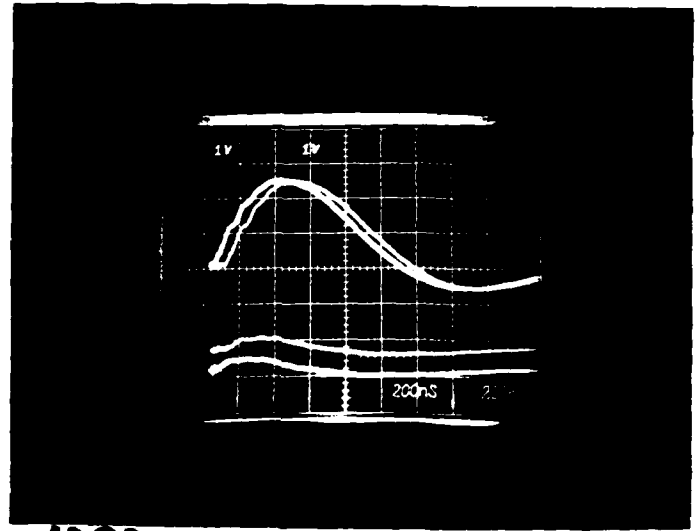
Date 6-18-85  
Test Point 26-T25-9/10-C  
Amplification 0 dB  
Attenuation 40 dB  
Horizontal 200 ns/div 1  
Vertical 1V (2000A/V) /div 1  
Horizontal 200 ns/div 2  
Vertical 1V (8000V) /div 2  
Configuration -20 dB  
Pulsar Level 25,000 V  
Data Link  
Comments:



1473

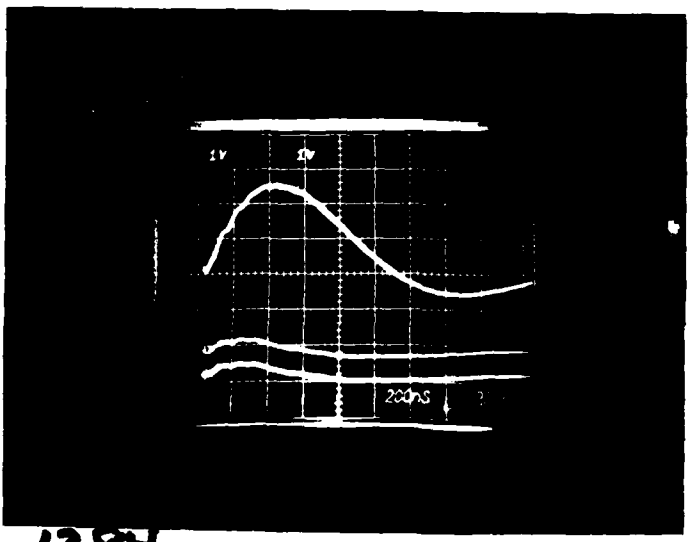
VERTICAL @ .2V (1600V)

Date 6-17-85  
 Test Point 26-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1383



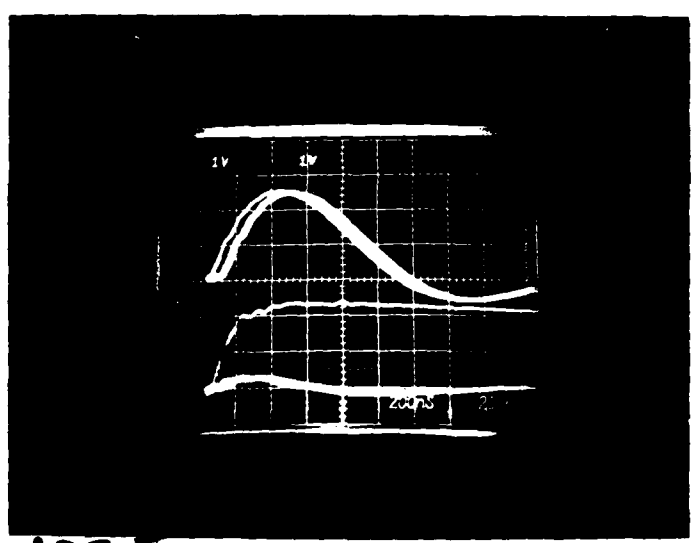
1383

Date 6-17-85  
 Test Point 26-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1384



1384

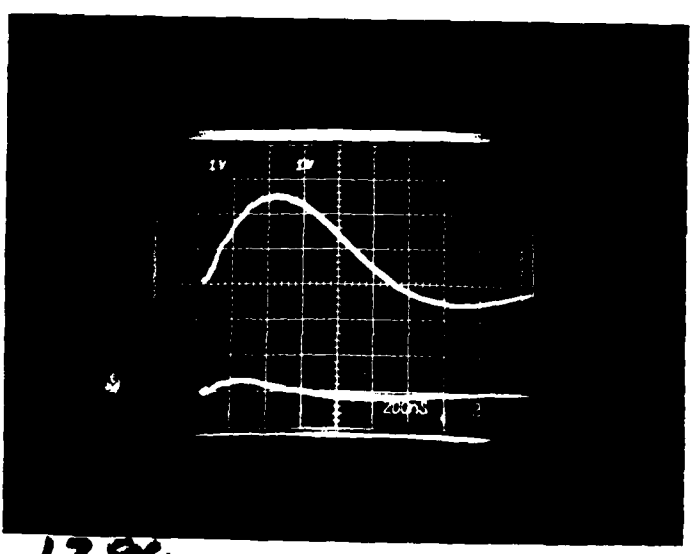
Date 6-17-85  
 Test Point 26-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1385

Comments: 1325

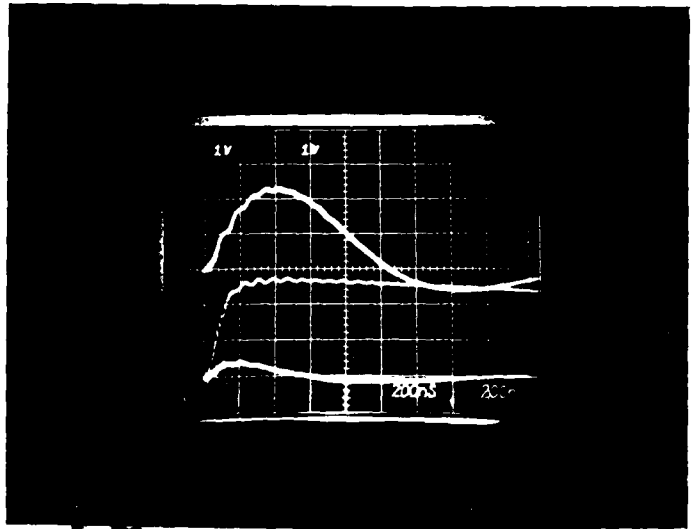
Date 6-17-85  
 Test Point 26-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1386

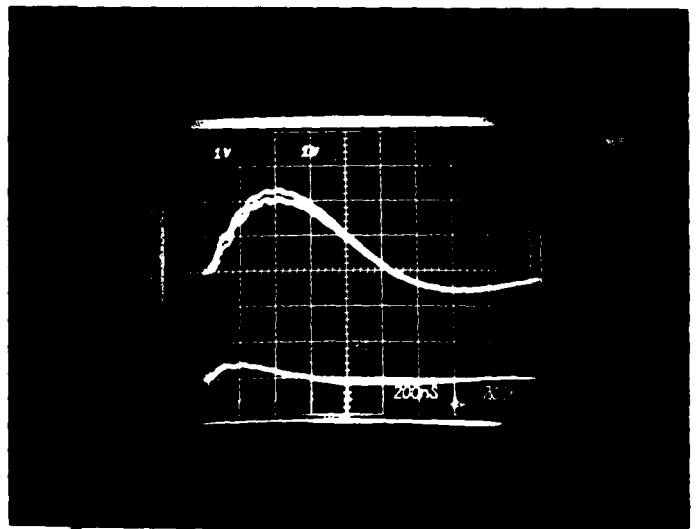
Comments: 1326

Date 6-18-85  
 Test Point 27-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1408

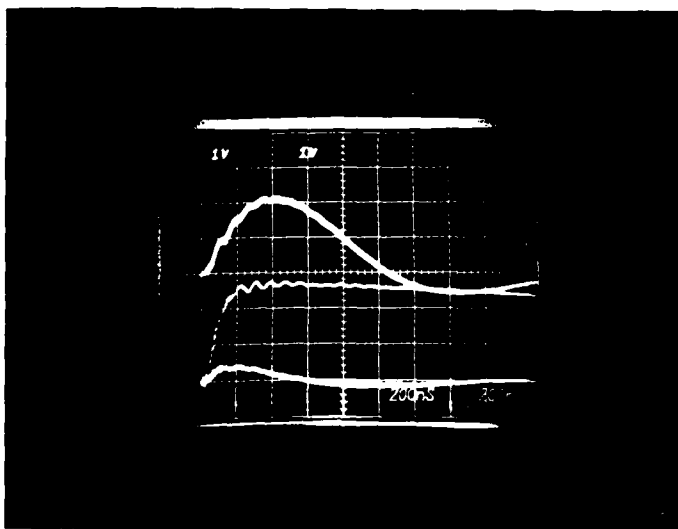
Date 6-18-85  
 Test Point 27-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1409

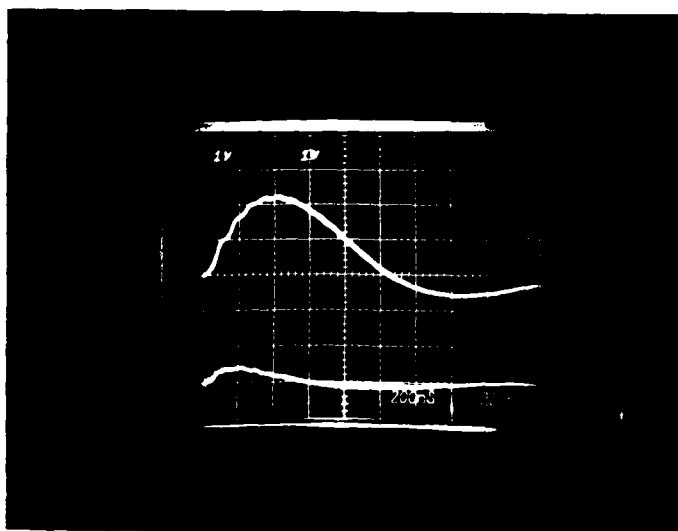


Date 6-18-85  
 Test Point 28-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



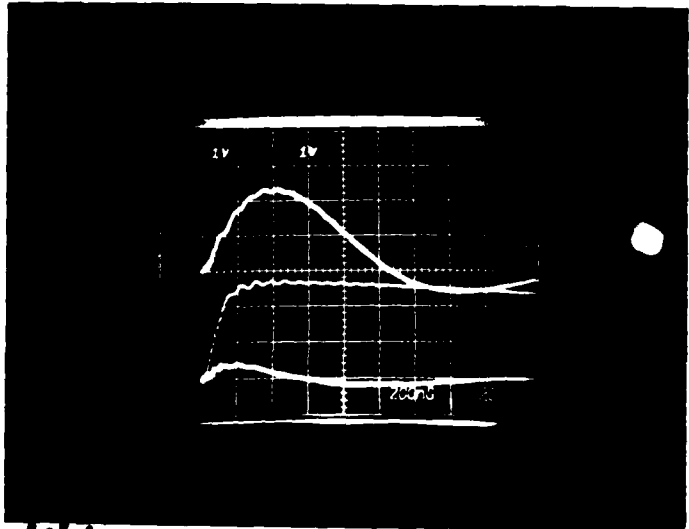
1410

Date 6-18-85  
 Test Point 28-T25-910-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



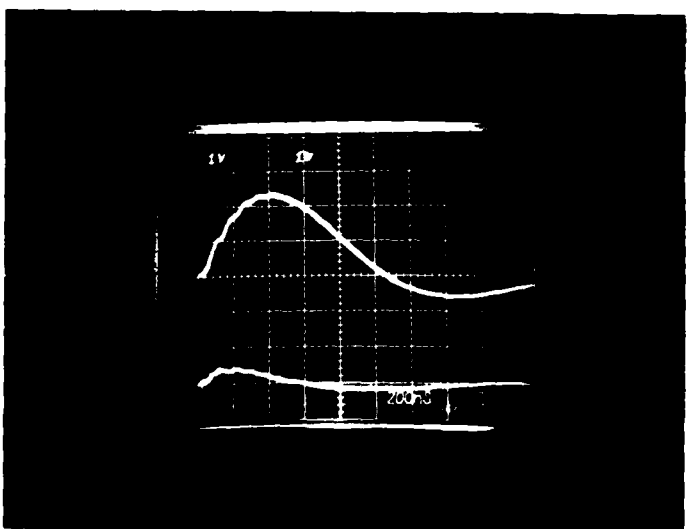
1411

Date 6-18-85  
 Test Point 24-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



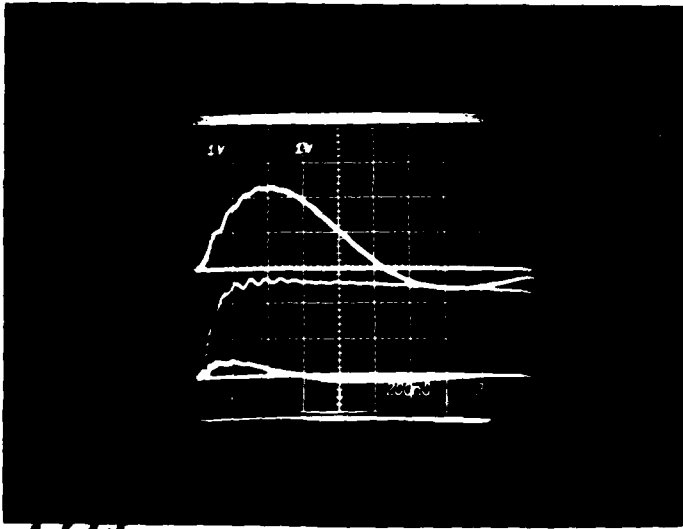
1412

Date 6-18-85  
 Test Point 28-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



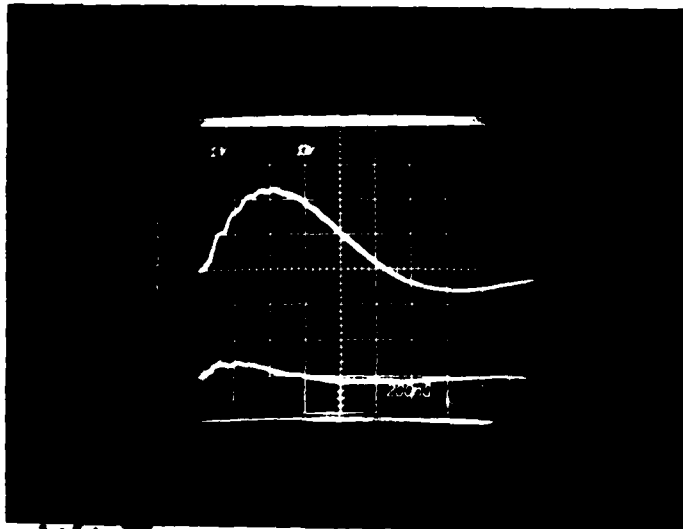
1413

Date 6-18-85  
 Test Point 28-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



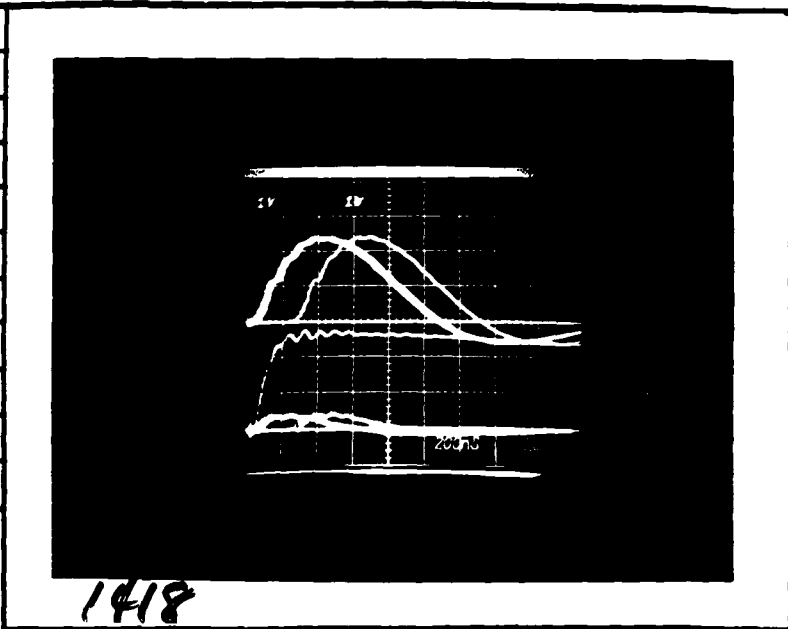
1414

Date 6-18-85  
 Test Point 28-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



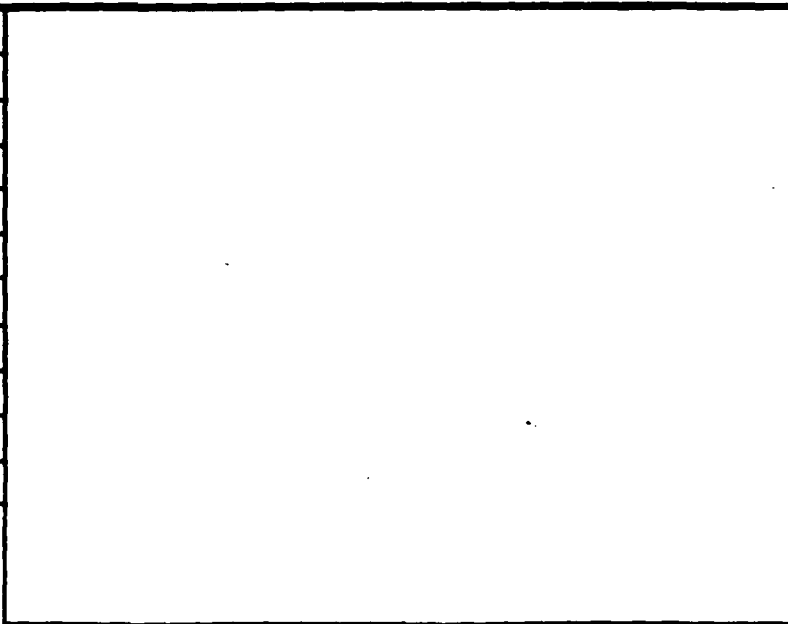
1415

Date 6-17-85  
 Test Point 28-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: 1418  
 #12-17 pulses

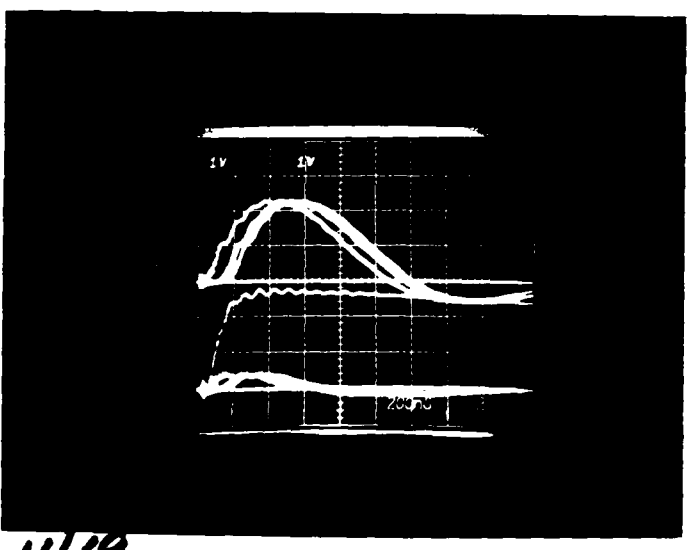
Date 6-17-85  
 Test Point 28-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



Comments:

Date 6-18-85  
 Test Point 29-T25-15-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

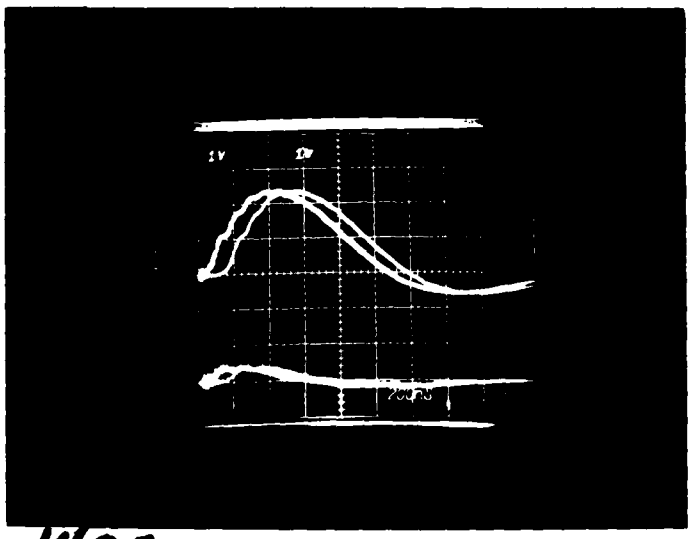
Comments: 1419



1419

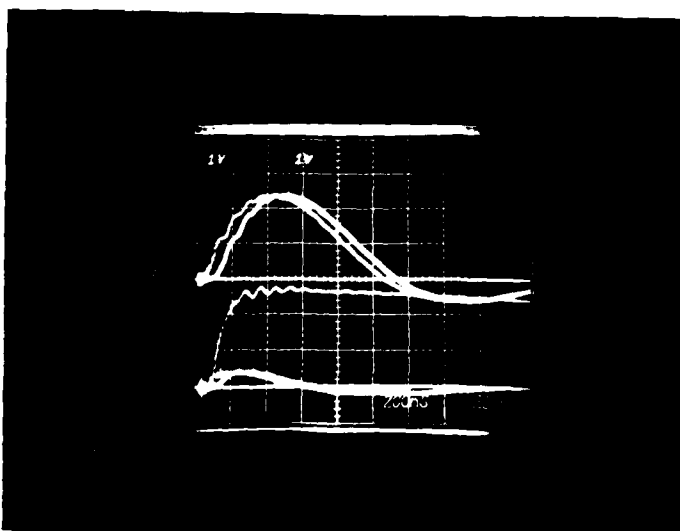
Date 6-18-85  
 Test Point 29-T25-910-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:



1420

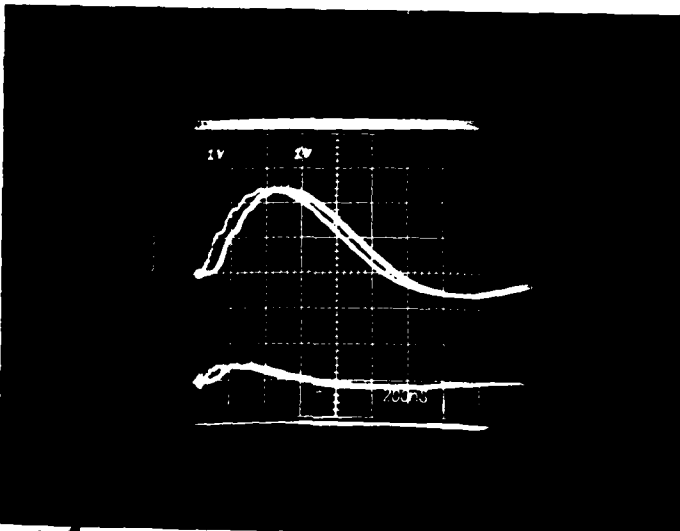
Date 6-18-85  
 Test Point 30-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: 142'

1421

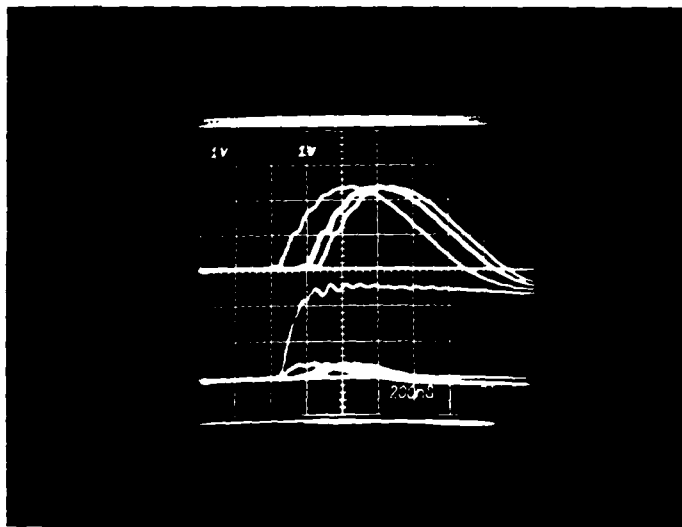
Date 6-18-85  
 Test Point 30-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: 142'

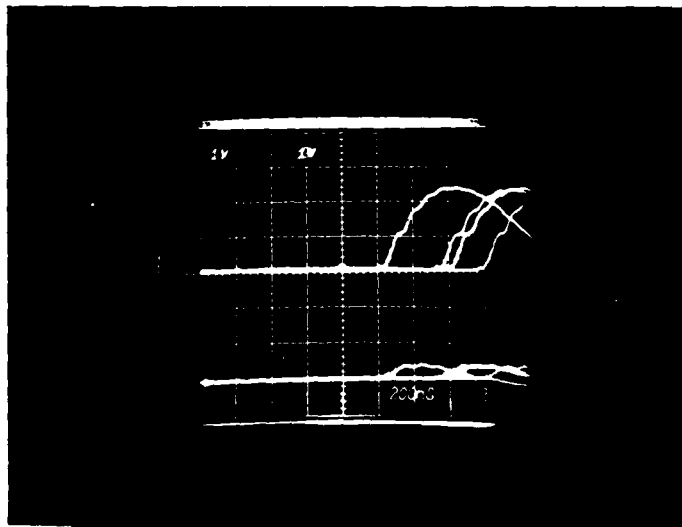
1422

Date 6-18-85  
 Test Point 30-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1423

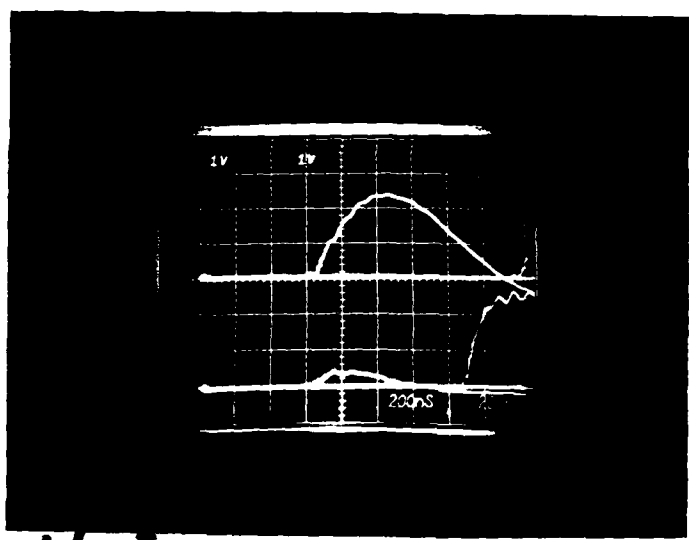
Date 6-18-85  
 Test Point 30-T25-910-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1424

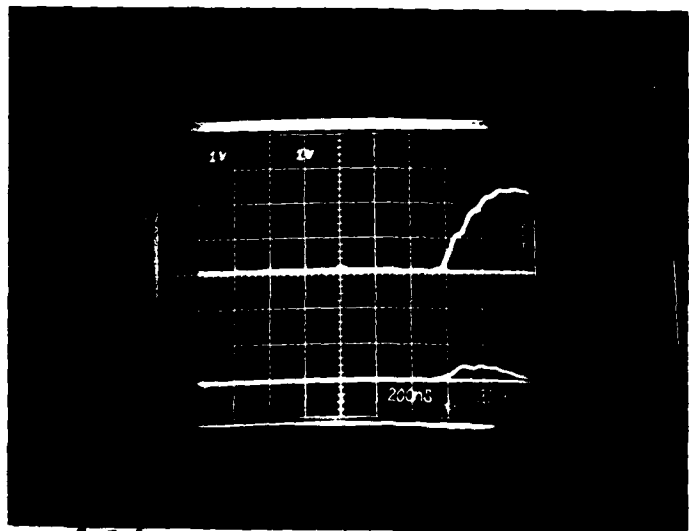
Comments:

Date 6-18-85  
 Test Point 30-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1425

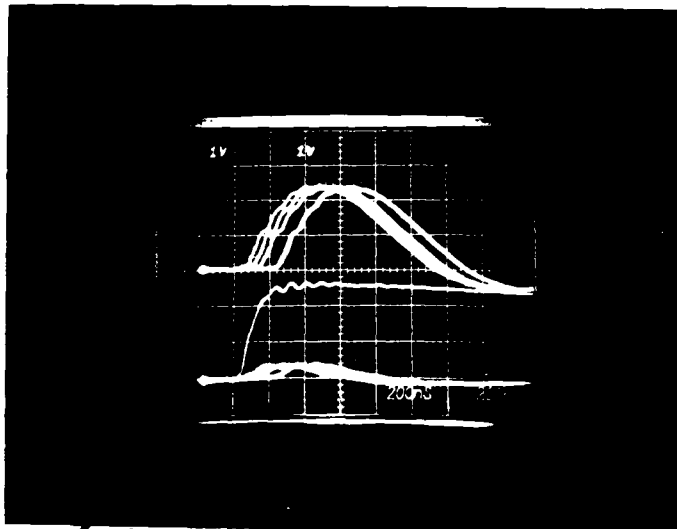
Date 6-18-85  
 Test Point 30-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1426

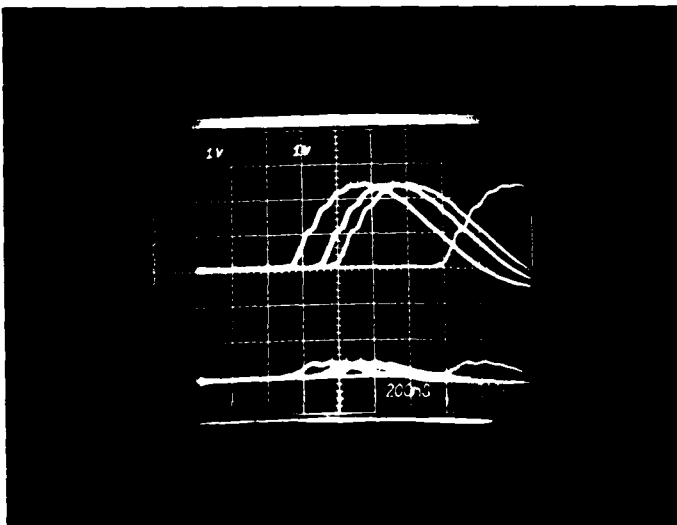


Date 6-18-85  
 Test Point 30-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1427

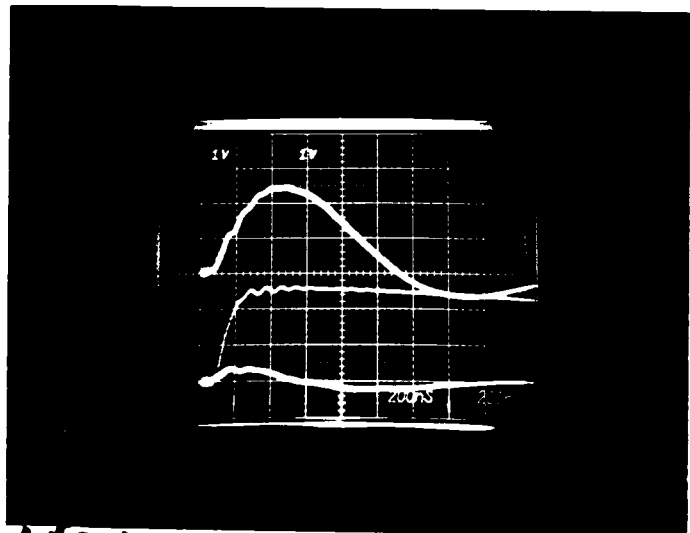
Date 6-18-85  
 Test Point 30-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1428

Date 6-18-85  
 Test Point 34-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\Rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\Rightarrow$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

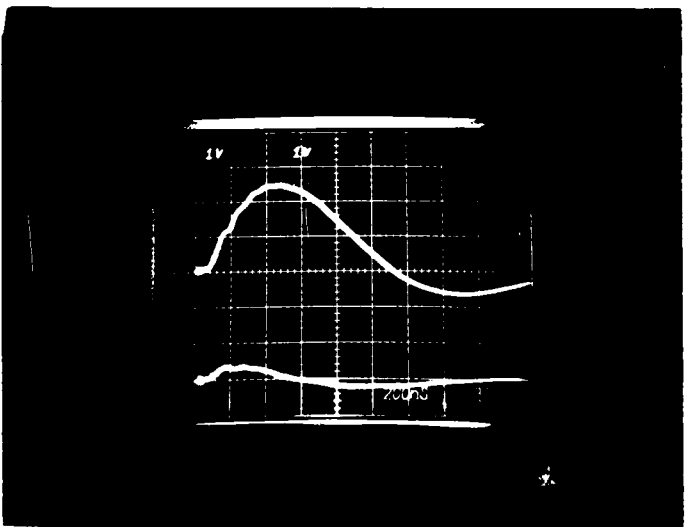
Comments:



1431

Date 6-18-85  
 Test Point 34-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\Rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\Rightarrow$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:



1432

AD-A164 432

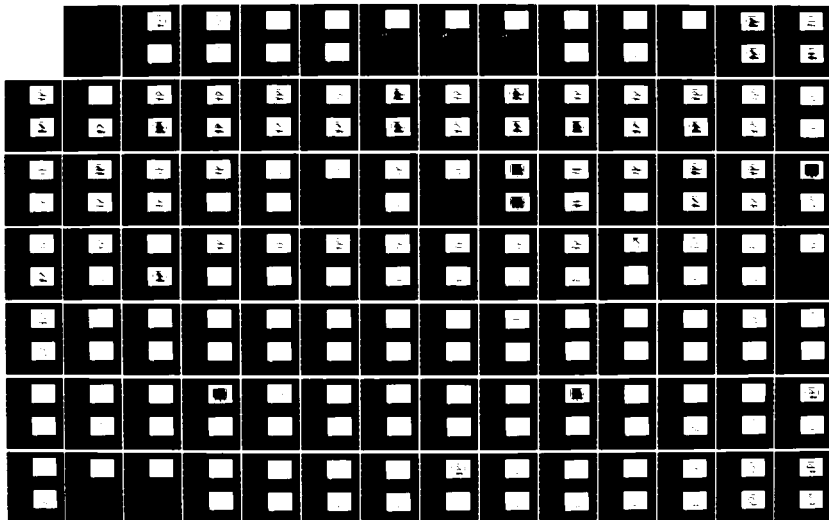
ELECTROMAGNETIC PULSE/TRANSIENT THREAT TESTING OF  
PROTECTION DEVICES FOR. (U) ELECTROSPACE SYSTEMS INC  
ARLINGTON VA D BODSON ET AL. 31 OCT 85

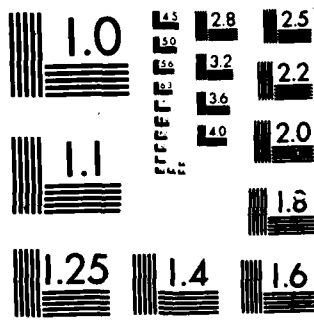
2/3

UNCLASSIFIED

NCS-TIB-85-10-VOL-3-SEC-2 DCA100-85-C-0010 F/G 20/14

NL

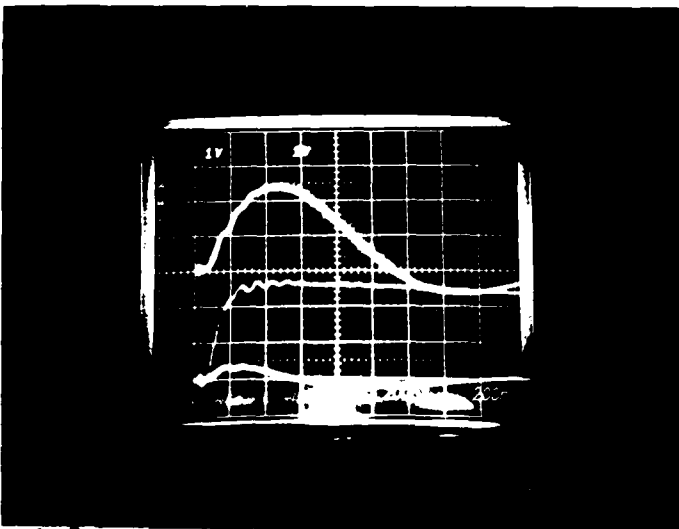




MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

Date 6-18-85  
 Test Point 34 - T25 - 1/5 - C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

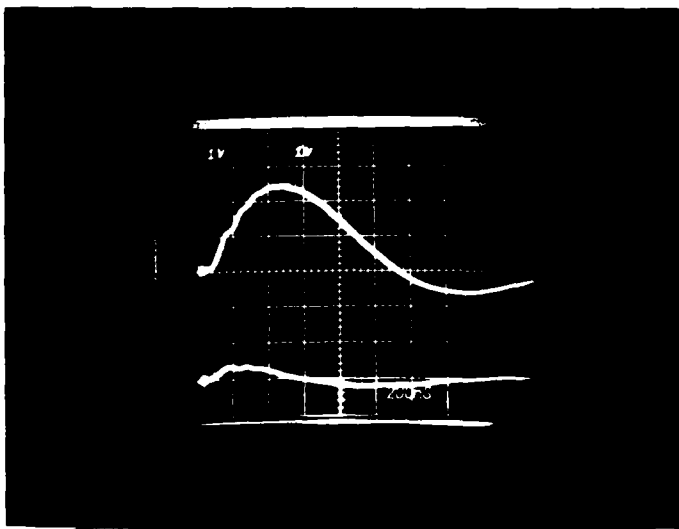
1429



1429

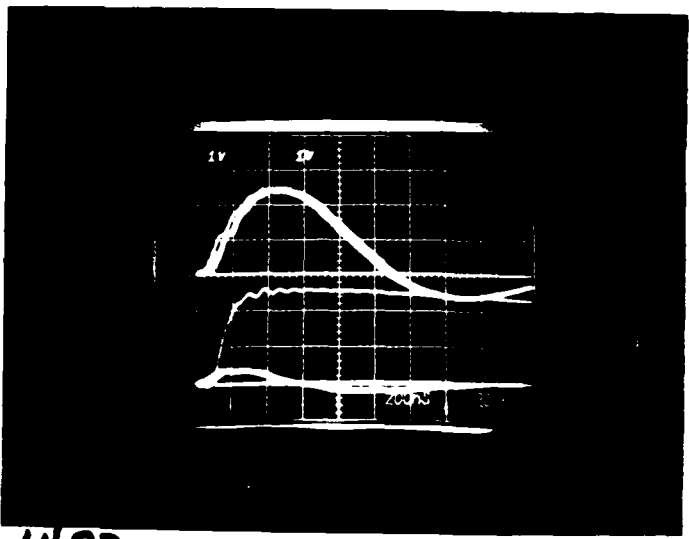
Date 6-18-85  
 Test Point 34 - T25 - 9/10 - C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

1430



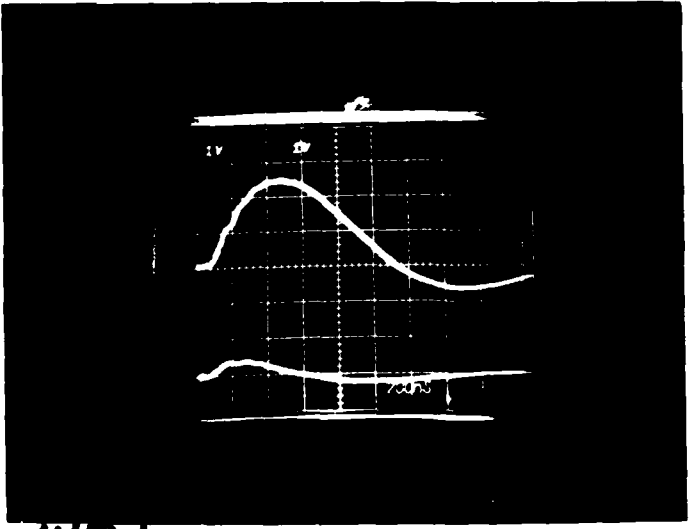
1430

Date 6-18-85  
 Test Point 35-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



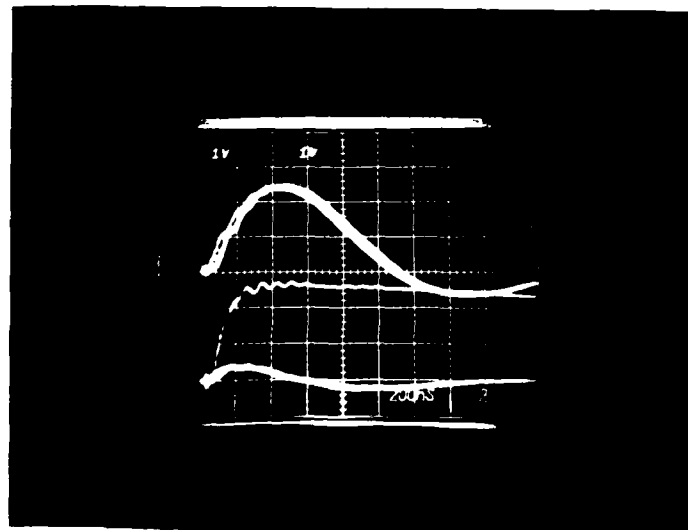
1433

Date 6-18-85  
 Test Point 35-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

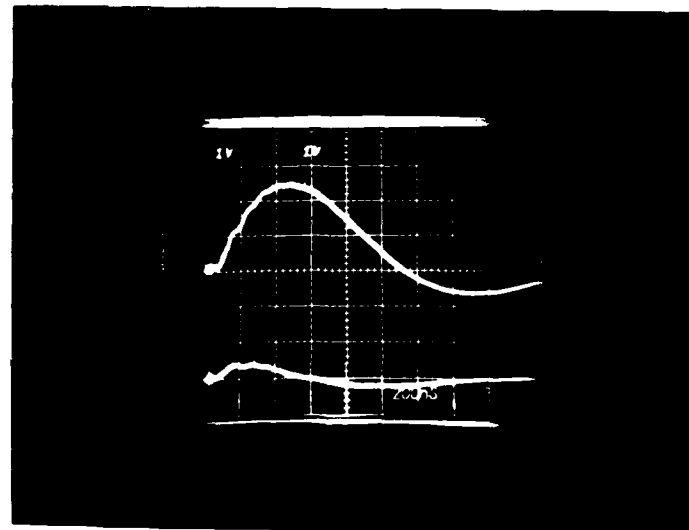


1434

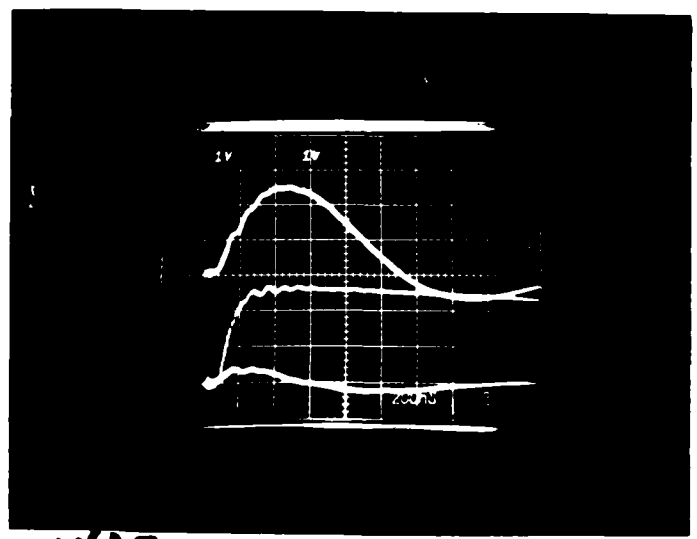
Date 6-18-85  
 Test Point 35-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 14-5-85



Date 6-18-85  
 Test Point 35-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 14-5-85

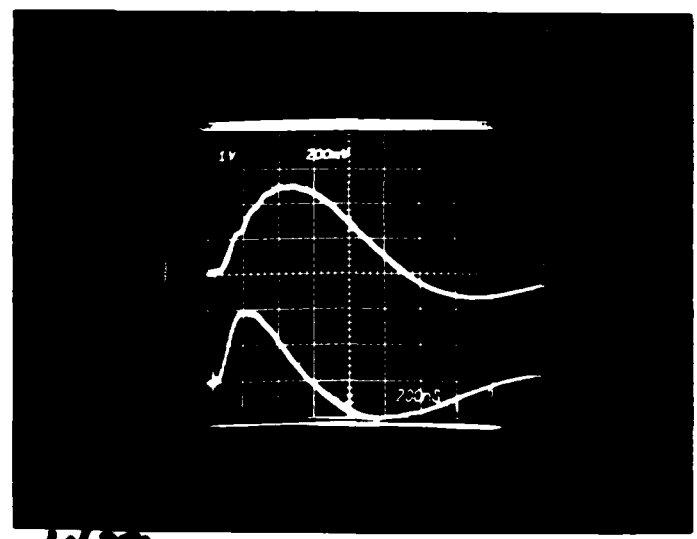


Date 6-18-85  
 Test Point 35-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulse Level 25,000 V  
 Data Link



1437

Date 6-18-85  
 Test Point 35-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulse Level 25,000 V  
 Data Link

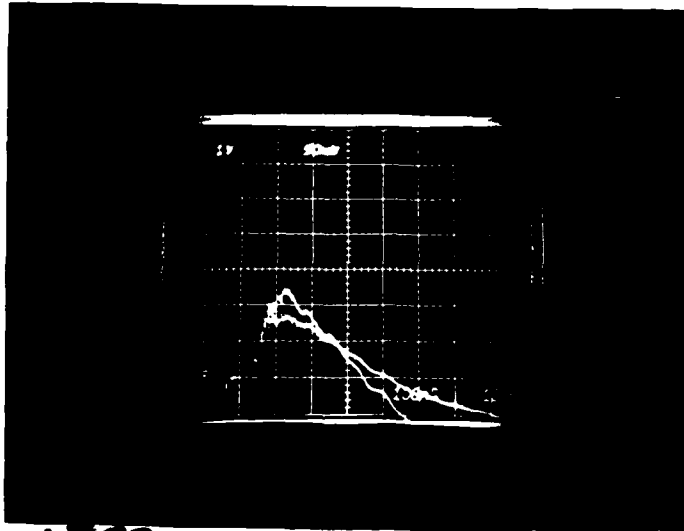


1438

VERTICAL @ .2V (1600V) per. div.



