

AD-A164 435

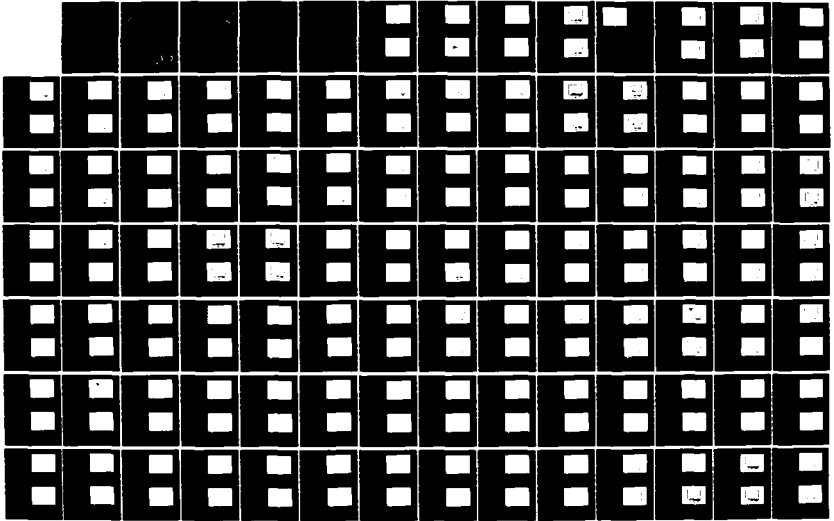
ELECTROMAGNETIC PULSE/TRANSIENT THREAT TESTING OF  
PROTECTION DEVICES FOR. (U) ELECTROSPACE SYSTEMS INC  
ARLINGTON VA D BODSON ET AL. 31 OCT 85

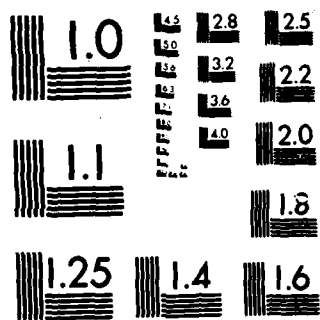
1/3

UNCLASSIFIED

NCS-TIB-85-10-VOL-3-SEC-4 DCA100-85-C-0010 F/G 20/14

NL

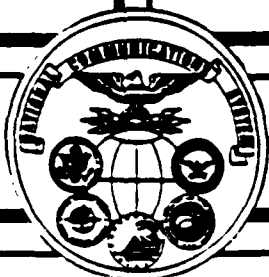




MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

2

NCS TIB 85-10



# NATIONAL COMMUNICATIONS SYSTEM

VOLUME III

TEST DATA

ELECTROMAGNETIC PULSE TESTING  
OF PROTECTION DEVICES

SECTION 4

LOW IMPEDANCE/LOW VOLTAGE  
TEST

5 OHMS - 600 VOLTS - 120 AMPS

AD-A164 435

DTIC FILE COPY

OCTOBER 1985

This document has been approved  
for public release and sales  
distribution is unlimited.

DTIC  
S FEB 20 1986 D  
E

86 2 20 037

AD-A164435

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 TIB 85-10, Vol. III, Section 4		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 22202-0668		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 33127K	PROJECT NO D1.6
		TASK NO	WORK UNIT ACCESSION NO ORDL D008
11 TITLE (Include Security Classification) <i>Volume III</i> Electromagnetic Pulse Transient Threat Testing of Protection Devices for Amateur/Military Affiliate Radio System Equipment (U) <i>Section 4, Low Impedance High Voltage Test 50Ams-6w 60Hz-120</i>			
12 PERSONAL AUTHOR(S) Dennis Bodson, NCS; Joseph Frizzell and Thomas Higdon (ESI); Walter Rabke (Consultant) <i>1745</i>			
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			
17 COSATI CODES		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	Amateur Radio Equipment EMP, Lightning Protection, Electro-magnetic Pulse (EMP) Protection Devices Test, EMP, Lightning, Transient Electrical/Magnetic Pulses. <i>4</i>	
19 ABSTRACT (Continue on reverse if necessary and identify by block number) 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.  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.  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			
20 DISTRIBUTION AVAILABILITY OF ABSTRACT UNCLASSIFIED UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS <input type="checkbox"/>		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 (1298 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

Accession For

NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	

By \_\_\_\_\_

Distribution/

Availability Codes

Dist	Avail and/or	Special
A-1		



NCS TECHNICAL INFORMATION BULLETIN 65-10

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

OCTOBER 1965

PROJECT OFFICER

DENNIS BOBSON  
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

Date **5-21-85**

Test Point **Noise #1**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **20 ns/div 1**

Vertical **50 mV/div 1**

Horizontal **ns/div 2**

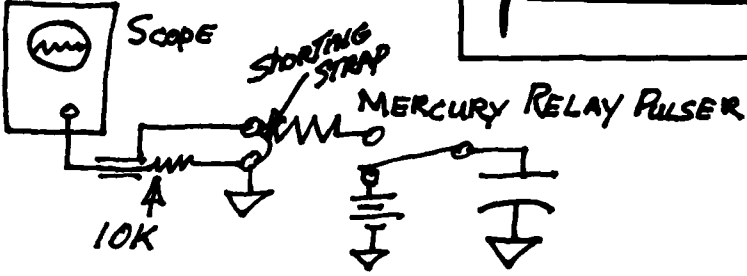
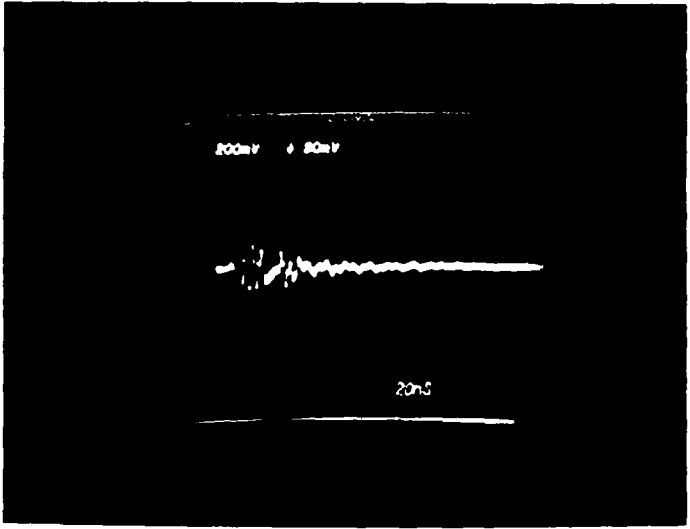
Vertical **ns/div 2**

Configuration

Pulse Level **50V**

Data Link

Comments:



Date **5-21-85**

Test Point **Noise #2**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **20 ns/div 1**

Vertical **500 mV/div 1**

Horizontal **ns/div 2**

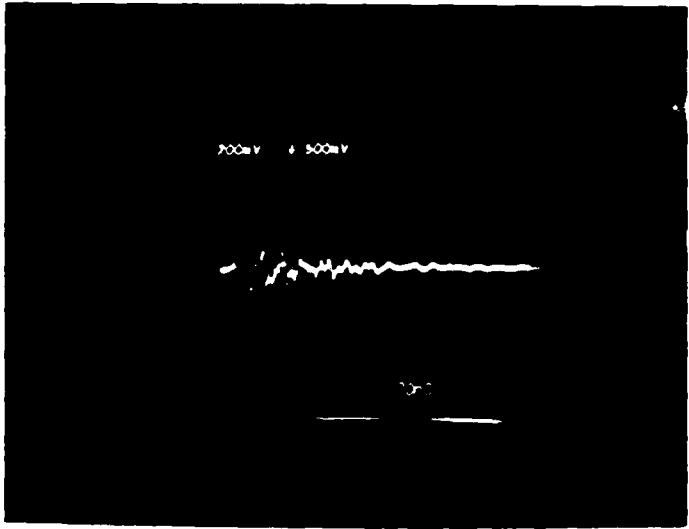
Vertical **ns/div 2**

Configuration

Pulse Level **500V**

Data Link

Comments:



2

Date 5-22-85

Test Point NOISE #3

Amplification 0 dB

Attenuation 0 dB

Horizontal 20 ns/div 1

Vertical 20 mV/div 1

Horizontal ns/div 2

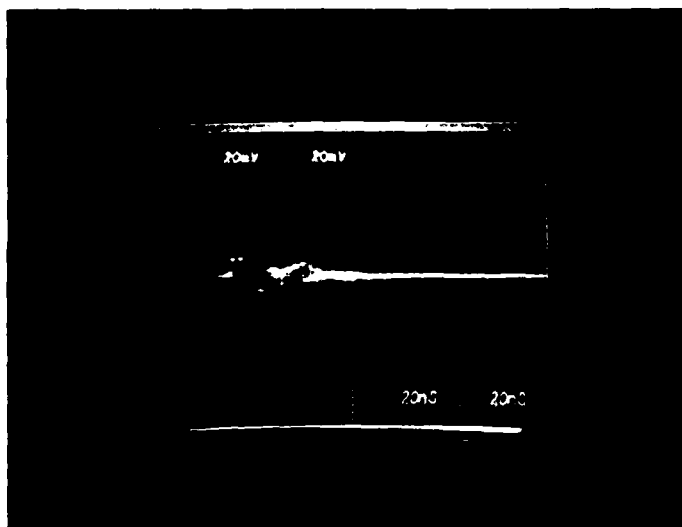
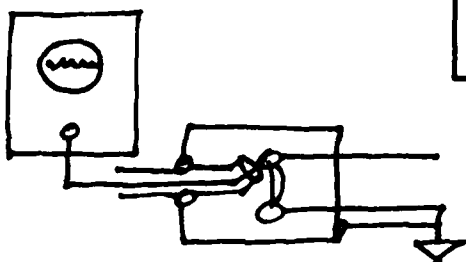
Vertical ns/div 2

Configuration

Pulsar Level 500V +

Data Link

Comments:



3

Date 5-22-85

Test Point NOISE #4

Amplification 0 dB

Attenuation 0 dB

Horizontal 20 ns/div 1

Vertical 20 mV/div 1

Horizontal ns/div 2

Vertical ns/div 2

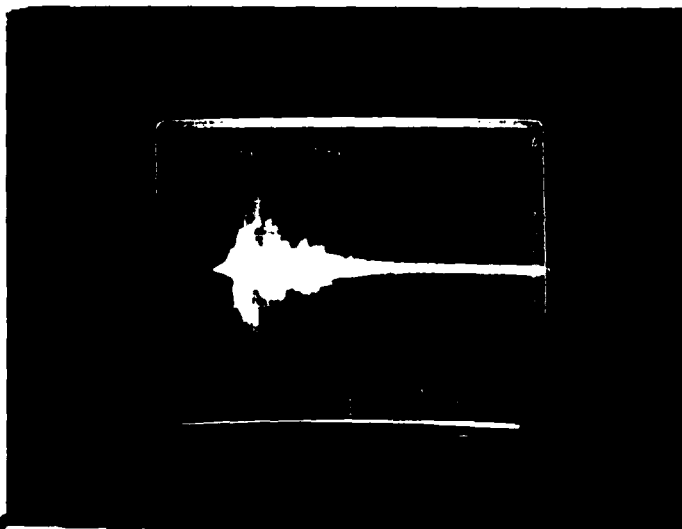
Configuration

Pulsar Level 2500V +

Data Link

Comments:

SEE #3 FOR  
CIRCUIT



4



Date 5-22-85

Test Point V PROBE CAL

Amplification 0dB

Attenuation -40dB

Horizontal 20 ns/div 1

Vertical 100 mV/div 1

Horizontal ns/div 2

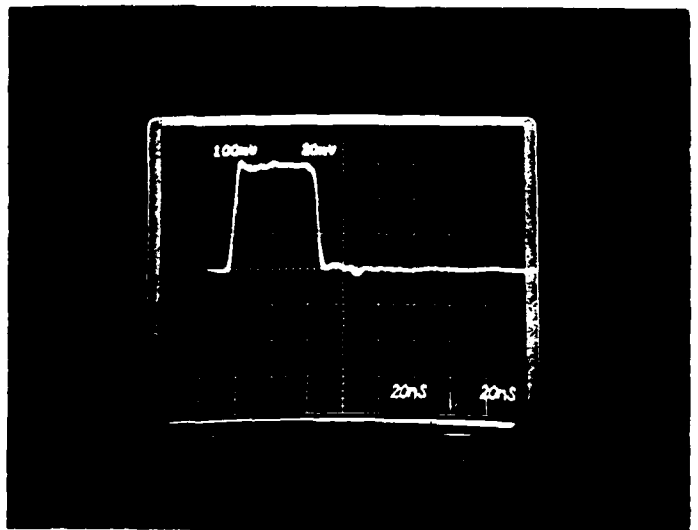
Vertical ns/div 2

Configuration

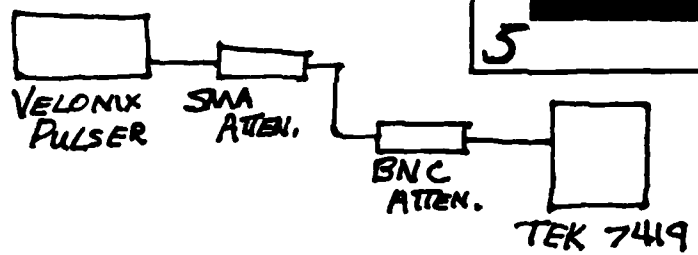
Pulsar Level

Data Link

Comments:



5



Date 5-22-85

Test Point V PROBE CAL

Amplification 0dB

Attenuation 0dB

Horizontal 20 ns/div 1

Vertical 50 mV/div 1

Horizontal ns/div 2

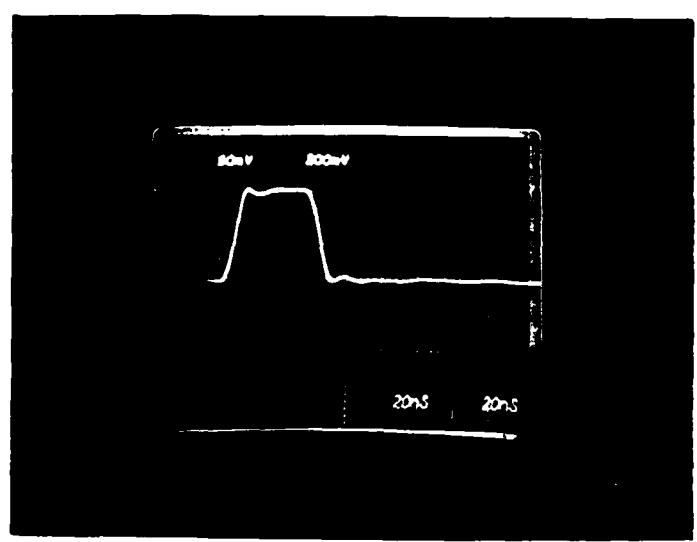
Vertical ns/div 2

Configuration

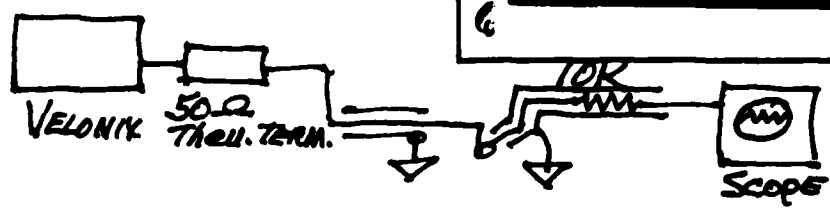
Pulsar Level

Data Link

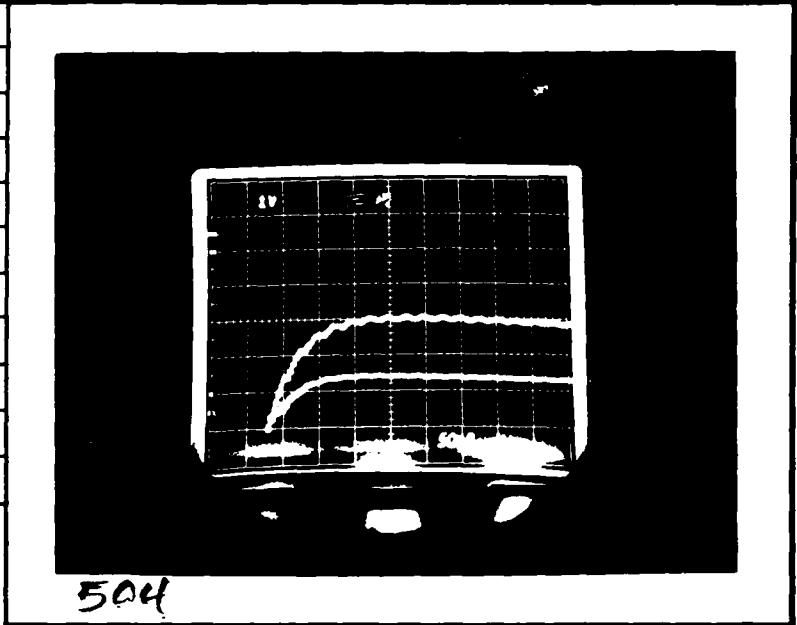
Comments:



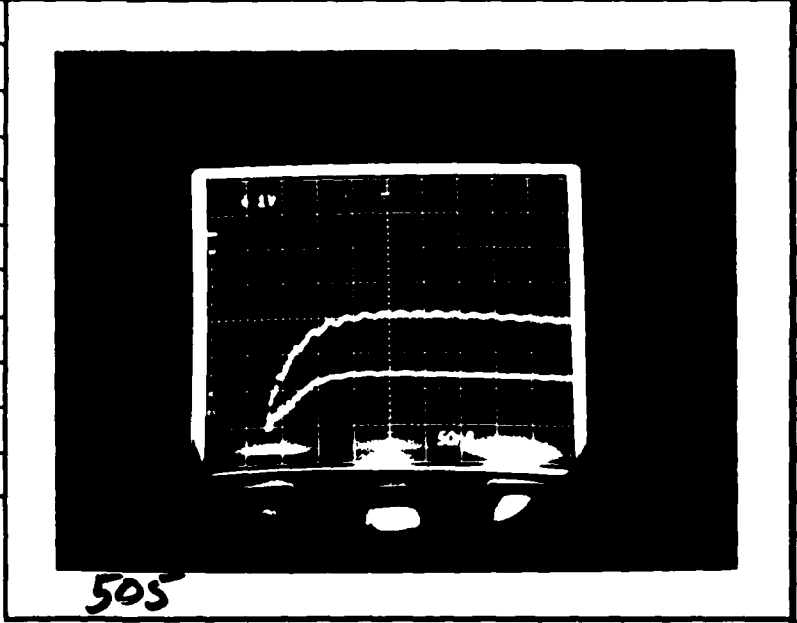
6

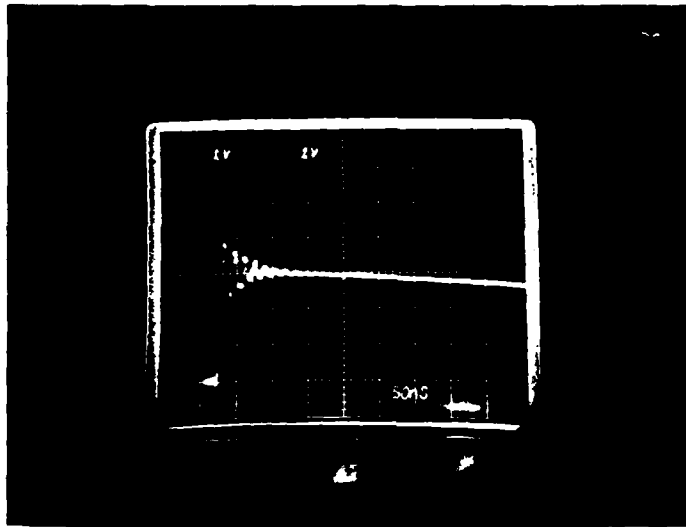


Date 5-31-85  
 Test Point 1-AL-1/10-φ  
 Amplification dB  
 Attenuation dB  
 Horizontal 50 ns/div 1  
 Vertical 1V(190) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link  
 Comments: 504