Date 6-21-85  
 Test Point 316-T25-71-0  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05 (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 25000V  
 Data Link



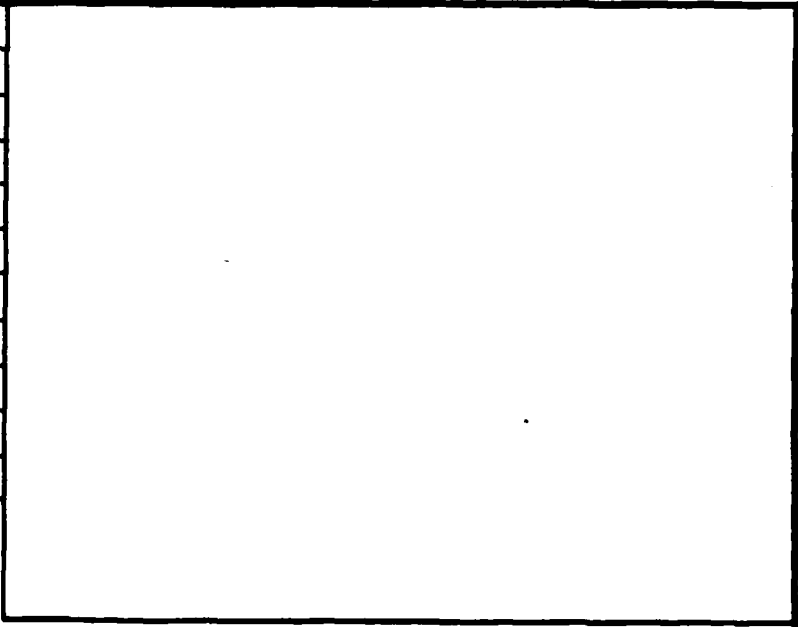
1588

DATA + SC GROUND REF

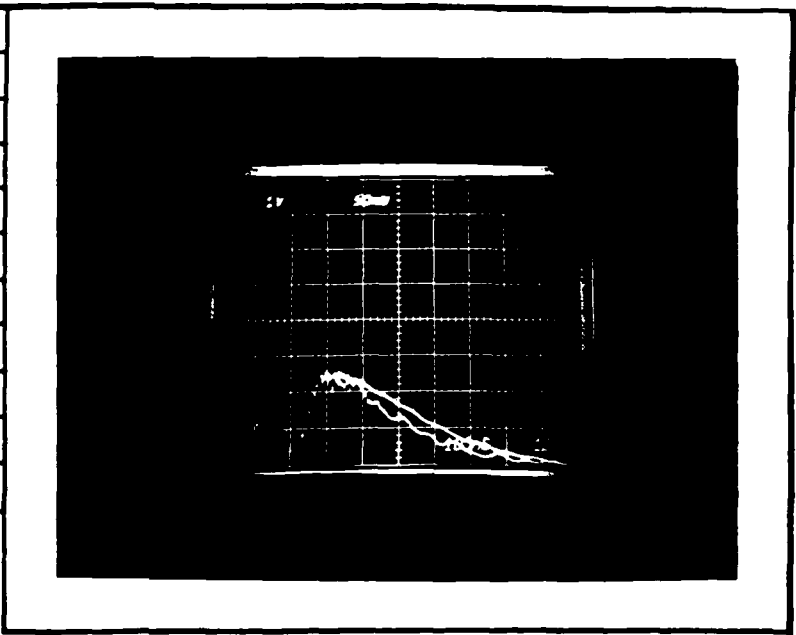
~~DATA~~ ~~REF~~

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level  
 Data Link

Comments:



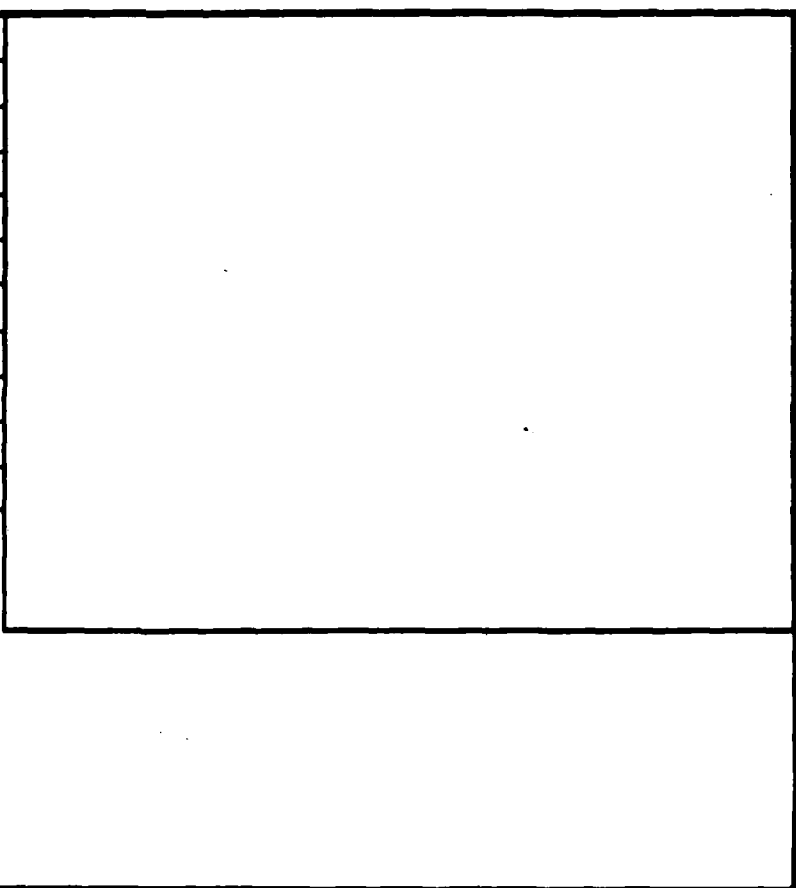
Date	6-21-85
Test Point	37-725-2/1-φ
Amplification	0 dB
Attenuation	-20 dB
Horizontal	100 ns/div 1
Vertical	.05V(400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1529



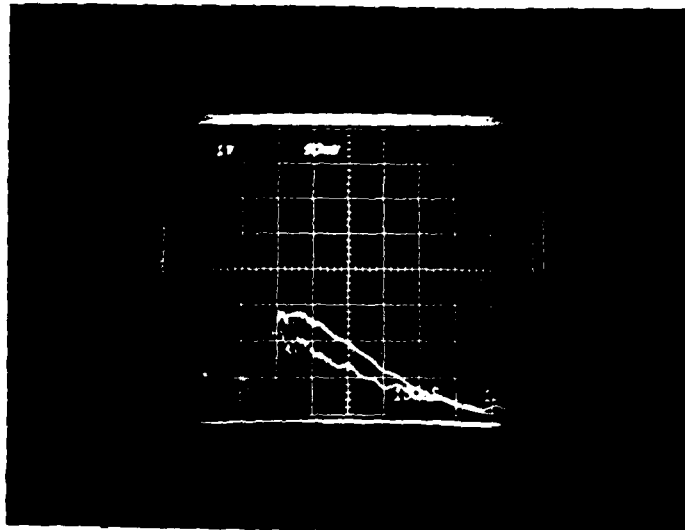
DATA + SC GROUND REF

~~XXXXXXXXXX~~

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



Date	6-21-85
Test Point	38-T25-R1-φ
Amplification	0 dB
Attenuation	20 dB
Horizontal	100 ns/div 1
Vertical	105V (400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	



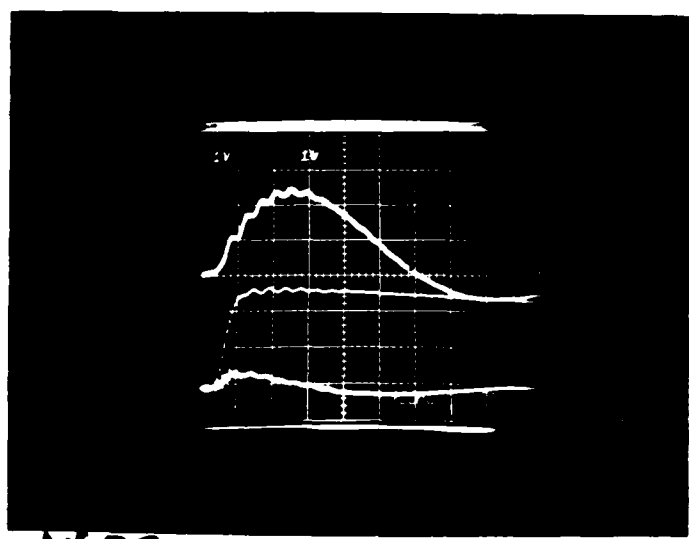
Comments:	570
-----------	-----

DATA + SC GND REF

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	

Comments:	
-----------	--

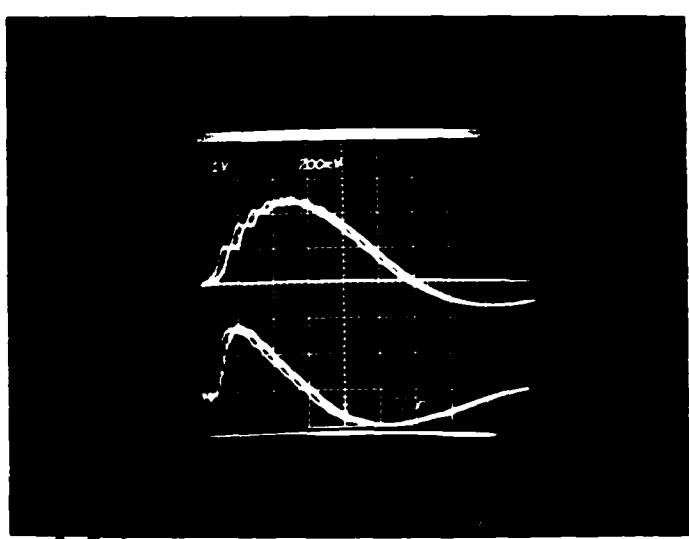
Date 6-19-85  
 Test Point 39-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) 1mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) 1mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link



1482

"COMMON" LEAD

Date 6-19-85  
 Test Point 39-T25-4/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) 1mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) 20mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link

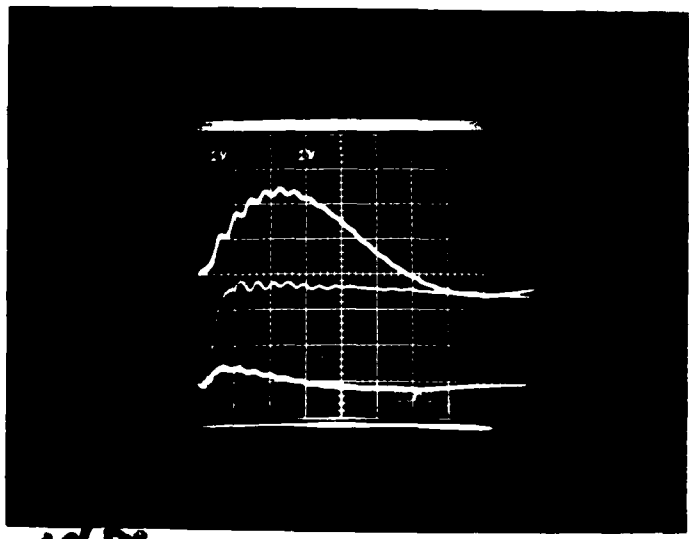


1483

"COMMON" LEADS

Date 6-19-85  
 Test Point 39-725-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (2000V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link

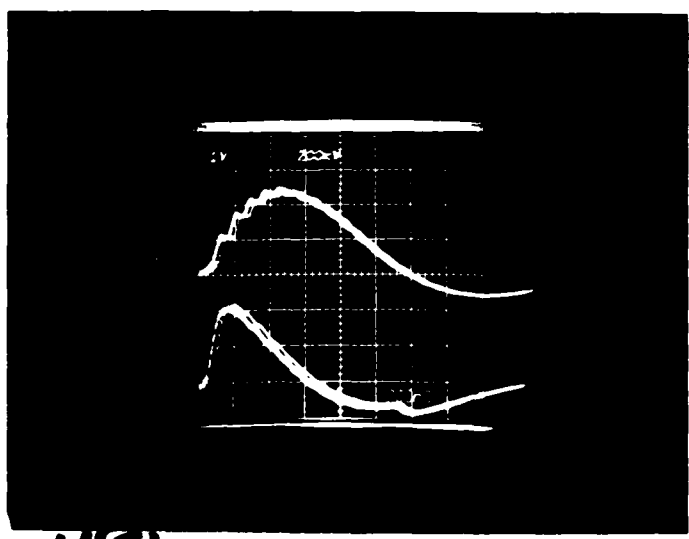
Comments:  
 "HOT" LEAD



1480

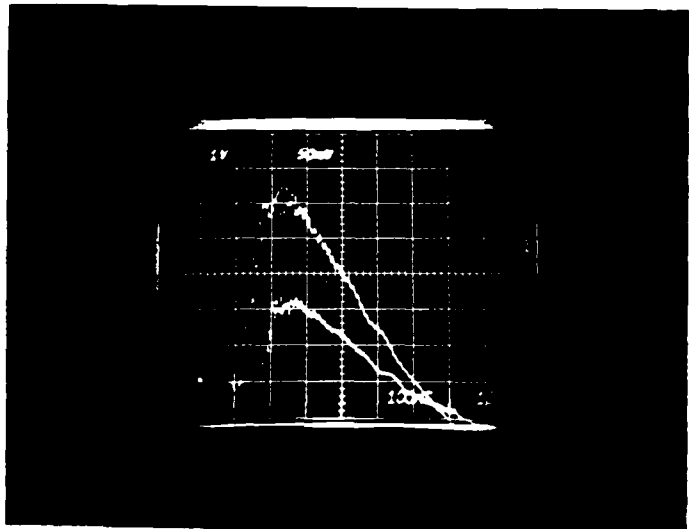
Date 6-19-85  
 Test Point 39-725-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link

Comments:  
 "HOT" LEAD



1481

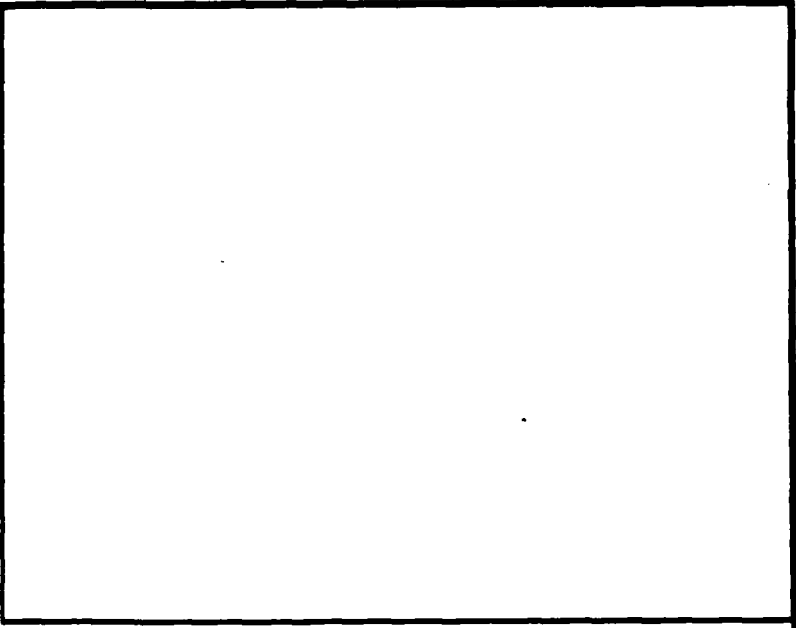
Date 6-21-85  
 Test Point 41-T25-R1-A  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 100 ns/div 1  
 Vertical 0.5V (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link  
 Comments:



1573

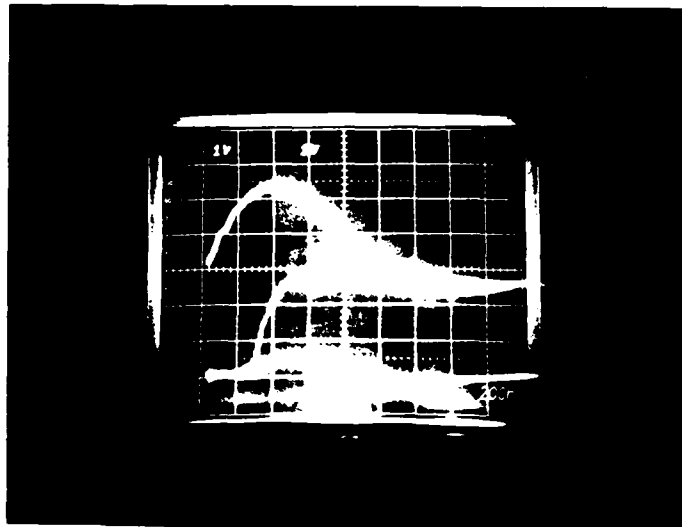
?  $\frac{1}{2}$

Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:



Date 6-14-85  
 Test Point 42-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2kV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8kV) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Date Link

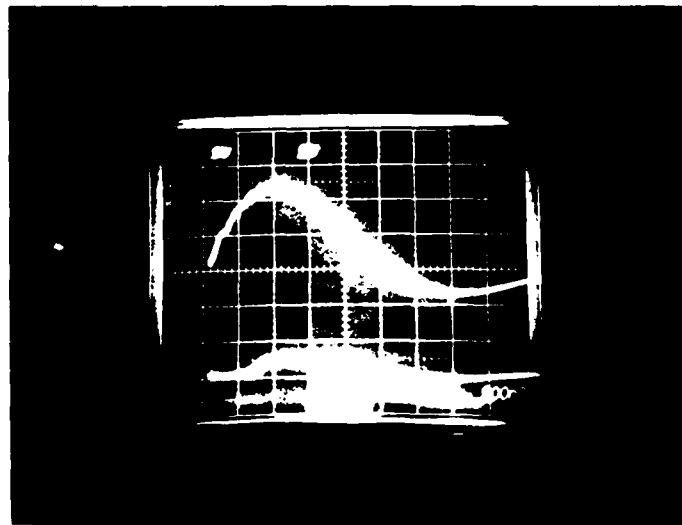
Comments: 1262



1262

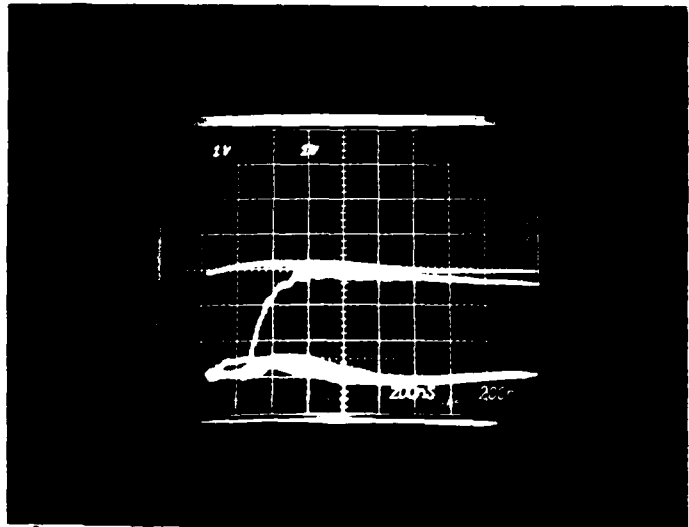
Date 6-14-85  
 Test Point 42-T25-6/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2kV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8kV) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Date Link

Comments: 1263



1263

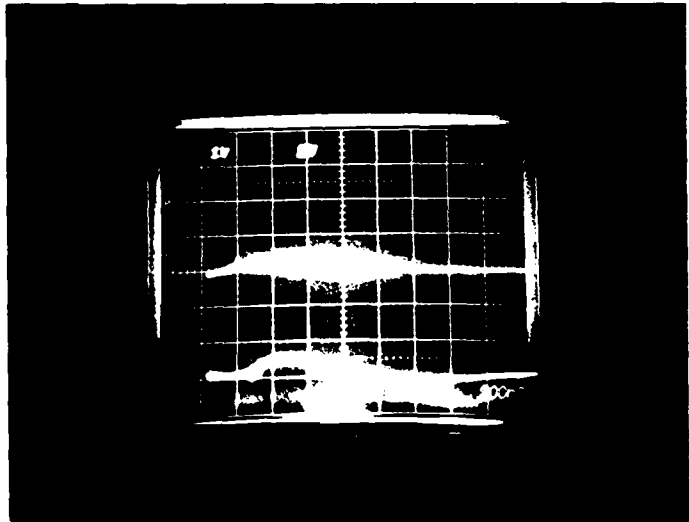
Date 6-14-85  
 Test Point 42-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8KV) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Data Link



1264

Comments: 1264

Date 6-14-85  
 Test Point 42-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8KV) ns/div 2  
 Configuration  
 Pulsar Level 25KV  
 Data Link



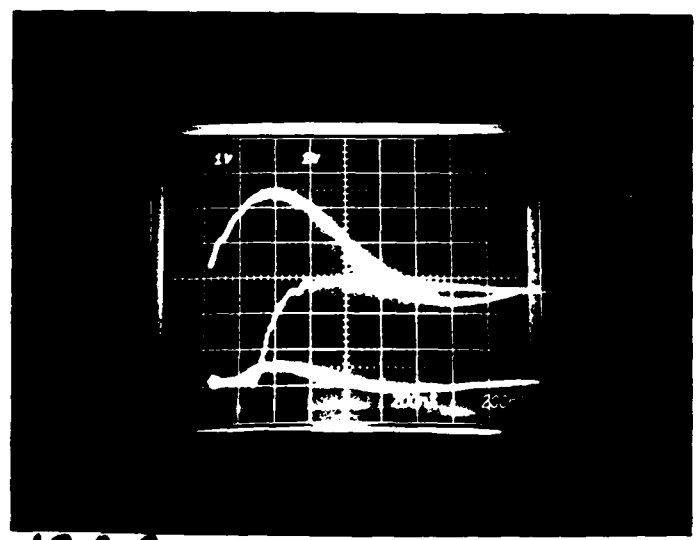
1265

Comments:



Date 6-14-85  
 Test Point 42-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8KV) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link

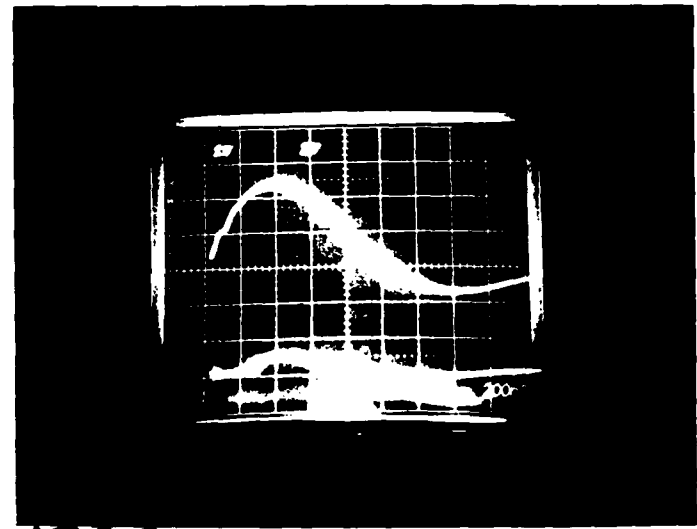
Comments: 1266



1266

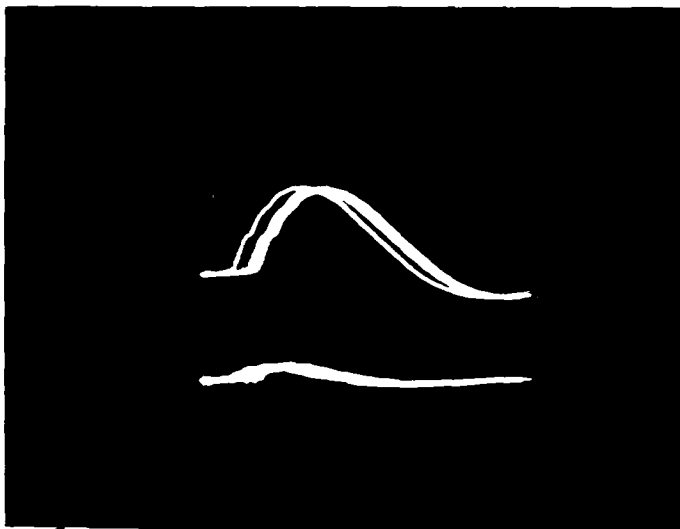
Date 6-14-85  
 Test Point 42-T25-4/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link

Comments: 1267



1267

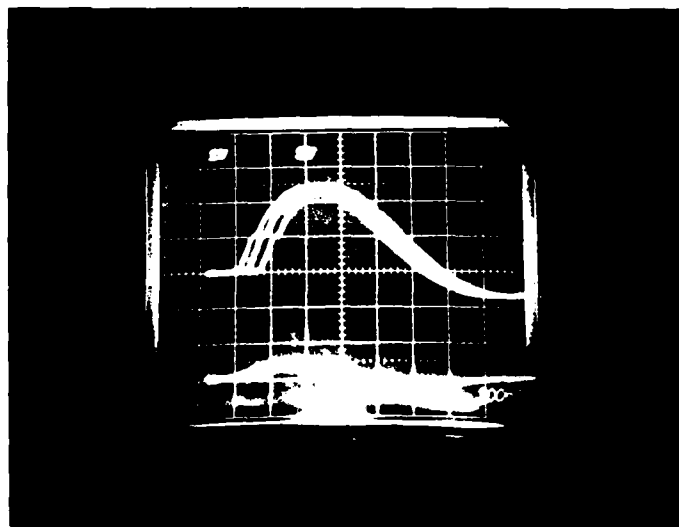
Date 6-14-85  
 Test Point 42-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25 KV  
 Data Link



Comments: 1268

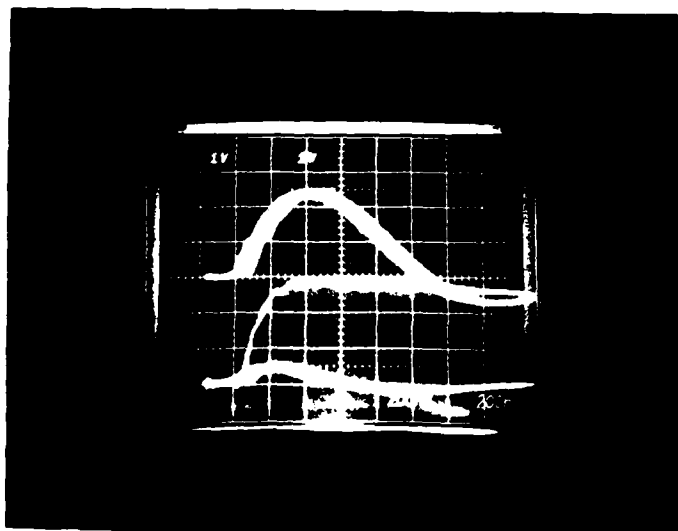
1268

Date 6-14-85  
 Test Point 42-T25-6/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25 KV  
 Data Link

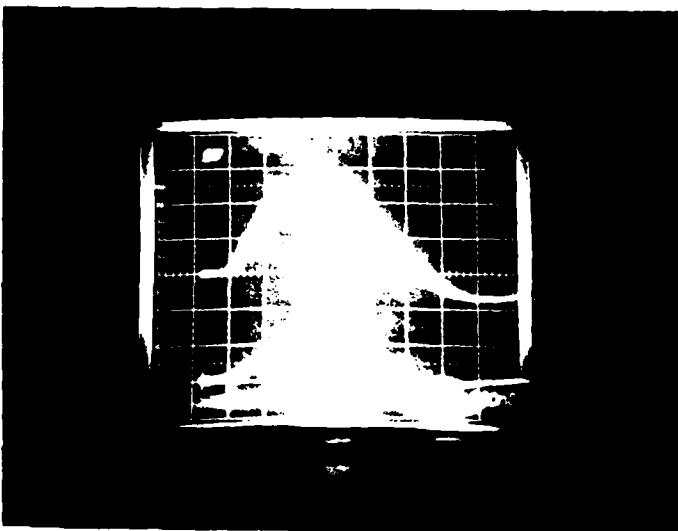


Comments: 1268

Date 6-14-85  
 Test Point 42-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 240 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments:

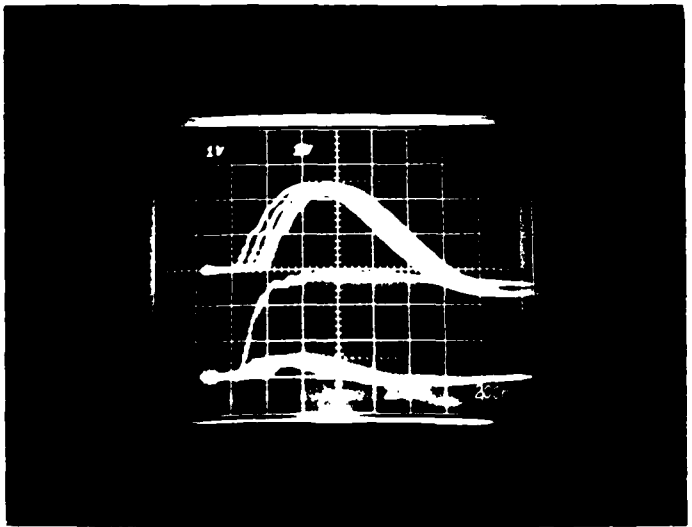


Date 6-14-85  
 Test Point 42-T25-6/10-E  
 Amplification 2 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments:



Date 6-14-85  
 Test Point 45-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25 KV  
 Data Link

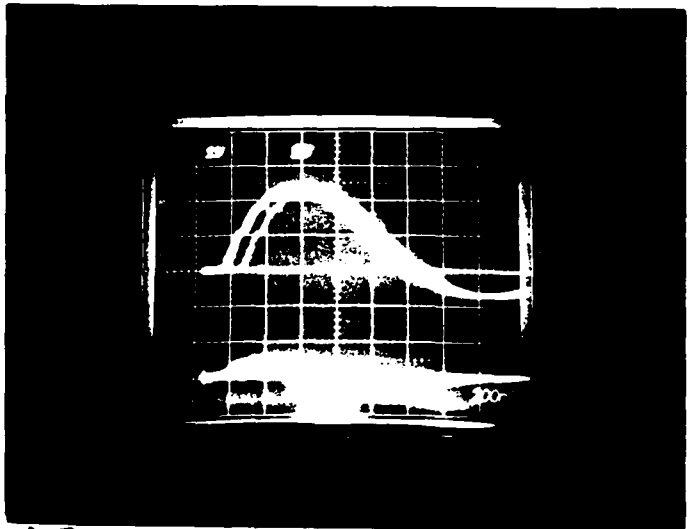
Comments: 272



1272

Date 6-14-85  
 Test Point 45-T25-1/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25 KV  
 Data Link

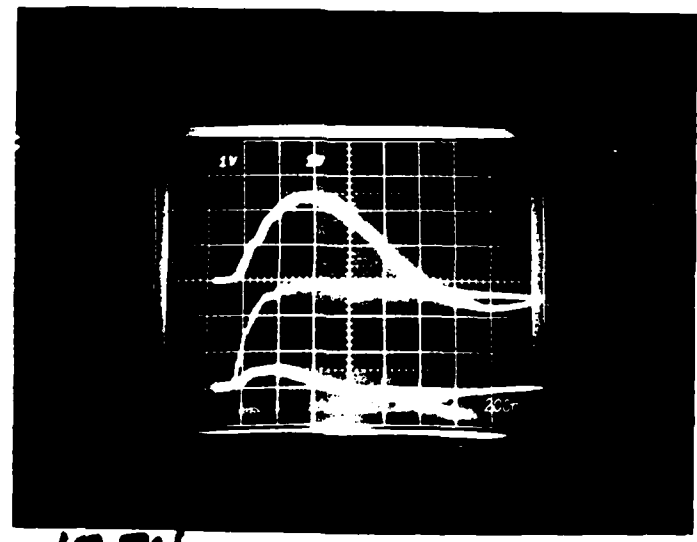
Comments: 1273



1273

Date 6-14-85  
 Test Point 45-T25-15-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000AV) ~~ns~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:

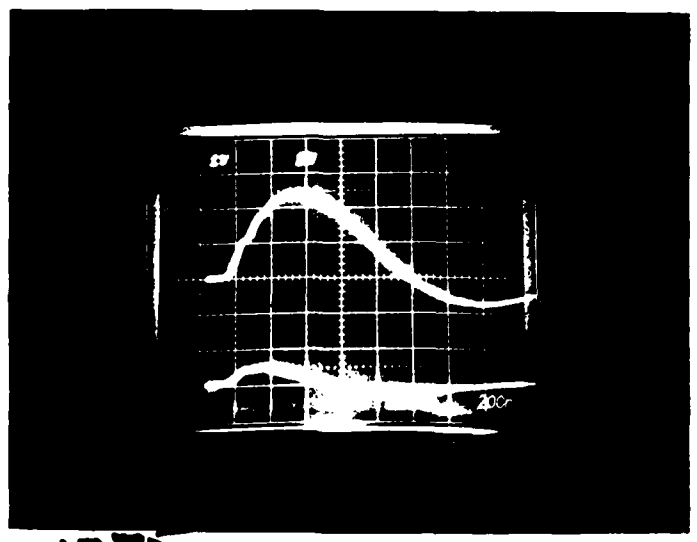
1274



1274

Date 6-14-85  
 Test Point 45-T25-900 B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000AV) ns/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:

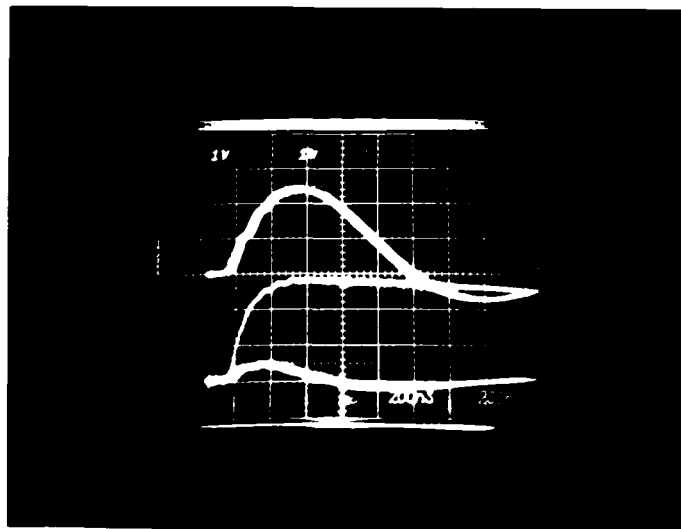
1275



1275

Date 6-14-85  
 Test Point 45-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link

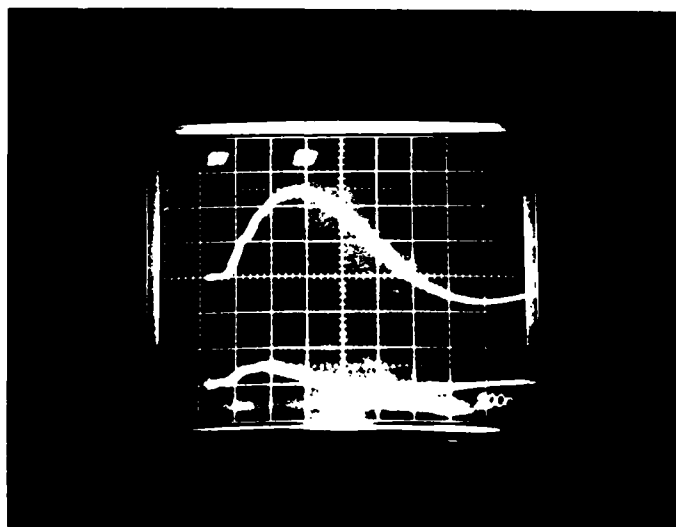
Comments: 1276



1276

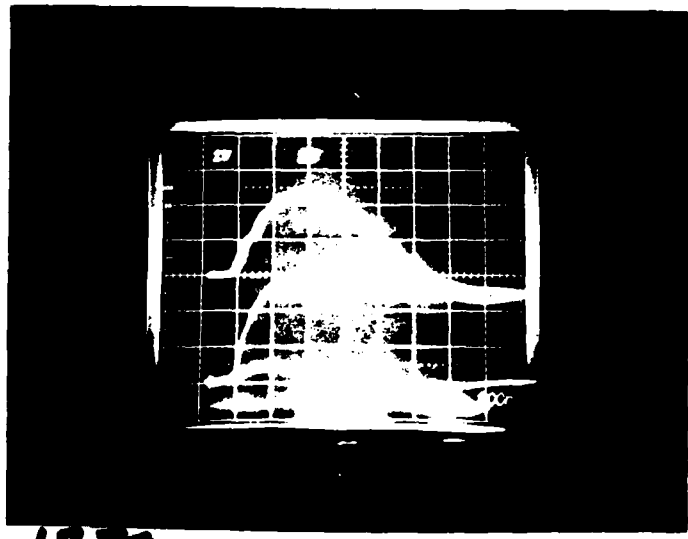
Date 6-14-85  
 Test Point 45-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link

Comments: 1277



1277

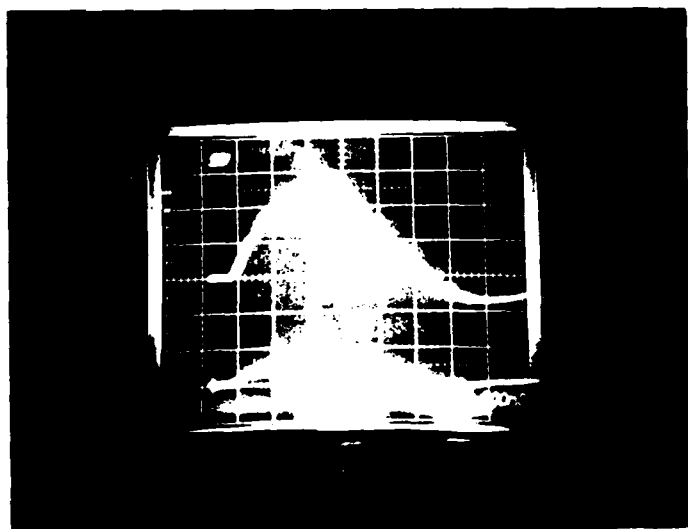
Date 6-14-85  
 Test Point 45-T25-45-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Data Link



1278

Comments: 273

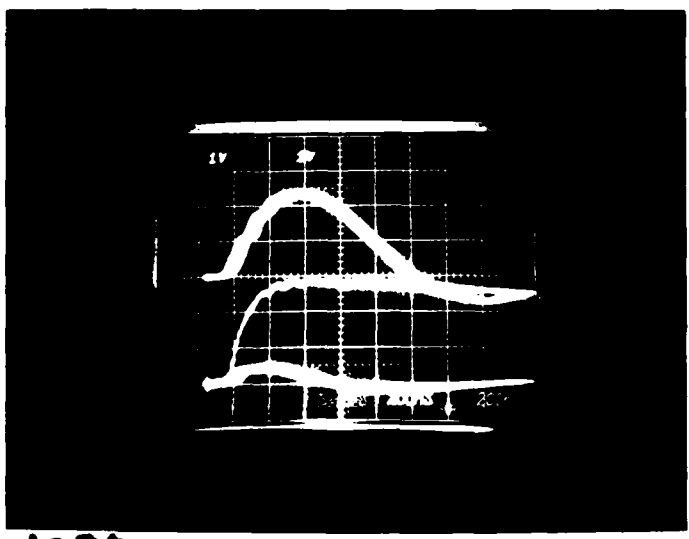
Date 6-14-85  
 Test Point 45-T25-6/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25KV  
 Data Link



1279

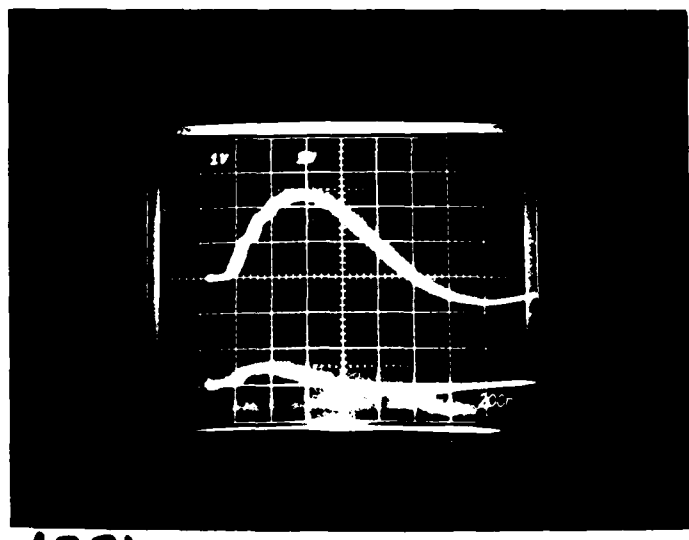
Comments: 1277

Date 6-14-85  
 Test Point 45-T25-1/2-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments:



1280

Date 6-14-85  
 Test Point 45-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments:

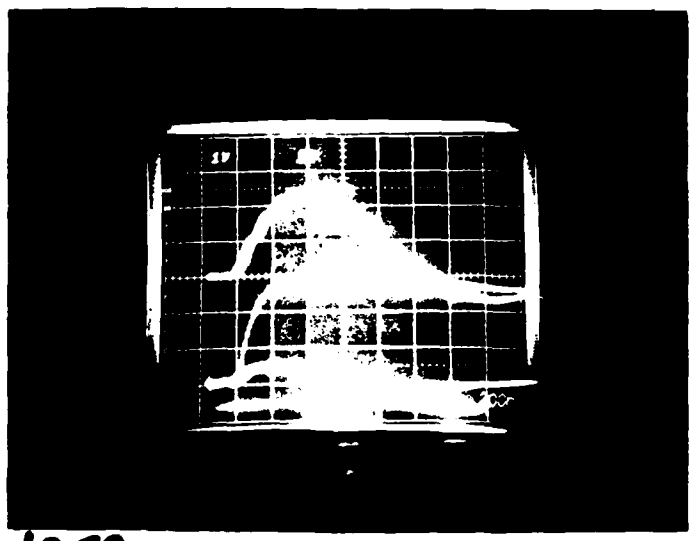


1281



Date 6-14-85  
 Test Point 48-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:

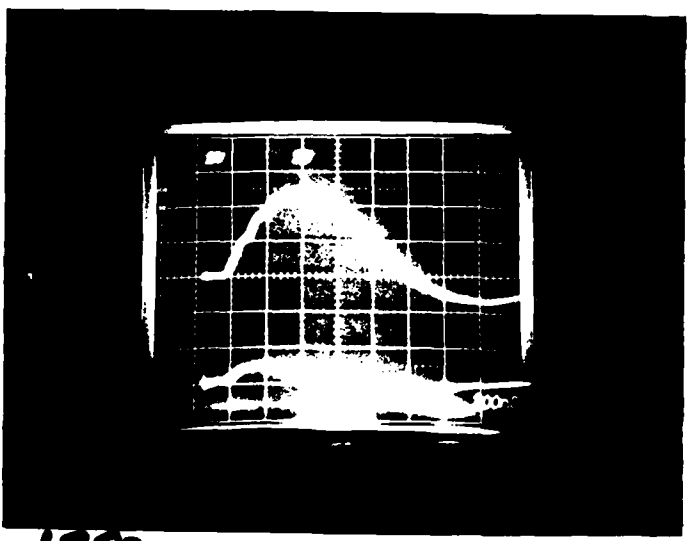
232



1282

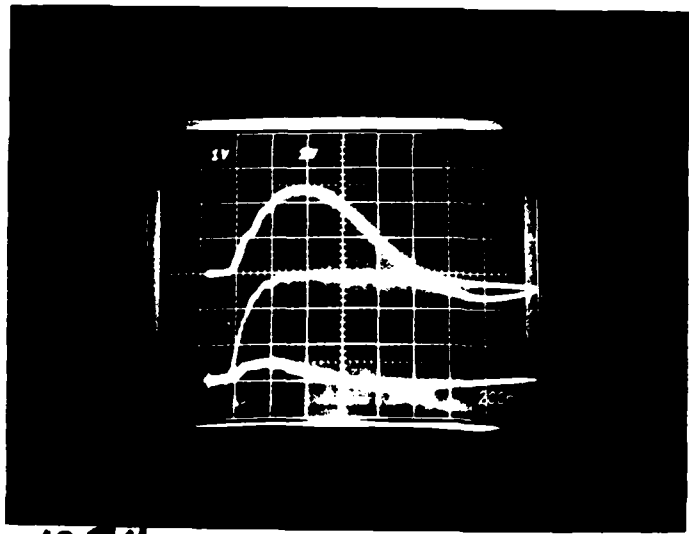
Date 6-14-85  
 Test Point 48-T25-6/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:

233



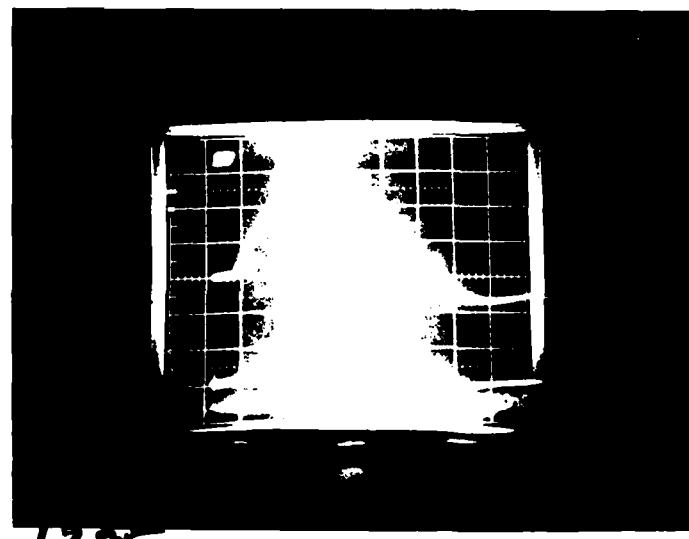
1283

Date 6-14-85  
 Test Point 48-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:



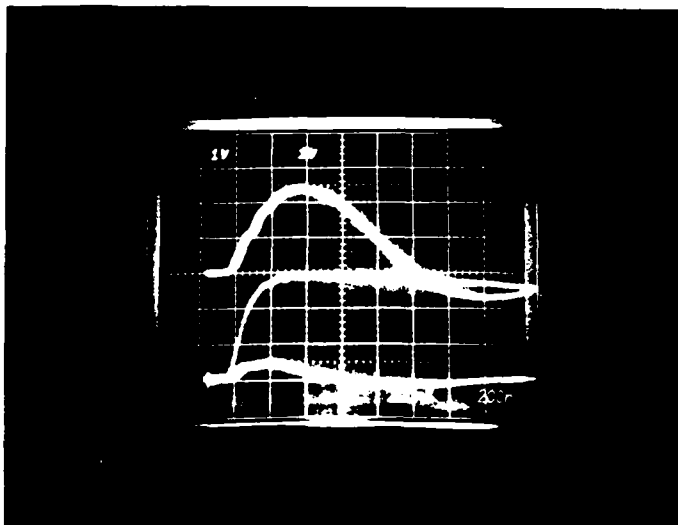
1284

Date 6-14-85  
 Test Point 48-T25-1/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:



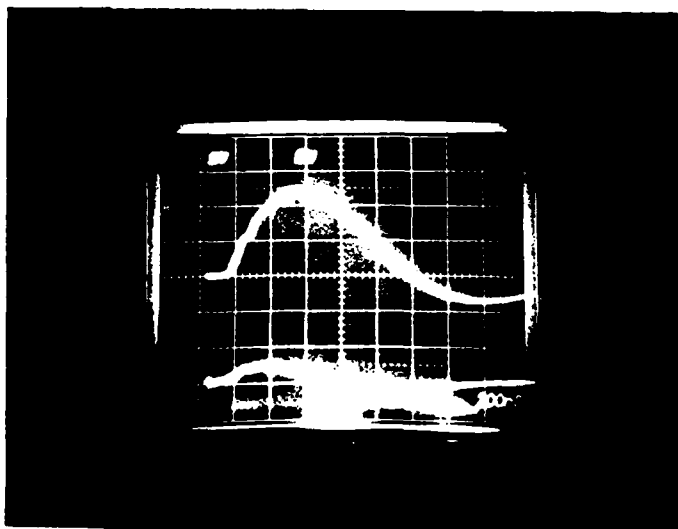
1285

Date 6-14-85  
 Test Point 48-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ A/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ V/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:



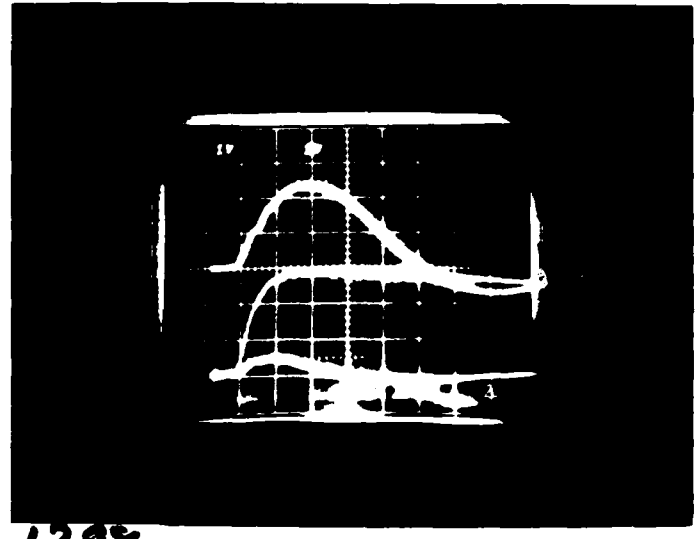
1286

Date 6-14-85  
 Test Point 48-T25-6/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ A/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ V/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link  
 Comments:



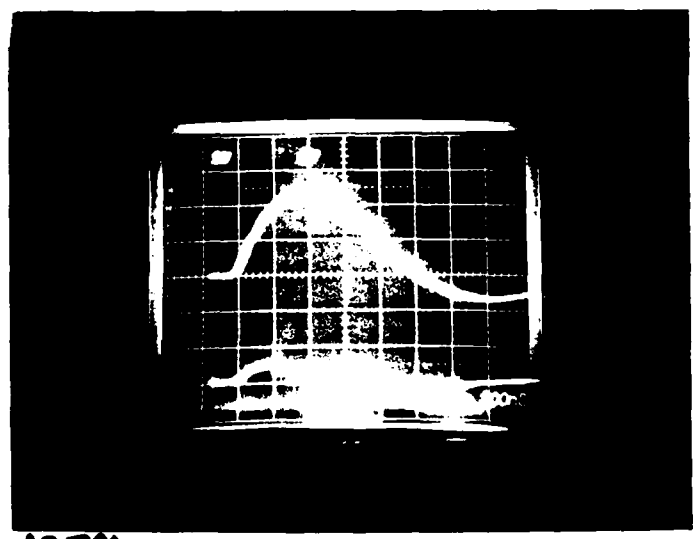
1287

Date 6-14-85  
 Test Point 48-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments: 1288



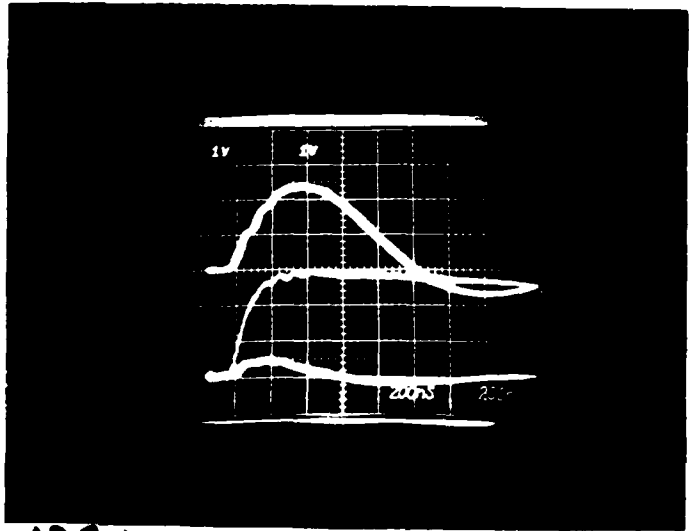
1288

Date 6-14-85  
 Test Point 48-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25 kV  
 Data Link  
 Comments: 1289



1289

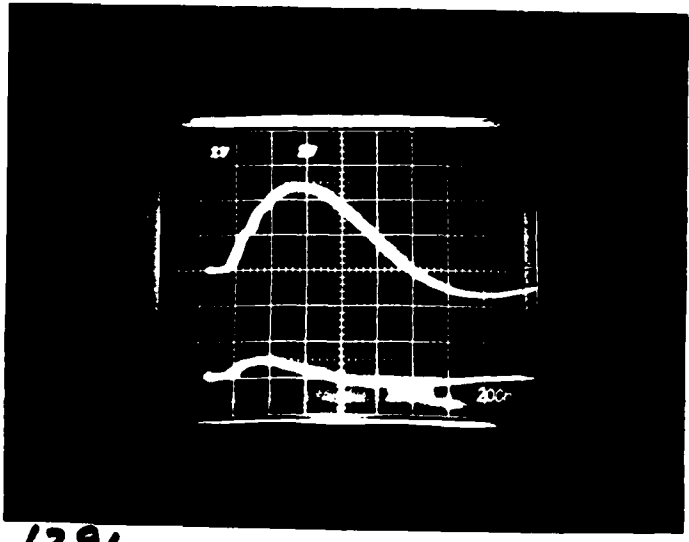
Date 6-14-85  
 Test Point 48-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



1290

Comments: 277

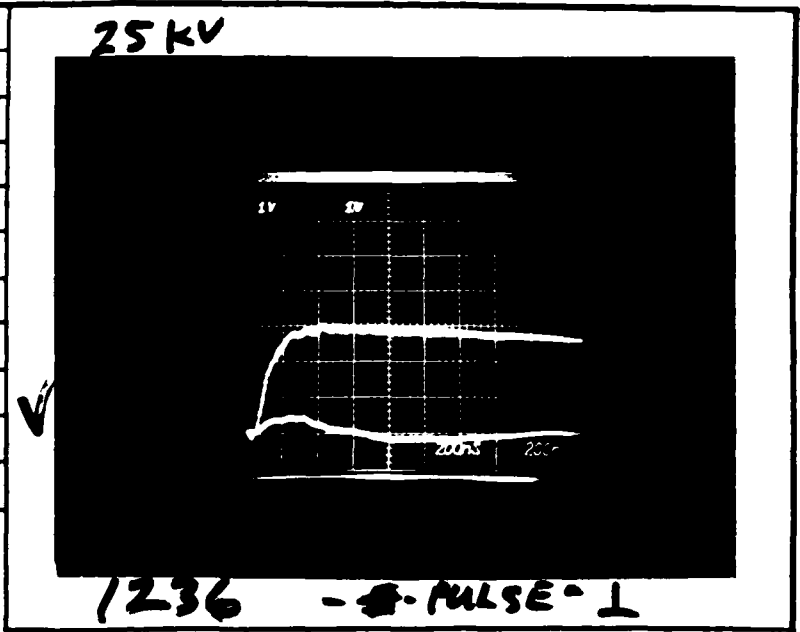
Date 6-14-85  
 Test Point 48-T25-1/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



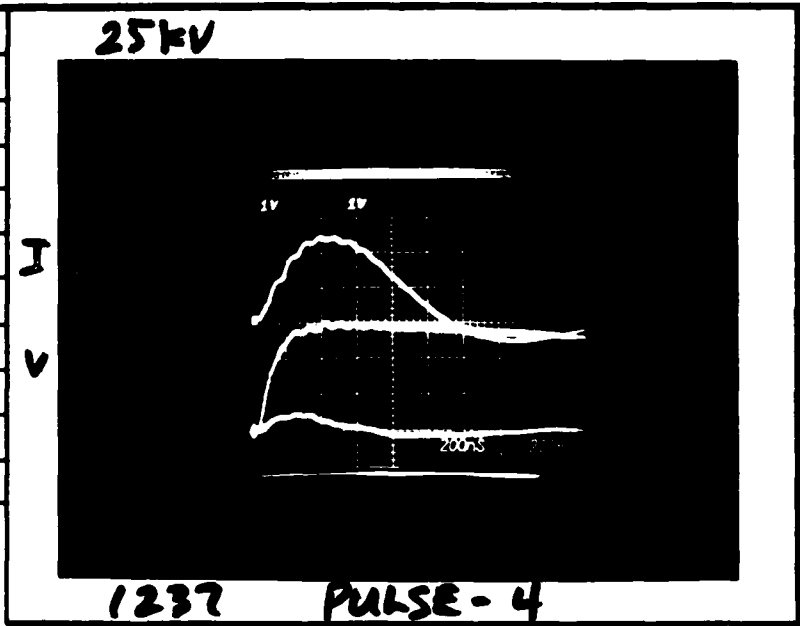
1291

Comments: 271

Date	6-13-85
Test Point	50-T25-1-A
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) ns/div 2
Configuration	
Pulser Level	25 KV
Data Link	
Comments:	1236



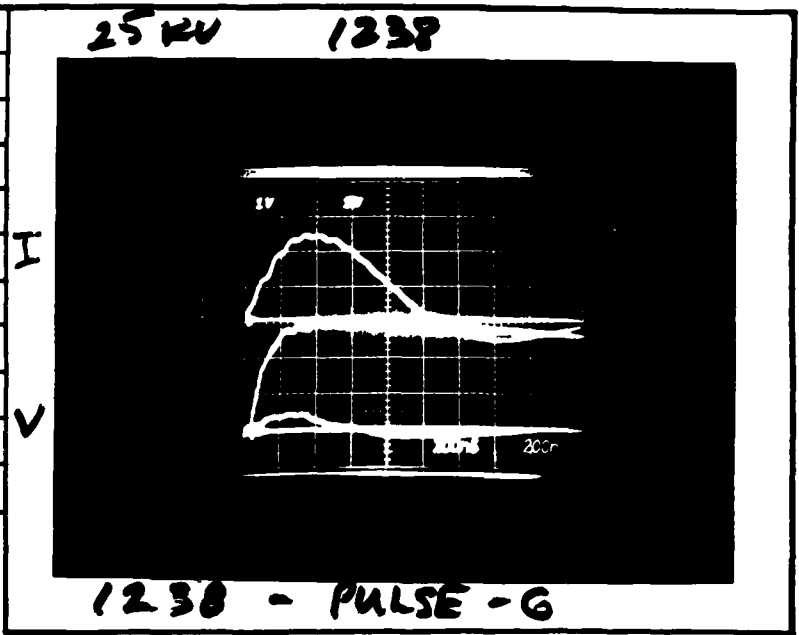
Date	6-13-85
Test Point	50-T25-4-A
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) ns/div 2
Configuration	
Pulser Level	25 KV
Data Link	
Comments:	1237



- 51 -

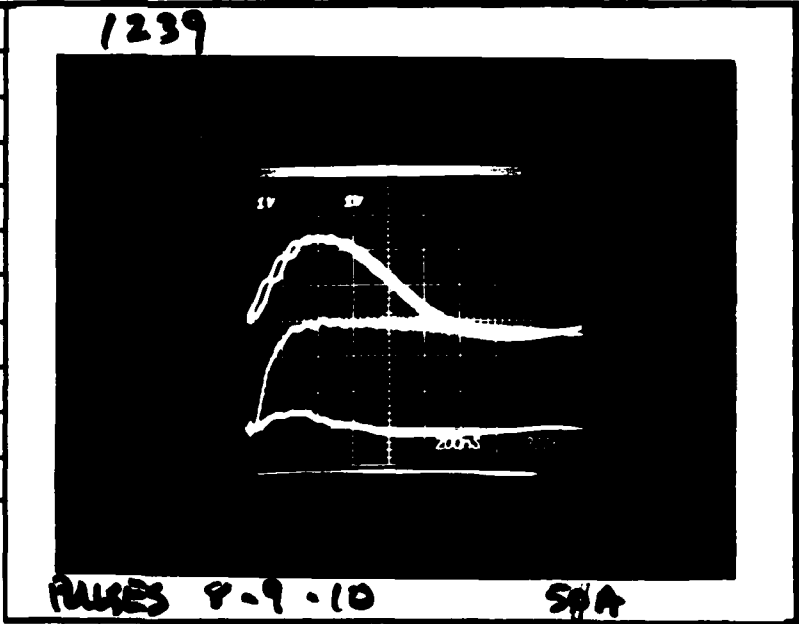
Date	6-13-85
Test Point	50-725-6-A
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) ns/div 2
Configuration	
Pulse Level	25 kV
Data Link	

Comments: 1238

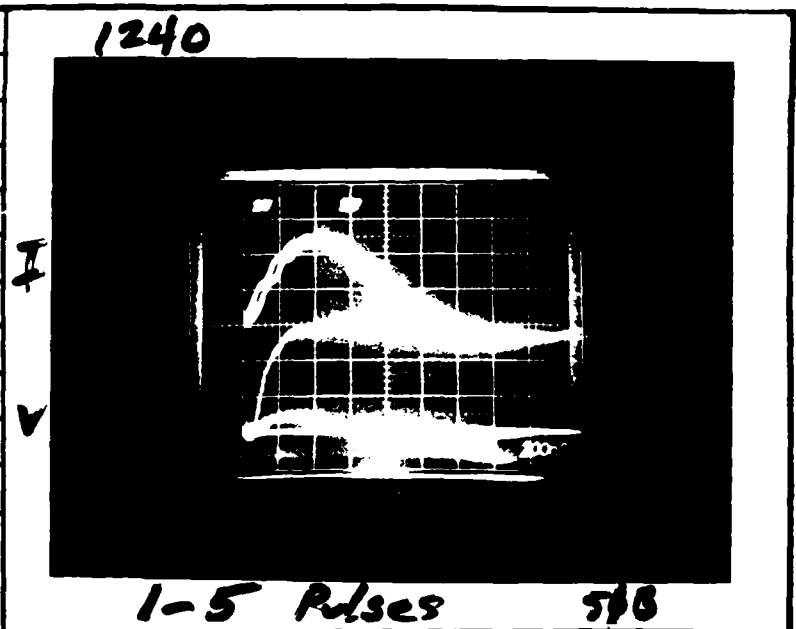


Date	6-13-85
Test Point	50-725-8-10-A
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) ns/div 2
Configuration	
Pulse Level	25 kV
Data Link	

Comments: 1239

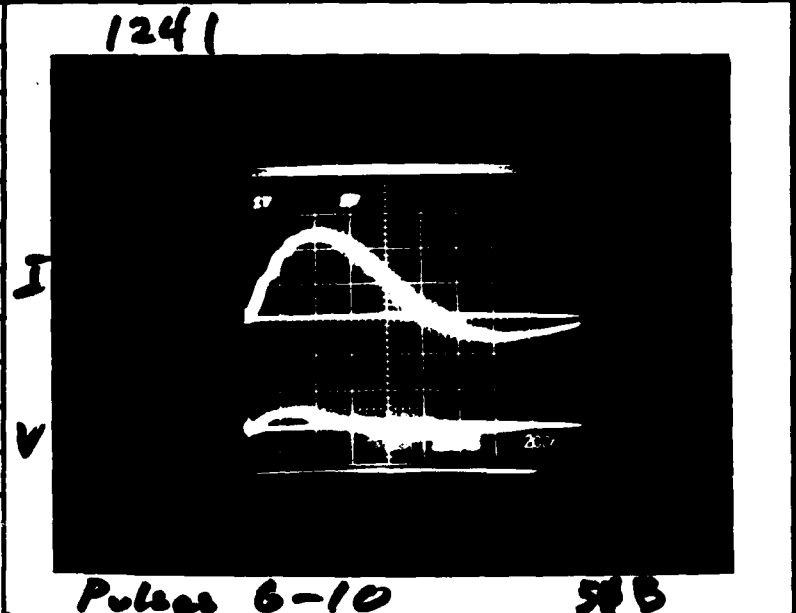


Date 6-13-85  
 Test Point 50-725-1-5-B  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link



Comments: 1240

Date 6-13-85  
 Test Point 50-725-6-10-B  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link



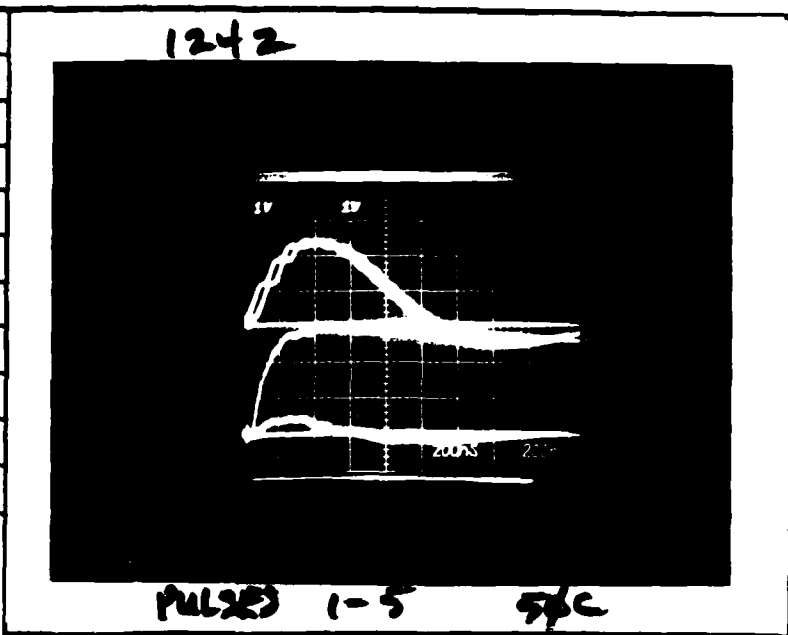
Comments: 1245



31

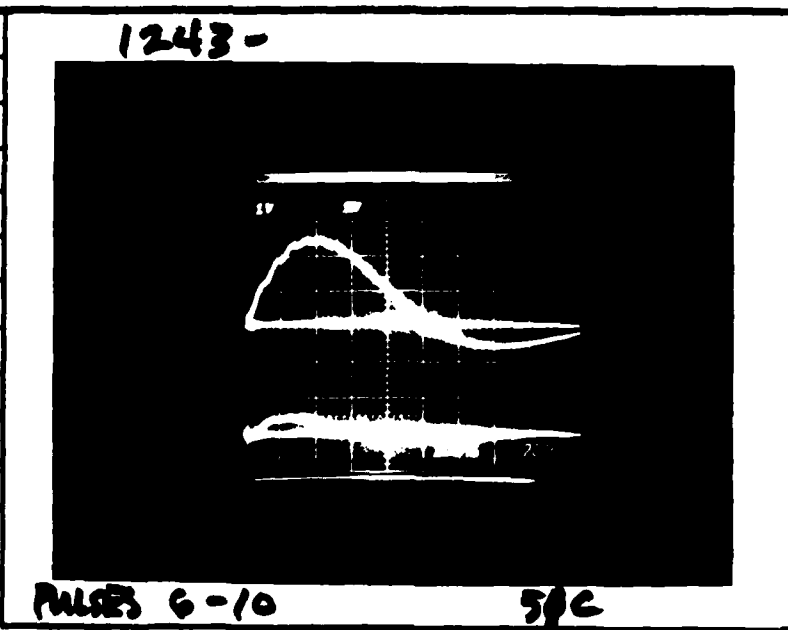
Date	6-13-85
Test Point	5B-T25-1-5-C
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V(8000V)ns/div 2
Configuration	
Pulser Level	25KV
Data Link	

Comments: 1242



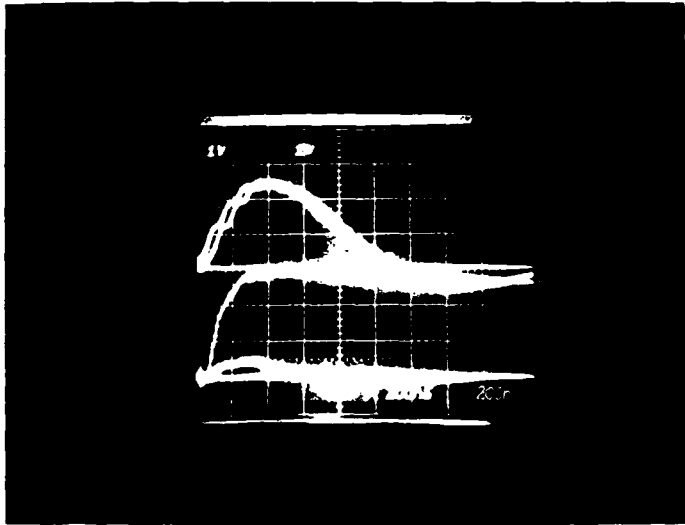
Date	6-13-85
Test Point	5B-T25-6-10-C
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V(8000V) ns/div 2
Configuration	
Pulser Level	25KV
Data Link	

Comments: 1243



51

Date	6-13-85
Test Point	50-T25-1-5-D
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	LV(8000V) ns/div 2
Configuration	
Pulse Level	25KV
Data Link	



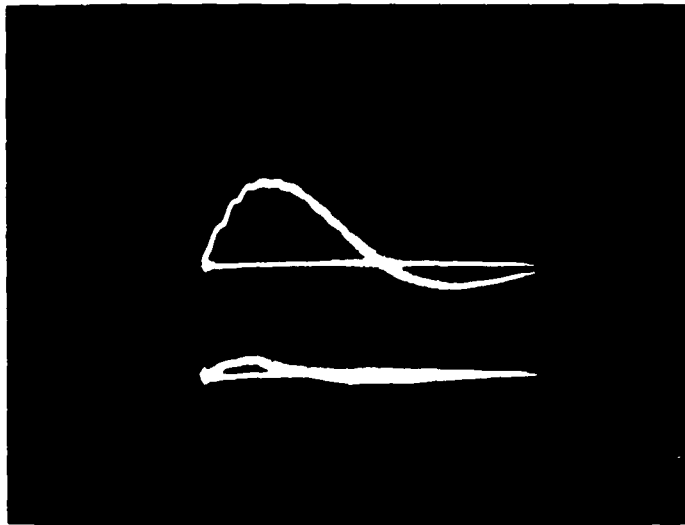
1244 -

50-D

Comments:

1244

Date	6-13-85
Test Point	50-T25-6-10-D
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	LV(8000V) ns/div 2
Configuration	
Pulse Level	45KV
Data Link	



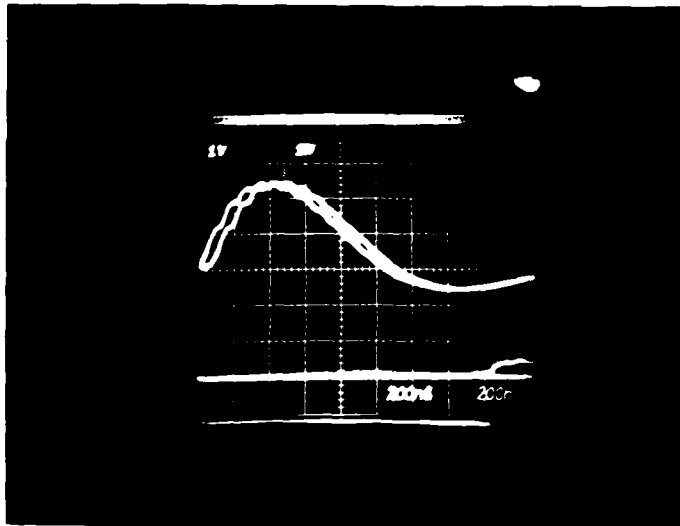
1245

50-D

Comments:

SAME SCALE AS ABOVE (TOP)

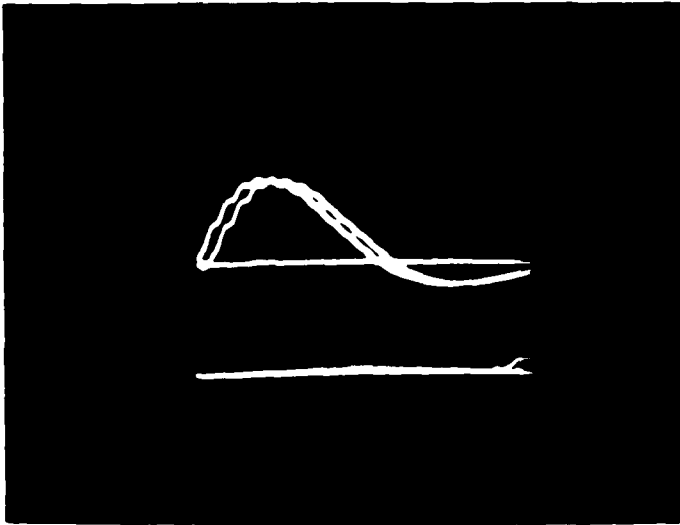
Date 6-13-85  
 Test Point 50-T25-1-5-E  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(8000V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link  
 Comments:



1246

243

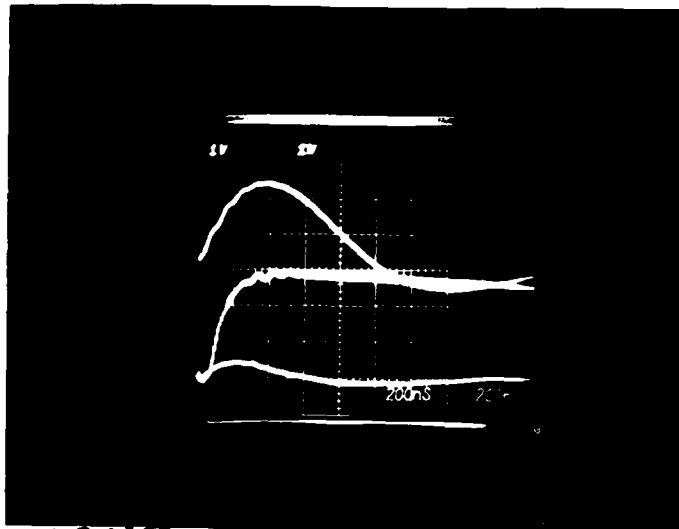
Date 6-13-85  
 Test Point 50-T25-6-10-E  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link  
 Comments:



1247

NO VOLTAGE TRIGGER

Date	6-13-85
Test Point	51-125-11-E
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) ns/div 2
Configuration	
Pulser Level	25KV
Data Link	
Comments:	1248

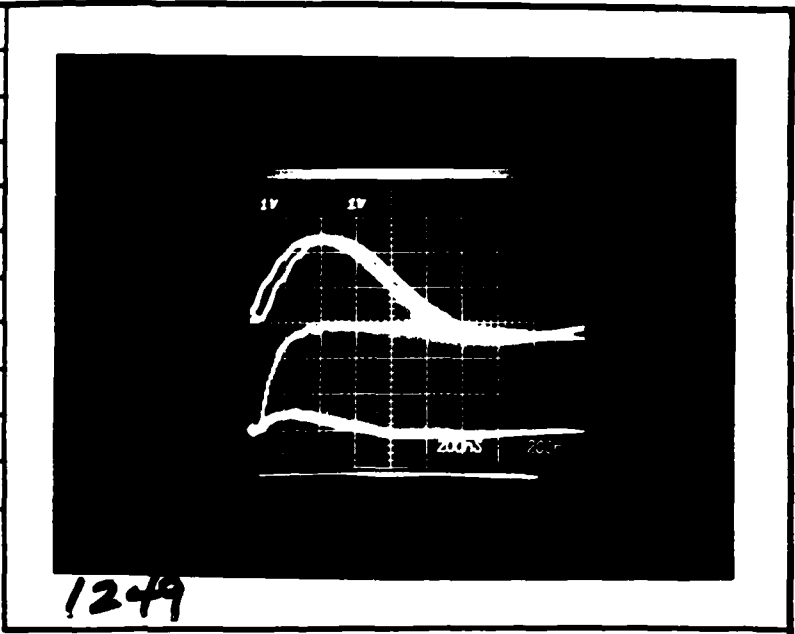


1248

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	

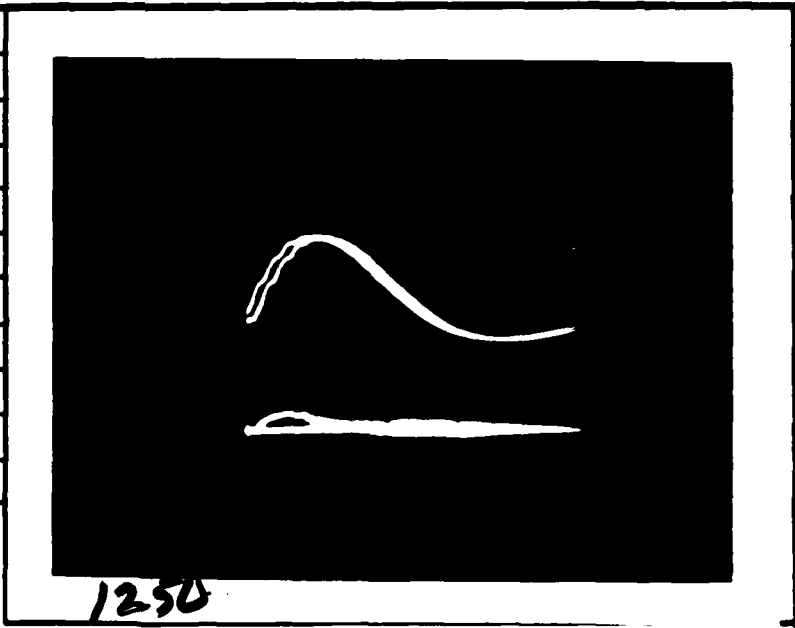
Date	6-13-85
Test Point	54-T25-1-5-A
Amplification	0 dB
Attenuation	20 dB
Horizontal	200 ns/div 1
Vertical	1V (8KV) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25KV
Data Link	

Comments: 1249



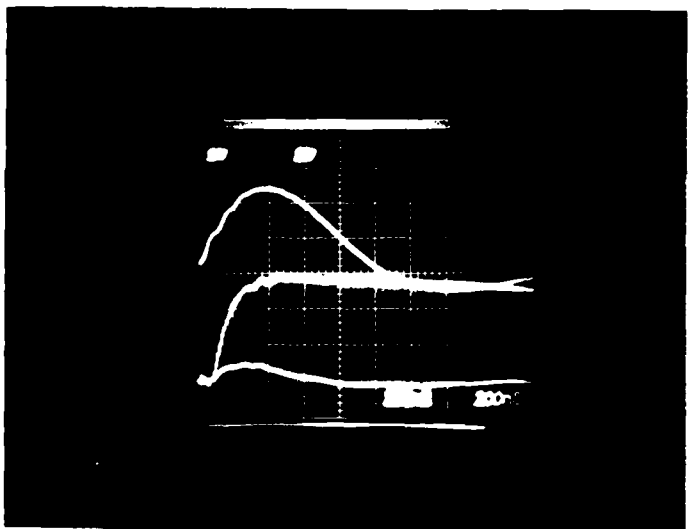
Date	6-13-85
Test Point	54-T25-6-8-A
Amplification	0 dB
Attenuation	20 dB
Horizontal	200 ns/div 1
Vertical	1V (8KV) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25KV
Data Link	

Comments: 1250



PICTURES - 6-8

Date 6-13-85  
 Test Point 54-T25-11-A  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link

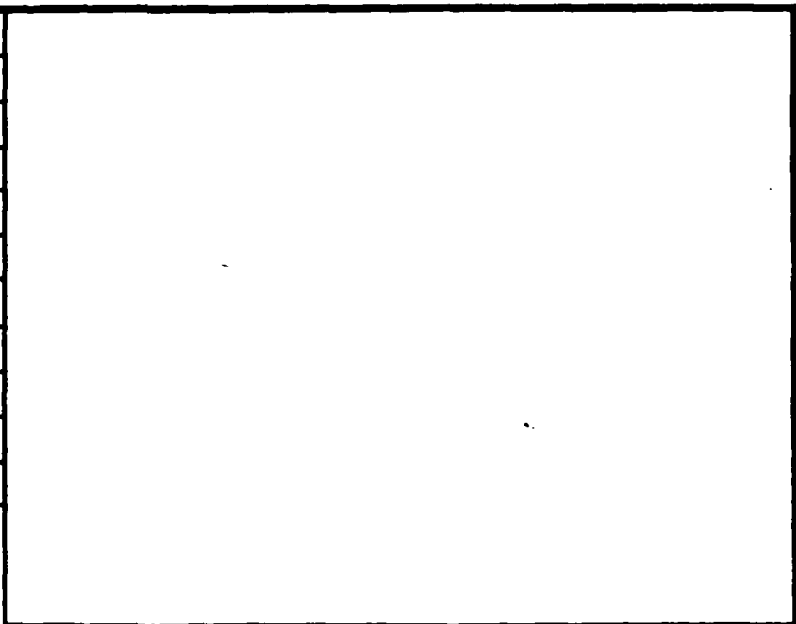


Comments: 1251

1251

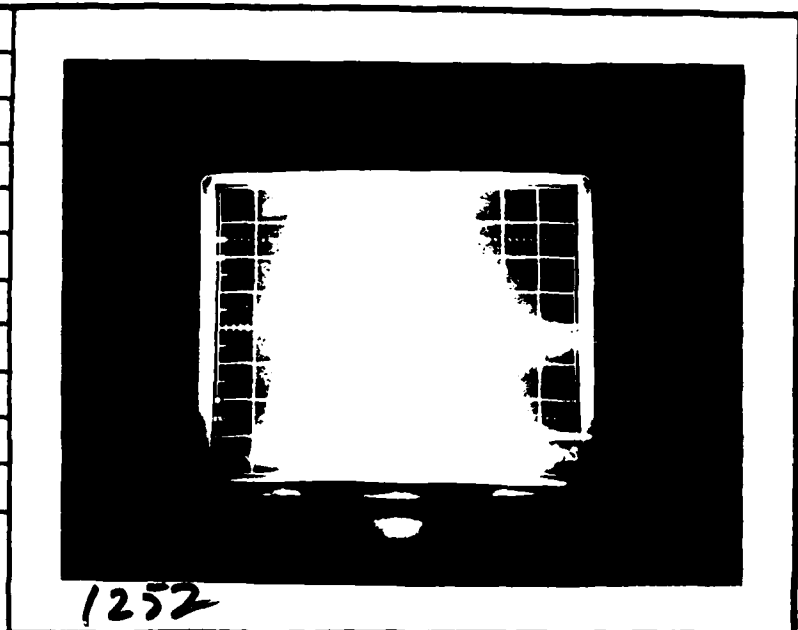
Date  
 Test Point  
 Amplification dB  
 Attenuation dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link

Comments:



Date 6-13-85  
 Test Point 54-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25KV  
 Data Link  
 Comments:

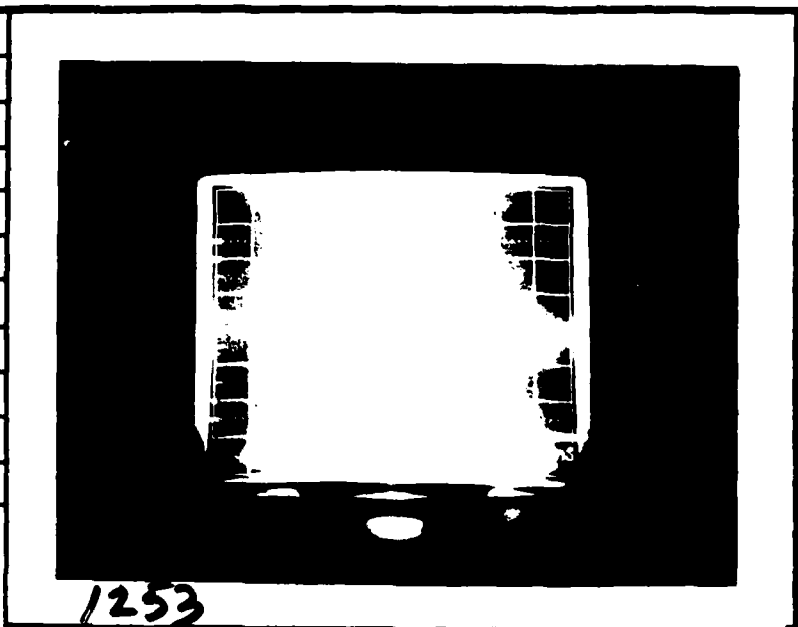
1252



1252

Date 6-13-85  
 Test Point 54-T25-6/10-B  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25KV  
 Data Link  
 Comments:

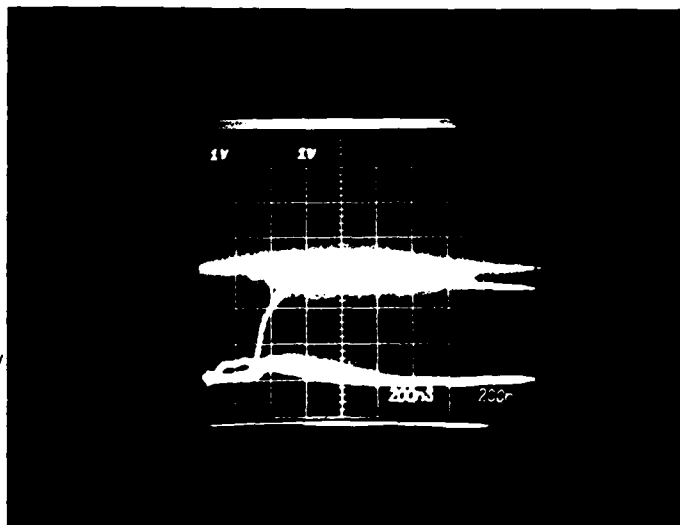
1253



1253

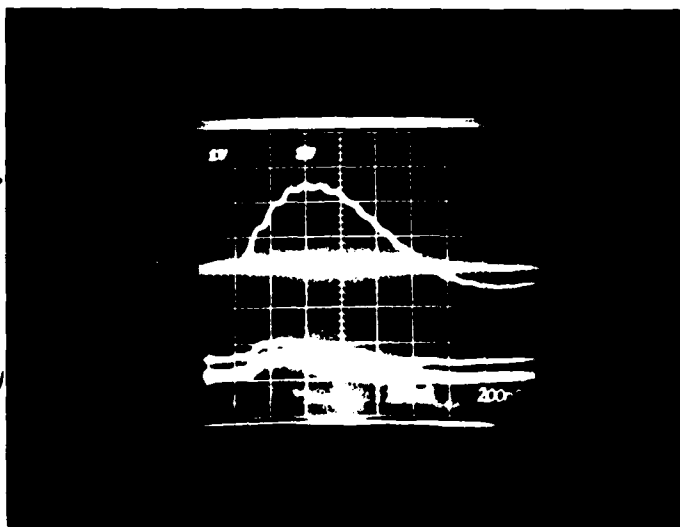
DEVICE PEAK VOLTAGE (4KV).