Date 5-31-85  
 Test Point 1R-AL-1/10-φ  
 Amplification dB  
 Attenuation dB  
 Horizontal 50 ns/div 1  
 Vertical 1V(190) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link  
 Comments: 505

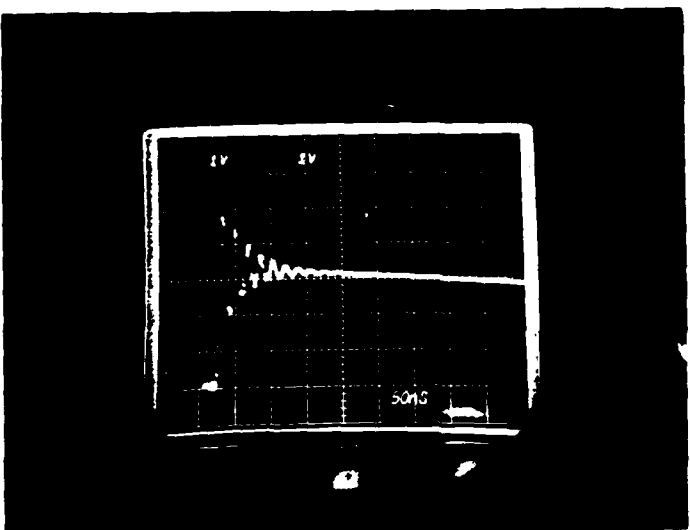




V Ref for 340, 341  
 $\approx 200\text{V/div}$

Date 5-28-85  
 Test Point 2-BL-1/10-0  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical 1.0V(240V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

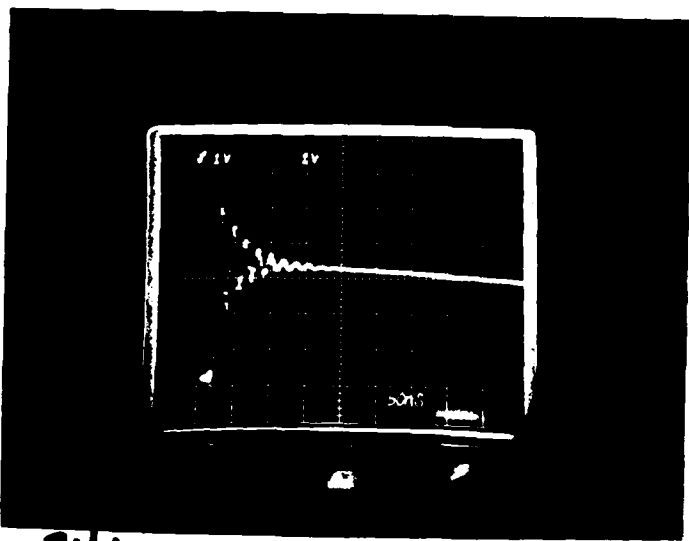
Comments: 340



340

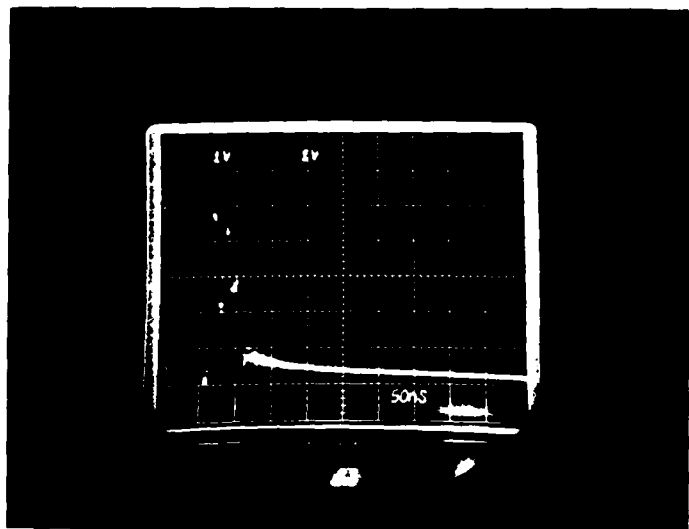
Date 5-28-85  
 Test Point 2R-BL-1/10-0  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical 1.0V(240V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

Comments: 341



341

Date	5-28-85
Test Point	3-BL-1/10- $\phi$
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	1.0V(240V) <del>1</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	338

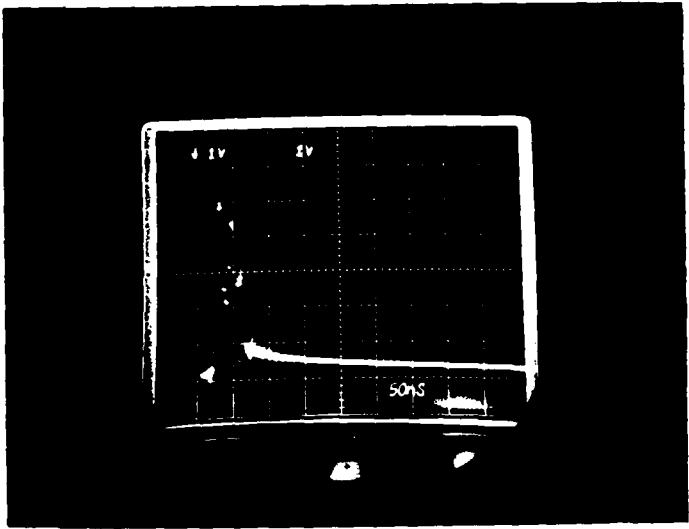


338

\*

\* 120V/div  
(See note 70-K)

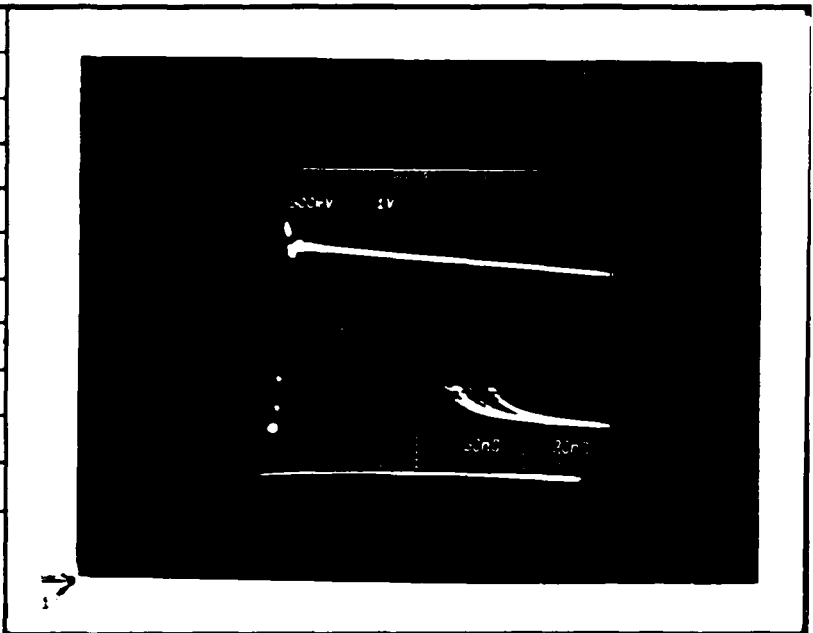
Date	5-28-85
Test Point	3R-BL-1/10- $\phi$
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	1.0V(240V) <del>1</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	339



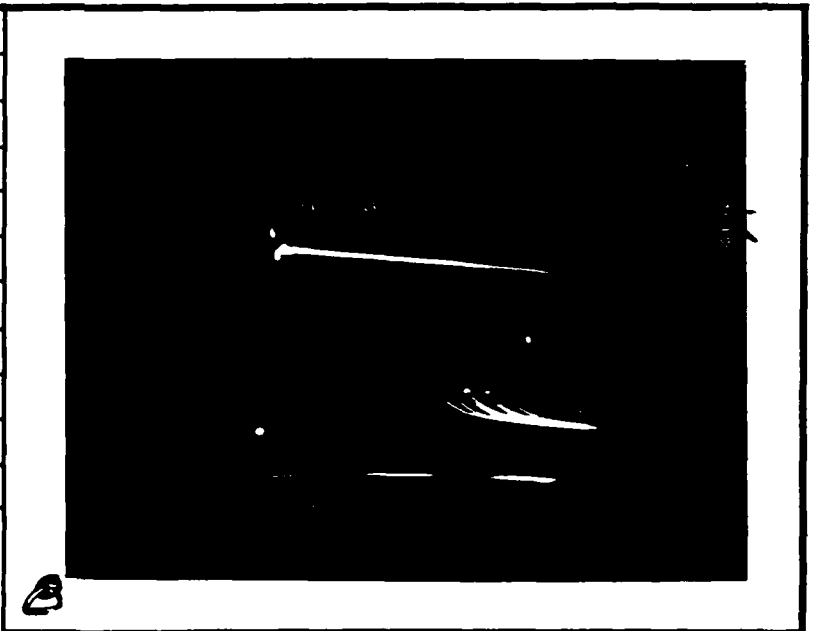
339

\* 120V/div

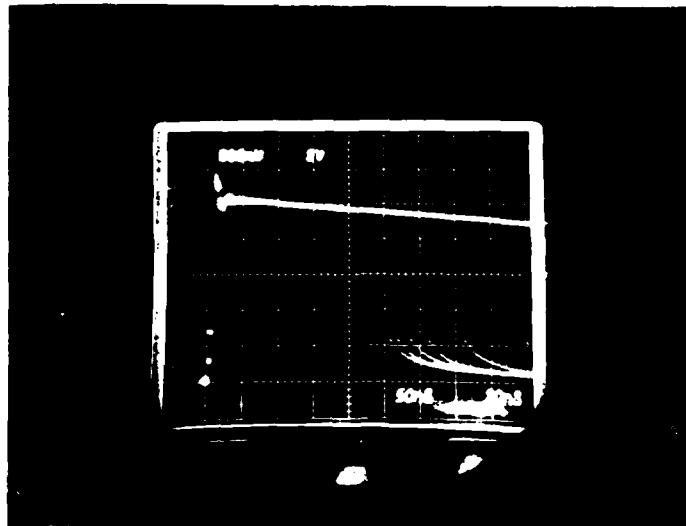
Date	5-23-85	
Test Point	10-BL-L-10-A	
Amplification	0 dB	
Attenuation	0 dB	
Horizontal	50	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulser Level	600V	
Data Link		
Comments:	100Ω ACROSS TEST OBJECT FOR V. REF	