Date 6-14-85  
 Test Point 54-T25-11/15-B  
 Amplification 0 dB  
 Attenuation dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8KV) ns/div 2  
 Configuration  
 Pulsar Level 25KV  
 Data Link  
 Comments:



1254

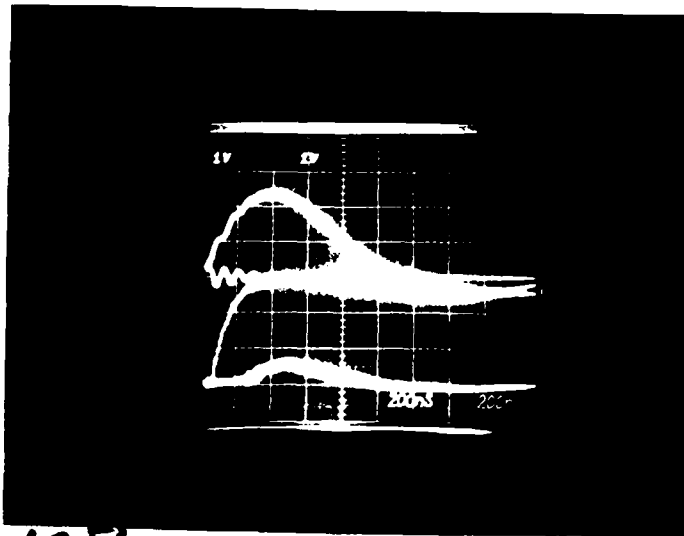
Date 6-14-85  
 Test Point 54-T25-11/20-B  
 Amplification 0 dB  
 Attenuation dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8KV) ns/div 2  
 Configuration  
 Pulsar Level 25KV  
 Data Link  
 Comments:



1255



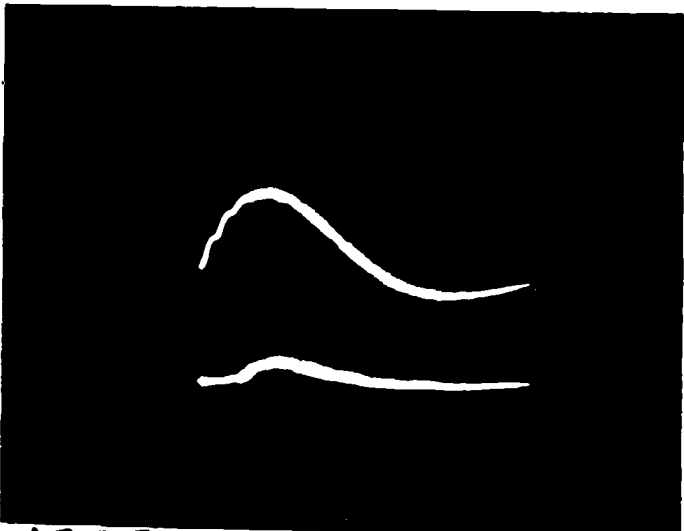
Date 6-17-85  
 Test Point 54-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8000V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link



1256

Comments: 2.75

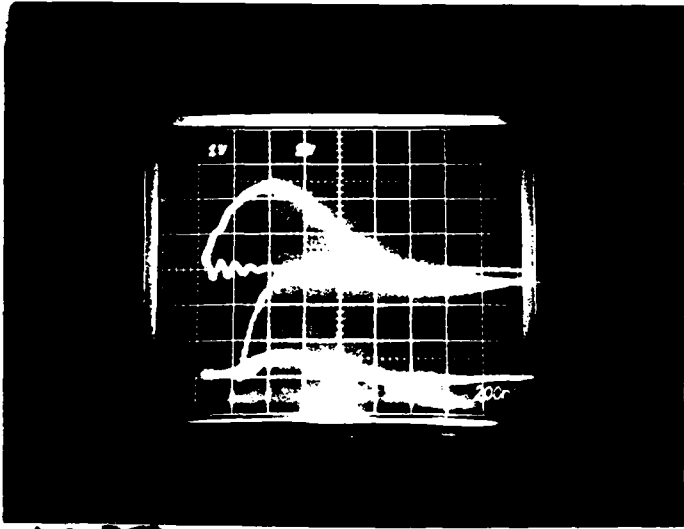
Date 6-17-85  
 Test Point 54-T25-6/10-C  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (8KV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration  
 Pulsar Level 25 KV  
 Data Link



1257

Comments: 7

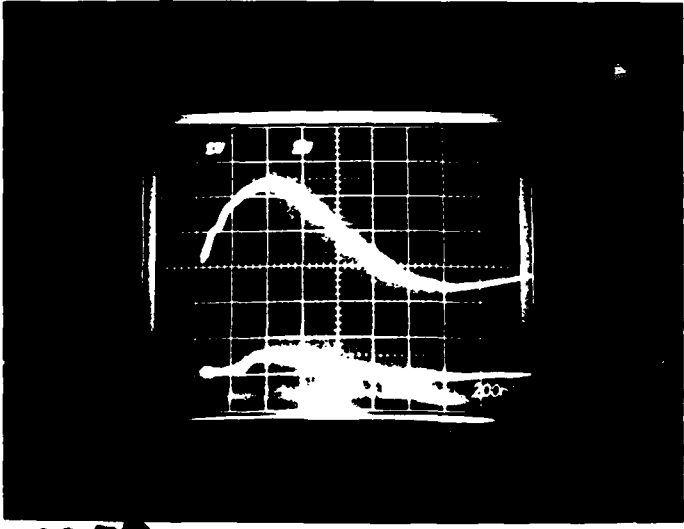
Date 6-14-85  
 Test Point 54-T25 1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8KV) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



Comments: 1258

1258

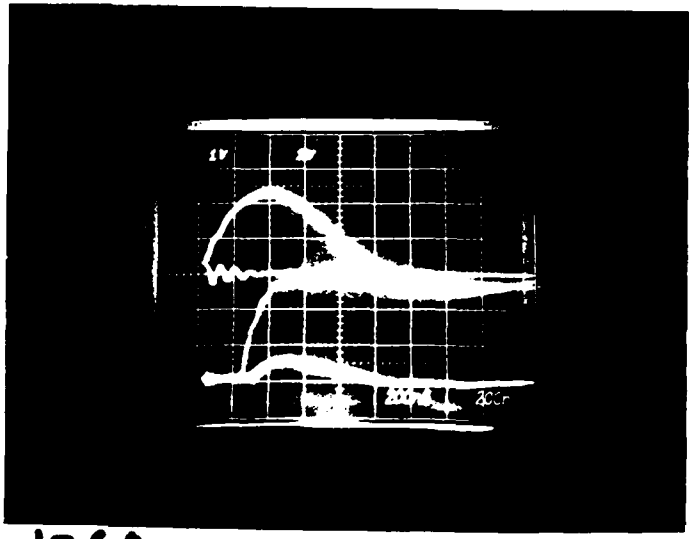
Date 6-14-85  
 Test Point 54-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8KV) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



Comments: 1259

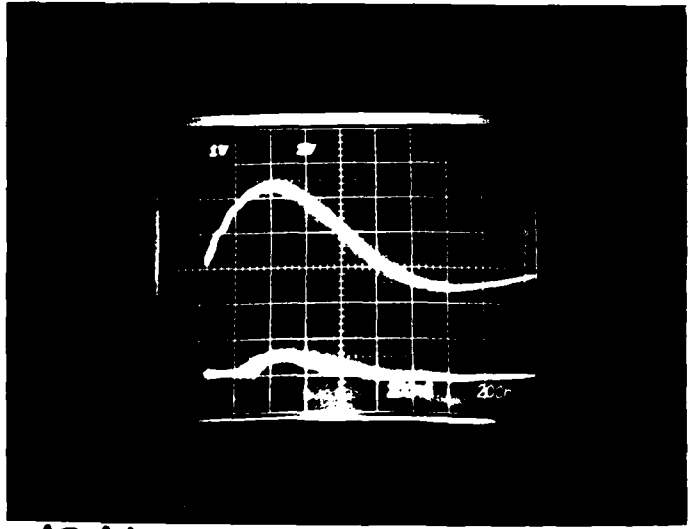
1259

Date 6-17-85  
 Test Point 54-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25000 V  
 Data Link



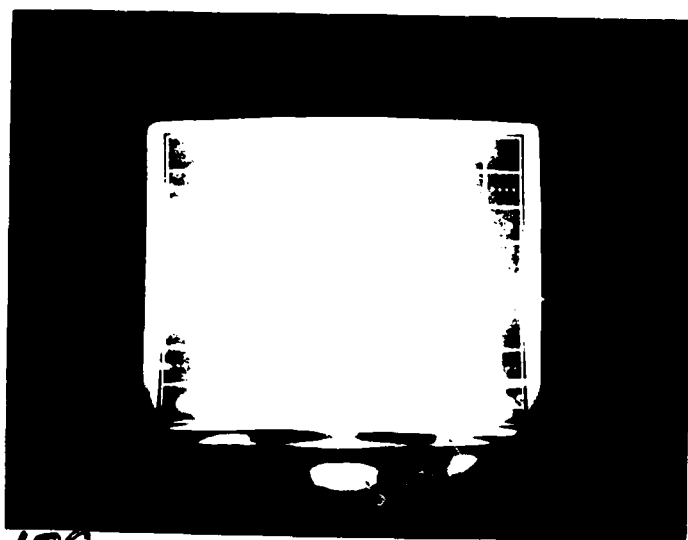
1260

Date 6-17-85  
 Test Point 54-T25-6/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25 kV  
 Data Link



1261

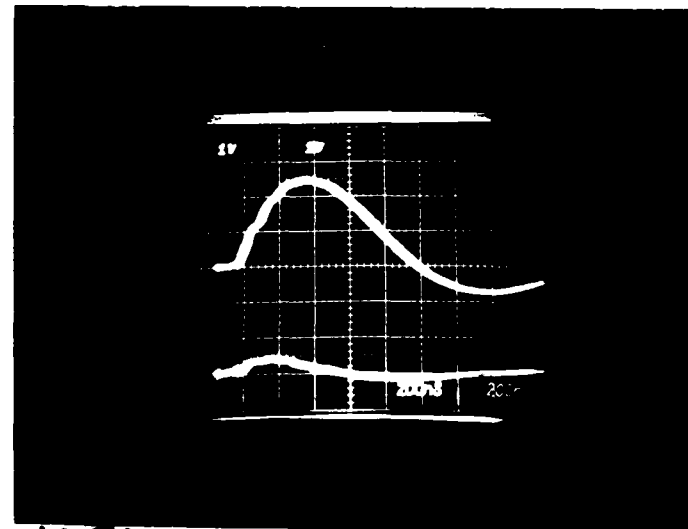
Date 6-14-85  
 Test Point 57-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



1292

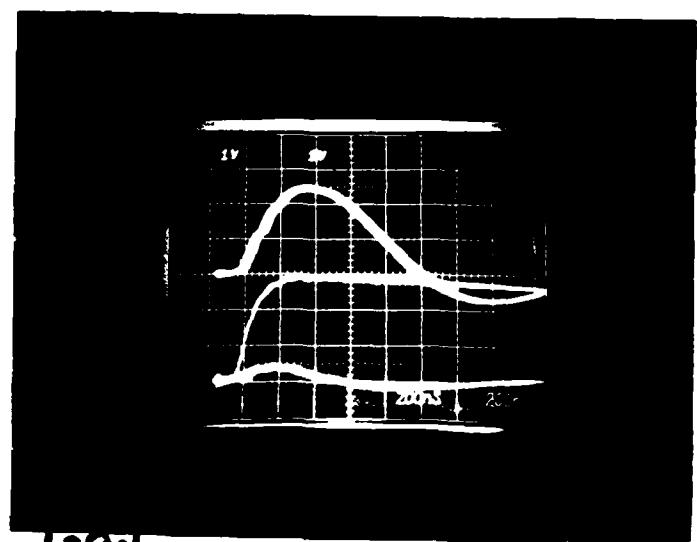
DEVICE CLAMPED AT  $\approx$  3000V

Date 6-14-85  
 Test Point 57-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25KV  
 Data Link



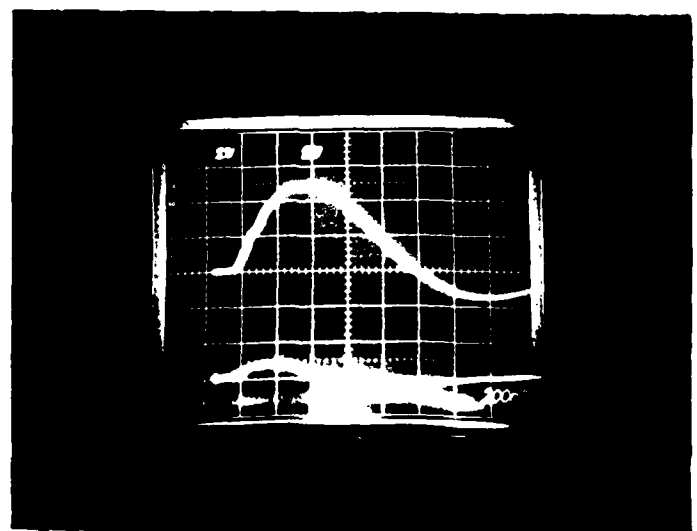
1293

Date	6-14-85
Test Point	57-T25-15-B
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical IV (2000 A/V)	100/div 1
Horizontal	200 ns/div 2
Vertical IV (8000V)	100/div 2
Configuration	-20dB
Pulser Level	25,000V
Data Link	
Comments:	1/1/1



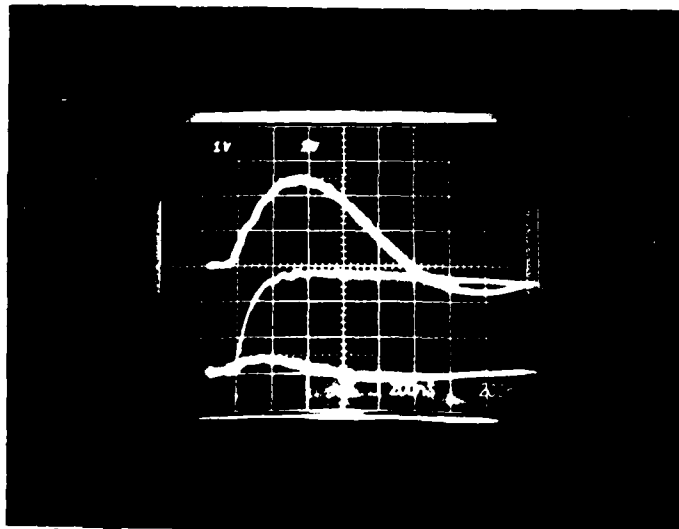
1294

Date	6-14-85
Test Point	57-T25-410-B
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical IV (2000 A/V)	100/div 1
Horizontal	200 ns/div 2
Vertical IV (8000V)	100/div 2
Configuration	-20dB
Pulser Level	25KV
Data Link	
Comments:	1/1/1



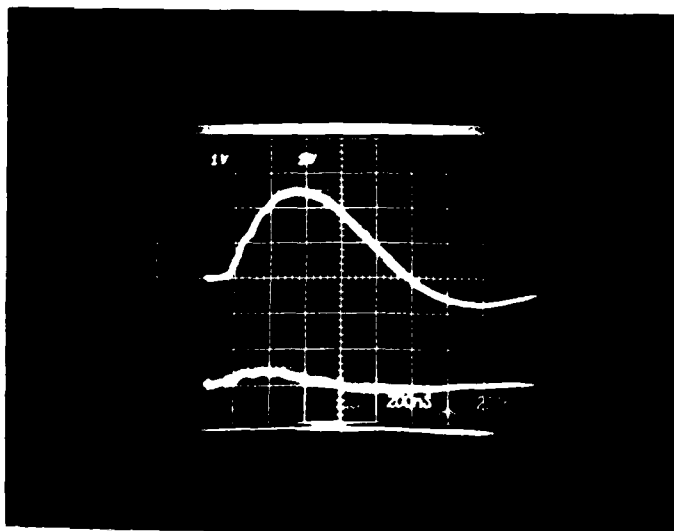
1295

Date 6-14-85  
 Test Point 57-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



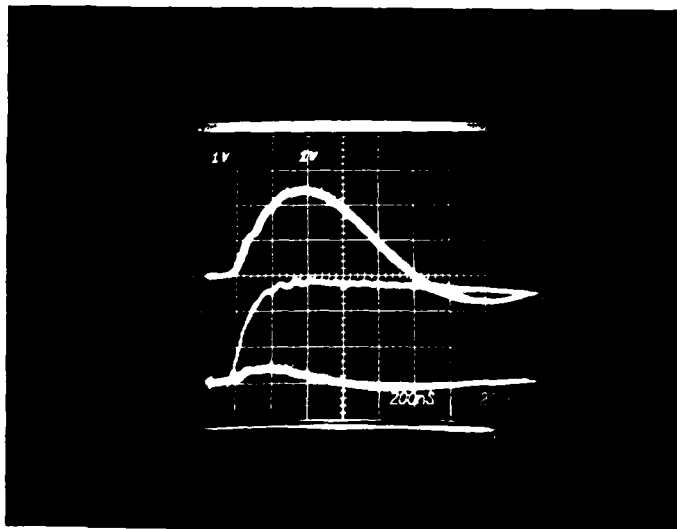
1296

Date 6-14-85  
 Test Point 57-T25-1/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



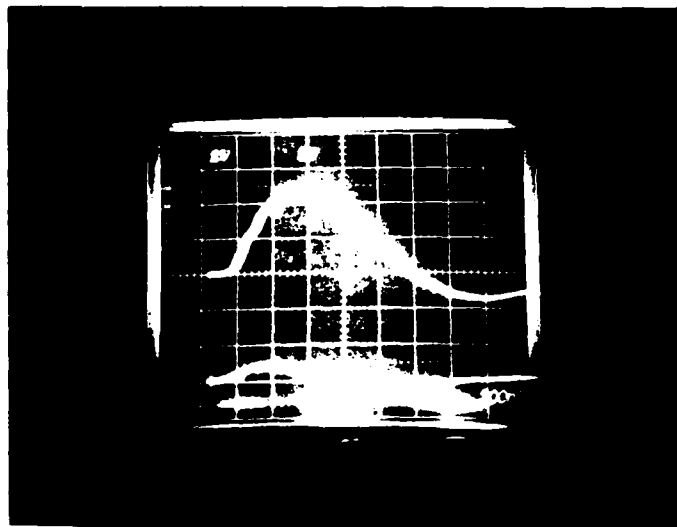
1297

Date	6-14-85
Test Point	57-T25-1/5-D
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) /div 2
Configuration	-20 dB
Pulser Level	25,000 V
Date Link	
Comments:	215



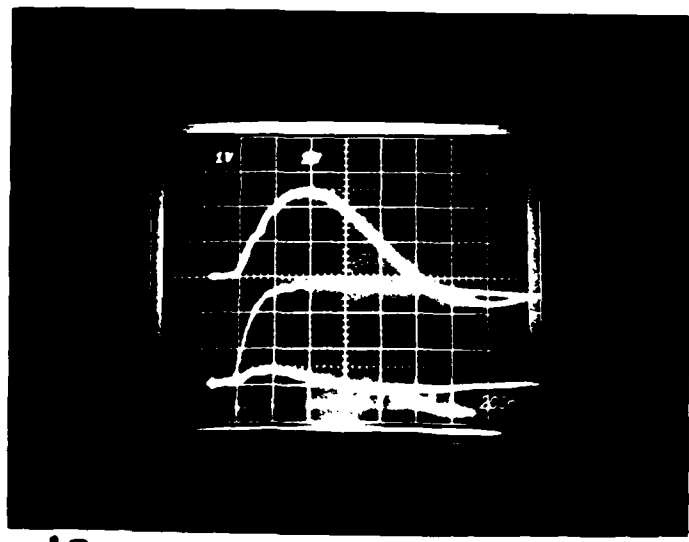
1298

Date	6-14-85
Test Point	57-T25-1/10-D
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) /div 2
Configuration	-20 dB
Pulser Level	25,000 V
Date Link	
Comments:	217



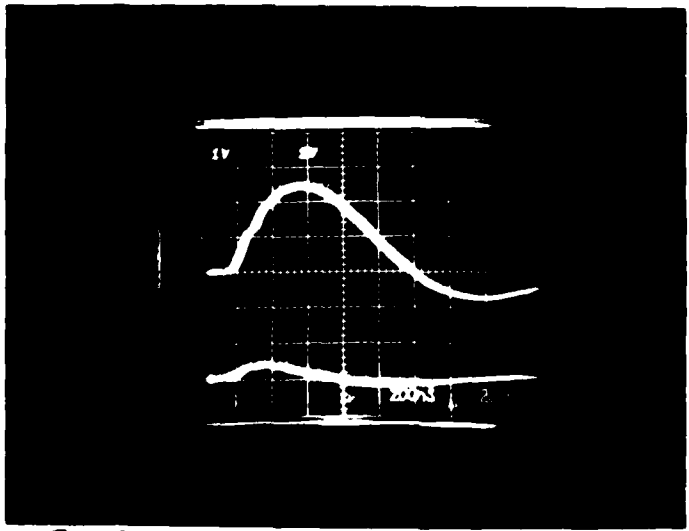
1299

Date	6-14-85
Test Point	57-T25-1/5-E
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) $\mu$ /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) $\mu$ /div 2
Configuration	-20 dB
Pulse Level	25,000 V
Date Link	
Comments:	1300



1300

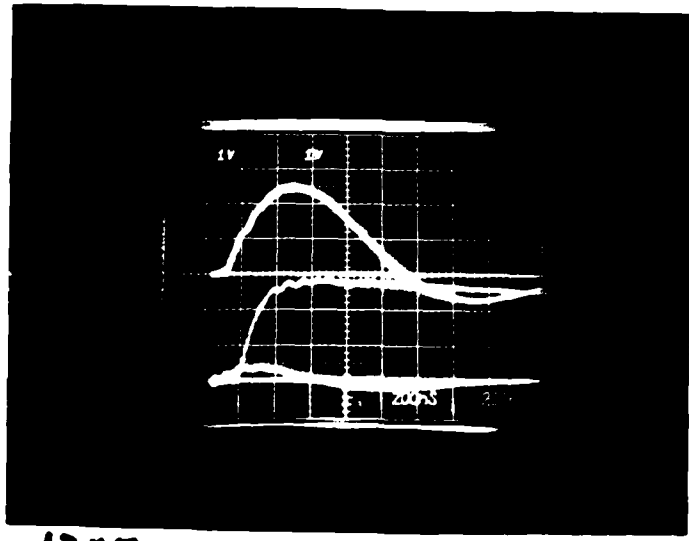
Date	6-14-85
Test Point	57-T25-9/10-E
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) $\mu$ /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) $\mu$ /div 2
Configuration	-20 dB
Pulse Level	25,000 V
Date Link	
Comments:	1301



1301

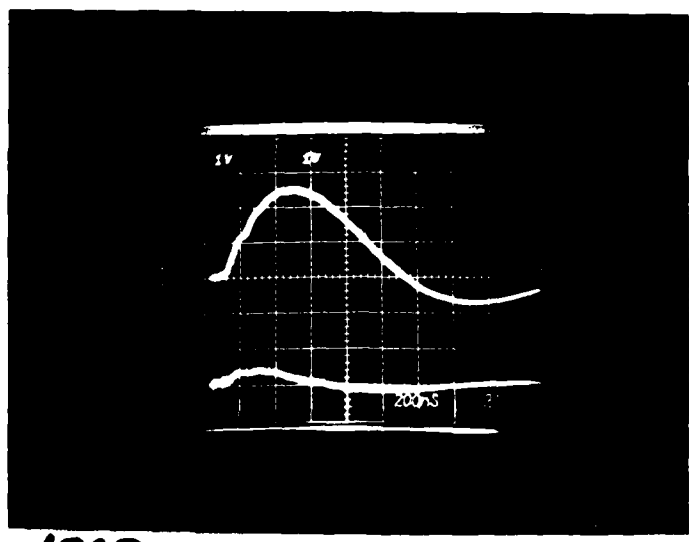


Date 6-14-85  
 Test Point 60-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1382

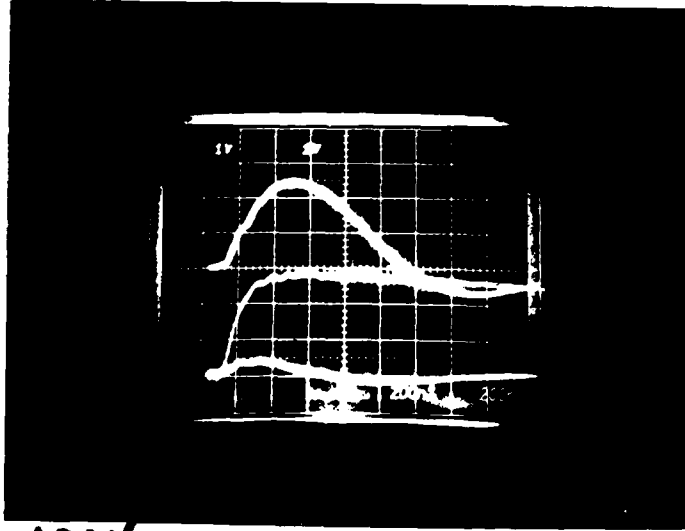
Date 6-14-85  
 Test Point 60-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1383

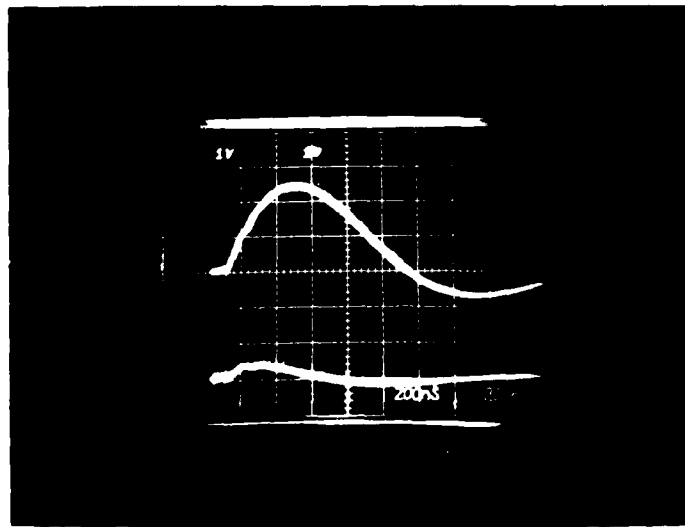
Comments: 303

Date 6-14-85  
 Test Point 60-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1304



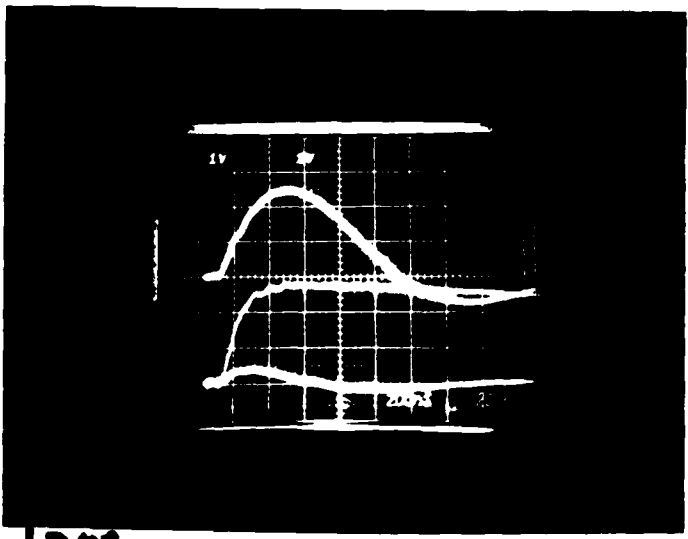
1304

Date 6-14-85  
 Test Point 60-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1305



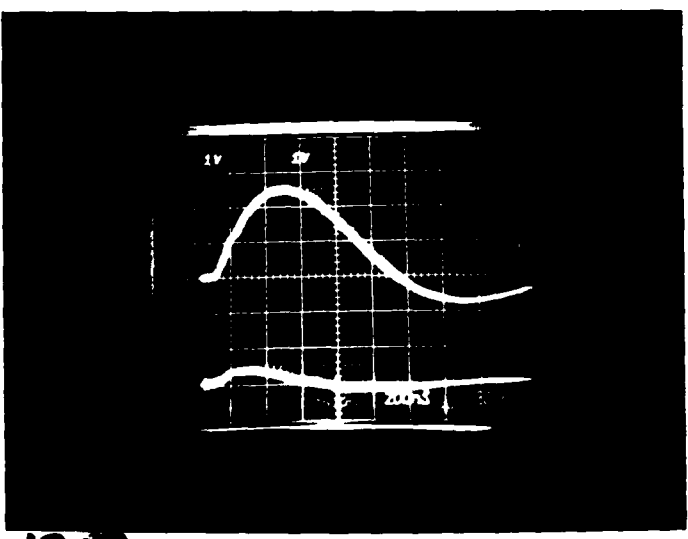
1305

Date	6-14-85
Test Point	60-T25-15-C
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical 1V (2000A/V) <del>m</del> /div 1	
Horizontal	200 ns/div 2
Vertical 1V (8000V) <del>m</del> /div 2	
Configuration	-20 dB
Pulse Level	25,000 V
Data Link	



Comments: 1306

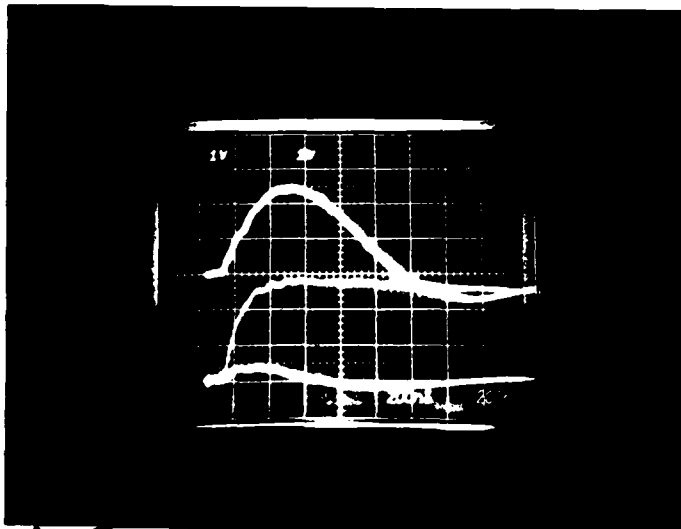
Date	6-14-85
Test Point	60-T25-10-C
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical 1V (2000A/V) <del>m</del> /div 1	
Horizontal	200 ns/div 2
Vertical 1V (8000V) <del>m</del> /div 2	
Configuration	-20 dB
Pulse Level	25,000 V
Data Link	



Comments: 1307

Date 6-14-85  
 Test Point 60-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

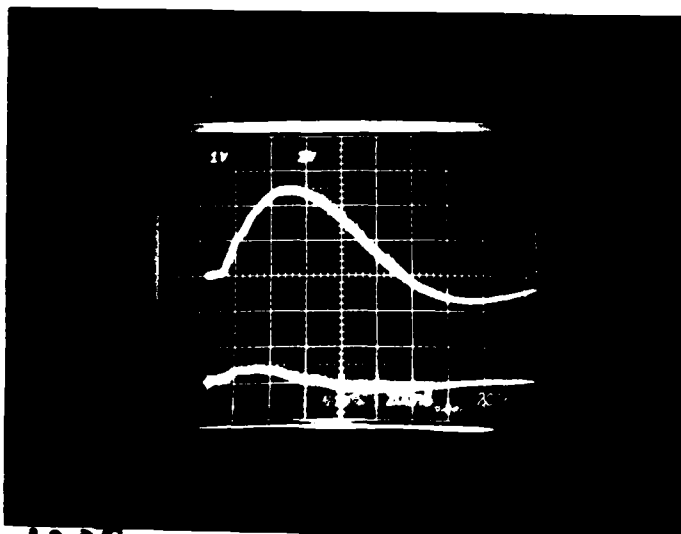
Comments: 308



1308

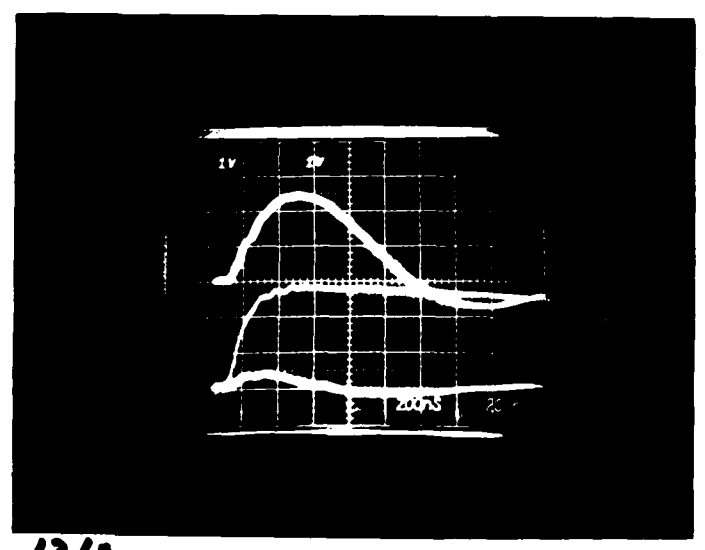
Date 6-14-85  
 Test Point 60-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1309



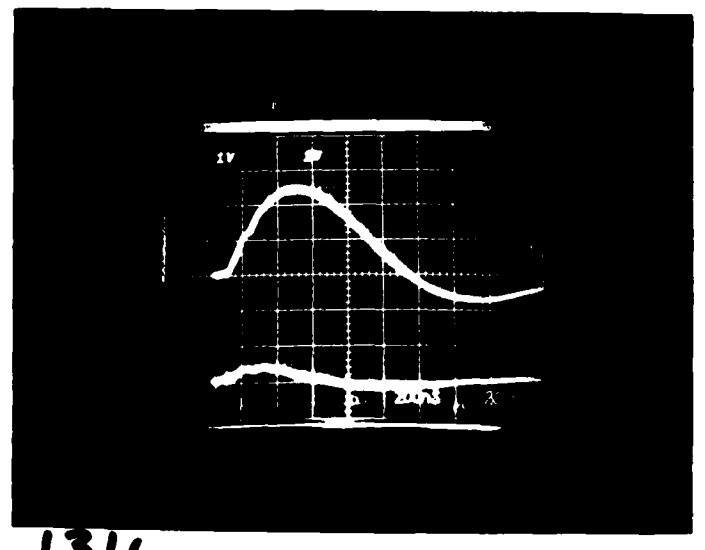
1309

Date 6-14-85  
 Test Point 60-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1310



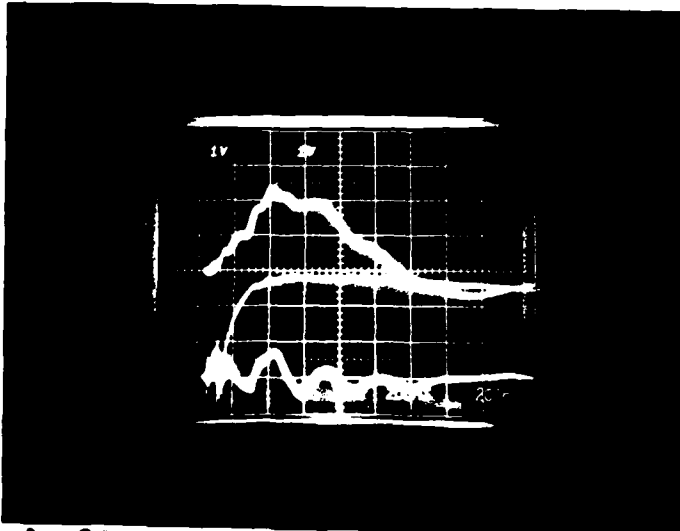
1310

Date 6-14-85  
 Test Point 60-T25-1/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1311



1311

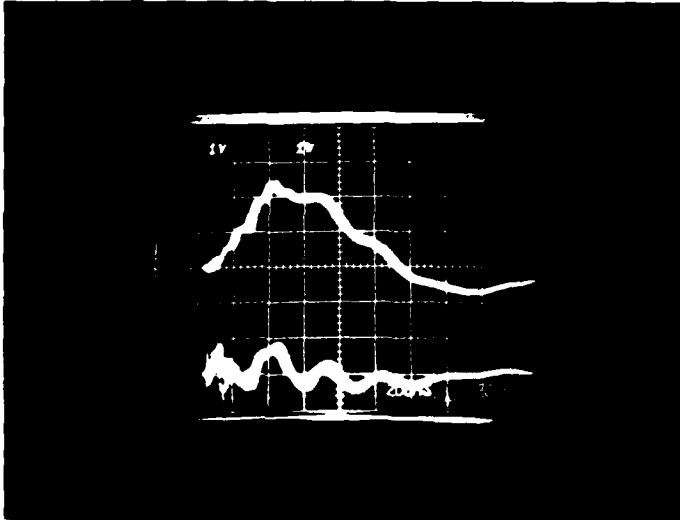
Date 6-14-85  
 Test Point 63-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1312

Comments: 1312

Date 6-14-85  
 Test Point 63-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

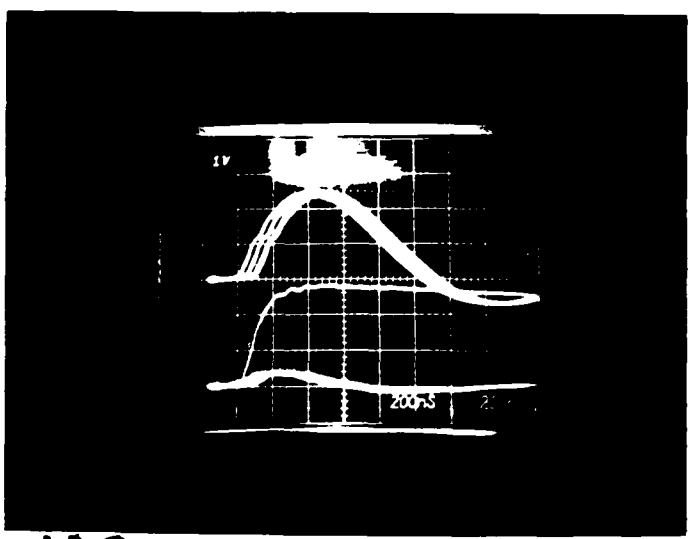


1313

Comments: 1313

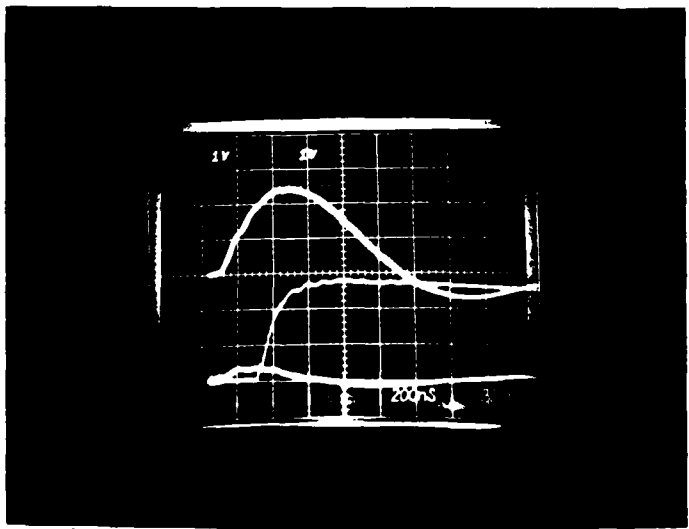
INVALID - see replacement

Date 6-14-85  
 Test Point 63-T25-1/15-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~ms~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25 KV  
 Data Link



1320

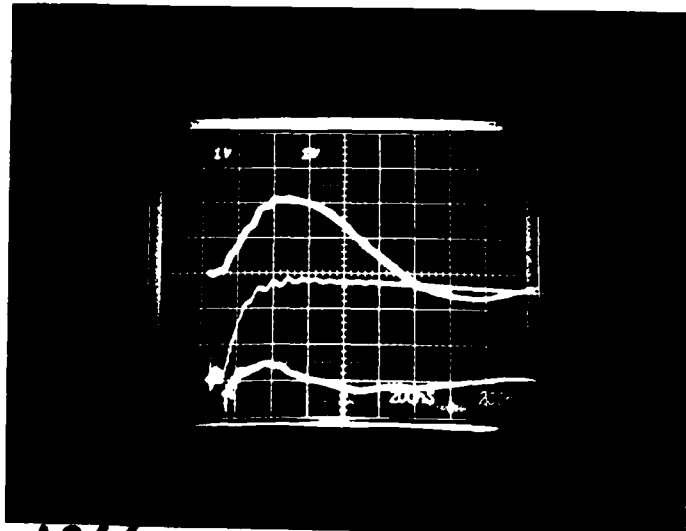
Date 6-14-85  
 Test Point 63-T25-1/15-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~ms~~/div 2  
 Configuration -20  
 Pulsar Level 25 KV  
 Data Link



1321

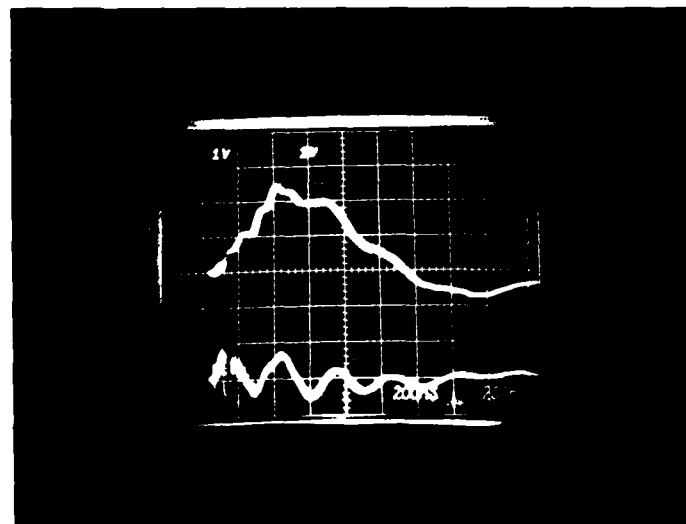
Comments: 1321

Date 6-14-85  
 Test Point 63-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1314

Date 6-14-85  
 Test Point 63-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



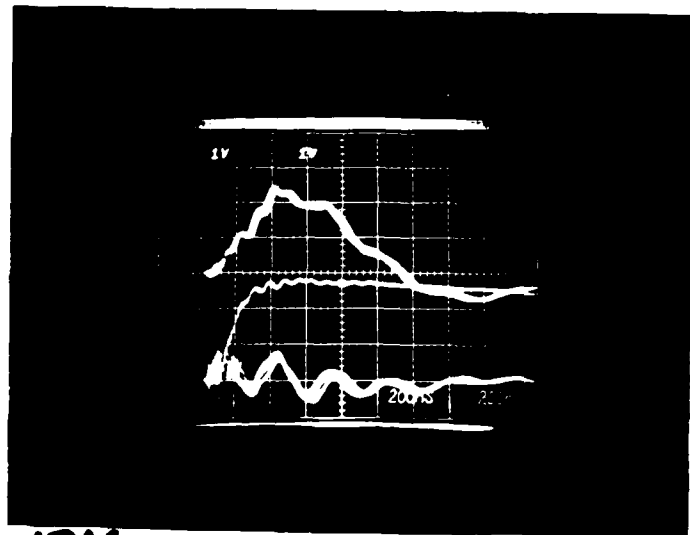
1315

INVALID - see Replacement



Date 6-14-85  
 Test Point 63-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

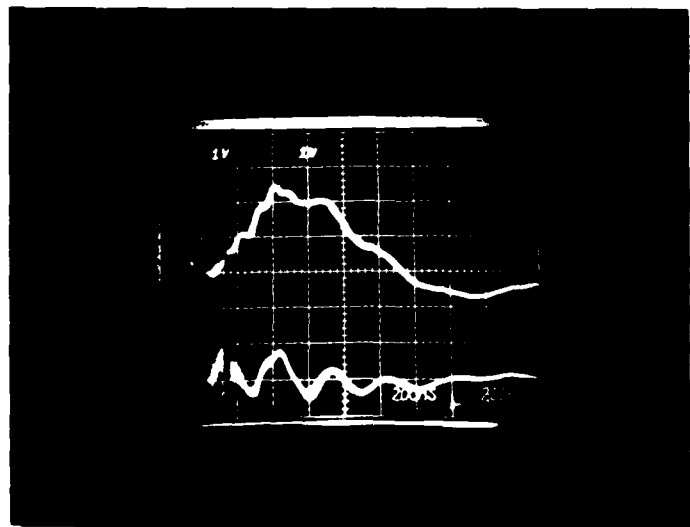
Comments: 1316



1316

Date 6-14-85  
 Test Point 63-T25-910-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

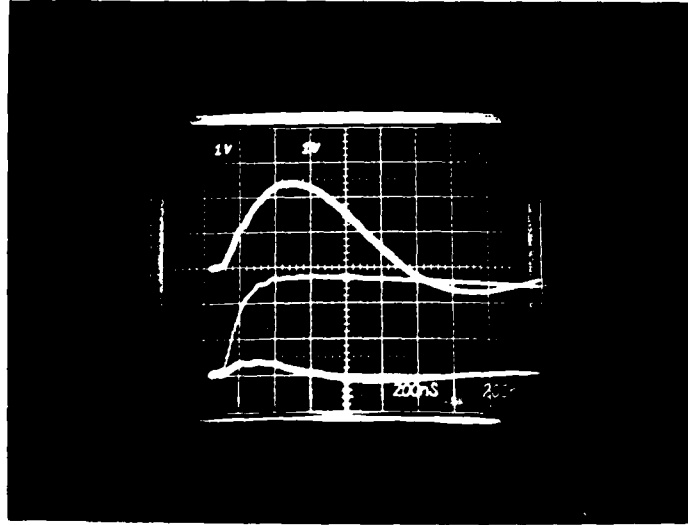
Comments: 1317



1317

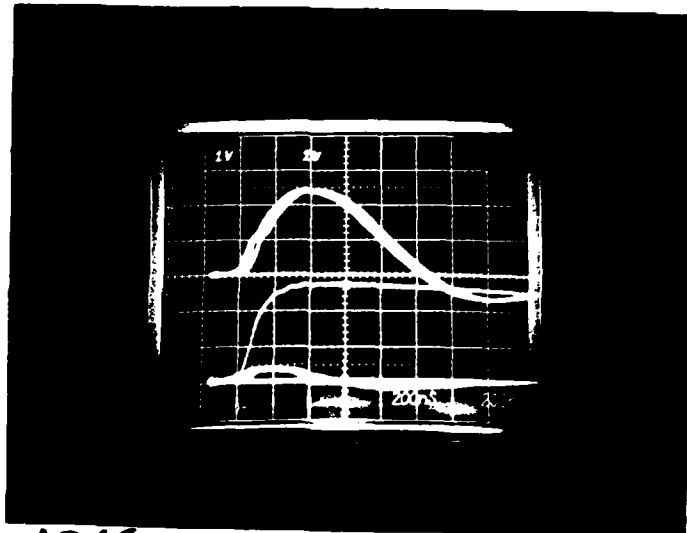
INVALID; see replacement

Date 6-14-85  
 Test Point 63-T25-1/15-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 $\mu$ V)  $\rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V)  $\rightarrow$ /div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link  
 Comments:



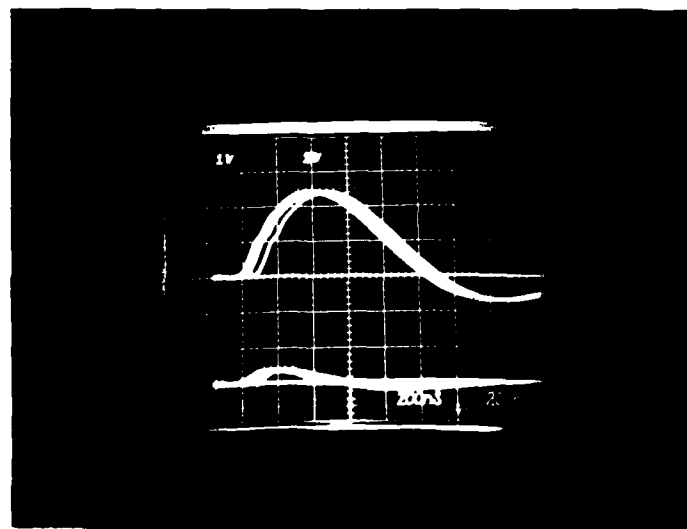
Date 6-14-85  
 Test Point 63-T25-1/15-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000 $\mu$ V)  $\rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V)  $\rightarrow$ /div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link  
 Comments:

Date 6-14-85  
 Test Point 63-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1318

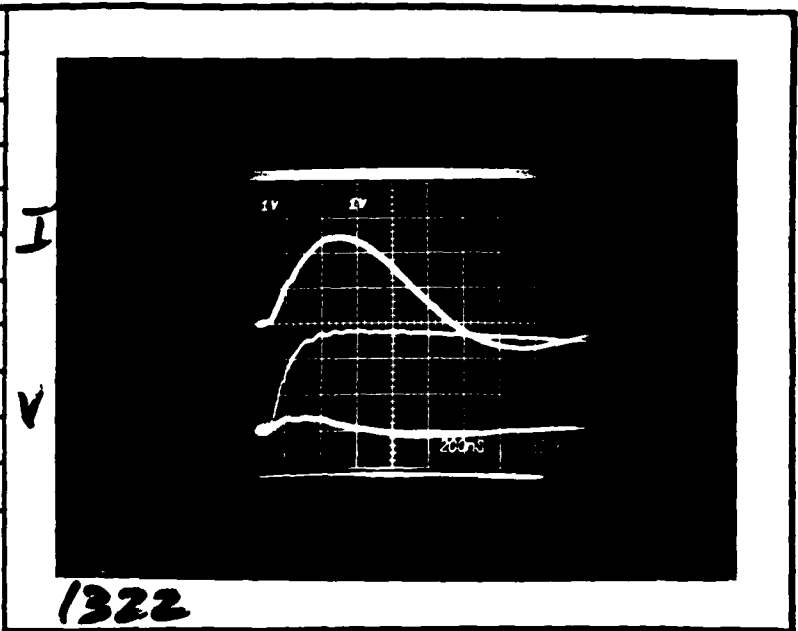
Date 6-14-85  
 Test Point 63-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1319

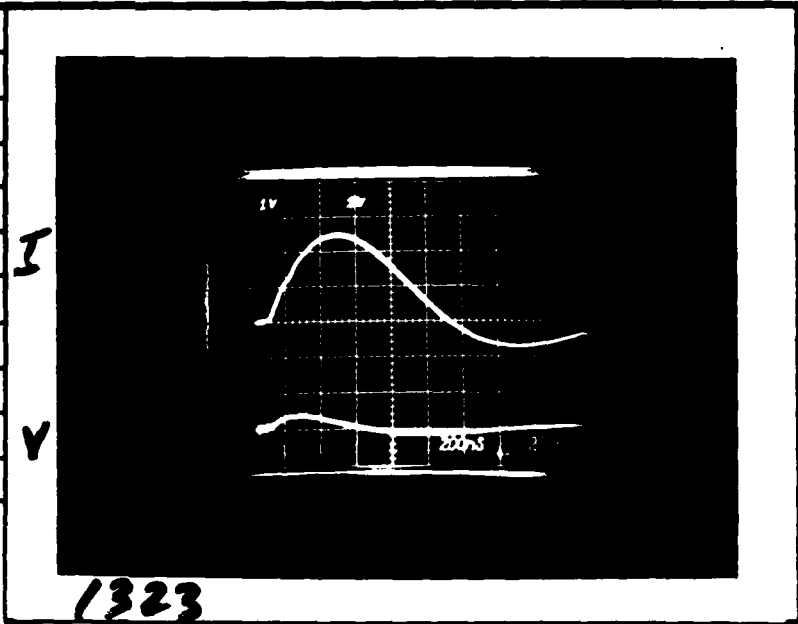
Date 6-14-85  
 Test Point 63-T25-15-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1322



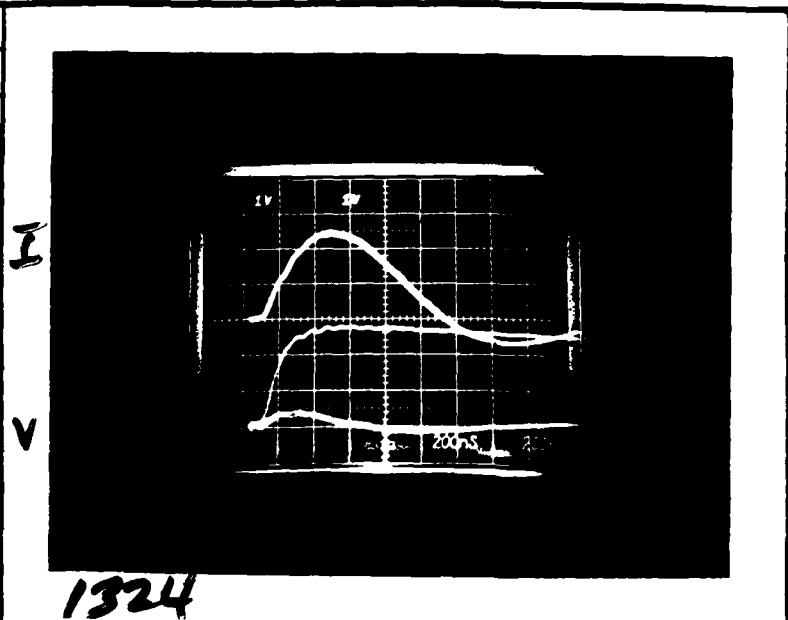
Date 6-14-85  
 Test Point 63-T25-10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1323



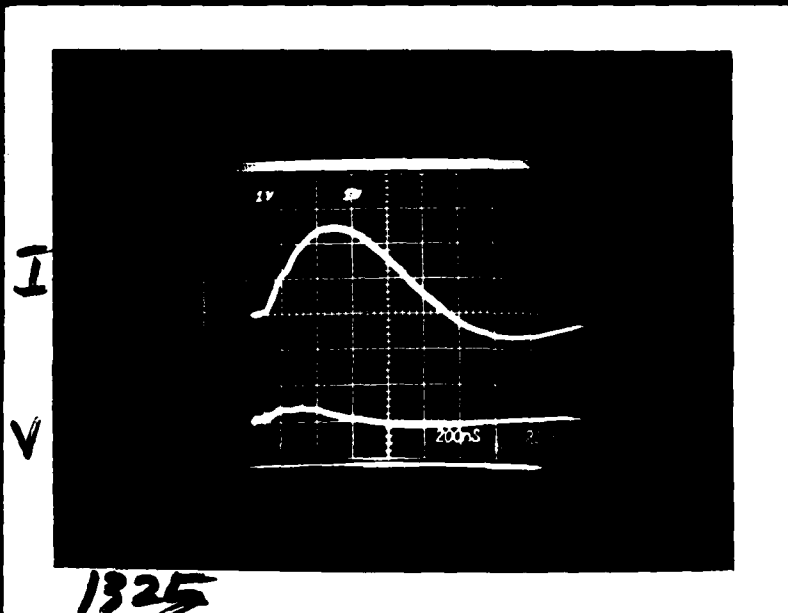
Date	6-14-85
Test Point	66-T25-1/5-A
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) /div 2
Configuration	-20 dB
Pulser Level	25,000 V
Data Link	

Comments: *300*

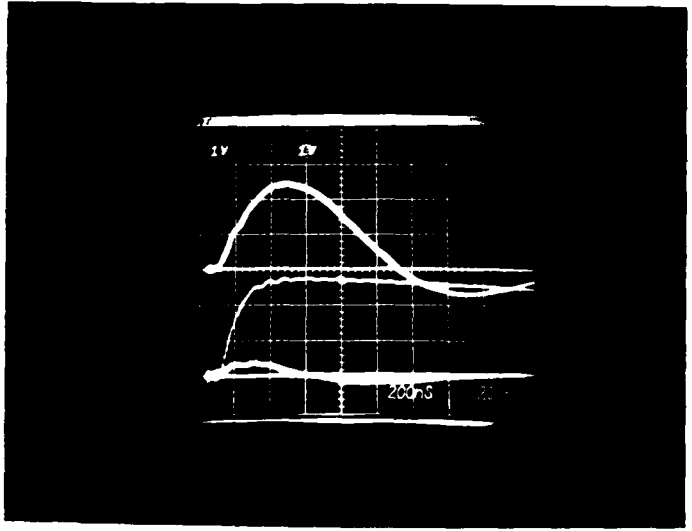


Date	6-14-85
Test Point	66-T25-9/10-A
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) /div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) /div 2
Configuration	-20 dB
Pulser Level	25,000 V
Data Link	

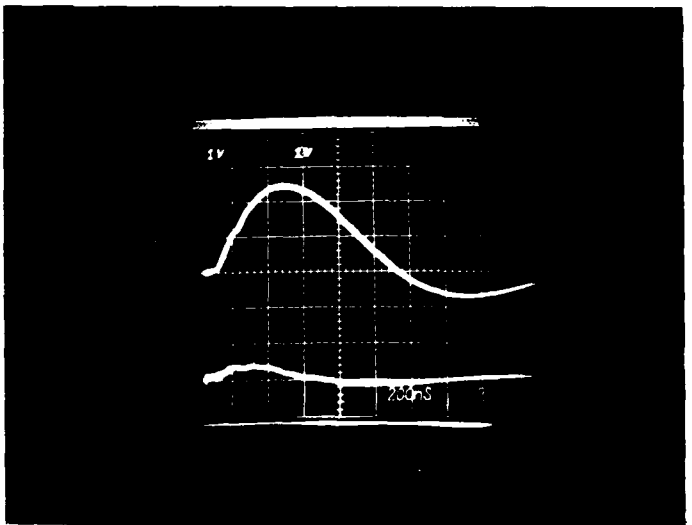
Comments:



Date	6-14-85
Test Point	66-T25-1/5-B
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical 1V (2000A/V) $\mu$ /div 1	
Horizontal	200 ns/div 2
Vertical 1V (8000V) $\mu$ /div 2	
Configuration	-20 dB
Pulser Level	25,000 V
Data Link	
Comments:	

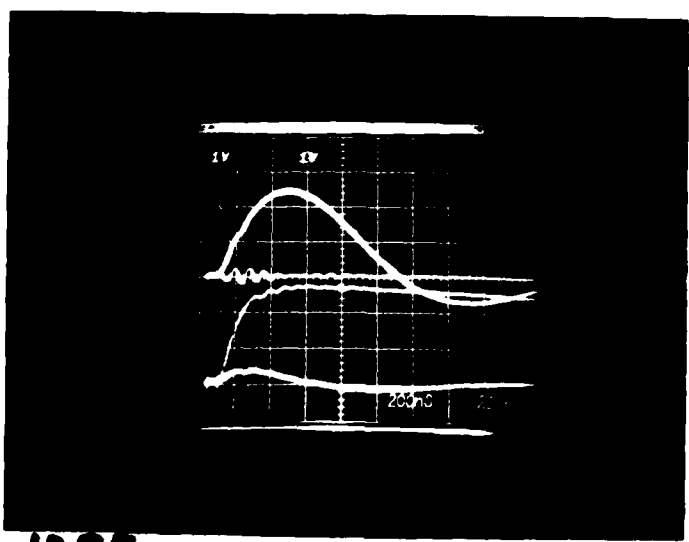


Date	6-14-85
Test Point	66-T25-910-B
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical 1V (2000A/V) $\mu$ /div 1	
Horizontal	200 ns/div 2
Vertical 1V (8000V) $\mu$ /div 2	
Configuration	-20 dB
Pulser Level	25,000 V
Data Link	
Comments:	



Date 6-14-85  
 Test Point 66-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

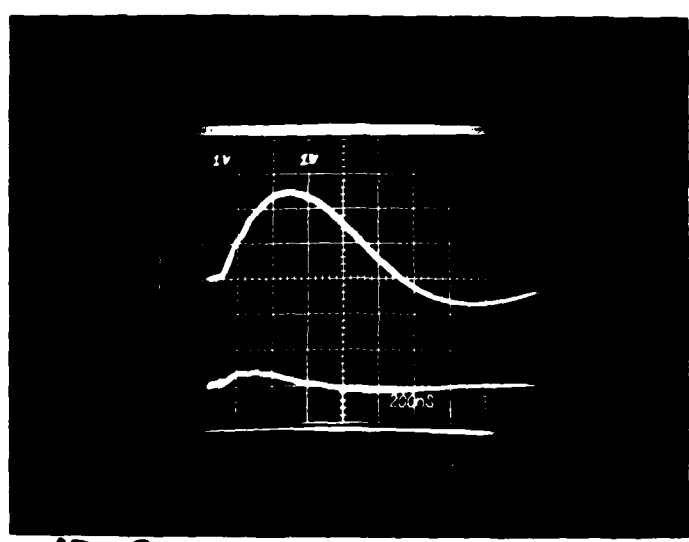
328



1328

Date 6-14-85  
 Test Point 66-T25-910-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

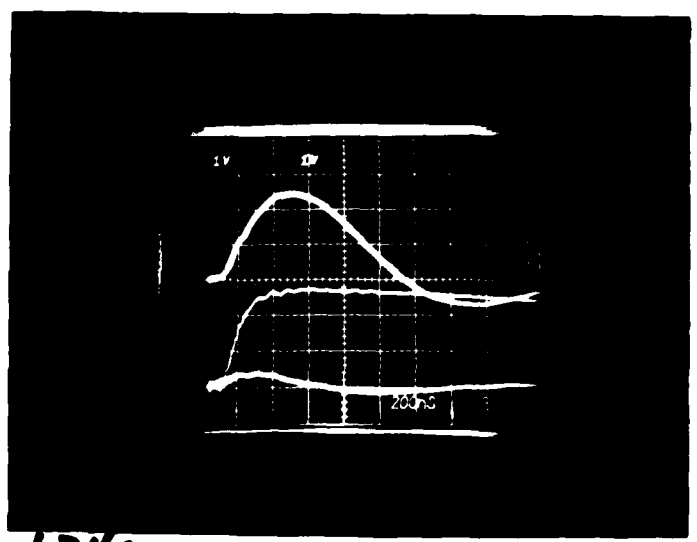
329



1329

Date 6-14-85  
 Test Point 66-T25-15-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

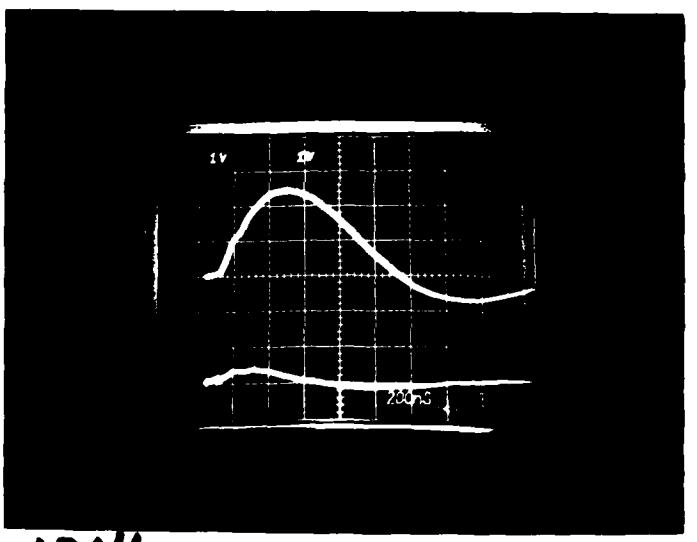
1340



1340

Date 6-14-85  
 Test Point 66-T25-10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

1341

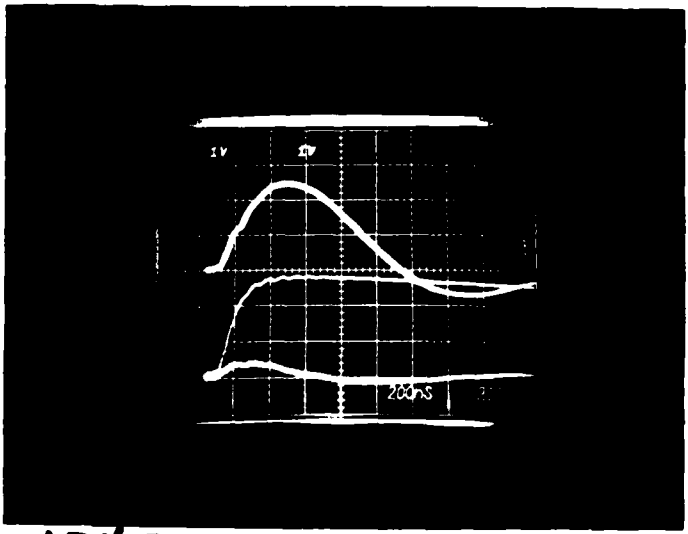


1341



Date 6-14-85  
 Test Point 66-T25-15-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\square$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\square$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

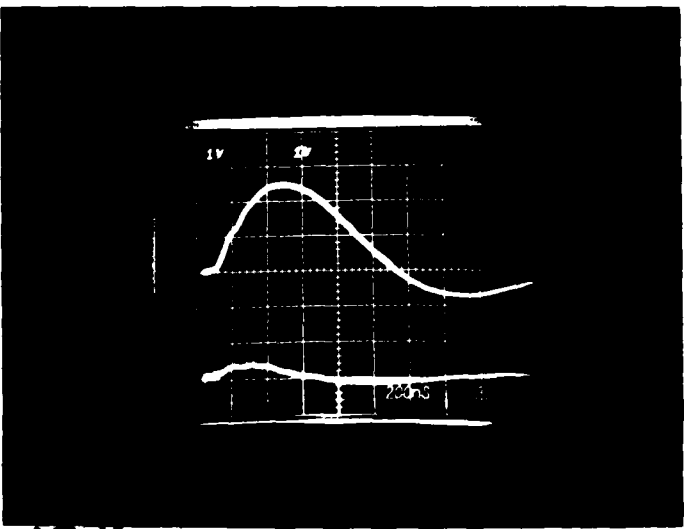
Comments: 1342



1342

Date 6-14-85  
 Test Point 66-T25-910-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\square$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\square$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

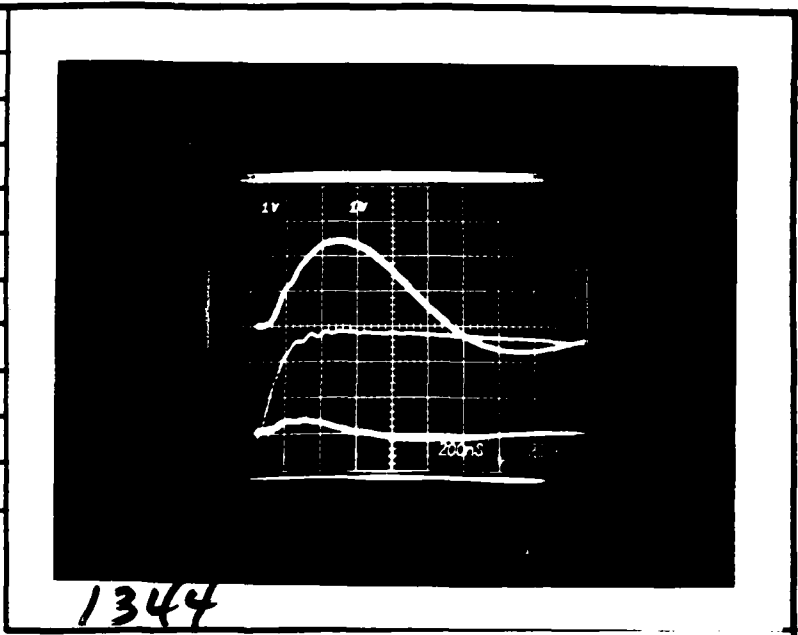
Comments: 1343



1343

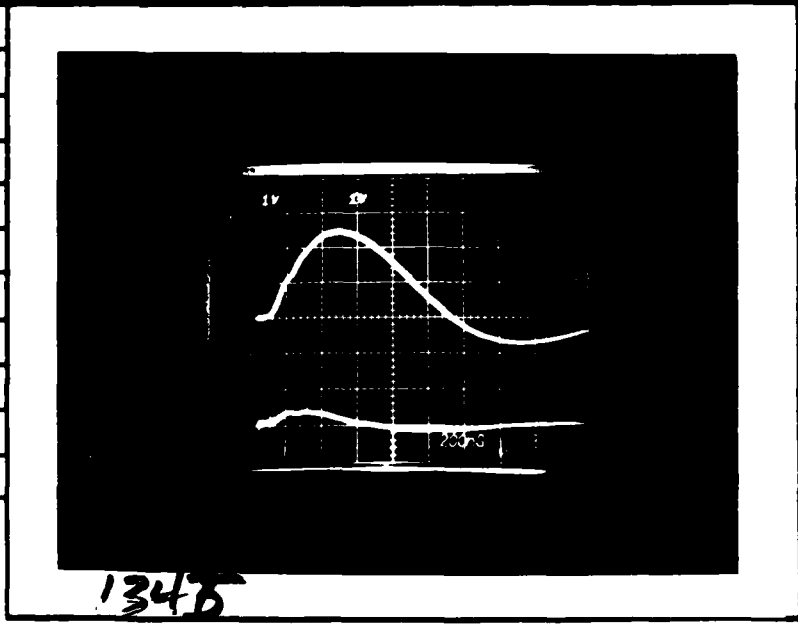
Date 6-14-85  
 Test Point 69-T25-15-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1344

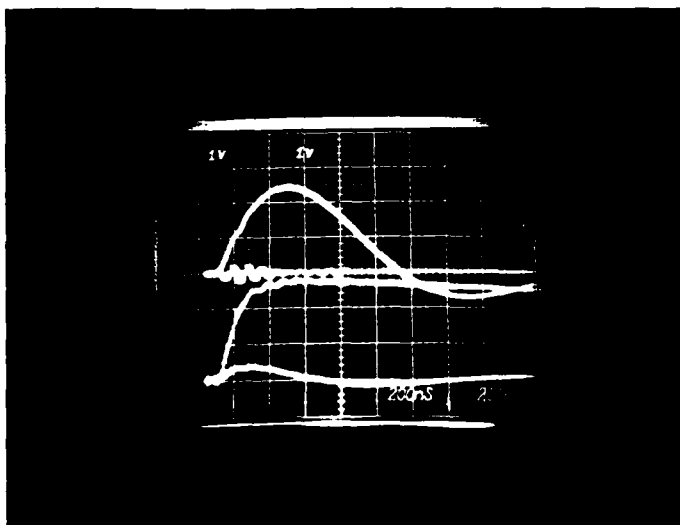


Date 6-14-85  
 Test Point 69-T25-910-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:



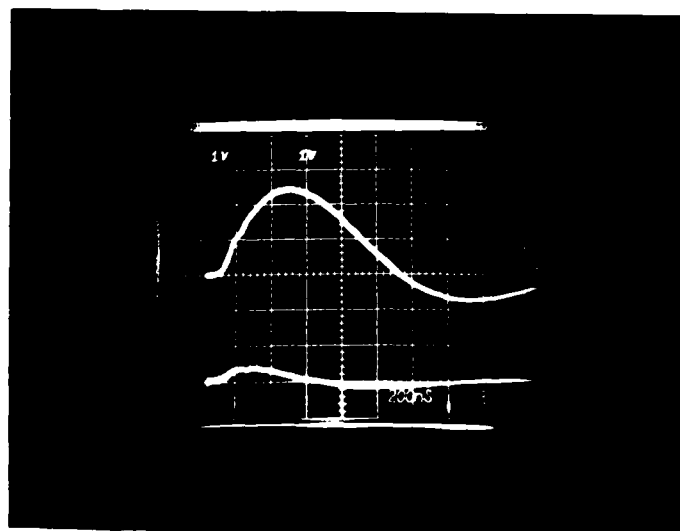
Date 6-14-85  
 Test Point 69-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



Comments: 346

1346

Date 8-14-85  
 Test Point 69-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

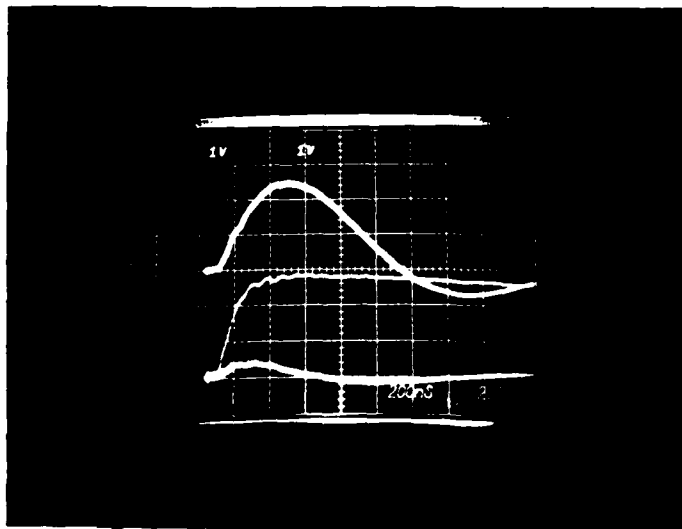


Comments: 1347

1347

Date 6-14-85  
 Test Point 69-T25-15-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

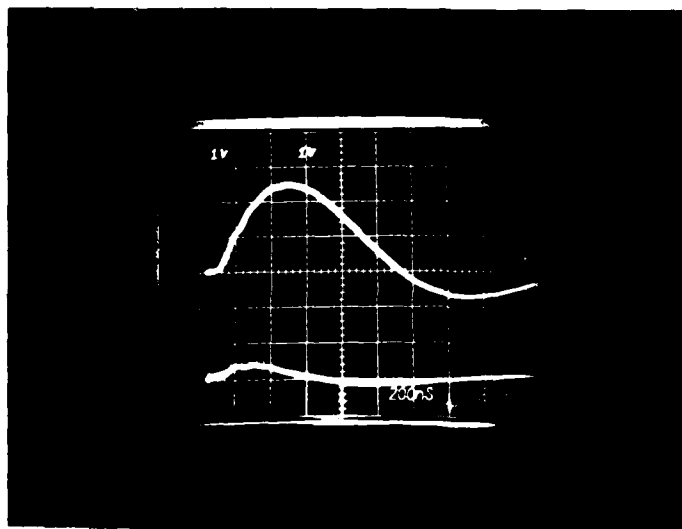
Comments: 1348



1348

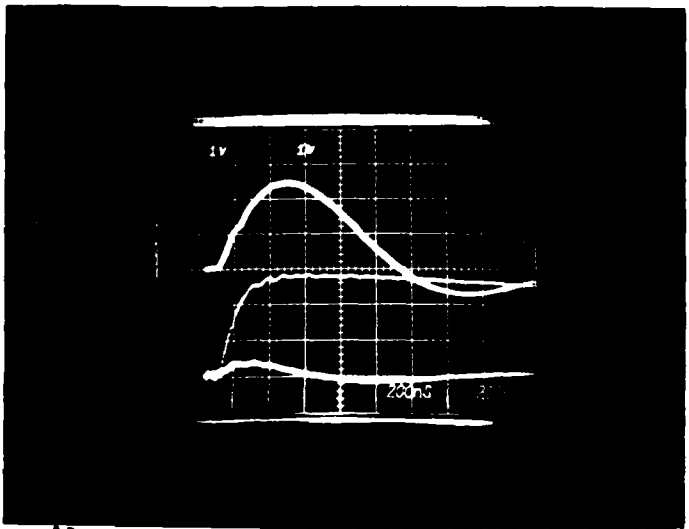
Date 6-14-85  
 Test Point 69-T25-910-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1349



1349

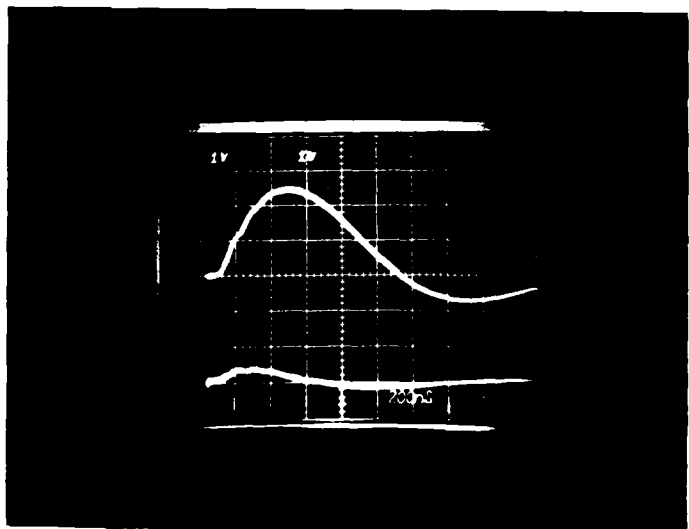
Date 6-14-85  
 Test Point 69-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1350

Comments: 2-1-

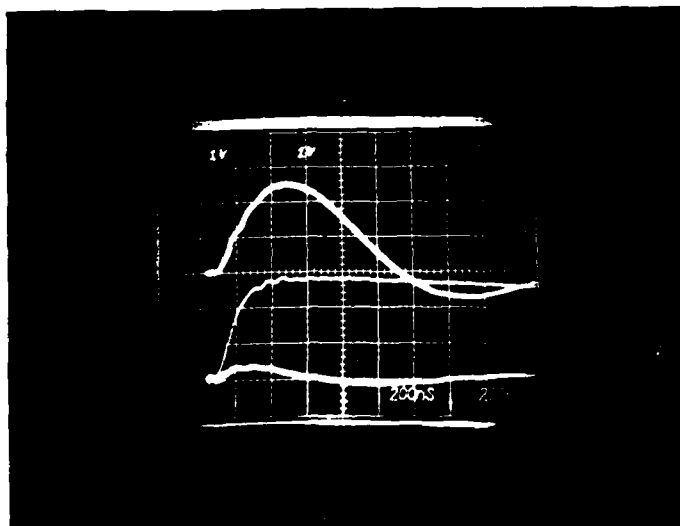
Date 6-14-85  
 Test Point 69-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



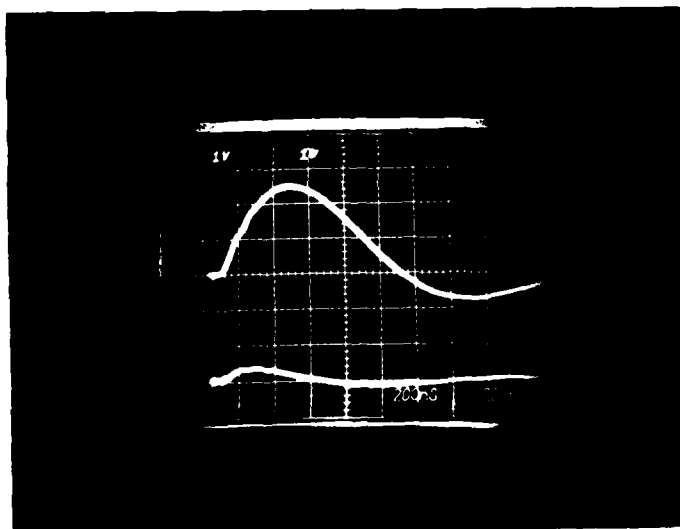
1351

Comments: 1351

Date	6-14-85
Test Point	69-T25-15-E
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) $\mu$ A/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) $\mu$ V/div 2
Configuration	-20 dB
Pulse Level	25,000 V
Date Link	
Comments:	252

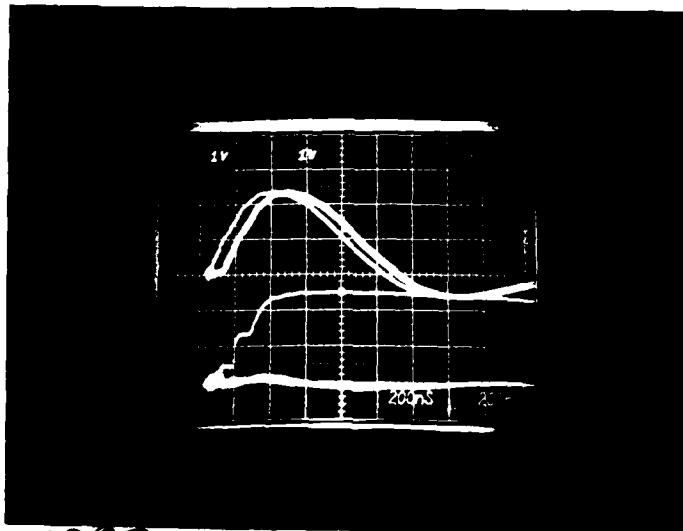


Date	6-14-85
Test Point	69-T25-10-E
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) $\mu$ A/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) $\mu$ V/div 2
Configuration	-20 dB
Pulse Level	25,000 V
Date Link	
Comments:	1353



Date 6-17-85  
 Test Point 70-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

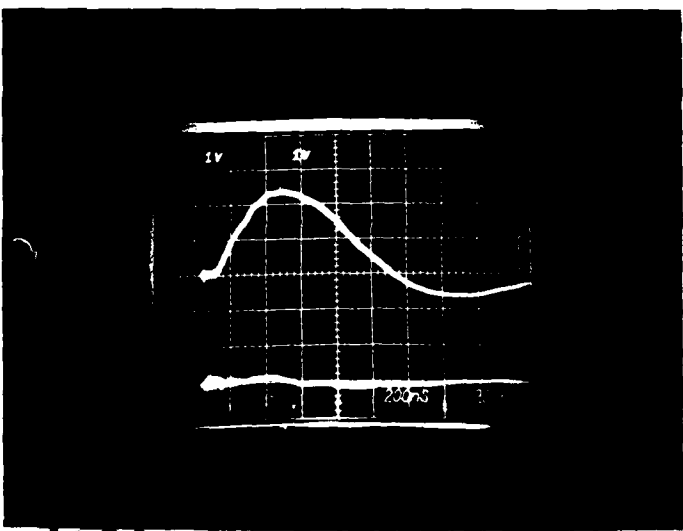
Comments: 1378



1398

Date 6-17-85  
 Test Point 70-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~m~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~m~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

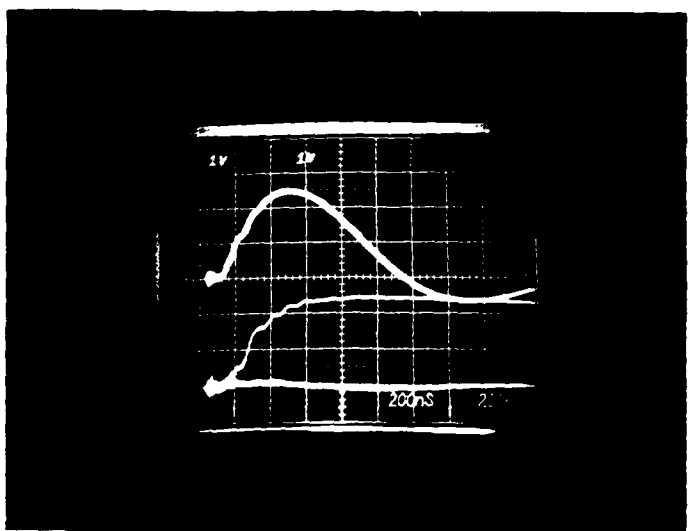
Comments: 1377



1399

Date 6-17-85  
 Test Point 70-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

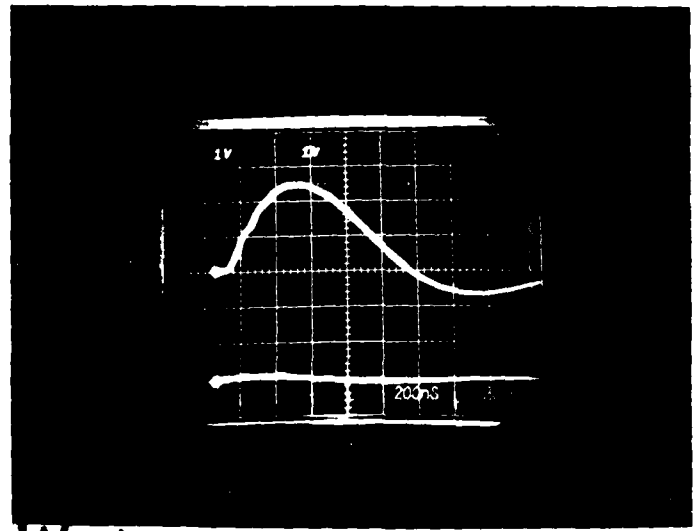
Comments: 4 30



1400

Date 6-17-85  
 Test Point 70-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments:



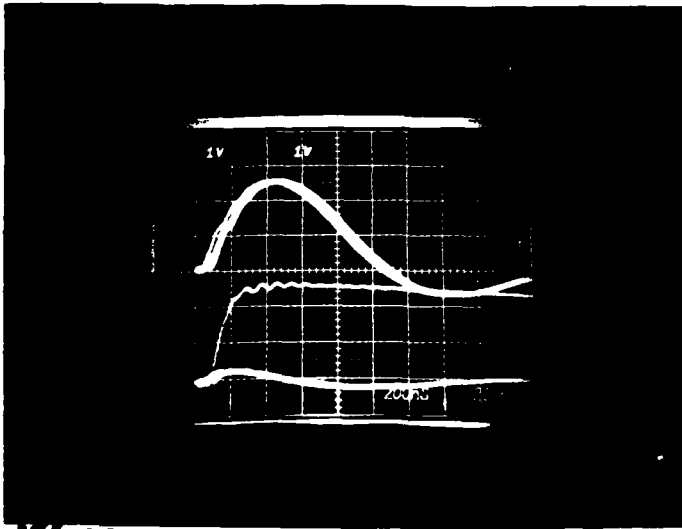
1401



(REPEAT "T" TEST)

Date	6-18-85
Test Point	70-T25-1/5-C
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V(2000 A/V) mV/div 1
Horizontal	200 ns/div 2
Vertical	1V(8000V) mV/div 2
Configuration	-20dB
Pulser Level	25000V
Date Link	

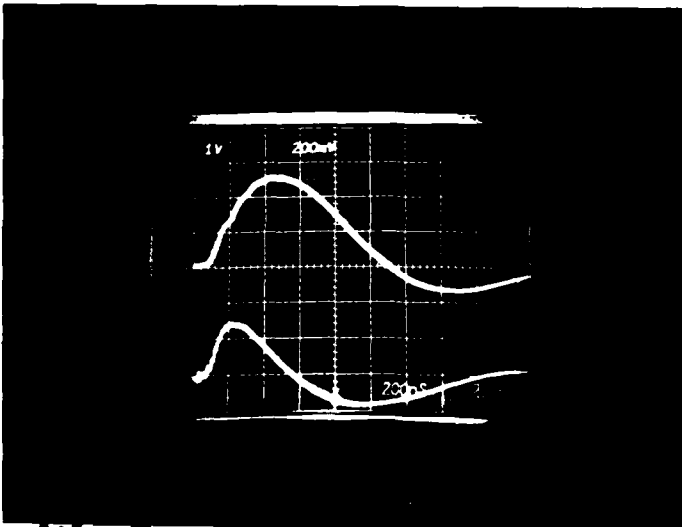
Comments:



1473

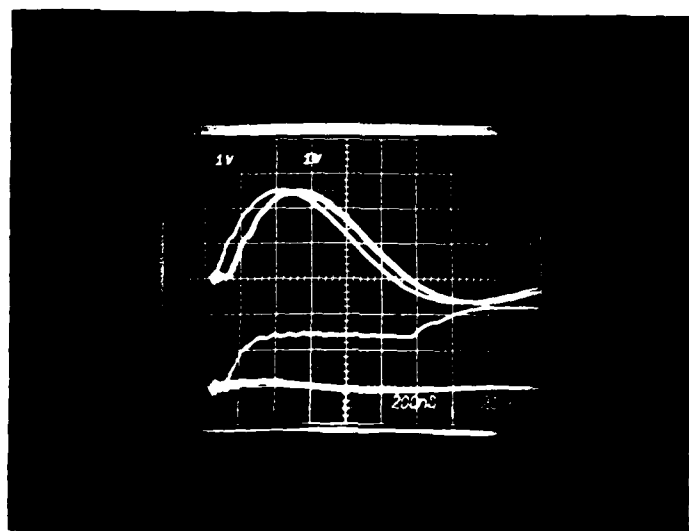
Date	6-18-85
Test Point	70-T25-6/10-C
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V(2000 A/V) mV/div 1
Horizontal	200 ns/div 2
Vertical	.2V(1600V) mV/div 2
Configuration	-20dB
Pulser Level	25,000V
Date Link	

Comments:



1475

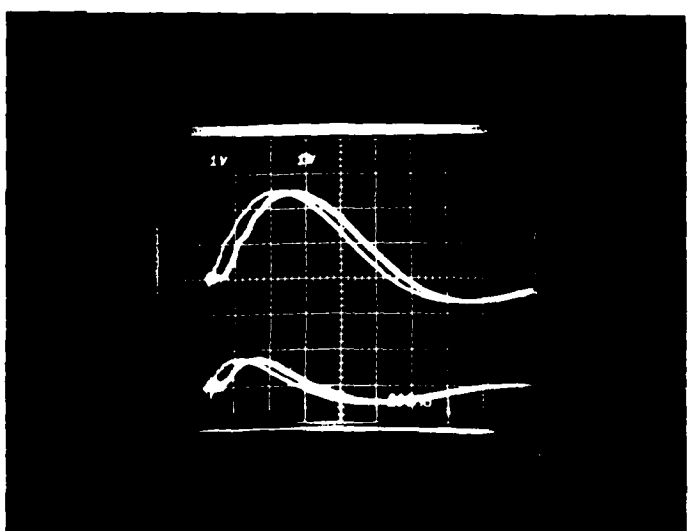
Date 6-17-85  
 Test Point 70-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1402

Comments: 117\*

Date 6-17-85  
 Test Point 70-T25-910-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