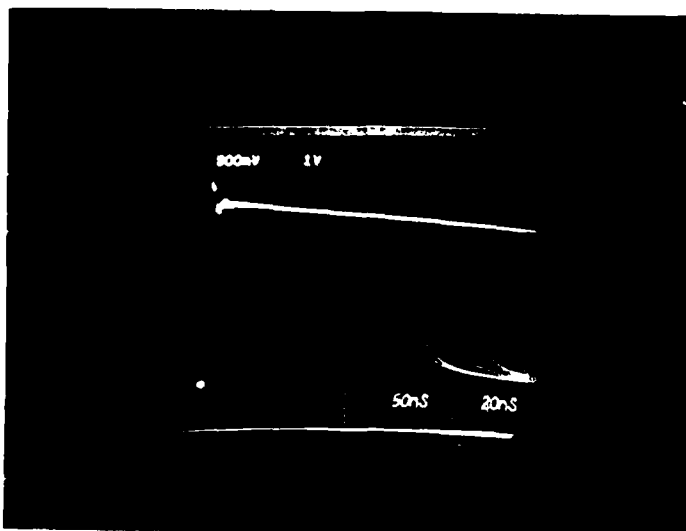
Date		
Test Point	10R-BL-L-10-A	
Amplification	0 dB	
Attenuation	0 dB	
Horizontal	50	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulser Level	600V	
Data Link		
Comments:		



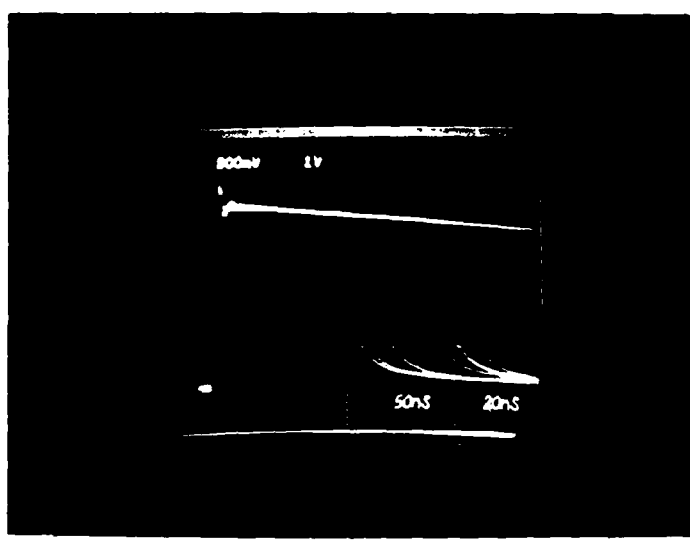
Date	5-23-85	
Test Point	10 BL-1/10-B	
Amplification	0 dB	
Attenuation	0 dB	
Horizontal	50	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulse Level	600V	
Data Link		
Comments:		



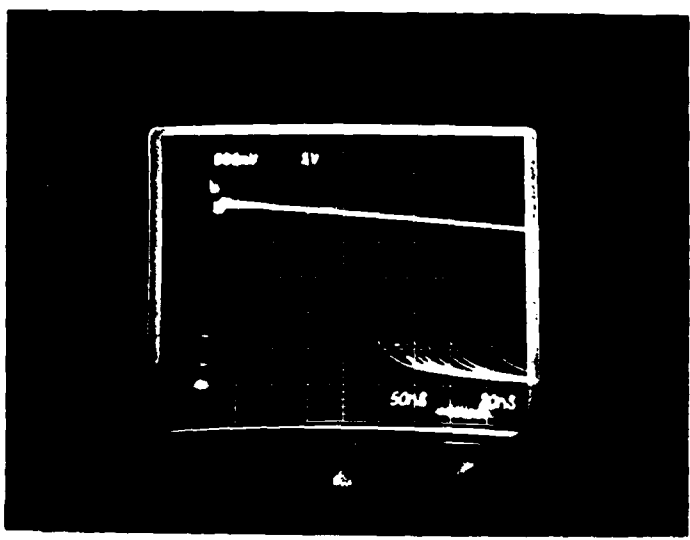
Date	5-23-85	
Test Point		
Amplification	0 dB	
Attenuation	0 dB	
Horizontal	50	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulse Level	600	
Data Link		
Comments:		



Date 5-23-85  
 Test Point 10-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

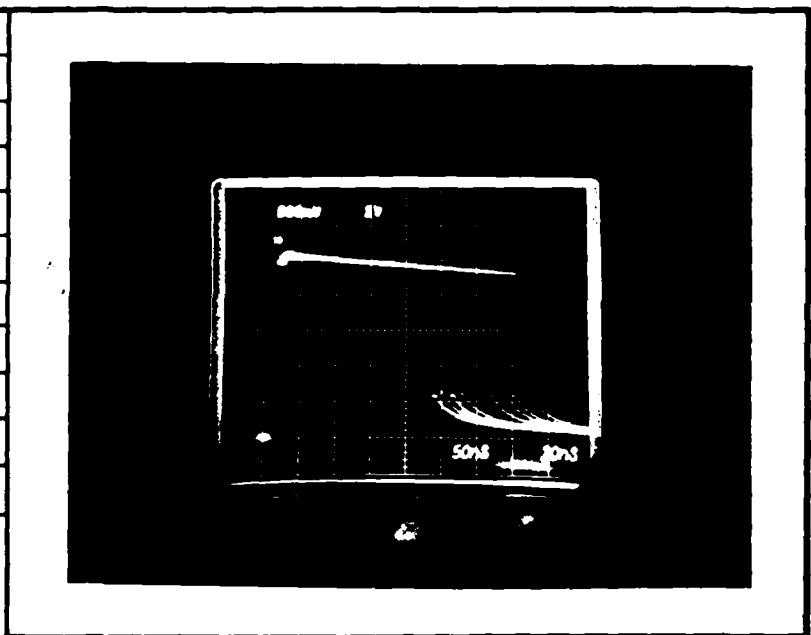


Date 5-23-85  
 Test Point 10R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

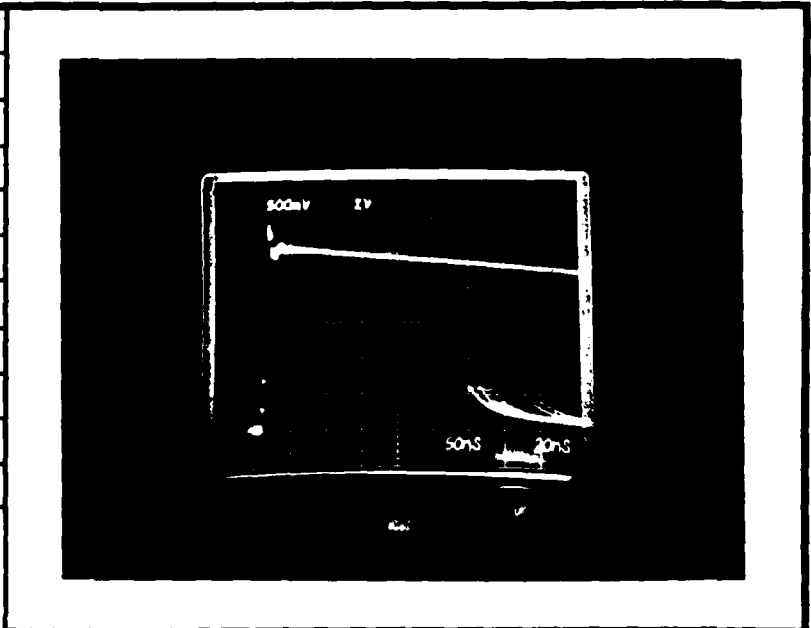




Date	5-23-85		
Test Point	10-BL-1/10-D		
Amplification	0	dB	
Attenuation	0	dB	
Horizontal	50	ns/div	1
Vertical	.5 (120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:			



Date			
Test Point	10R-BL-1/10-D		
Amplification	0	dB	
Attenuation	0	dB	
Horizontal	50	ns/div	1
Vertical	.5V (120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:			



Date 5-23-85

Test Point 10-BL-1/10-E

Amplification 0 dB

Attenuation 0 dB

Horizontal 50 ns/div 1

Vertical .5V(120V) mV/div 1

Horizontal ns/div 2

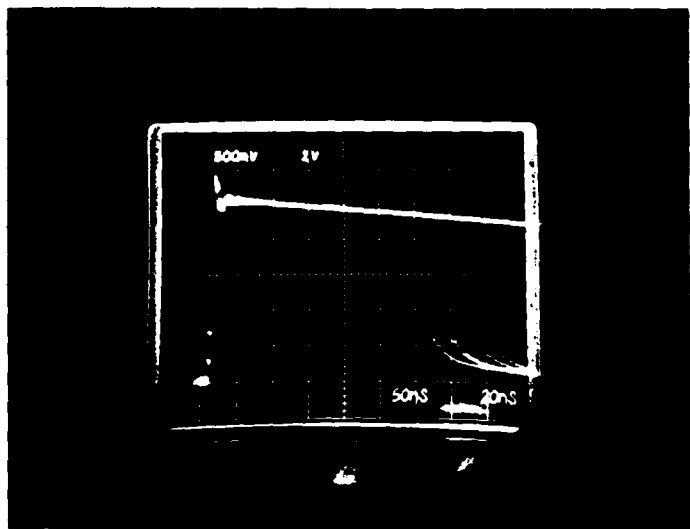
Vertical ns/div 2

Configuration

Pulsar Level 600V

Data Lnk

Comments:



Date

Test Point 10R-BL-1/10-E

Amplification 0 dB

Attenuation 0 dB

Horizontal 50 ns/div 1

Vertical .5V(120V) mV/div 1

Horizontal ns/div 2

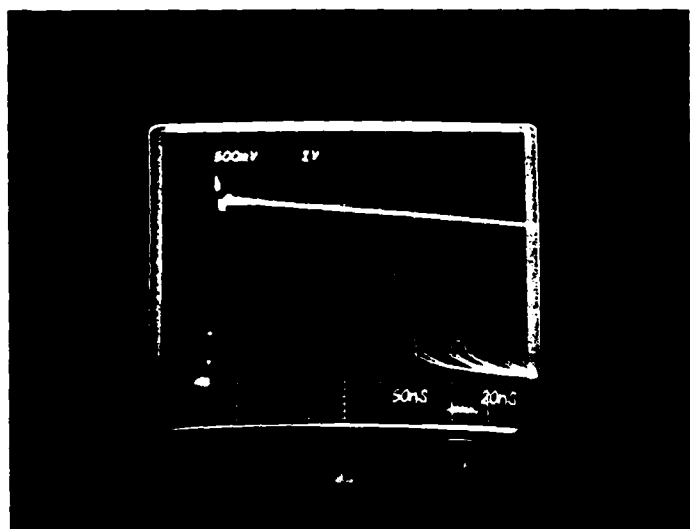
Vertical ns/div 2

Configuration

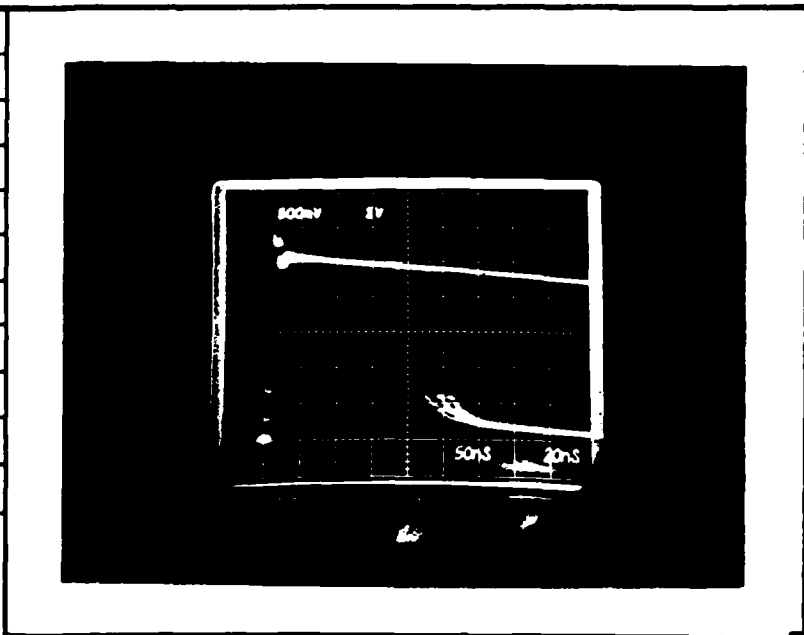
Pulsar Level 600V

Data Lnk

Comments:

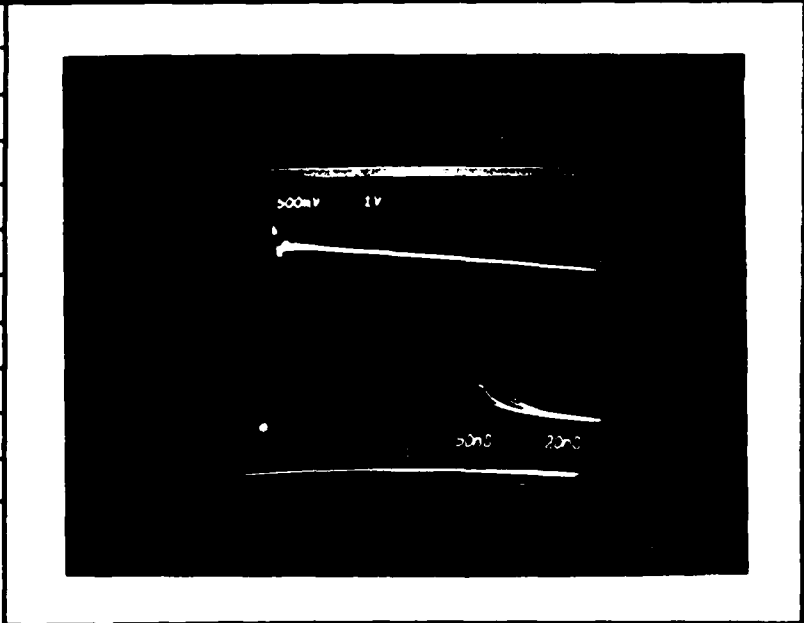


Date 5-23-85  
 Test Point 10-BL-1/10-F  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50  $\mu$ s ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600  
 Data Link



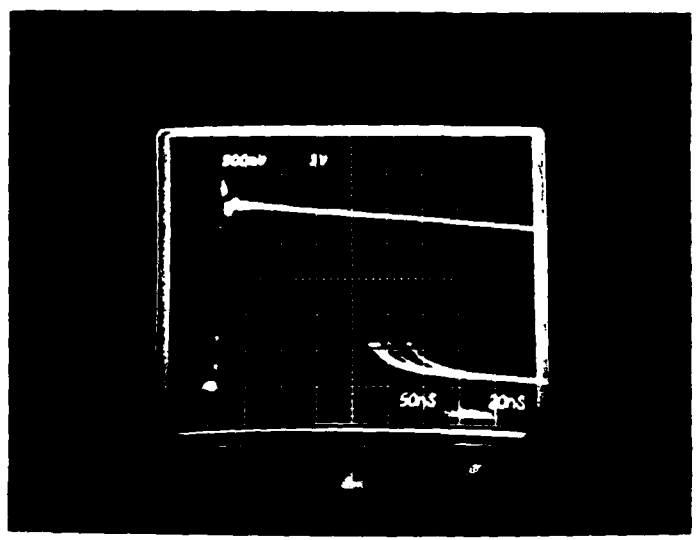
Comments:  
 17

Date 5-23-85  
 Test Point 10R-BL-1/10-F  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50  $\mu$ s ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link



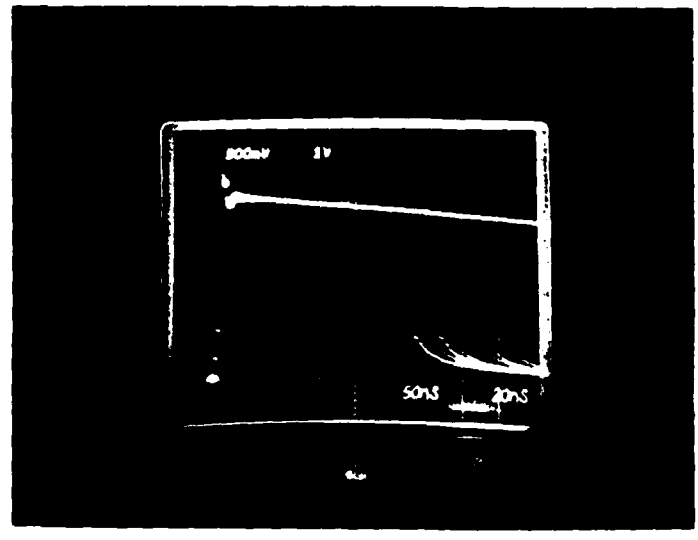
Comments:  
 DID NOT FIRE UNTIL  
 ~ 300 NS AFTER  
 8-9 SHOTS  
 18

Date 5-23-85  
 Test Point 10-BL-1/10-G  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



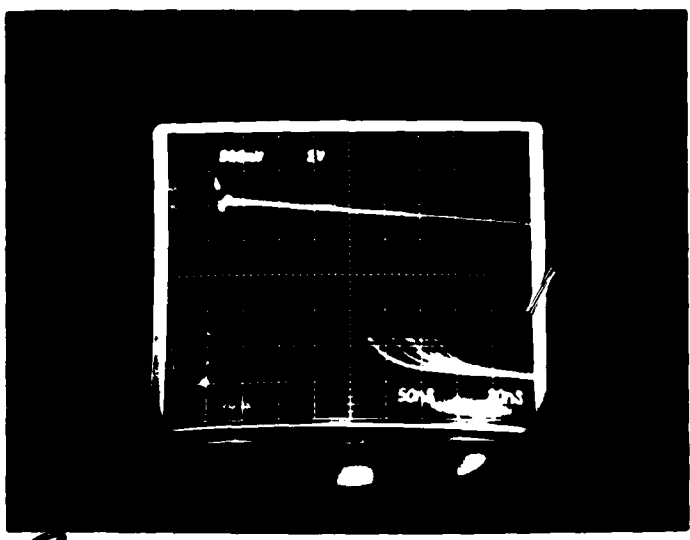
19

Date  
 Test Point DR-BL-1/10-G  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



20

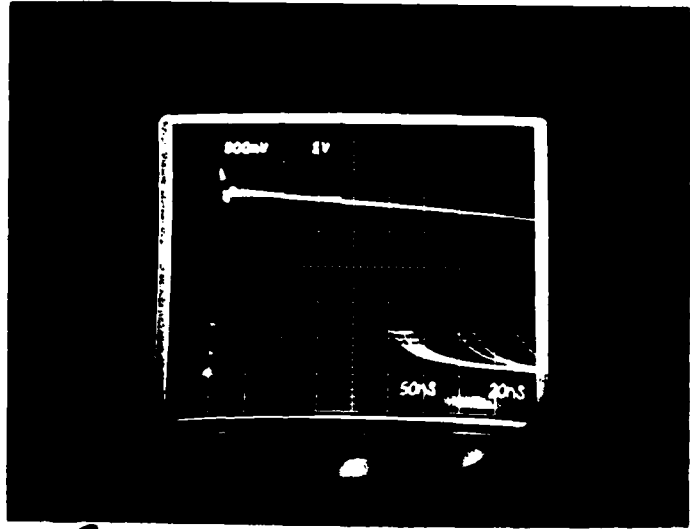
Date 5-23-85  
 Test Point 10-BL-1/10-H  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