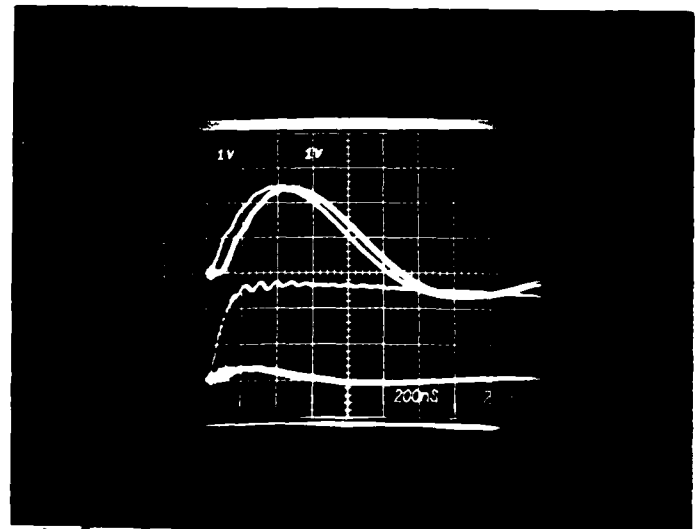
1403

Comments: 433

V @ .2V (1600V) /DIV

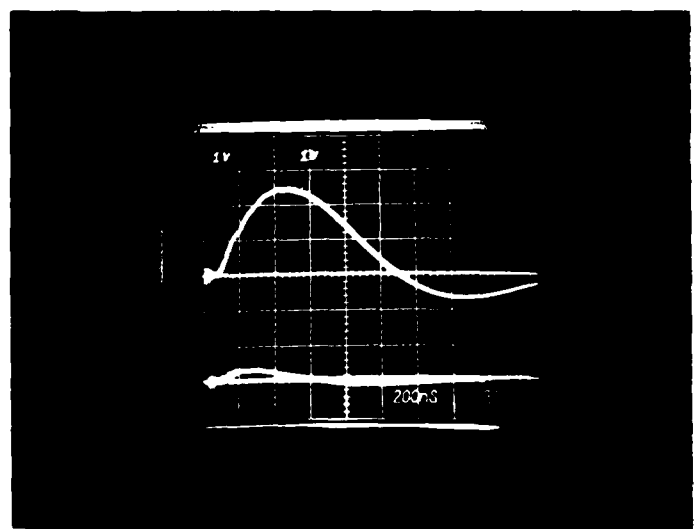
probably inverted

Date 6-17-85  
 Test Point 70-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1404

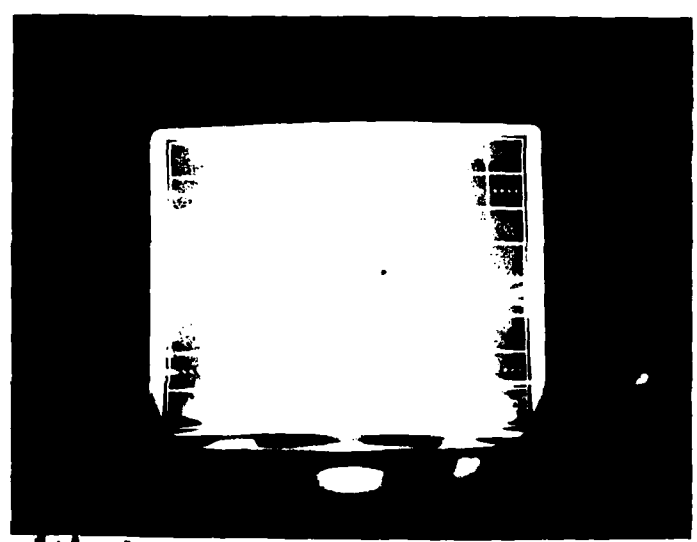
Date 6-17-85  
 Test Point 70-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1405

Date 6-17-85  
 Test Point 70-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 2/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

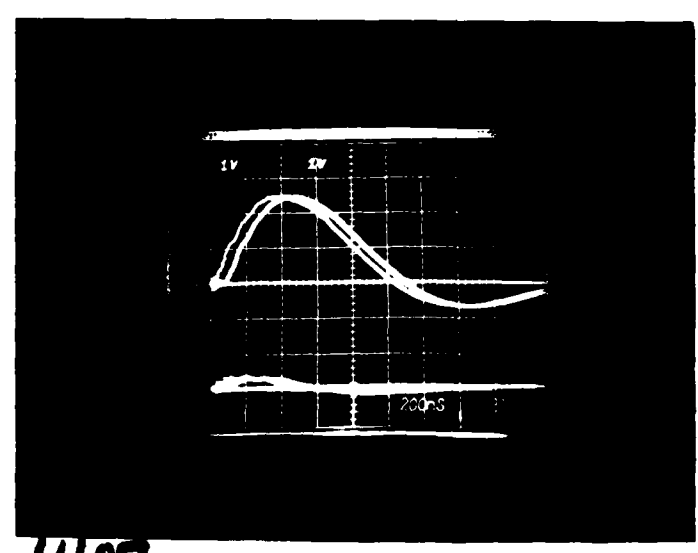
1406



1406

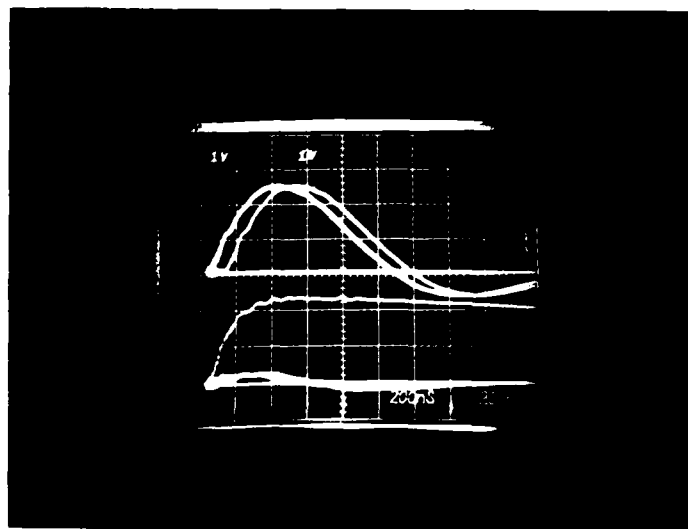
Date 6-17-85  
 Test Point 70-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 2/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

1407



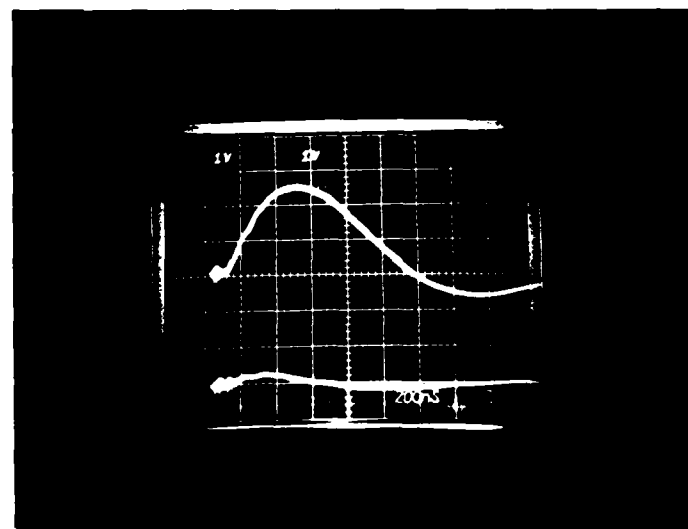
1407

Date 6-17-85  
 Test Point 73-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 587



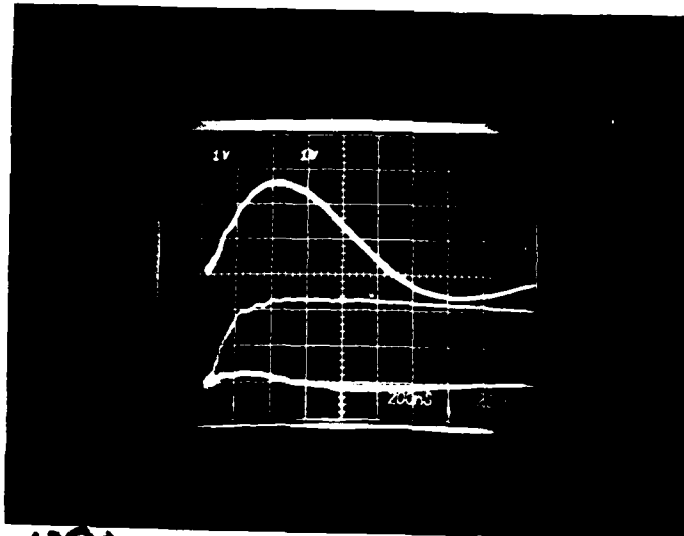
1359

Date 6-17-85  
 Test Point 73-T25-1/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



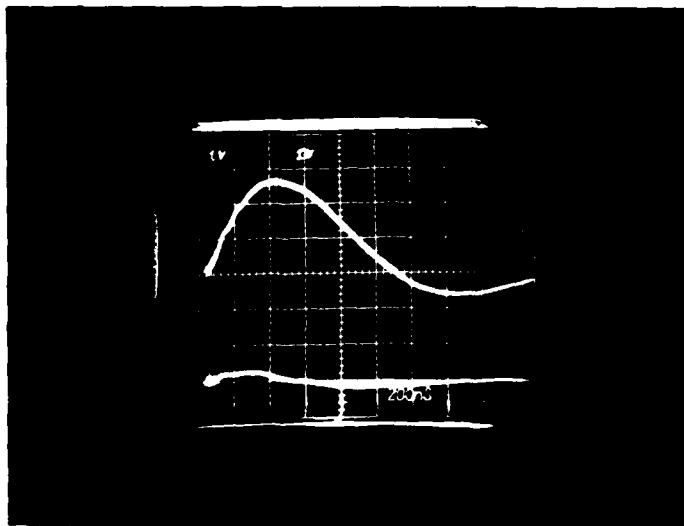
1390

Date 6-17-85  
 Test Point 73-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 500



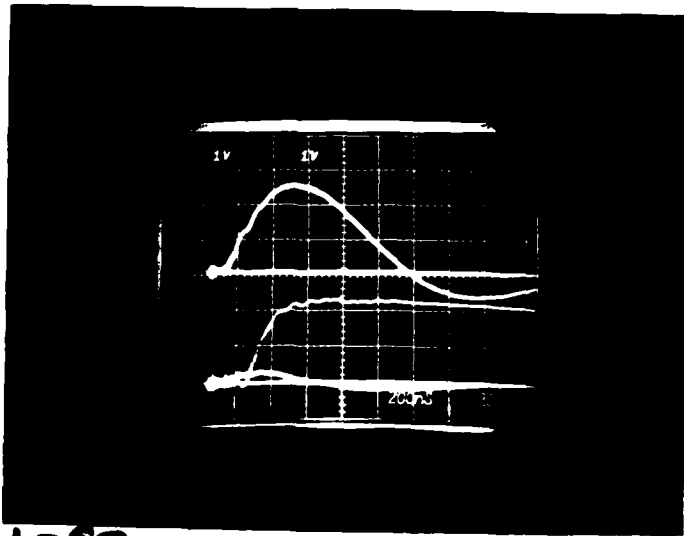
1390

Date 6-17-85  
 Test Point 73-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1311



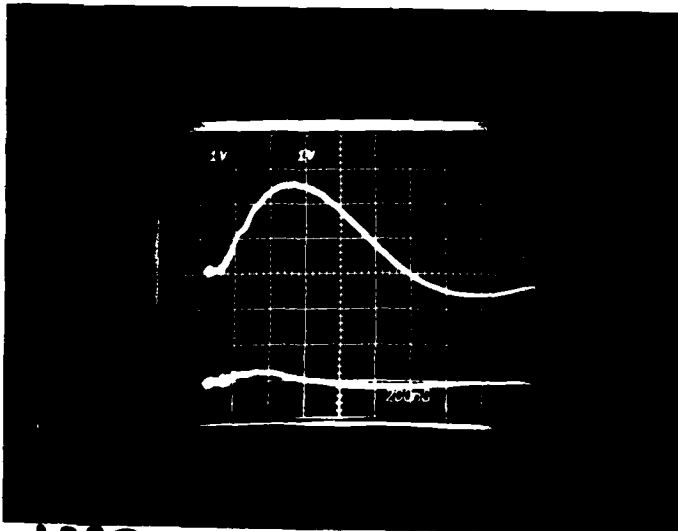
1391

Date 6-17-85  
 Test Point 73-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



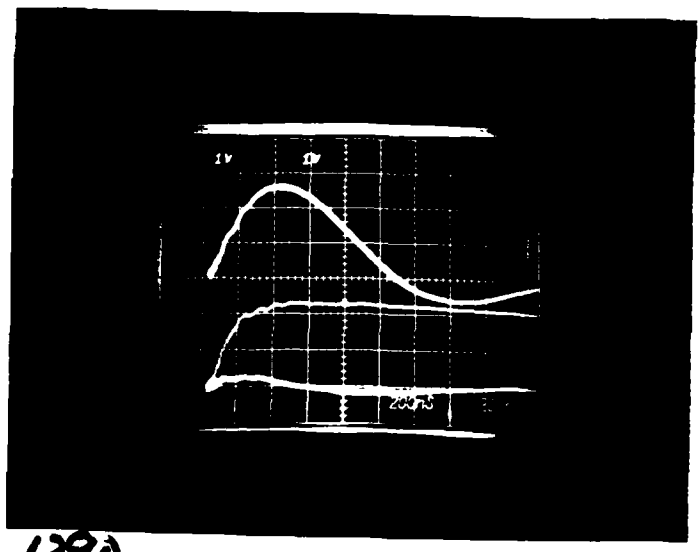
1392

Date 6-17-85  
 Test Point 73-T25-1/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



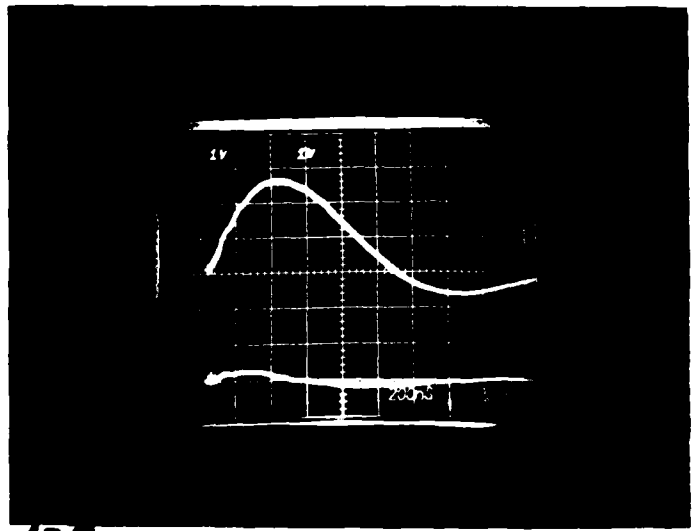
1393

Date 6-17-85  
 Test Point 73-T25-15-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 520



1390

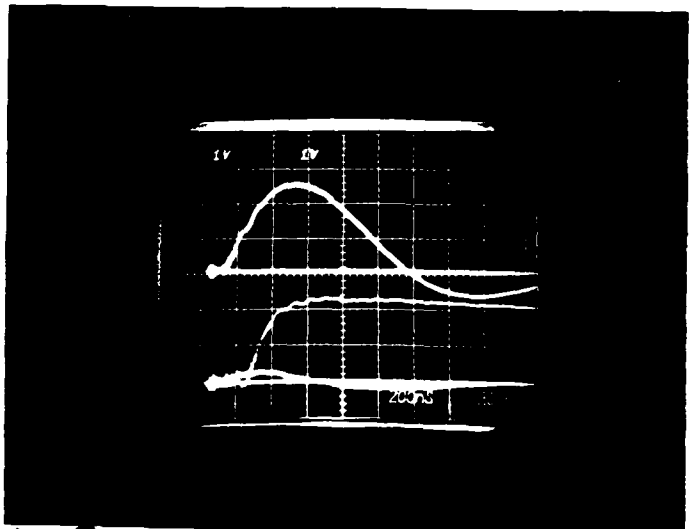
Date 6-17-85  
 Test Point 73-T25-910-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1511



1391

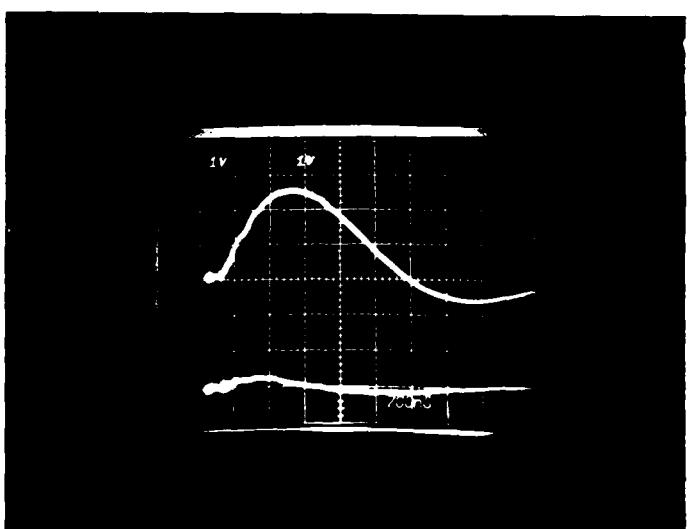


Date 6-17-85  
 Test Point 73-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1392

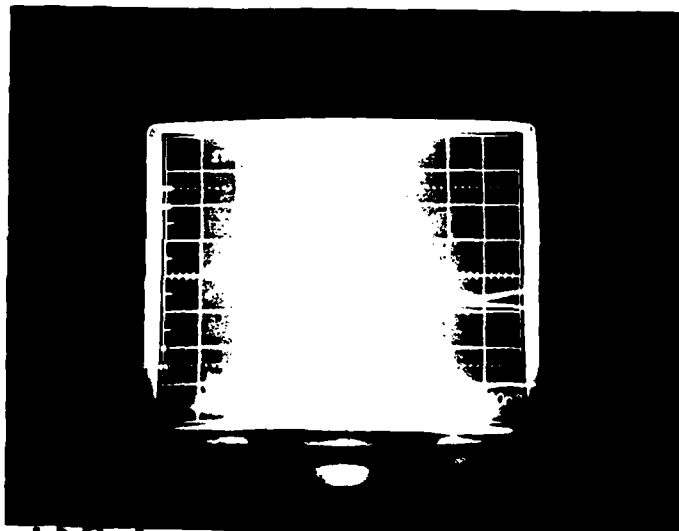
Date 6-17-85  
 Test Point 73-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1393

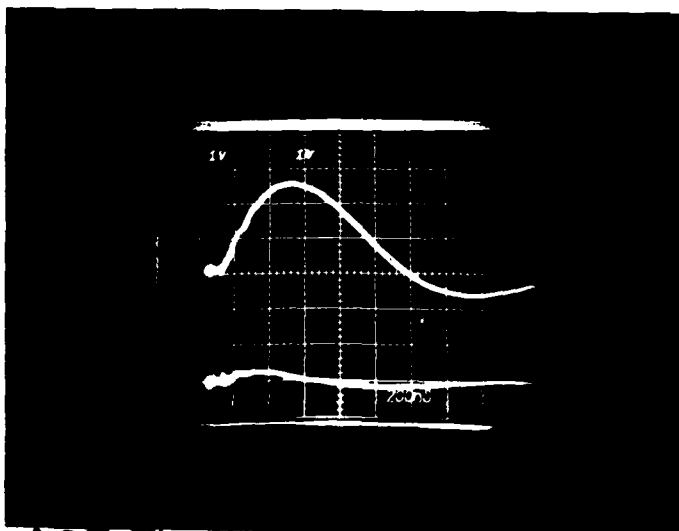
Comments:

Date 6-17-85  
 Test Point 73-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1394



1394

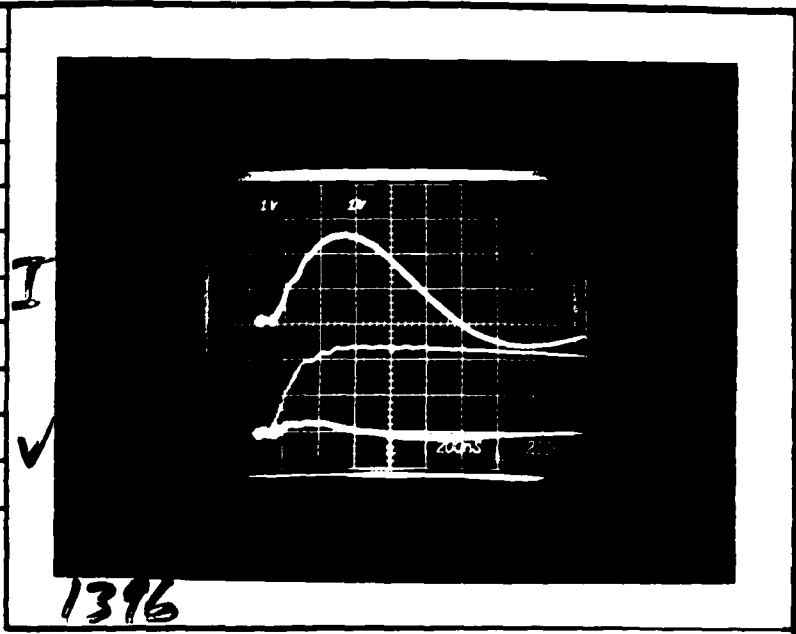
Date 6-17-85  
 Test Point 73-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1395



1395

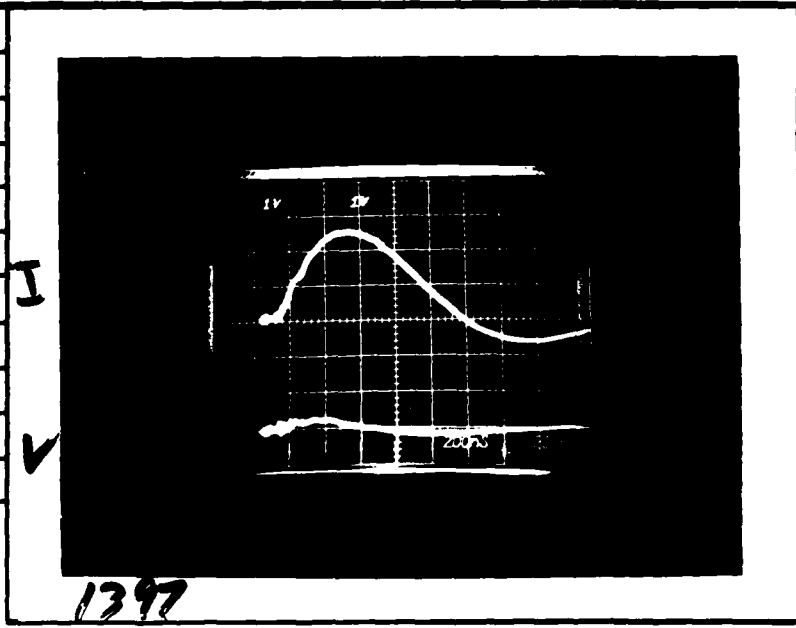
Date 6-17-85  
 Test Point 73-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1396

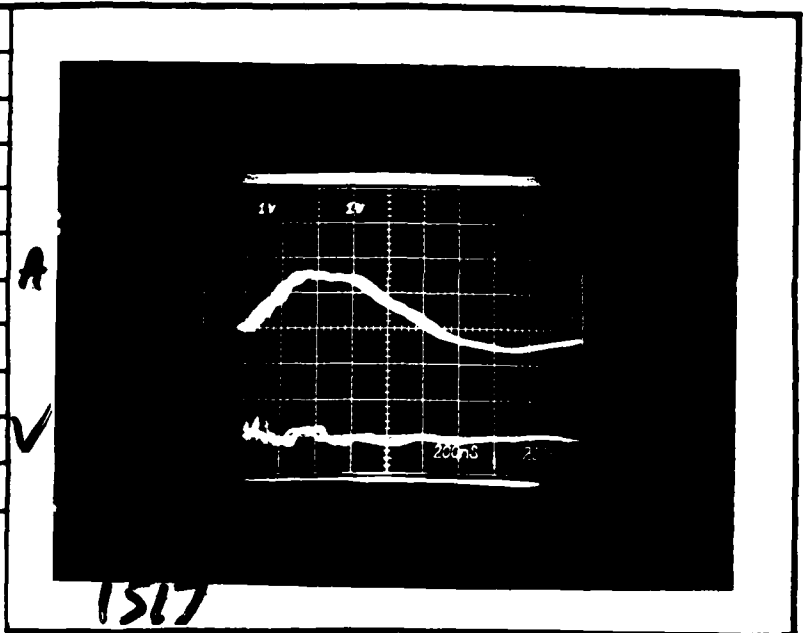


Date 6-17-85  
 Test Point 73-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

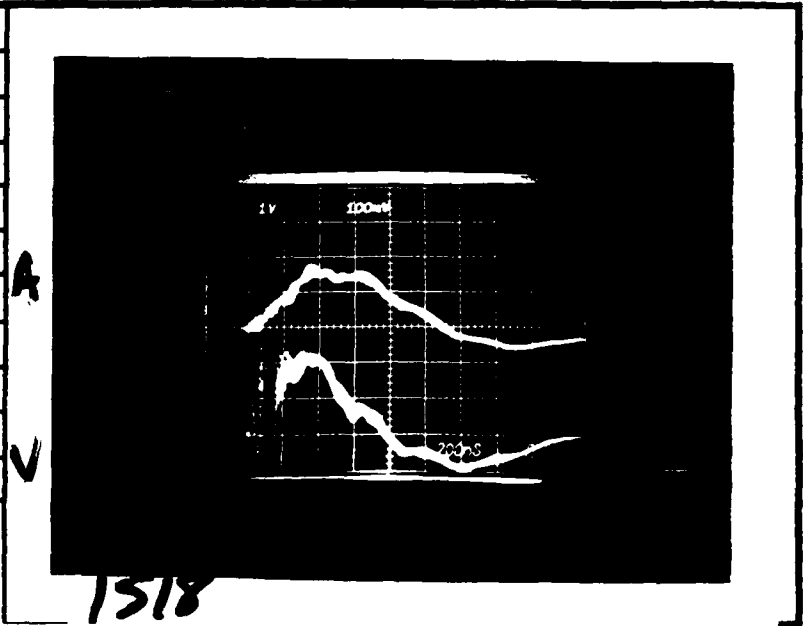
Comments: 1397



Date 6-19-85  
 Test Point 75-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1517

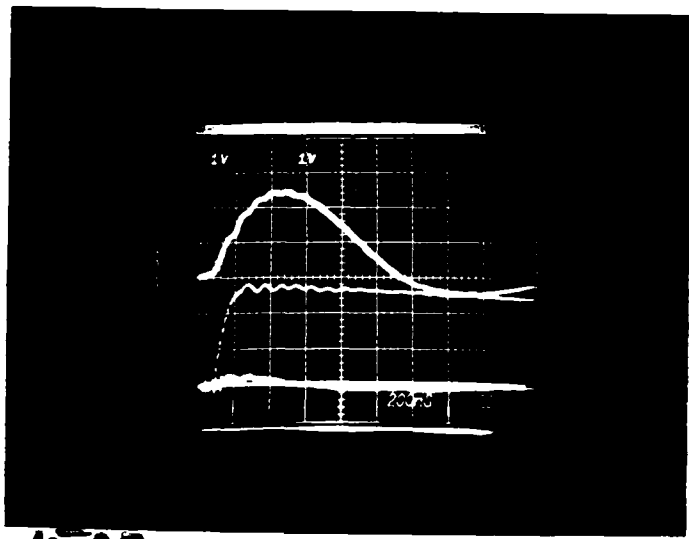


Date 6-19-85  
 Test Point 75-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 2V(1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1518



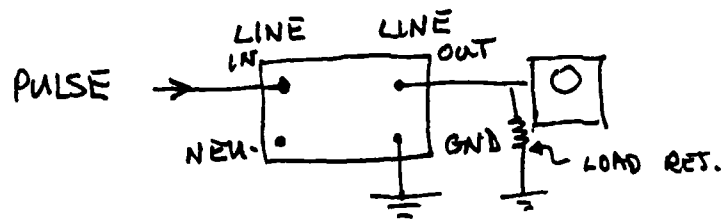
DATA @ 1V(8000V)

Date 6-19-85  
 Test Point 76-T25-1/5-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1500

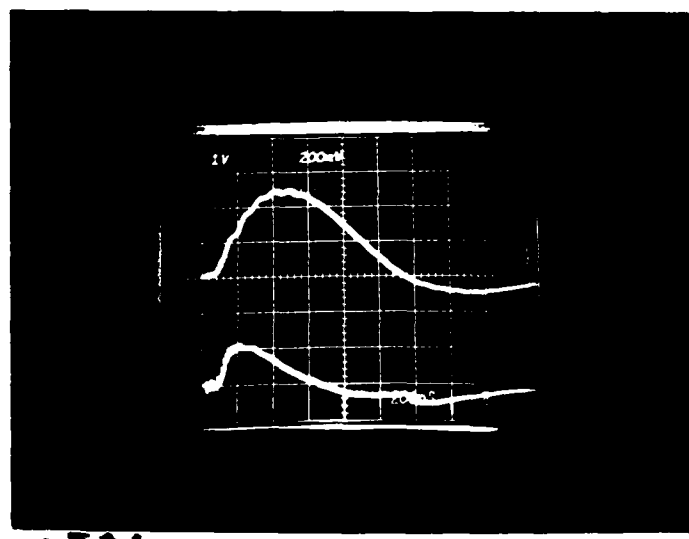


1500

"HOT"



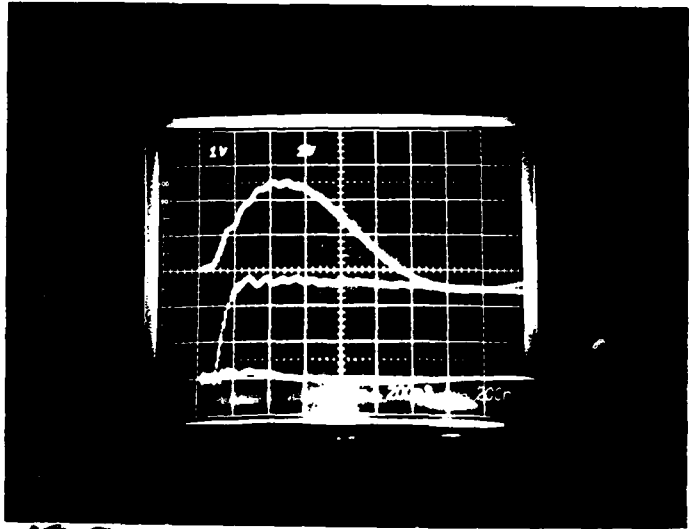
Date 6-19-85  
 Test Point 76-T25-6/10 Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link  
 Comments:



1501

"HOT"

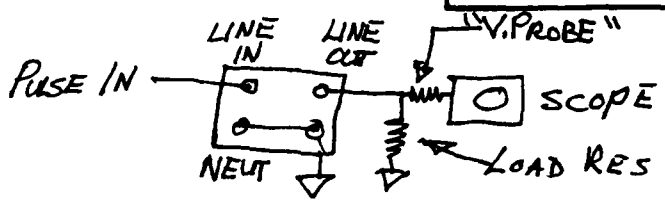
Date 6-19-85  
 Test Point 76-T25-1/5- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~ns~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~ns~~/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



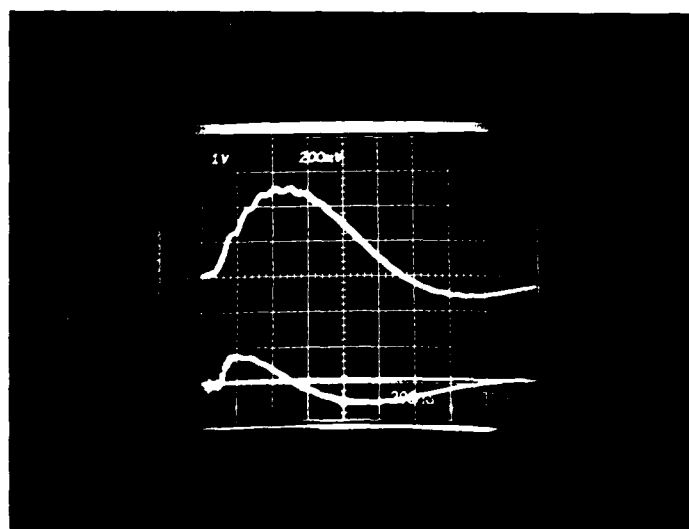
1502

Comments: 1.72

"NEUTRAL"



Date 6-19-85  
 Test Point 76-T25-6/10- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~ns~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) ~~ns~~/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link



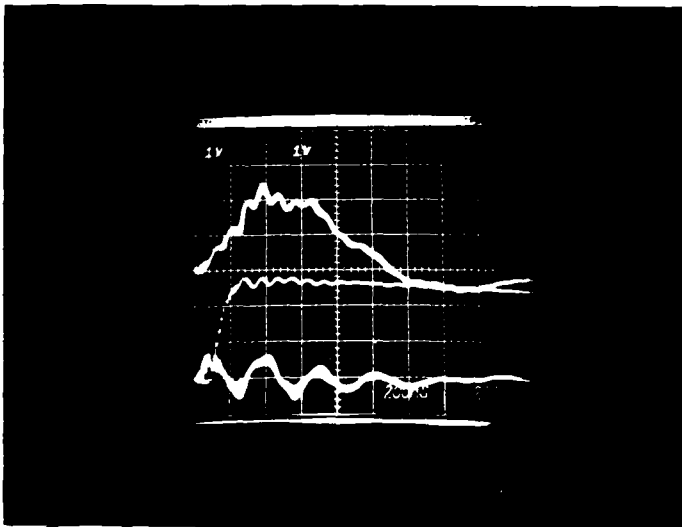
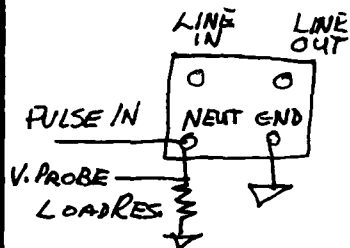
1503

Comments:

"NEUTRAL"

Date 6-19-85  
 Test Point 76-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link

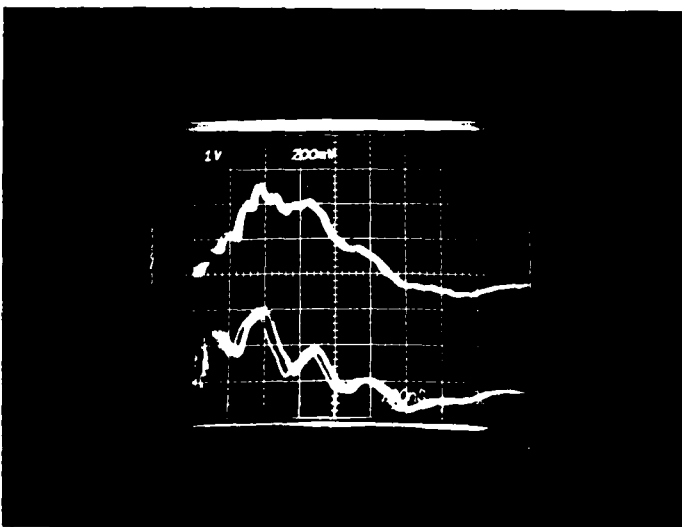
Comments: 1504



1504

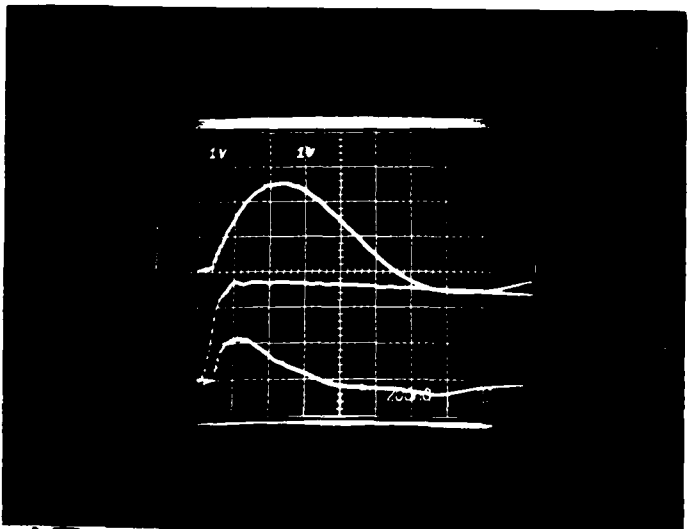
Date 6-19-85  
 Test Point 76-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1505

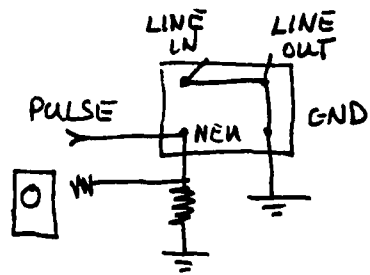


1505

Date 6-19-85  
 Test Point 76-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000AV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V(2000AV)~~ ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1506



DATA: VERTICAL @ .2V (1600V) PER DIV  
 REF: VERTICAL @ 1V (8000V) PER DIV

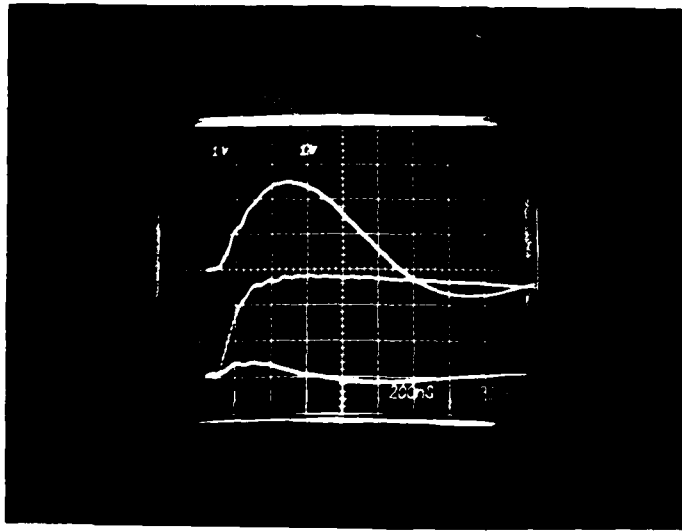
Date 6-19-85  
 Test Point 76-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000AV) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

NO PHOTO

Comments:



Date 6-14-85  
 Test Point 79-T25-1A-4  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link



Comments:

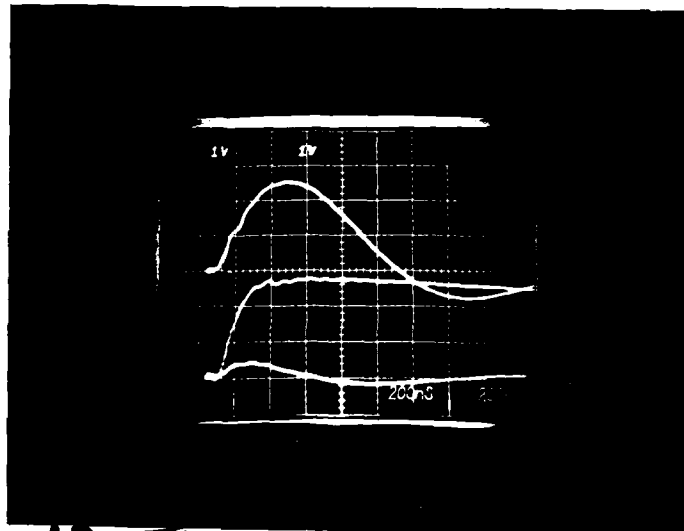
#2 PULSE, 25KV

Date 6-14-85  
 Test Point 79-T25-910-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000V  
 Data Link

NO PHOTO

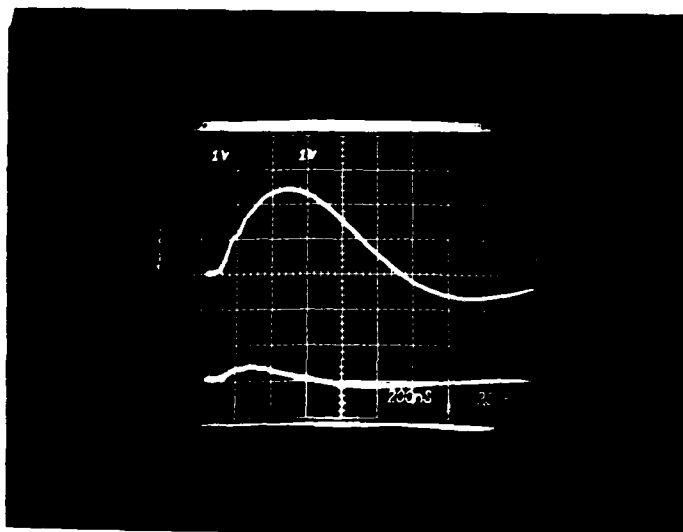
Comments:

Date 6-17-85  
 Test Point 79-T25-1-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1355

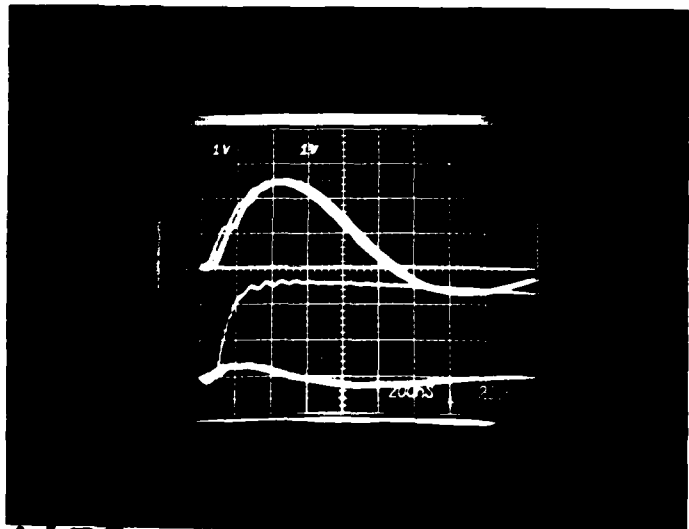
Date 6-17-85  
 Test Point 79-T25-7/11-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1356

1356

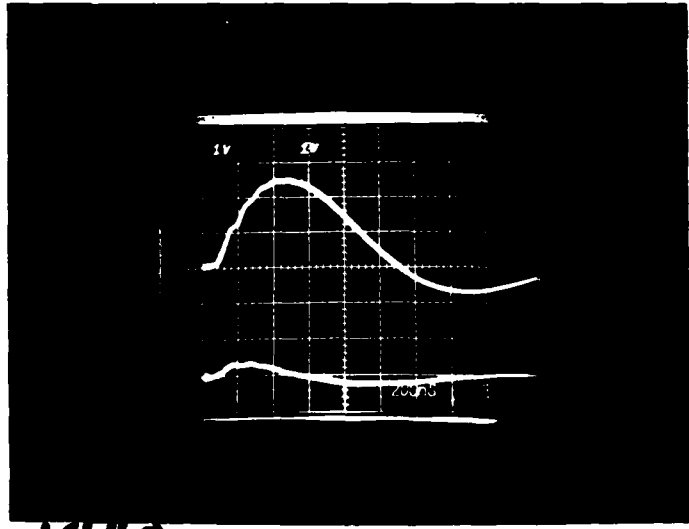
Date 6-18-85  
 Test Point 79-T25-15-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1439

Comments: 1439

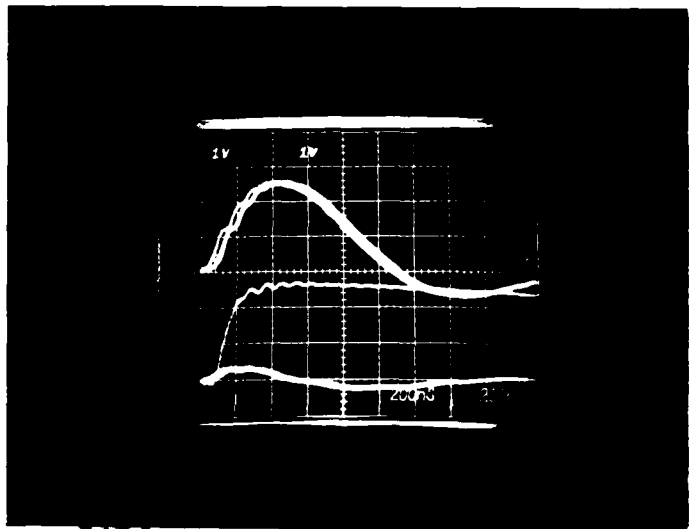
Date 6-18-85  
 Test Point 79-T25-910-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1440

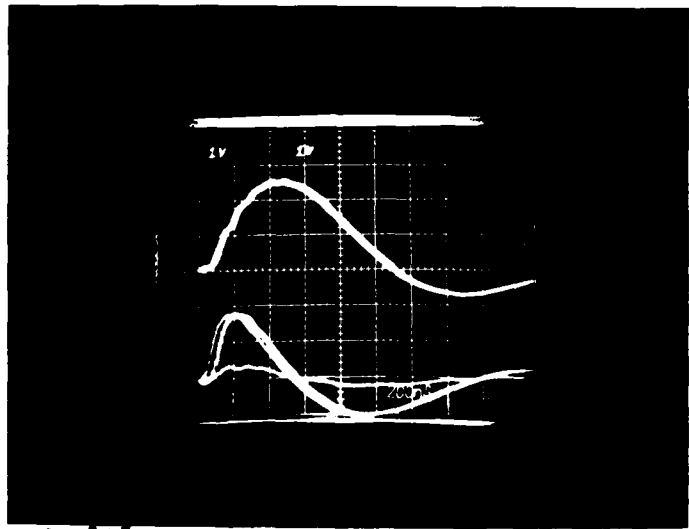
Comments:

Date 6-18-85  
 Test Point 79-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ A/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ V/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1441

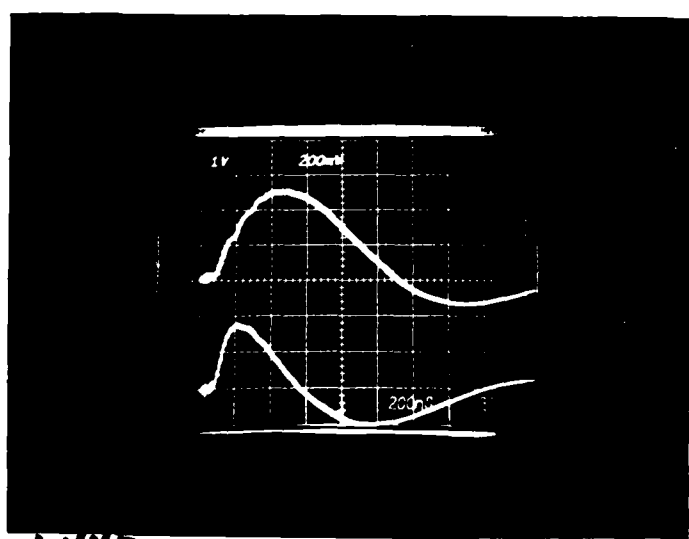
Date 6-18-85  
 Test Point 79-T25-6/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\mu$ A/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\mu$ V/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1442

VERTICAL .2V (1600V) div

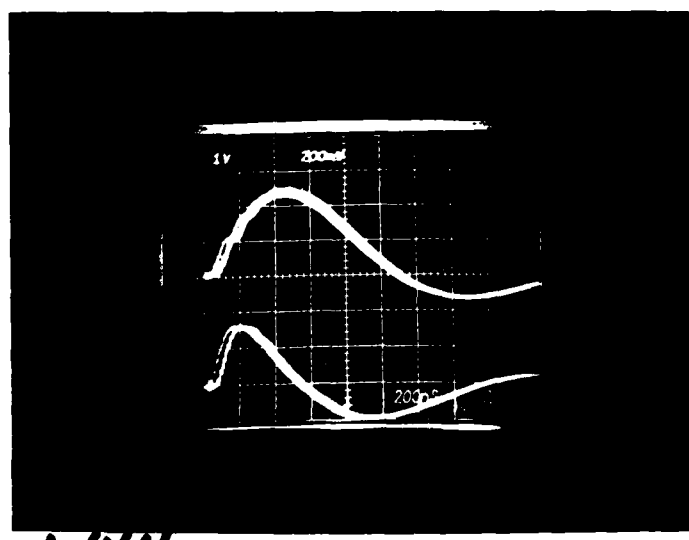
Date 6-18-85  
 Test Point 79-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (2000A/V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1443

VERTICAL @ .2V (1600V) per div. 2

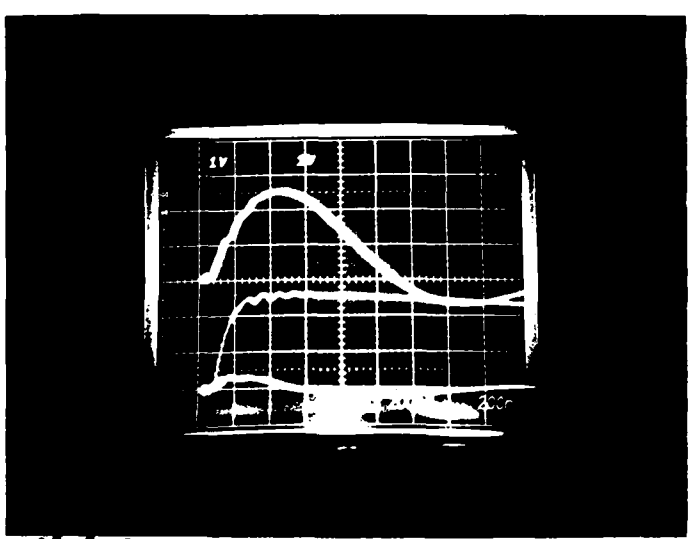
Date 6-18-85  
 Test Point 79-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (2000A/V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1444

VERTICAL @ .2V (1600V) per div. 2

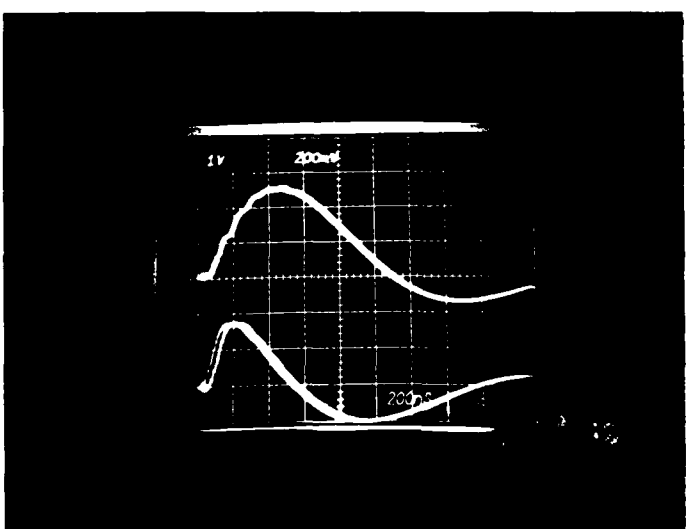
Date 6-18-85  
 Test Point 82-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~mm~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~mm~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1445

Comments: 1445

Date 6-18-85  
 Test Point 82-T25-9/10-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~mm~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~mm~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1446

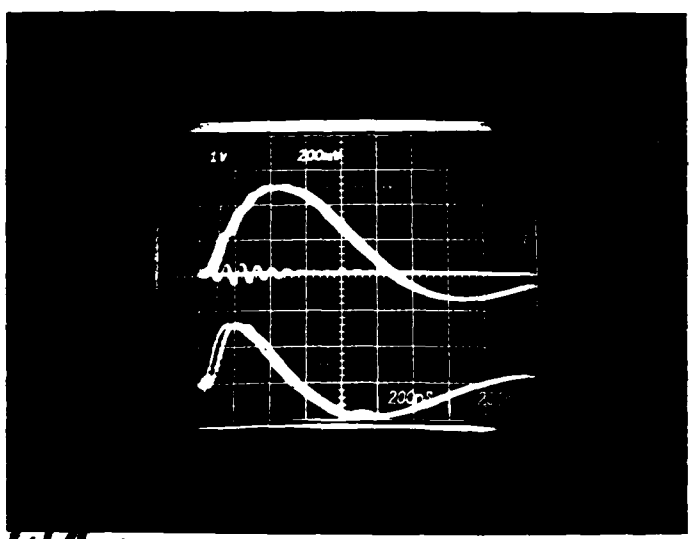
Comments: 1446

VERTICAL .2V (1600V) div -

Date 6-18-85  
 Test Point 82-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) = /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (2000A/V)~~ = /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

1447

1447

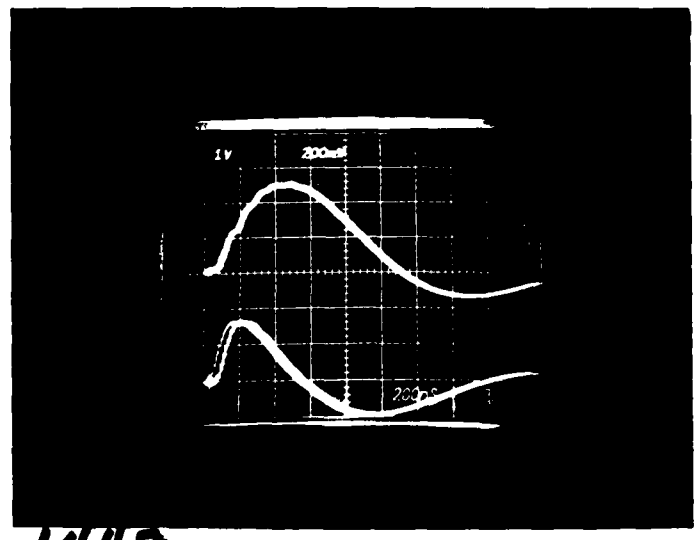


VERTICAL @ .2V (1600V) per div.

Date 6-18-85  
 Test Point 82-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) = /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (2000A/V)~~ = /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

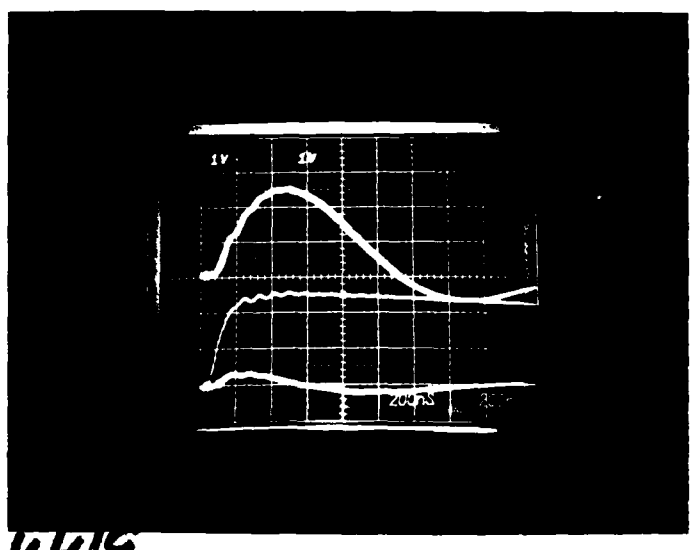
1448

1448



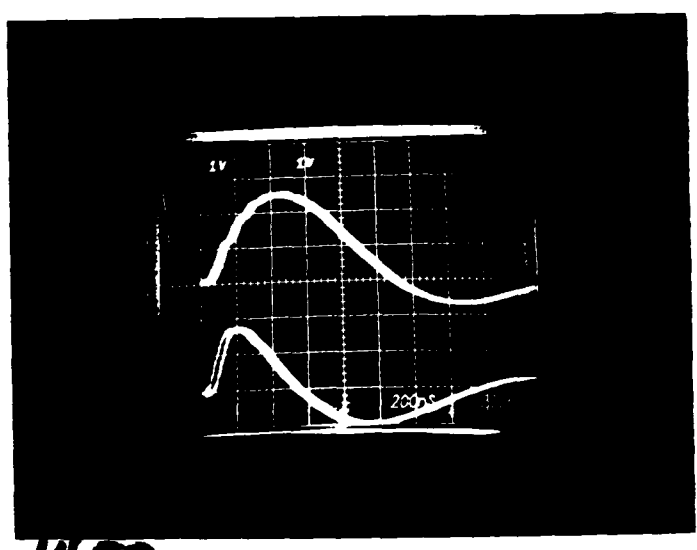
vertical .2V (1600V) per div.

Date 6-18-85  
 Test Point 82-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:



1449

Date 6-18-85  
 Test Point 82-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments:

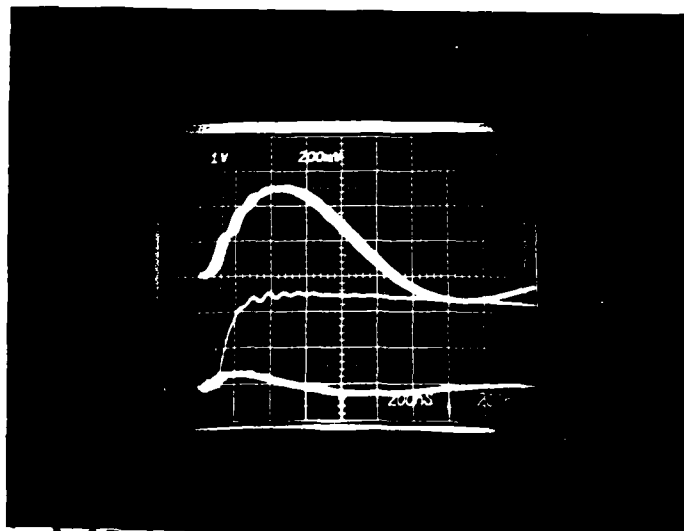


1450

VERTICAL @ .2V (1600V) per div.

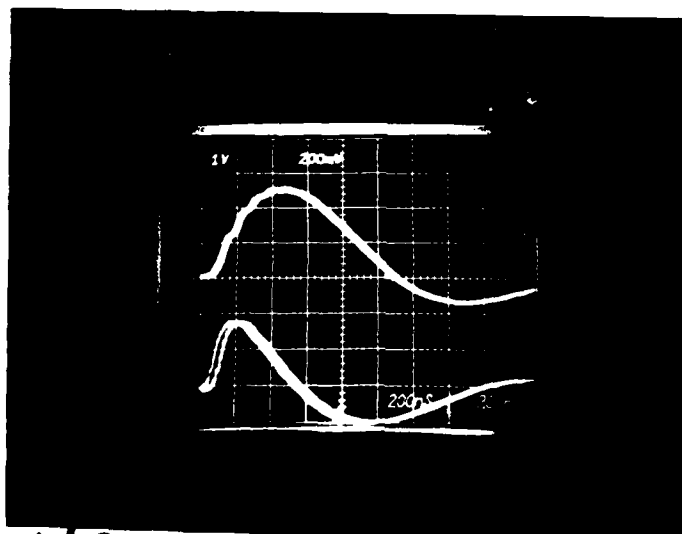


Date 6-18-85  
 Test Point 82-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link



1451

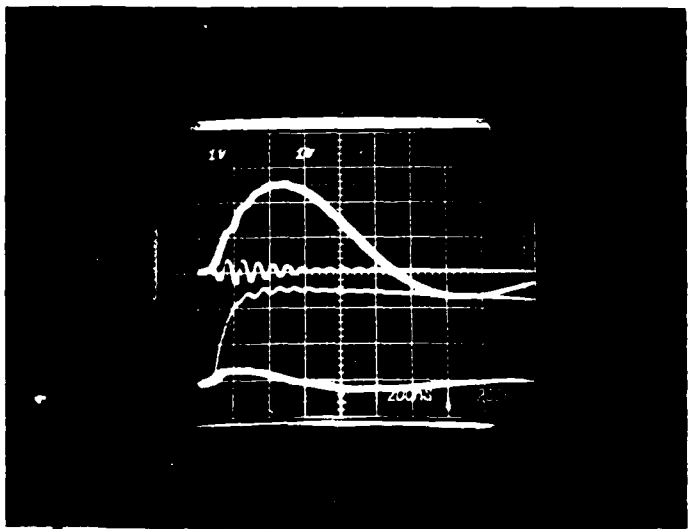
Date 6-18-85  
 Test Point 82-T25-9/10-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ ~~1~~/div 2  
 Configuration -20dB  
 Pulsar Level 25,000V  
 Data Link



1452

VERTICAL @ .2V (1600V) division.

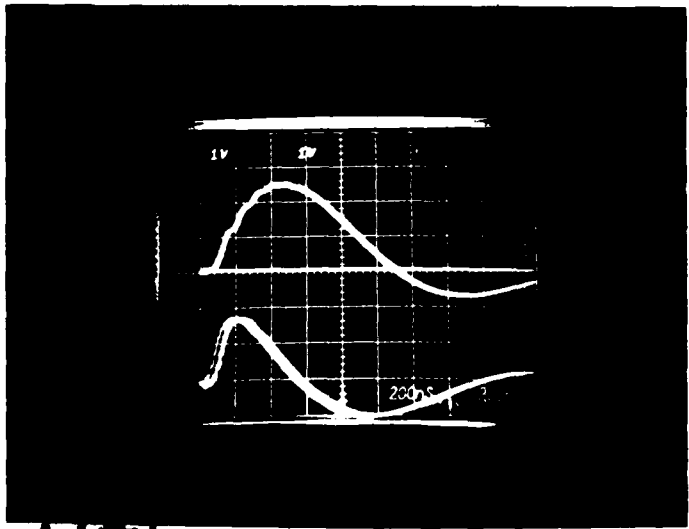
Date 6-18-85  
 Test Point 82-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1453

Comments:

Date 6-18-85  
 Test Point 82-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) =/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ =/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

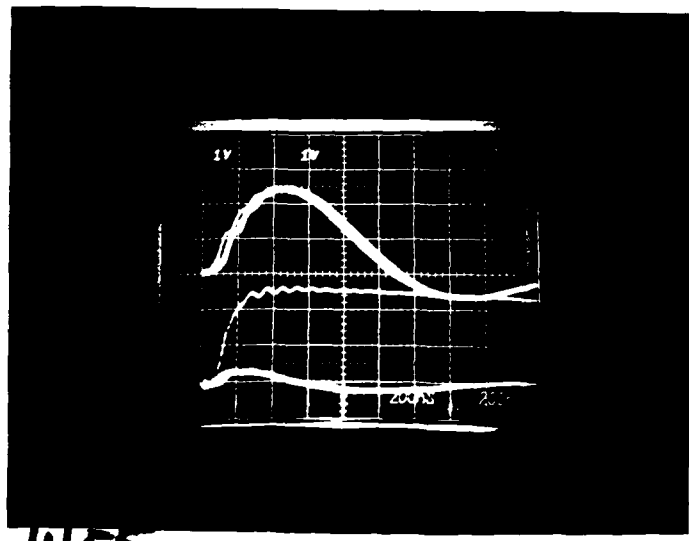


1454

Comments:

VERTICAL @ .2V (1600V) per div.

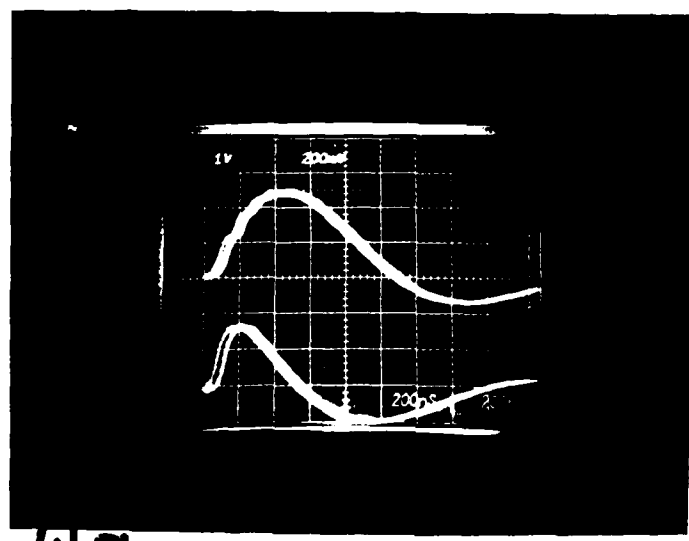
Date 6-18-85  
 Test Point 85-T25-1/5-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1455

Comments:

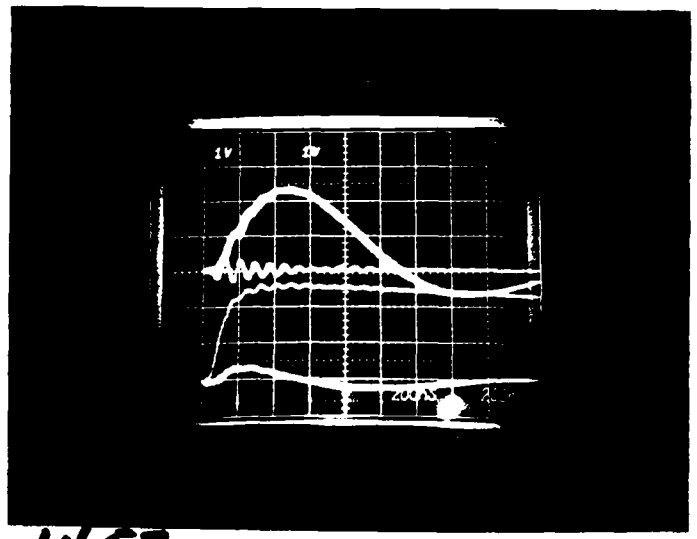
Date 6-18-85  
 Test Point 85-T25-910-A  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1456

Comments:  
 VERTICAL @ .2V (1600V) per div -

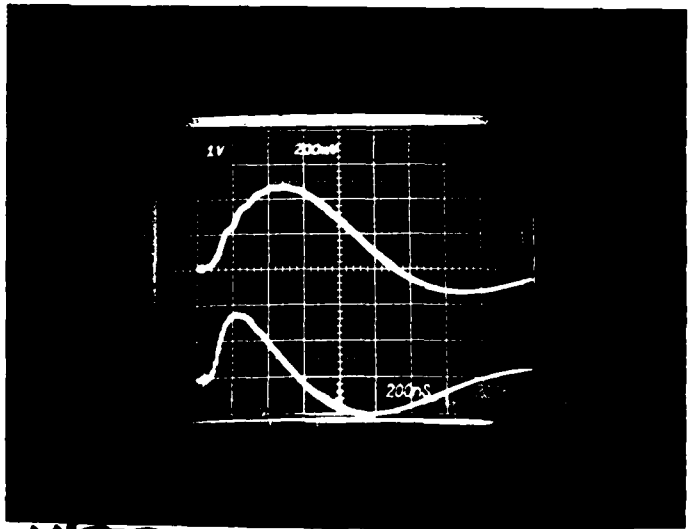
Date 6-18-85  
 Test Point 85-T25-1/5-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1457

Comments: -57

Date 6-18-85  
 Test Point 85-T25-9/10-B  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (2000A/V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1458

Comments: -57

VERTICAL @ .2V (1600V) per div.

AD-A164 432

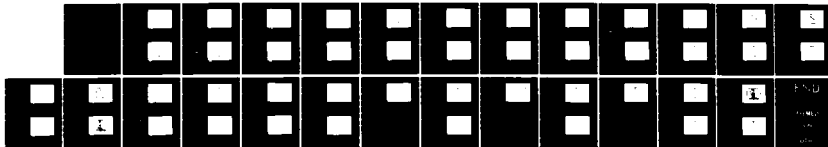
ELECTROMAGNETIC PULSE/TRANSIENT THREAT TESTING OF  
PROTECTION DEVICES FOR (U) ELECTROSPACE SYSTEMS INC  
ARLINGTON VA D BODSON ET AL. 31 OCT 85

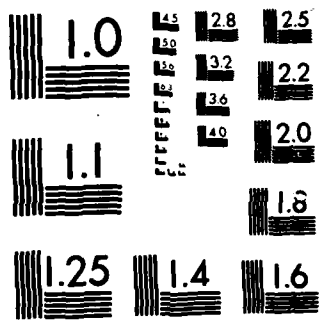
3/3

UNCLASSIFIED

NCS-T18-85-10-VOL-3-SEC-2 DCR100-85-C-0010 F/G 20/14

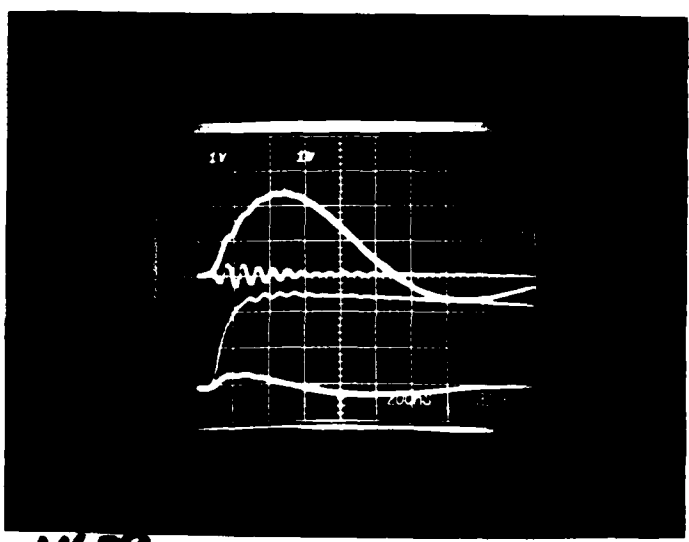
NL





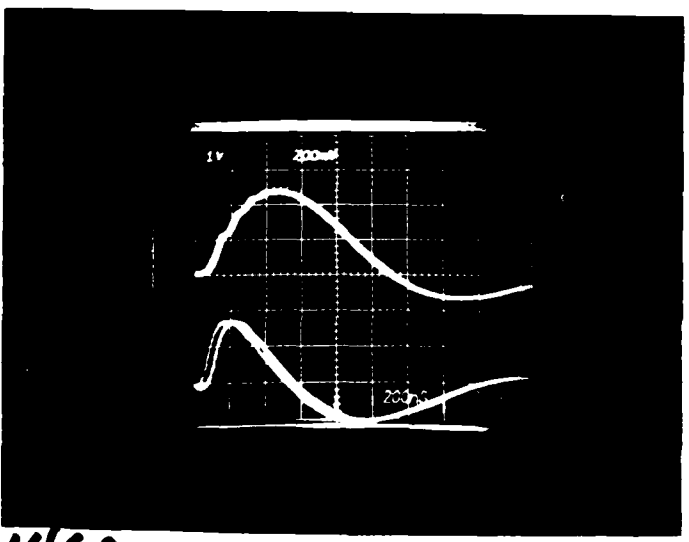
MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

Date 6-18-85  
 Test Point 85-T25-1/5-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



1459

Date 6-18-85  
 Test Point 85-T25-9/10-C  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

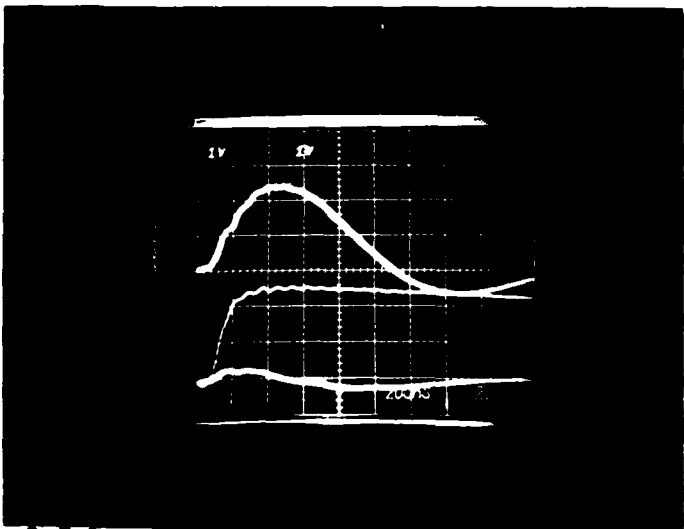


1460

VERTICAL @ 1.2V (1600V) per div.

Date 6-18-85  
 Test Point 85-T25-1/5-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

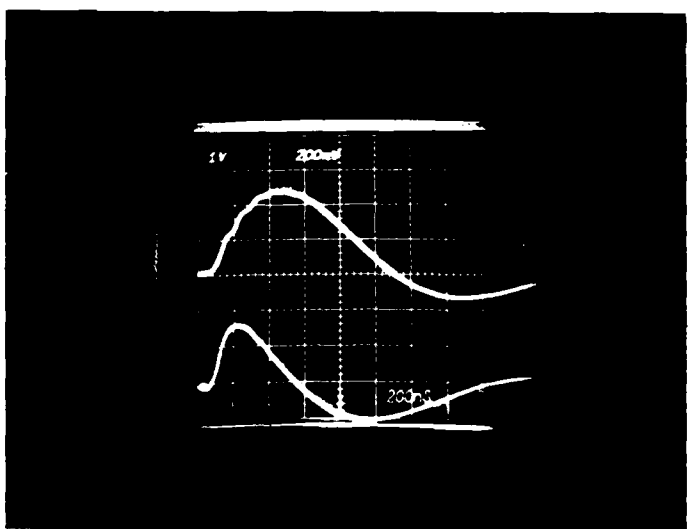
Comments: 1461



1461

Date 6-18-85  
 Test Point 85-T25-910-D  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

Comments: 1462



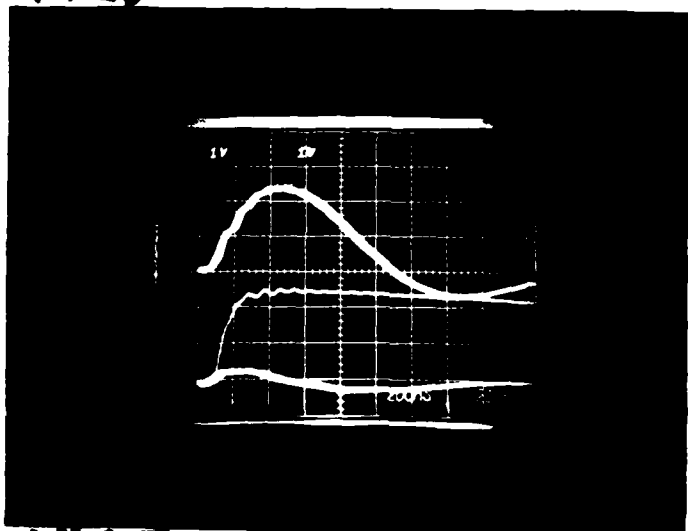
1462

VERTICAL @ .2V (1600V) per div -



Date 6-18-85  
 Test Point 85-T25-1/5-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

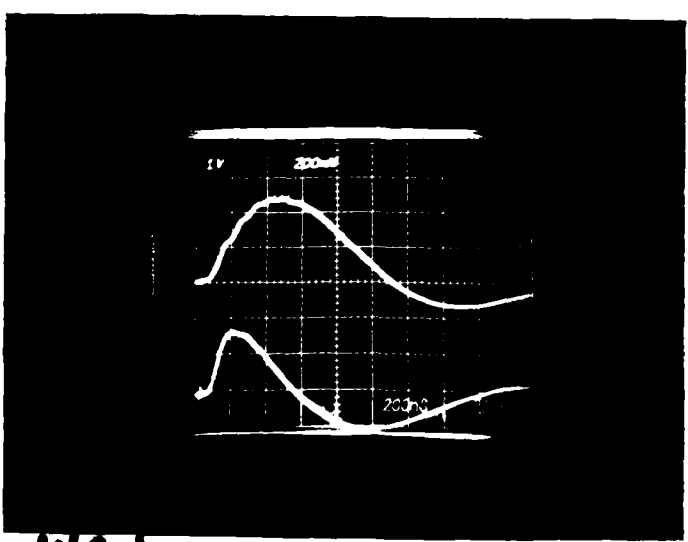
1463



1463

Comments: 1-63

Date 6-18-85  
 Test Point 85-T25-9/10-E  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) ~~1~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (8000V)~~ ~~1~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

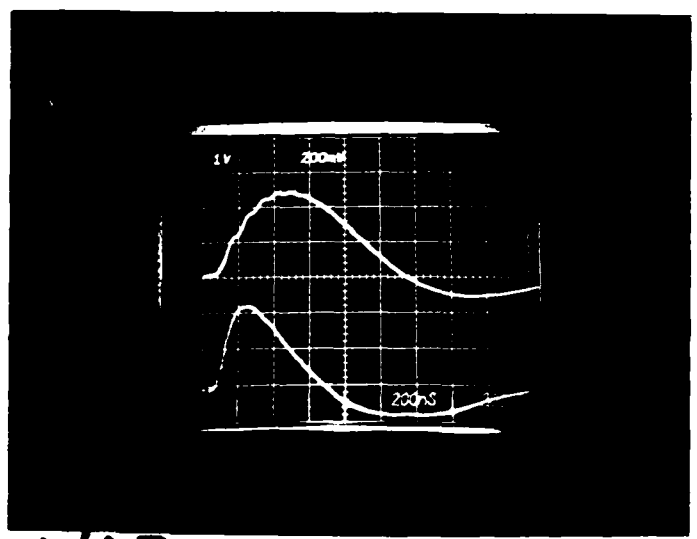


1464

Comments: 2-7

VERTICAL @ .2V (1600V) per div.

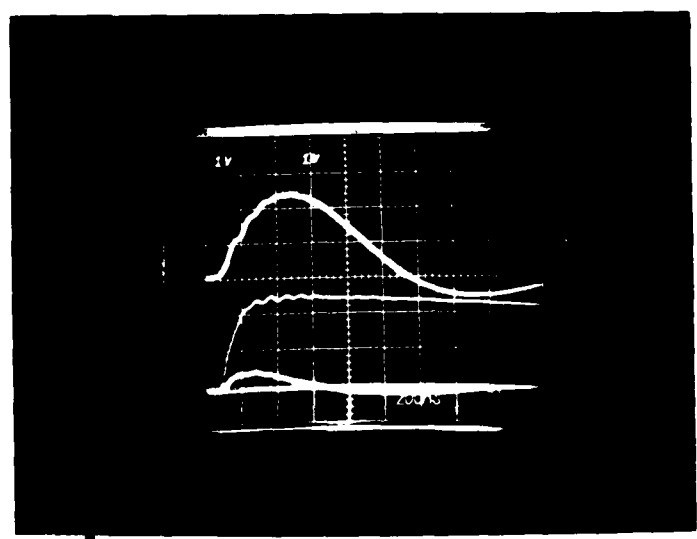
Date 6-18-85  
 Test Point 101-T25-~~95~~- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\Rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical ~~1V (2000A/V)~~  $\Rightarrow$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1467



1467

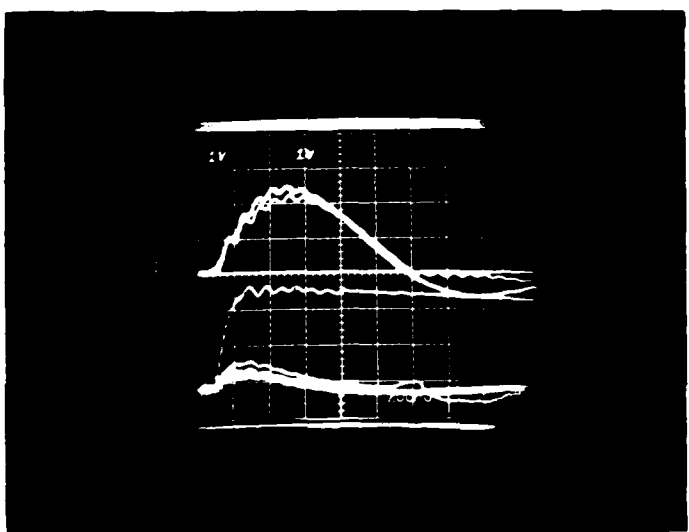
VERTICAL @ .2V (1600V) per. div.  
 PULSES 1/5 (NO PHOTO)

Date 6-18-85  
 Test Point 101-T25-~~95~~- $\phi$   
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V)  $\Rightarrow$ /div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V)  $\Rightarrow$ /div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link  
 Comments: 1466



1466

Date 6-19-85  
 Test Point 109-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) mA/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

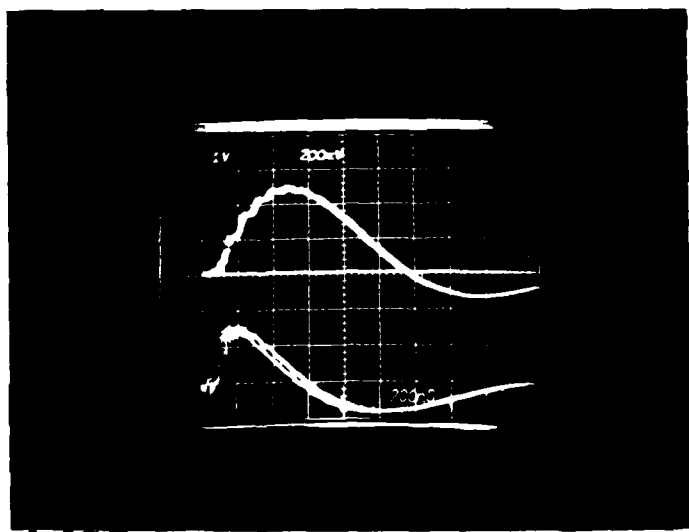


1488

Comments: ---

"HOT"

Date 6-19-85  
 Test Point 109-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) mA/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) ns/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

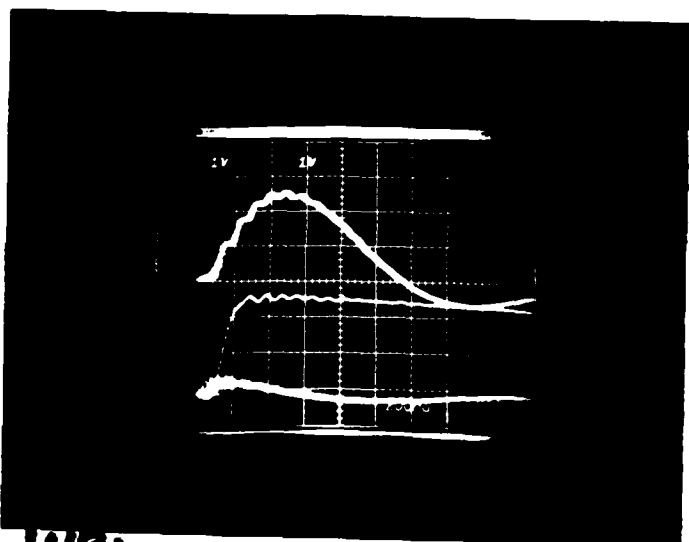


1489

Comments: ---

"HOT"

Date 6-19-85  
 Test Point 109-T25-1/5-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ~~ms~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



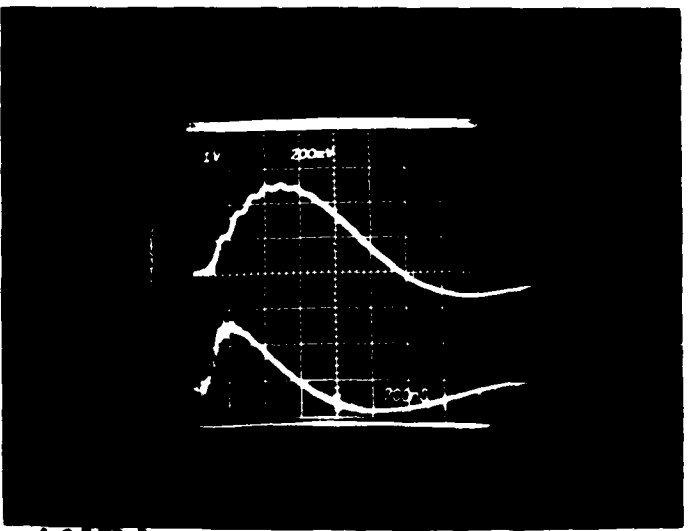
1490

"COMMON"

"ARC" INTERNAL

"FIRED ONE TIME WITHOUT ARCING"

Date 6-19-85  
 Test Point 109-T25-6/10-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ~~ms~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) ~~ms~~/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

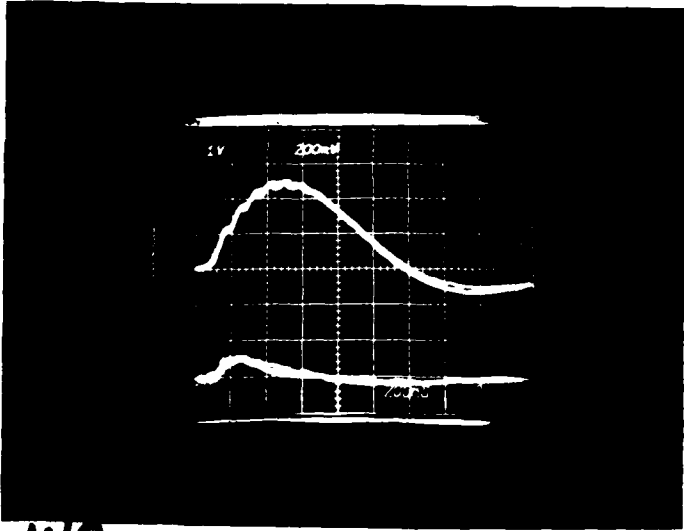


1491

"COMMON"

"ARC" INTERNAL

Date	6-19-85
Test Point	110-T25-1/5- $\phi$
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) mV/div 1
Horizontal	200 ns/div 2
Vertical	1V (8000V) mV/div 2
Configuration	-20 dB
Pulse Level	25,000 V
Data Link	



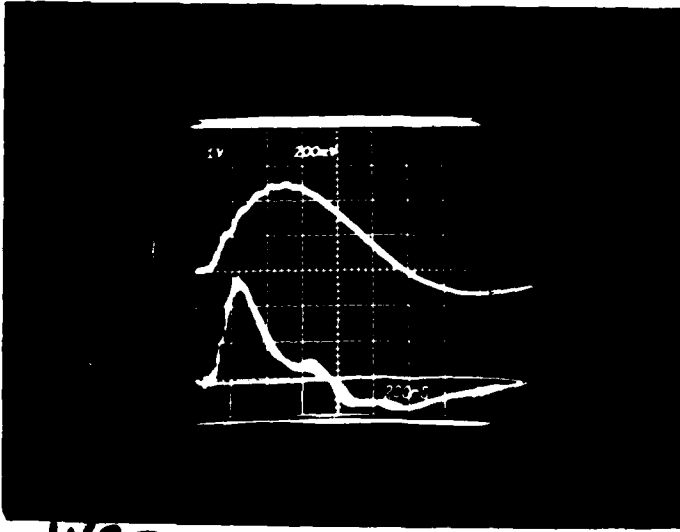
1492

Comments: 1477

"HOT"

INTERNAL ARC  
FIRED ONE TIME WITHOUT ARCING

Date	6-19-85
Test Point	110-T25-6/10- $\phi$
Amplification	0 dB
Attenuation	40 dB
Horizontal	200 ns/div 1
Vertical	1V (2000A/V) mV/div 1
Horizontal	200 ns/div 2
Vertical	.2V (1600V) mV/div 2
Configuration	-20 dB
Pulse Level	25,000 V
Data Link	



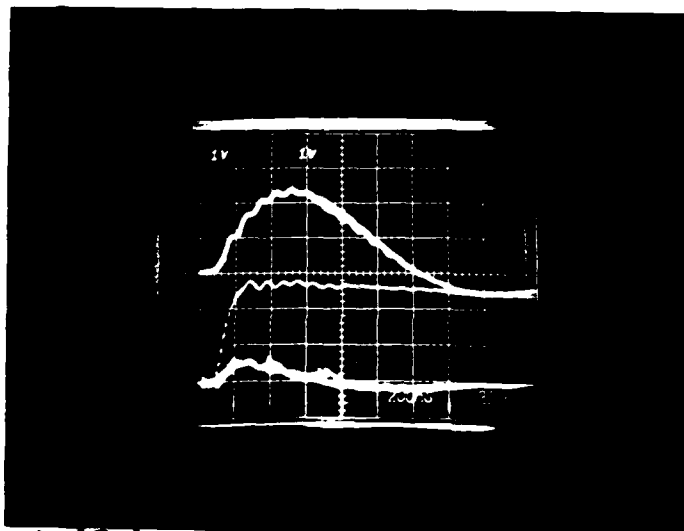
1493

Comments: 1478

"HOT"

INTERNAL ARC

Date 6-19-85  
 Test Point 110-T25-1/5-0  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



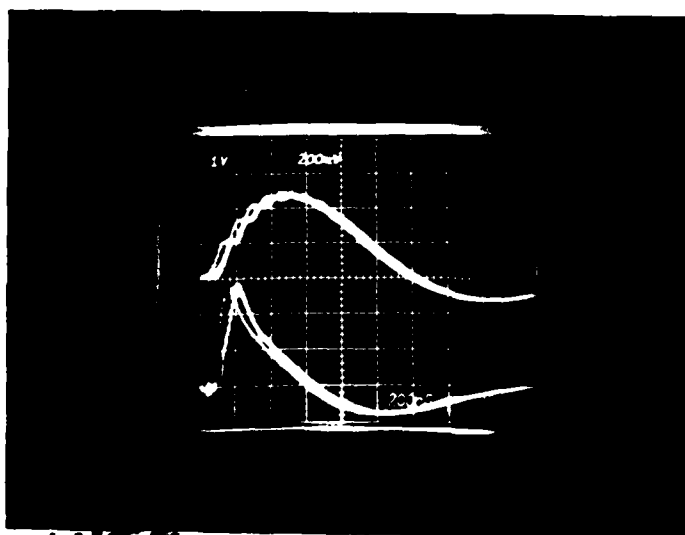
1494

"COMMON"

INTERNAL ARC

FIRED ONE TIME WITHOUT ARCING

Date 6-19-85  
 Test Point 116-T25-6/10-0  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