21

21

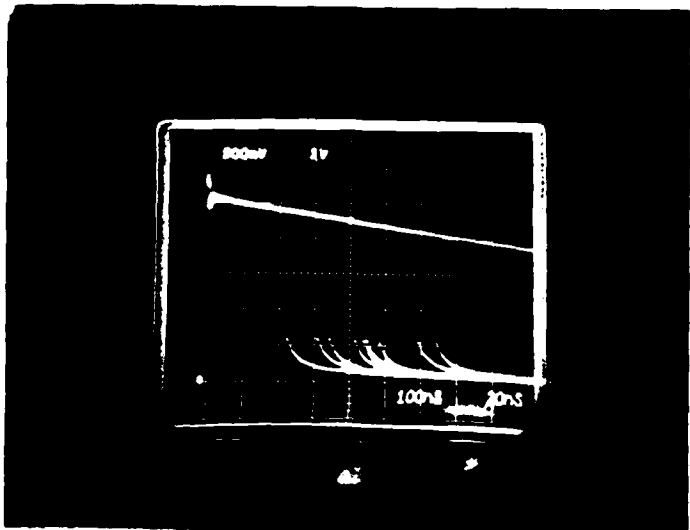
Date 5-23-85  
 Test Point 10R-BL-1/10-H  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



22

22

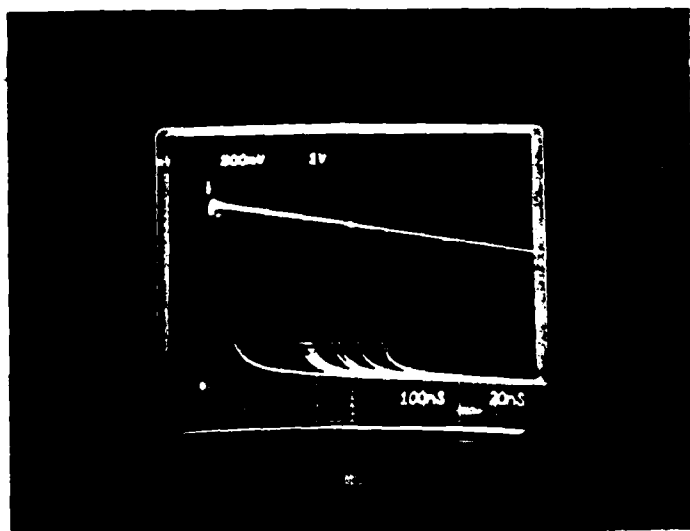
Date **5-23-85**  
 Test Point **10-BL-1/10-I**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **100 ns/div 1**  
 Vertical **.5 (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:



23

23

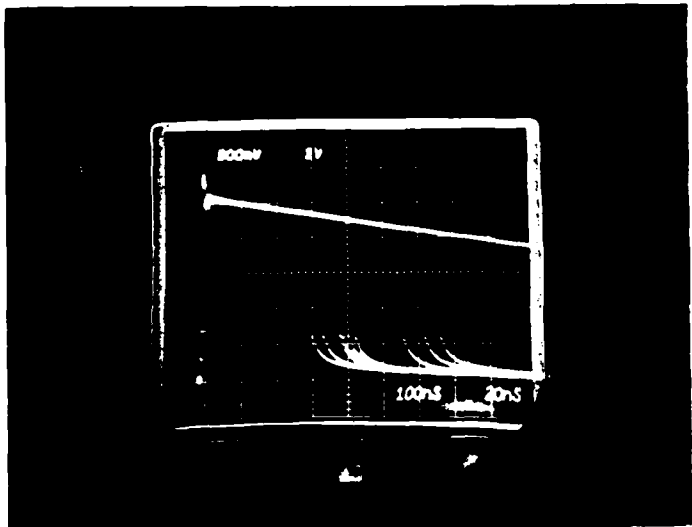
Date **5-23-85**  
 Test Point **10R-BL-1/10-I**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **100 ns/div 1**  
 Vertical **.5 (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:



24

24

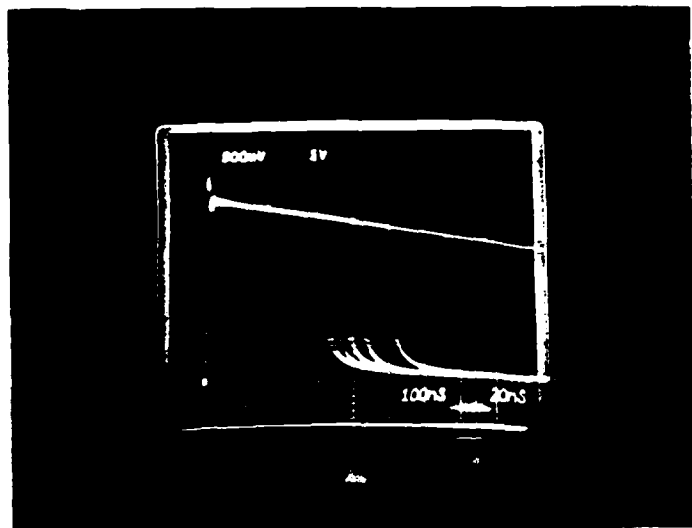
Date	5-23-85
Test Point	10-BL-1/10-J
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5 (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Lnk	
Comments:	



25

25

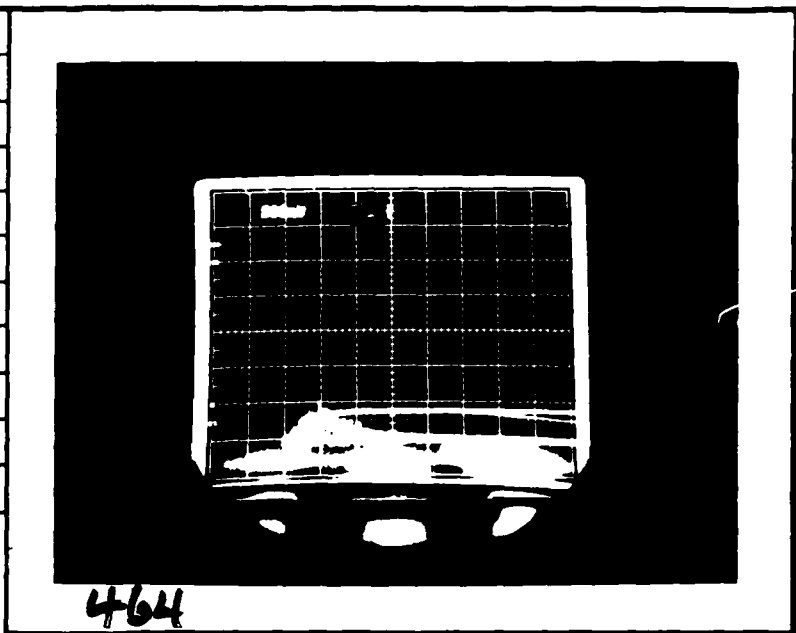
Date	5-23-85
Test Point	10R-BL-1/10-J
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5 (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Lnk	
Comments:	



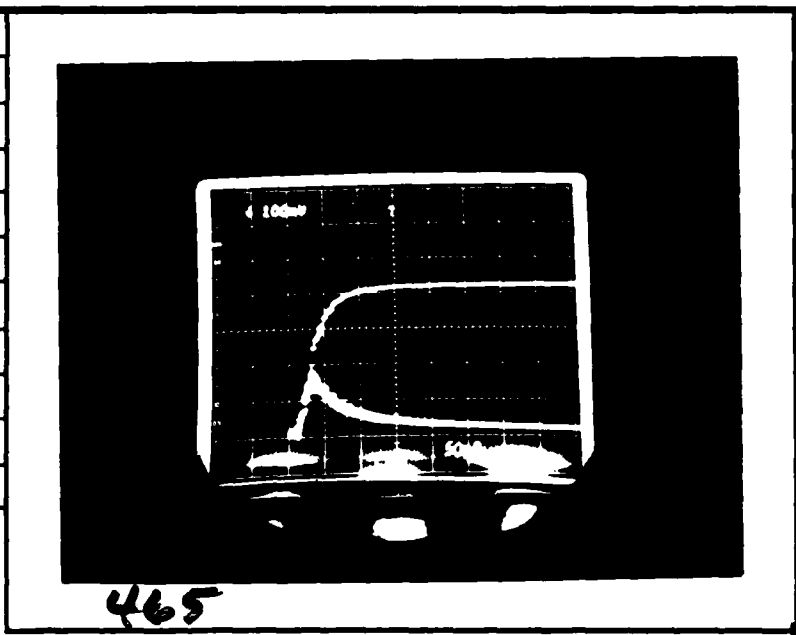
26

26

Date	5-30-85
Test Point	12-AL-1/10-φ
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.5V (95V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	+600V
Data Link	
Comments:	464
	"COMMON LEAD"

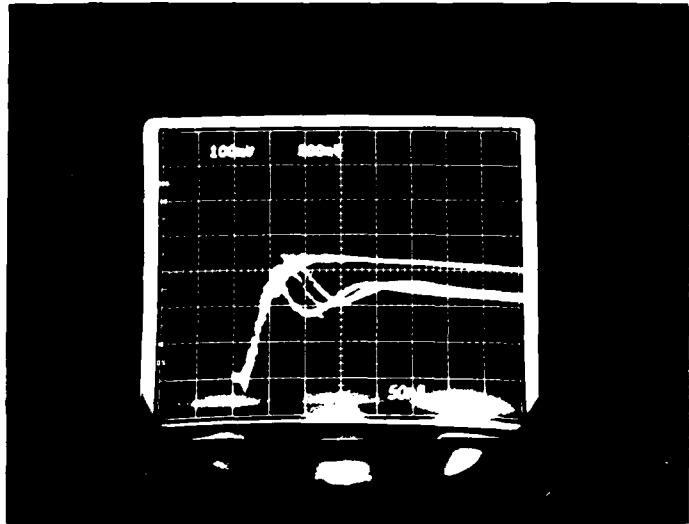


Date	5-30-85
Test Point	12R-AL-1/10-φ
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.1V (190V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	-600V
Data Link	
Comments:	465
	"COMMON LEAD"