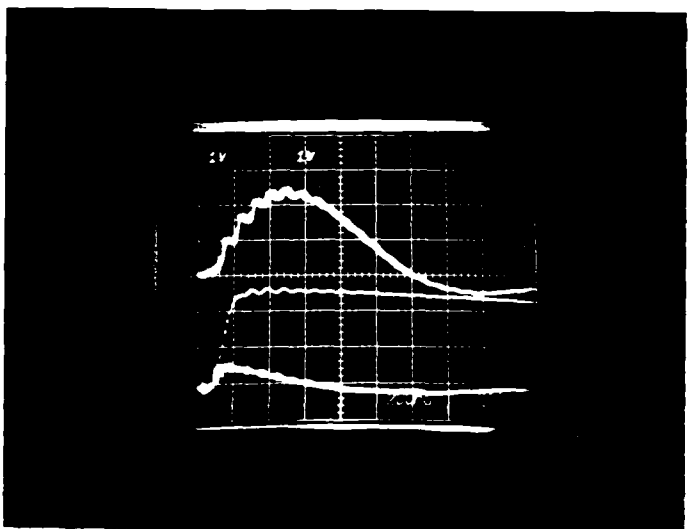


1495

"COMMON"

INTERNAL ARC

Date 6-19-85  
 Test Point III-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mA/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link

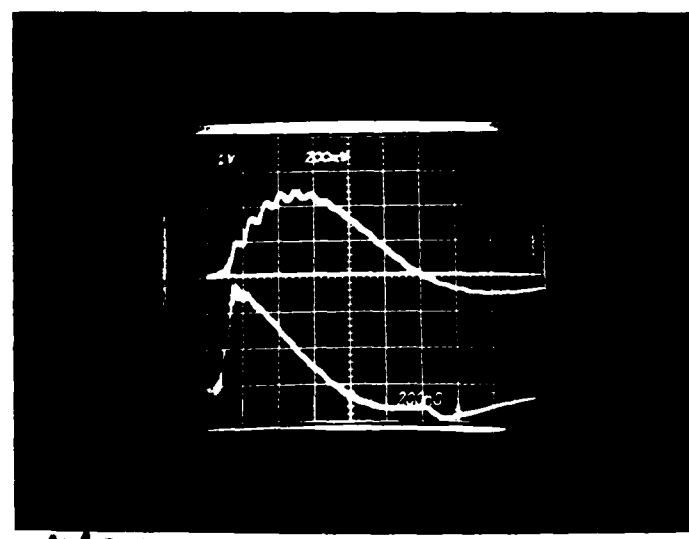


1484

"HOT"

ARC FROM COMMON TERMINAL

Date 6-19-85  
 Test Point III-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) mA/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link

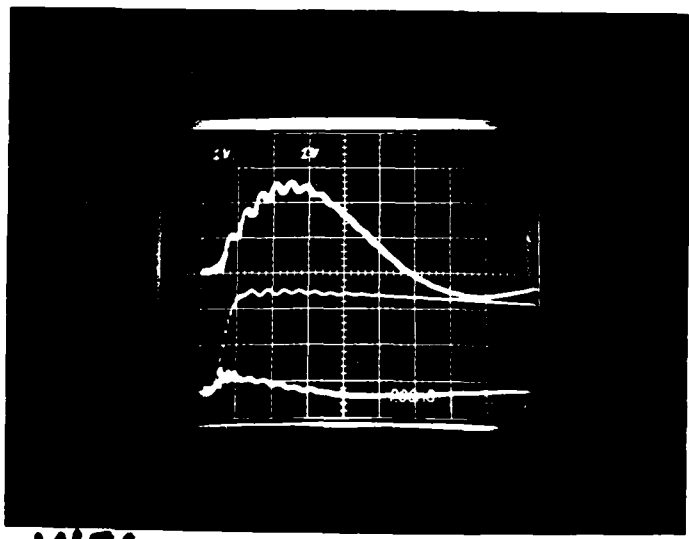


1485

"HOT"

ARC FROM COMMON SIDE

Date 6-19-85  
 Test Point III-T25-1/5-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ms/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ms/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

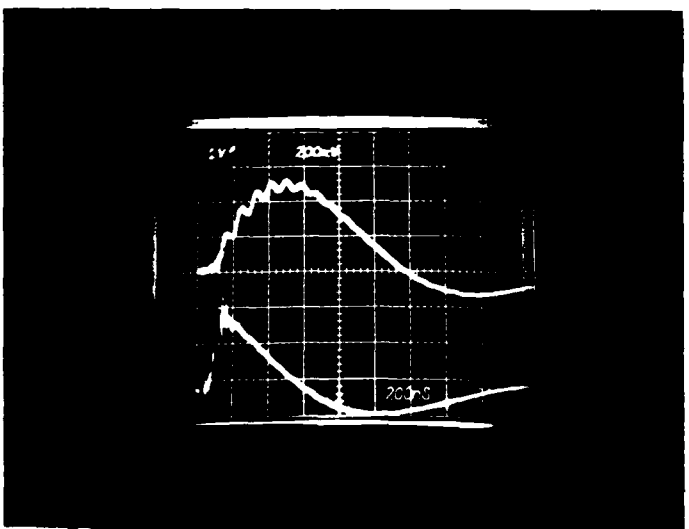


1486

"COMMON"

ARC FROM COMMON SIDE

Date 6-19-85  
 Test Point III-T25-6/10-Ø  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ms/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) ms/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link



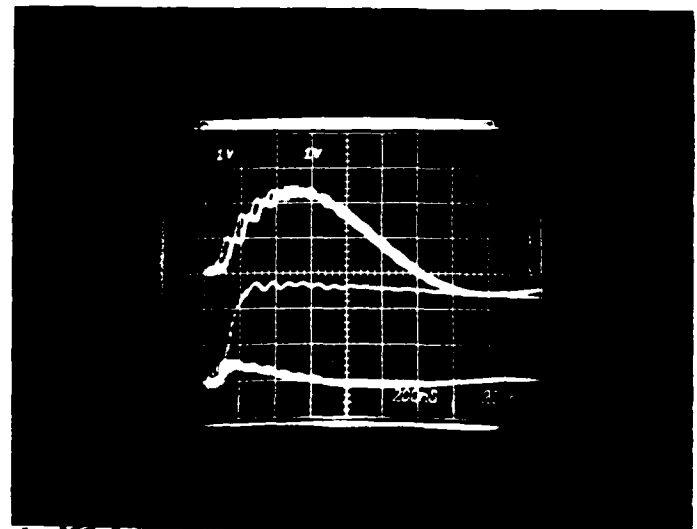
1487

"COMMON"

ARC FROM COMMON SIDE



Date 6-19-85  
 Test Point 112-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ~~mA~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V(8000V) ~~mA~~/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link



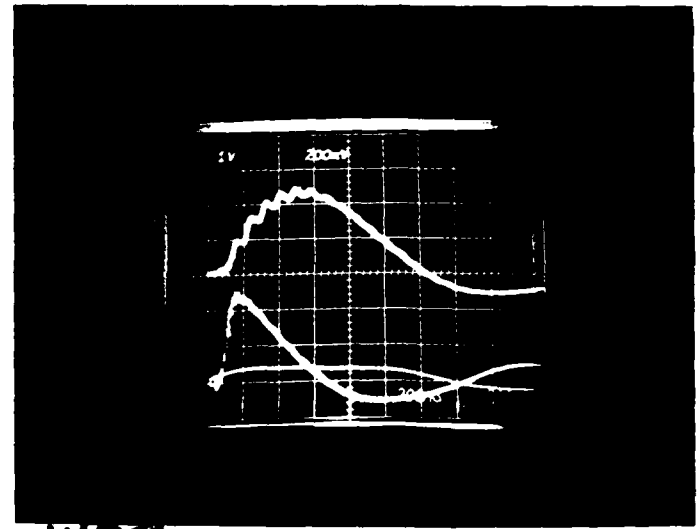
Comments:

"HOT"

1496

SMALL ARC INTERNAL

Date 6-19-85  
 Test Point 112-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V(2000A/V) ~~mA~~/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V(1600V) ~~mA~~/div 2  
 Configuration -20dB  
 Pulsar Level 25,000 V  
 Data Link



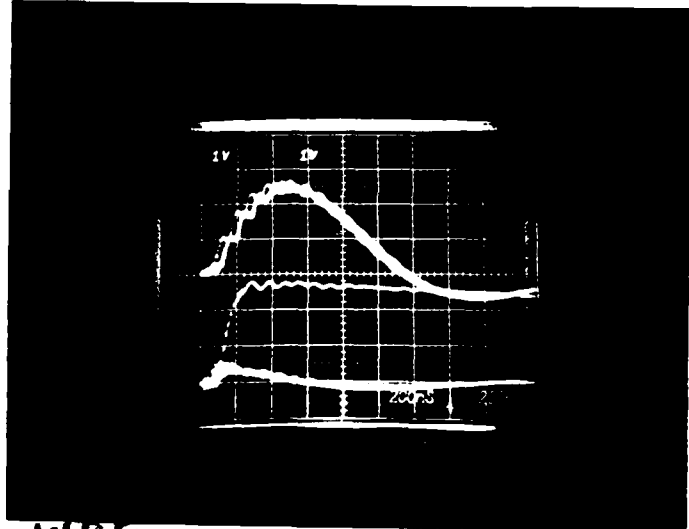
Comments:

"HOT"

1497

SMALL ARC INTERNAL

Date 6-19-85  
 Test Point 112-T25-1/5-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

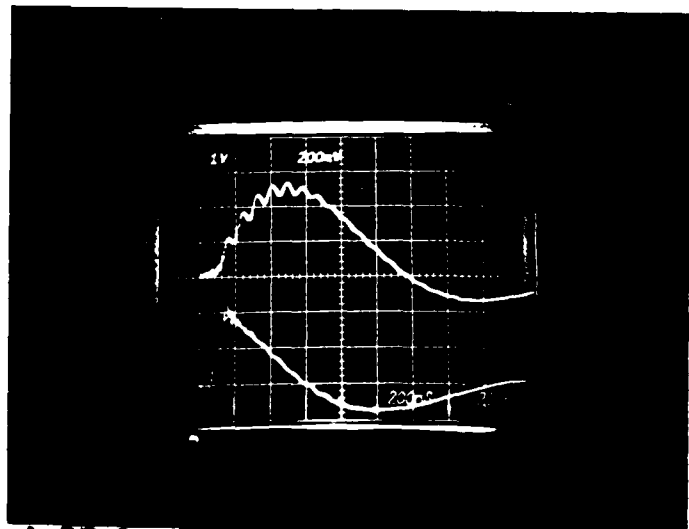


1498

"COMMON"

SMALL INTERNAL ARC

Date 6-19-85  
 Test Point 112-T25-6/10-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000A/V) 1/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) 1/div 2  
 Configuration -20 dB  
 Pulsar Level 25,000 V  
 Data Link

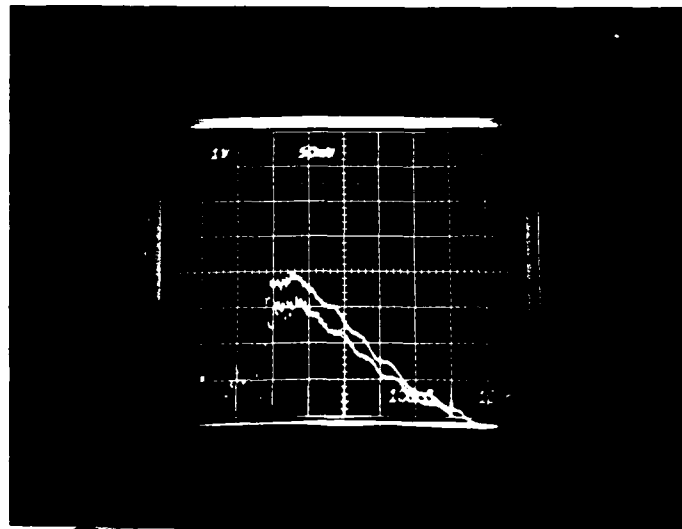


1499

"COMMON"

SMALL INTERNAL ARC

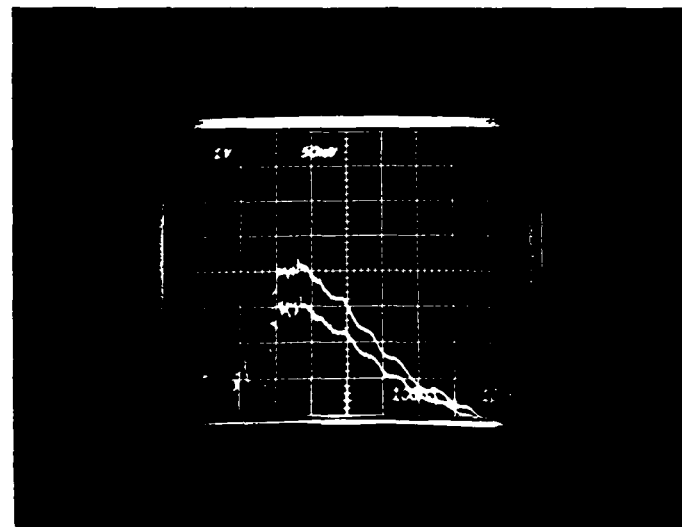
Date	6-21-85
Test Point	113-T25-1-φ
Amplification	dB
Attenuation	-20 dB
Horizontal	100 ns/div 1
Vertical	.05(400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1581



1581 A

MOV + SPARK GAP IN UHF BOX

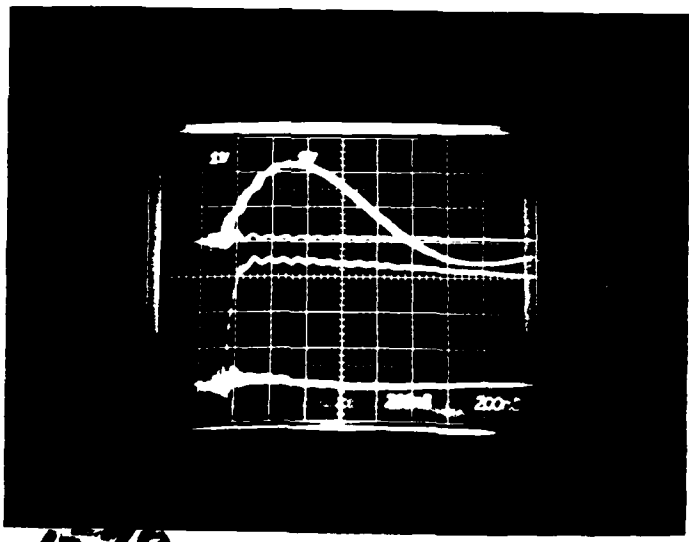
Date	6-21-85
Test Point	116-T25-1-0
Amplification	0 dB
Attenuation	-20 dB
Horizontal	100 ns/div 1
Vertical	.05V(400V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25000V
Data Link	
Comments:	1582



1582

SPARK GAP IN UHF BOX

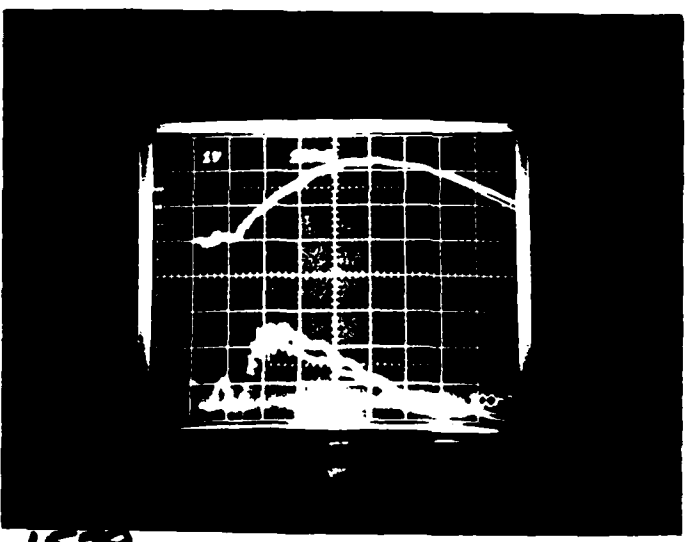
Date 6-21-85  
 Test Point 114-T25-15-0  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000 A/V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical 1V (8000V) mV/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



1578

Comments: 1578

Date 6-21-85  
 Test Point 114-T25-9/10-0  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V (2000 A/V) mV/div 1  
 Horizontal 100 ns/div 2  
 Vertical .1V (800V) mV/div 2  
 Configuration -20 dB  
 Pulsar Level 25000V  
 Data Link

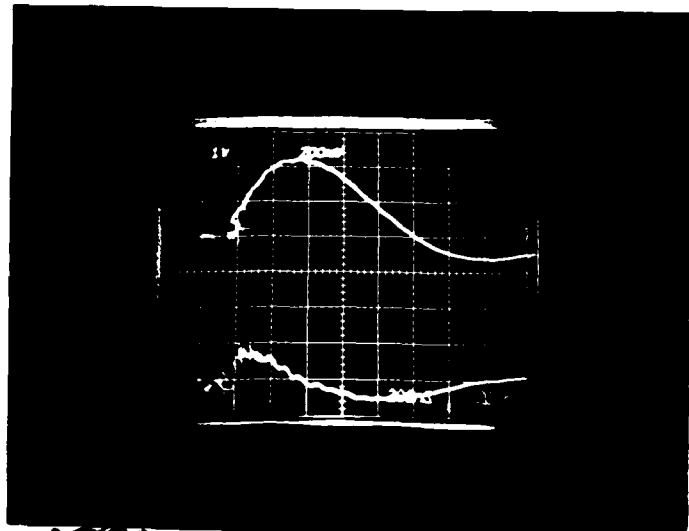


1579

Comments: 1579

DATA + REF GND VOLTAGE DISPLAYED ON LOWER  
 TRACE - SC GND V = 800V  
 DATA V = 1200V  
 DATA -A V = 400V CLAMP.

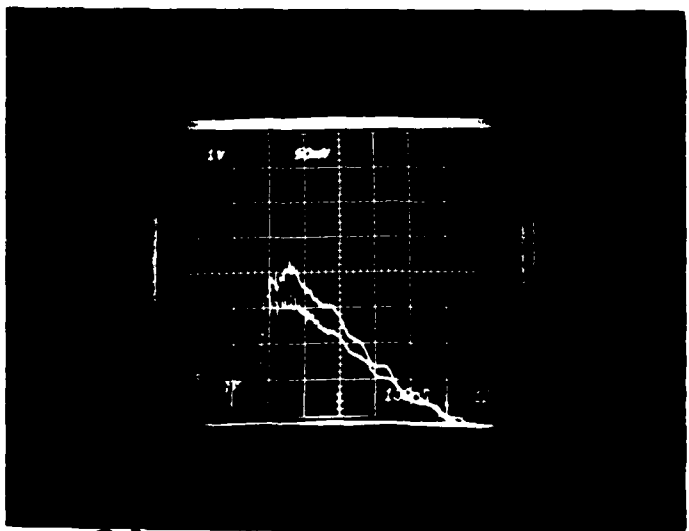
Date 6-21-85  
 Test Point 114-T25-R11-φ  
 Amplification 0 dB  
 Attenuation 40 dB  
 Horizontal 200 ns/div 1  
 Vertical 1V (2000V) mV/div 1  
 Horizontal 200 ns/div 2  
 Vertical .2V (1600V) ns/div 2  
 Configuration -20dB  
 Pulsar Level 25000V  
 Data Link



1580

TRANSORB + SPARK GAP

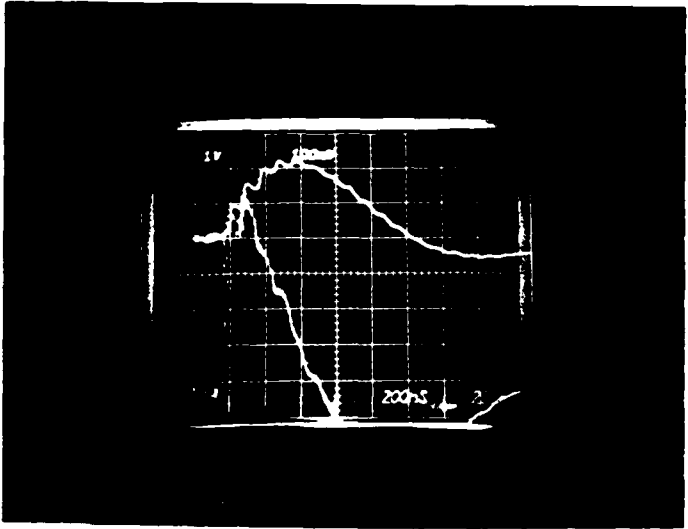
Date 6-21-85  
 Test Point 114-T25-R12-φ  
 Amplification 0 dB  
 Attenuation -20 dB  
 Horizontal 100 ns/div 1  
 Vertical .05 (400V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 25000V  
 Data Link



1581

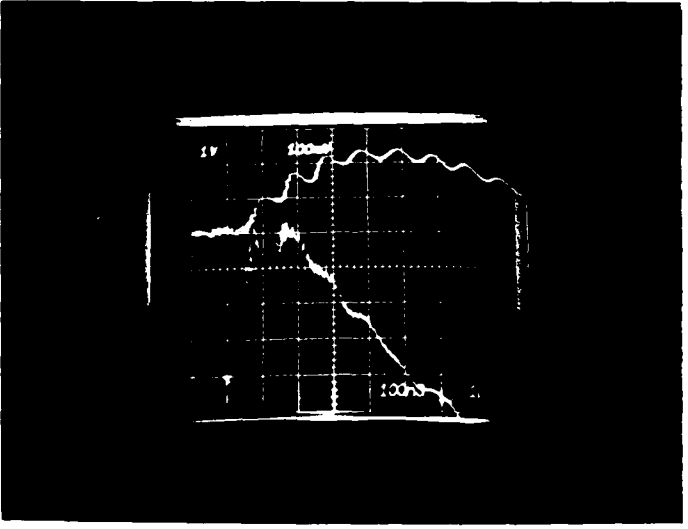
DATA = 1200V  
 SC GND = 800V  
 Δ = 400V CLAMP -

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



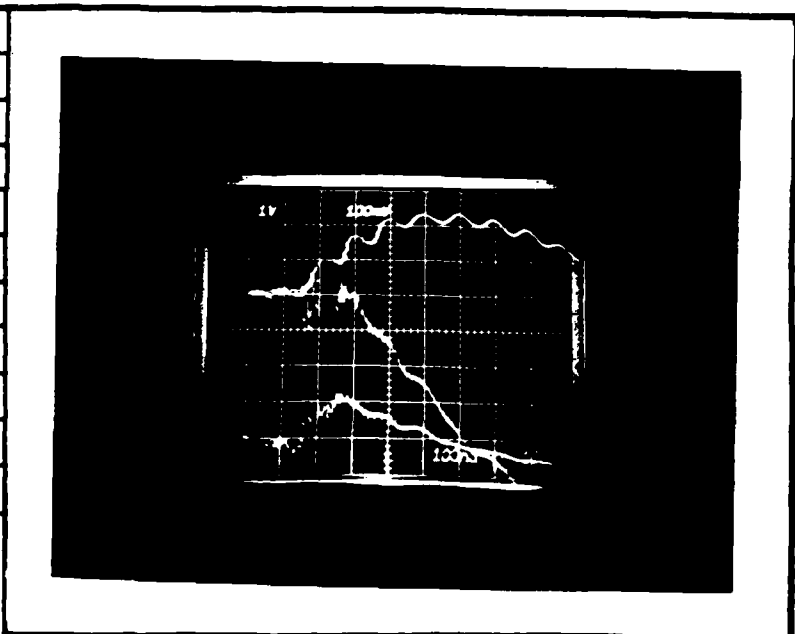
Item 30 pulsed T25 w/AC power on.

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



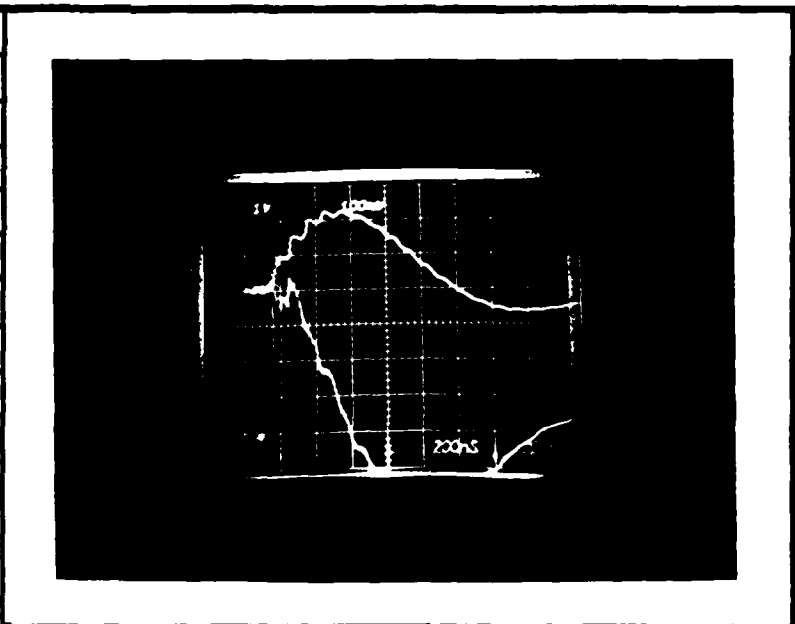
Two(2) item #69 in series pulsed -

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	
Data Link	
Comments:	



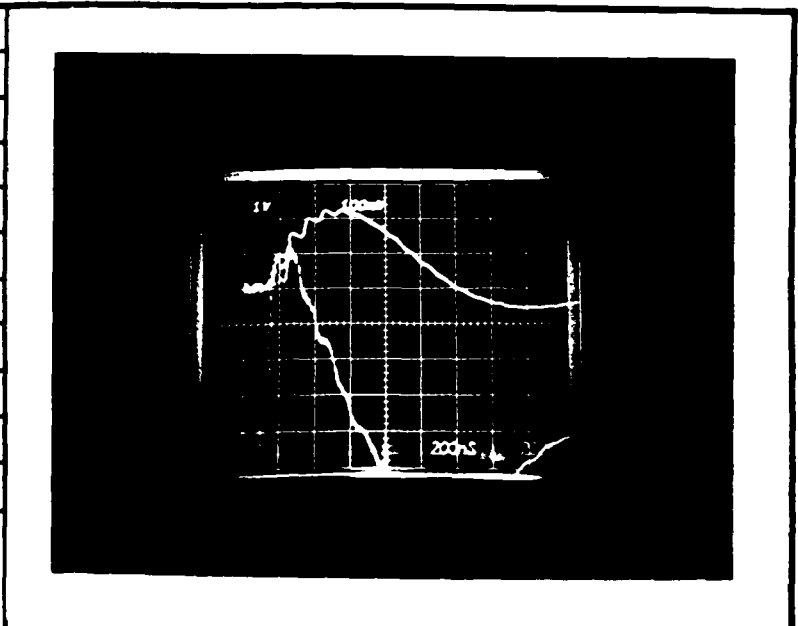
Two (2) item #69 in series  
w/o AC - lived

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	
Data Link	
Comments:	



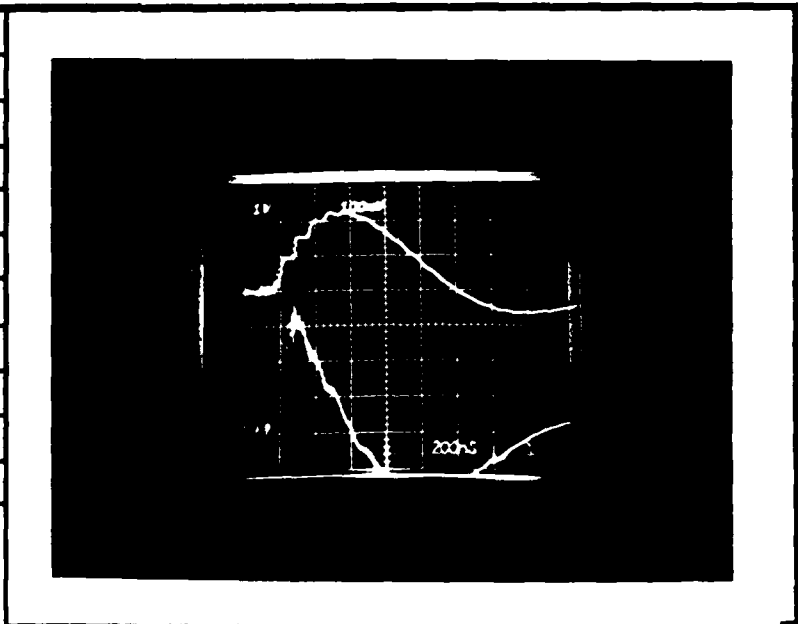
Two (2) item 69's in series  
w/AC - lived

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



Item 30 pulsed T25 w/o AC power on

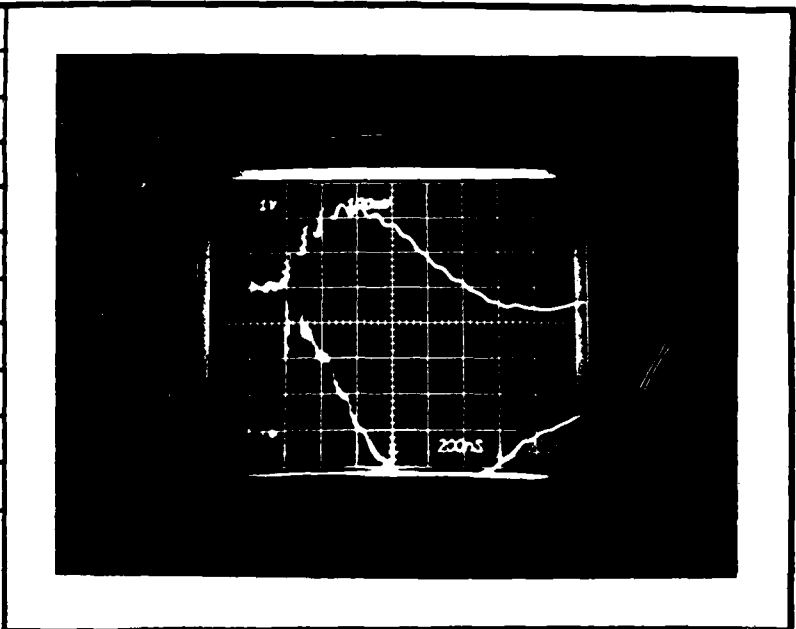
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



Item <sup>SG</sup>#69 tested after item 30 removed from circuit - it died - Pulsed with AC on -



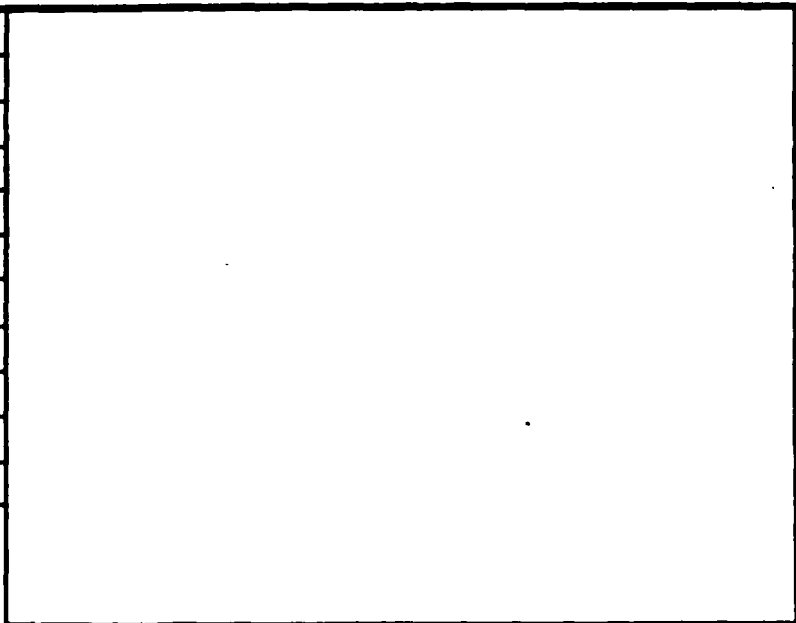
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	



Comments:

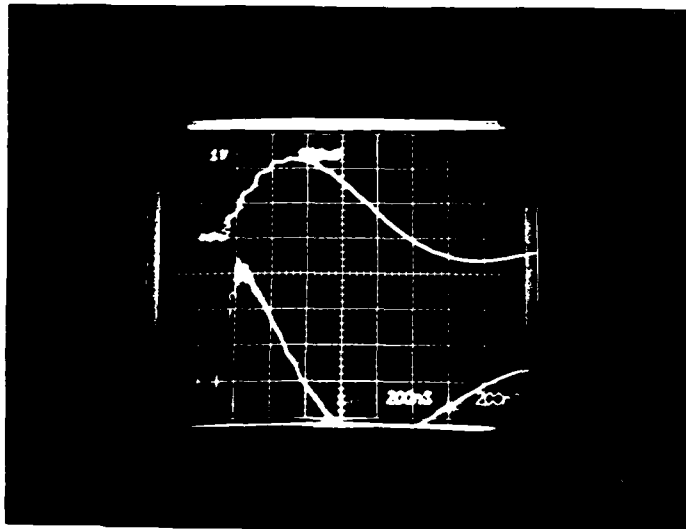
SG  
 Item 69 - Pulsed after MOV #30 removed  
 from circuit - no AC applied -

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	



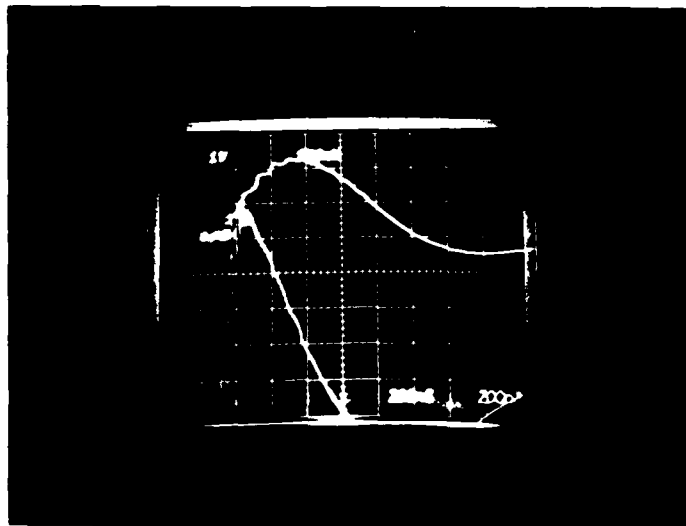
Comments:

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



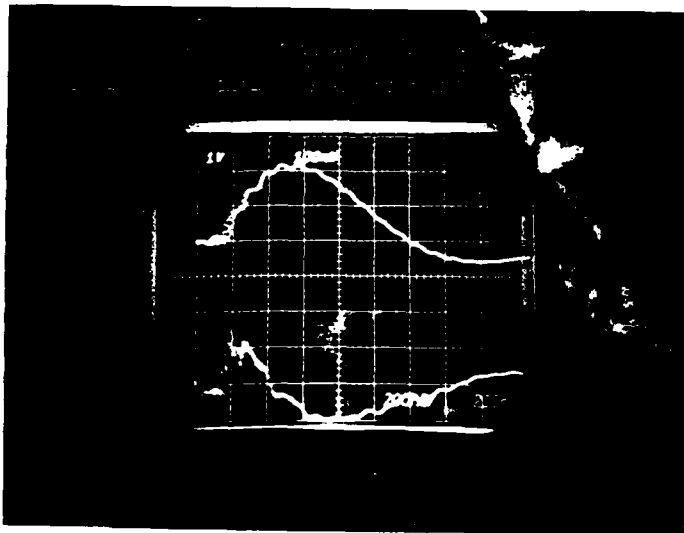
MOV# 130 + Spark Gap #69 pulsed w/o AC

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



MOV# 130 pulsed alone T25

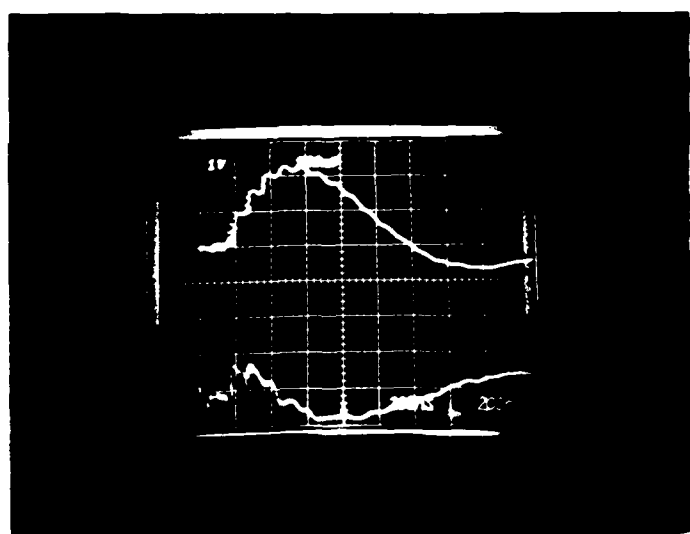
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Lnk	
Comments:	



MOV W/AC PULSED T25  
# ~~30~~  
52

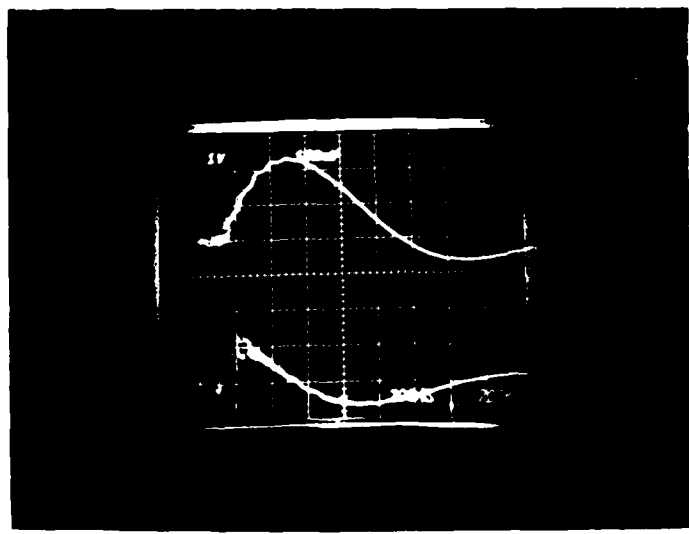
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Lnk	
Comments:	

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



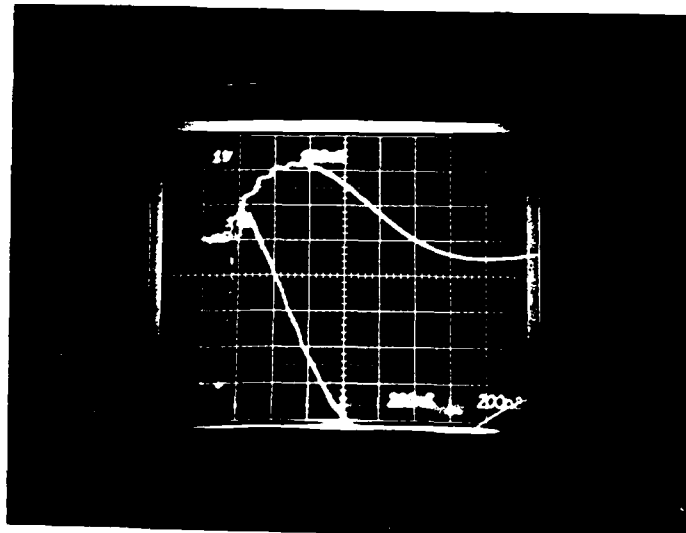
#52  
 SIEMENS MOV (130) + SPARK GAP 69  
 PULSED w/o AC worked

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



GND REF  
 V - 100mV / DIV - 200 NS DIV  
 I - 1V / DIV - 200 NS DIV

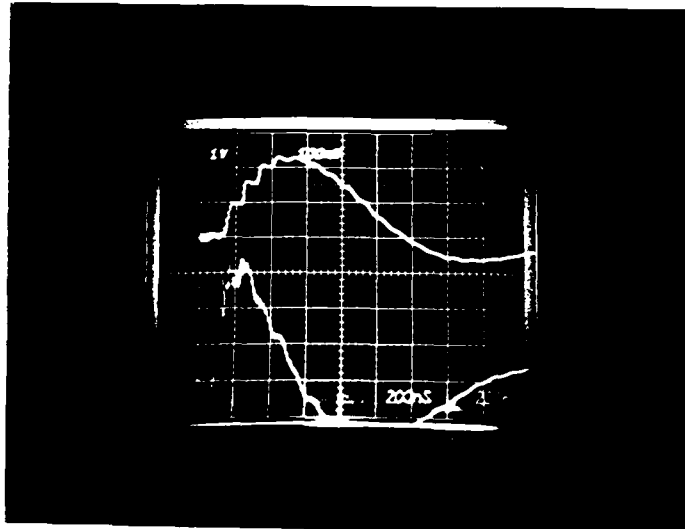
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



MOV # 130 pulsed alone -  
worked

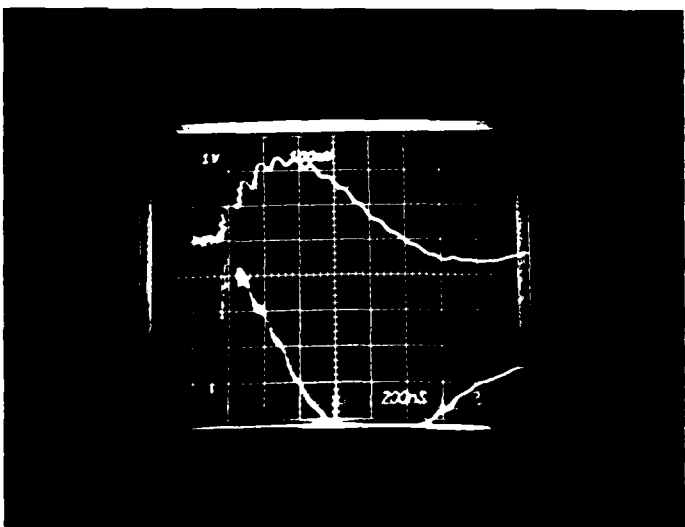
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	
Comments:	



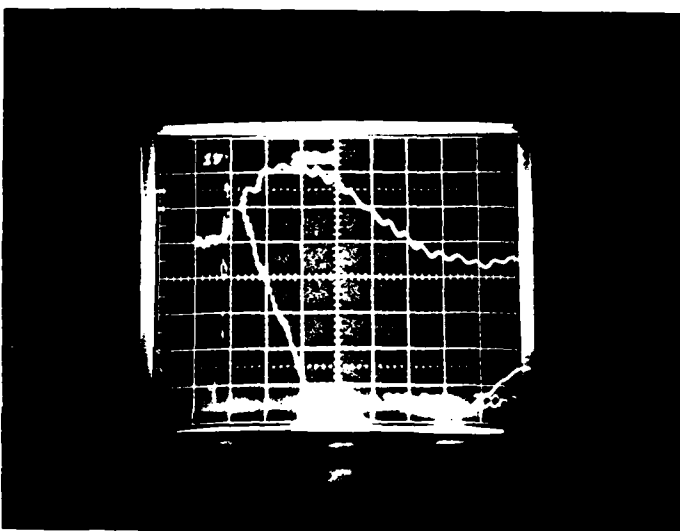
Item 69 + 30 pulsed w AC power  
lived

Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	
Data Link	
Comments:	



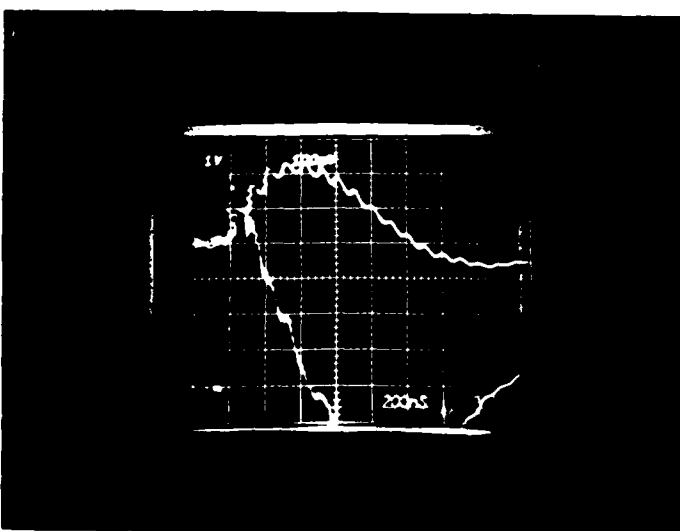
Items 69 + 30 pulsed w/o AC power on  
lived

Date	6/21
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25KV
Data Link	
Comments:	



FAILURE MODE  
100-B

Date	6/21
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	25KV
Data Link	
Comments:	



FAILURE MODE  
100-C

**END**

**FILMED**

**3-86**

**DTIC**