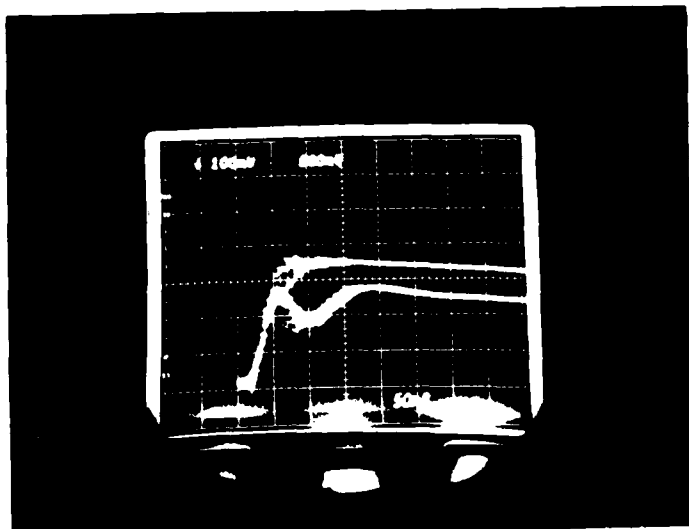
Date	5-30-85
Test Point	12-AL-1/10-Ø
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.1V (190V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	466



"HOT" LEAD

466

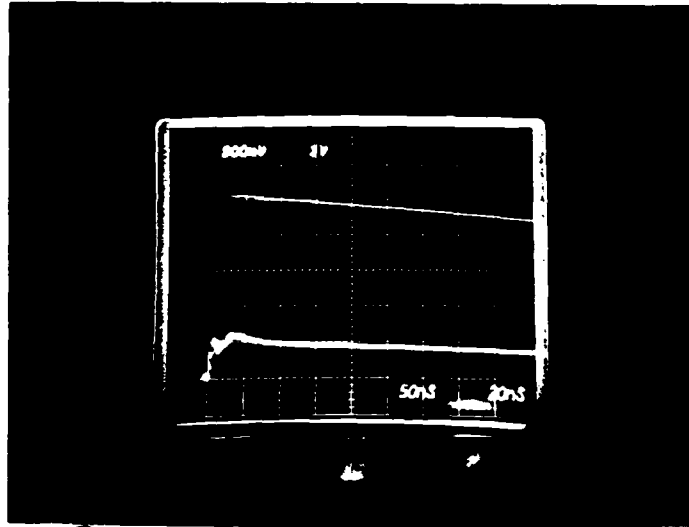
Date	5-30-85
Test Point	12R-AL-1/10-Ø
Amplification	- dB
Attenuation	- dB
Horizontal	50 ns/div 1
Vertical	.1V (190V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	-600V
Data Link	
Comments:	467



"HOT" LEAD

467

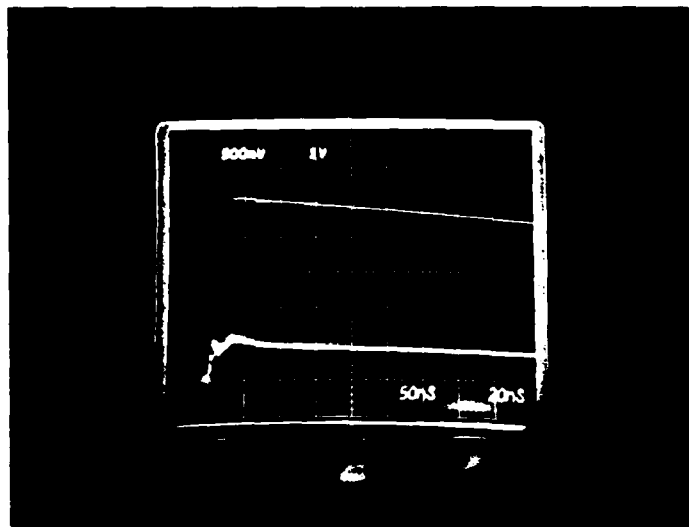
Date 5-23-85  
 Test Point 25-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



27

27

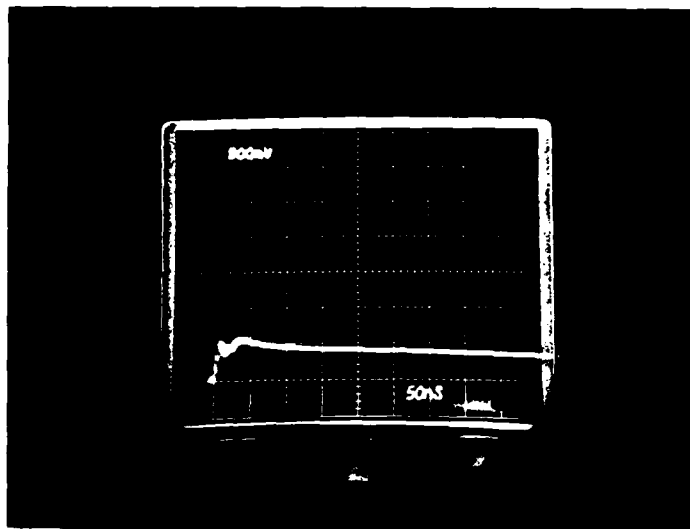
Date 5-23-85  
 Test Point 25R-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



28

28

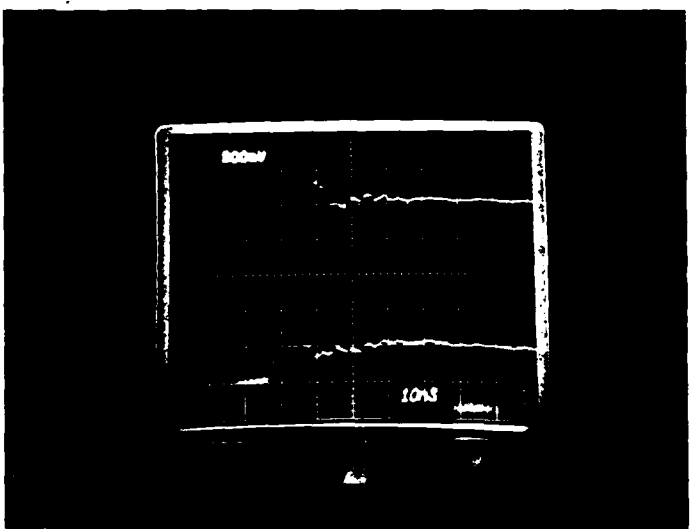
Date 5-23-85  
 Test Point 25-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600  
 Data Link



Comments: 29

29

Date 5-23-85  
 Test Point 25R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link

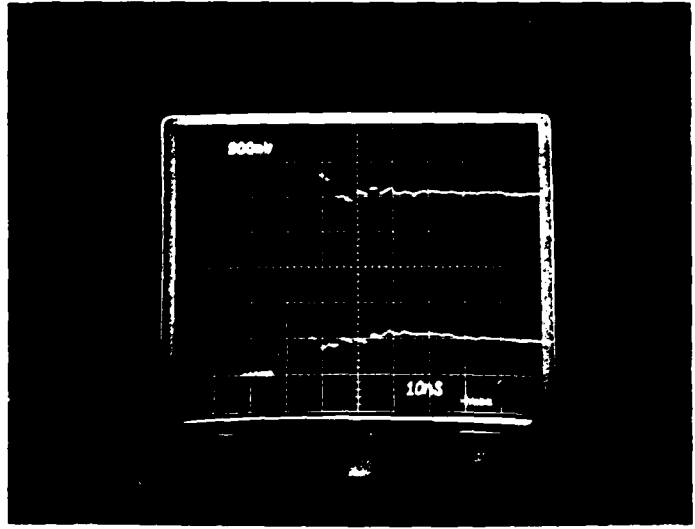


Comments: 10ns/DIV

30

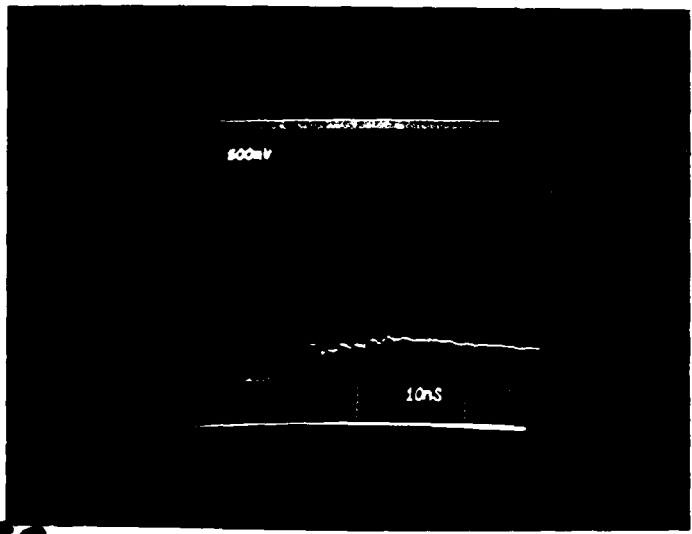
30

Date 5-23-85  
 Test Point 25-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



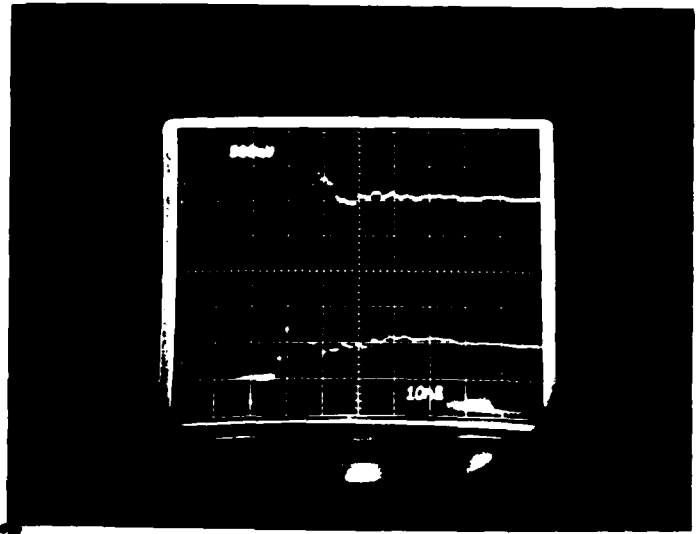
31 31

Date  
 Test Point 25R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5 (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



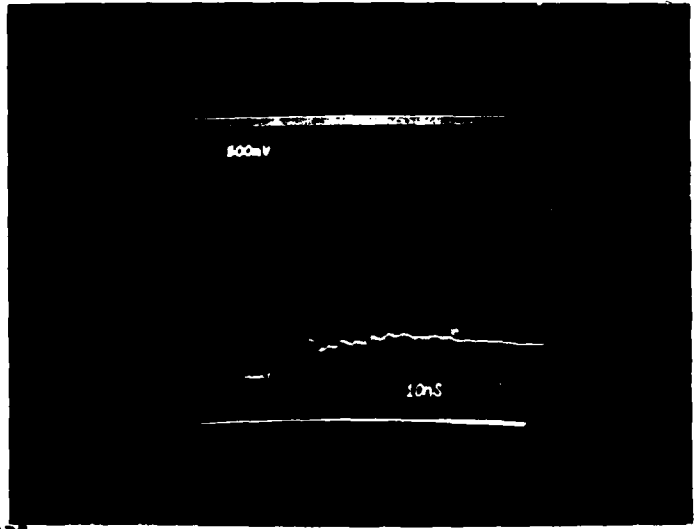
NO REFERENCE 32 32

Date 5-23-85  
 Test Point 25-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



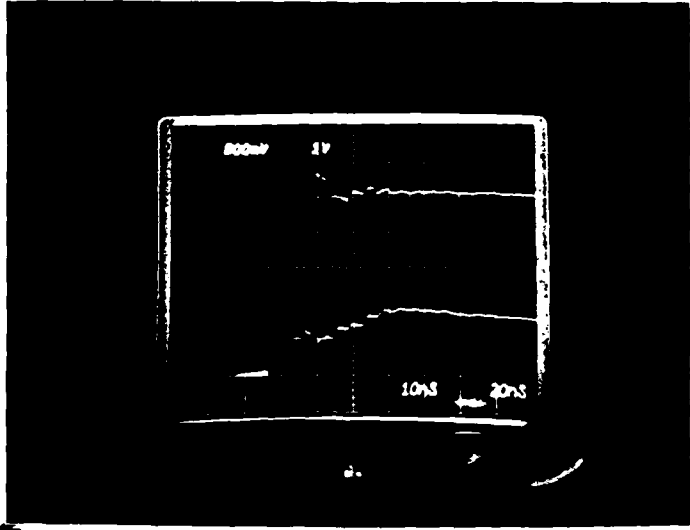
33 33

Date 5-23-85  
 Test Point 25R-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



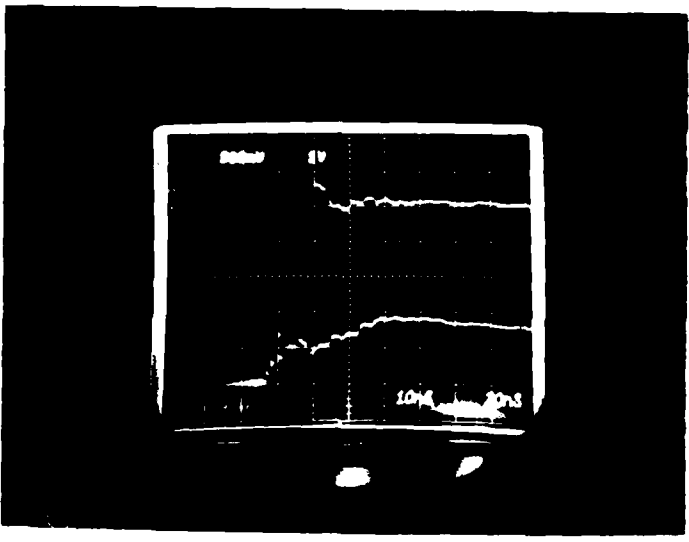
NO REFERENCE 34 34

Date 5-23-85  
 Test Point 27-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) ~~mV~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



35 35

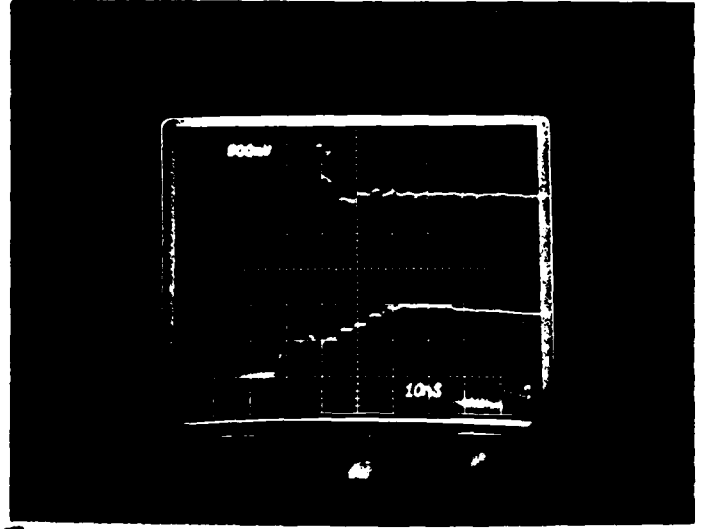
Date 5-23-85  
 Test Point 27R-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) ~~mV~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:



36

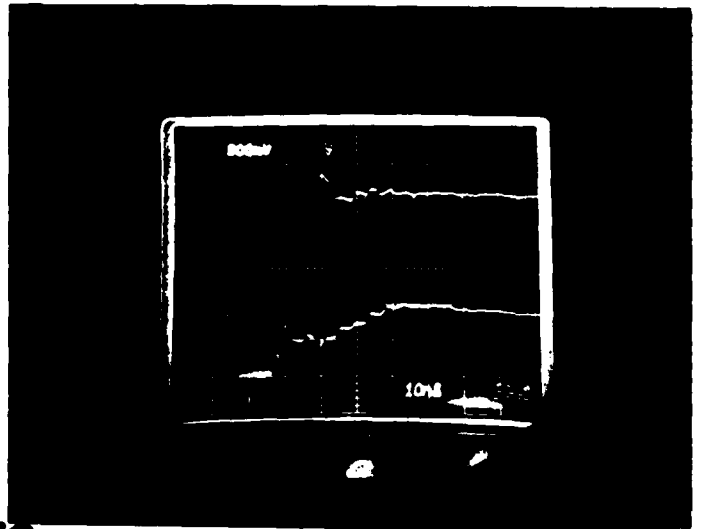
Date **5-23-85**  
 Test Point **27-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **0.5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments:

37 37



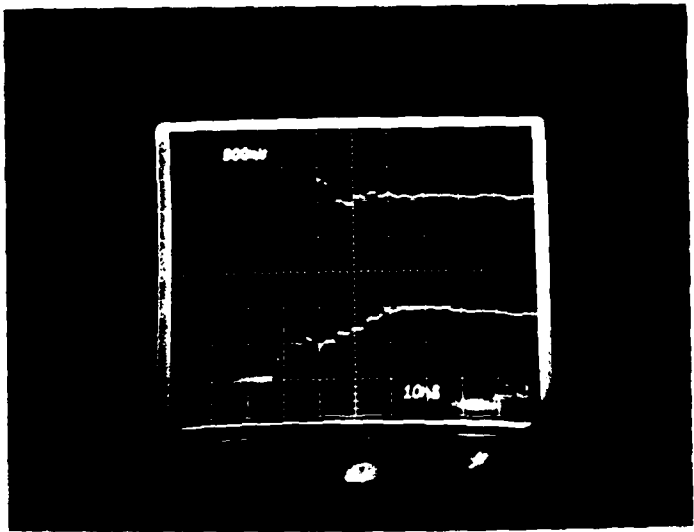
Date **5-23-85**  
 Test Point **27R-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **0.5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments:

38 38



Date **5-23-85**  
 Test Point **27-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **5(120V)** V/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

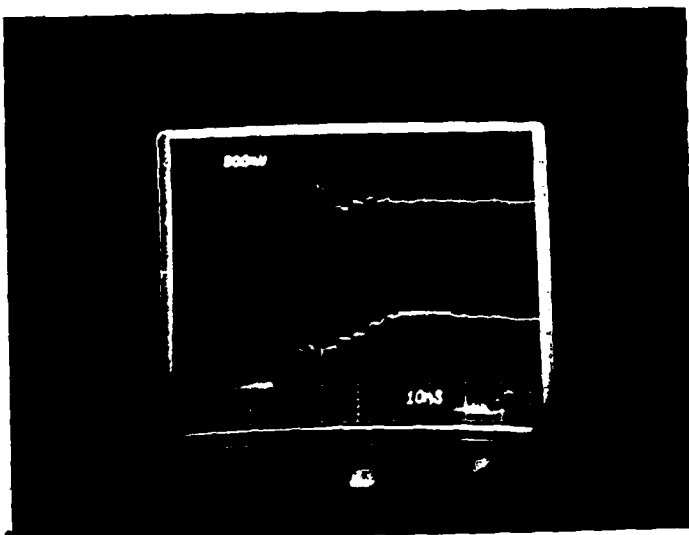
Comments: **39**



**39**

Date **5-23-85**  
 Test Point **27R-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **5V(120V)** V/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **40**



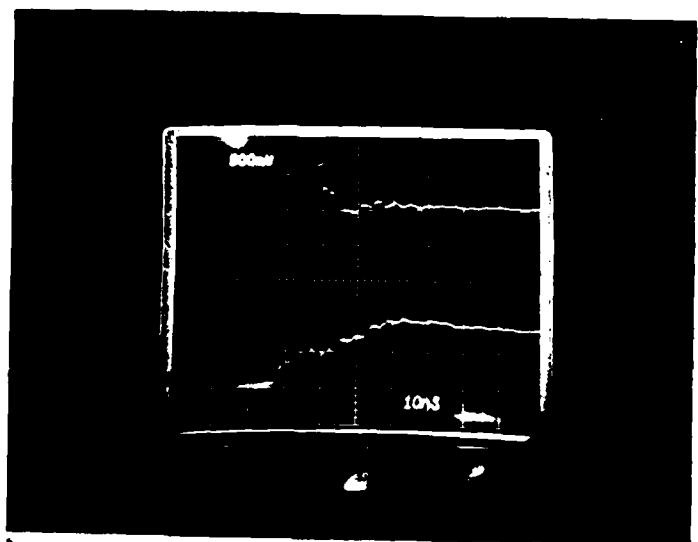
**40**



Date **5-23-85**  
 Test Point **27-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) 4V/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

41

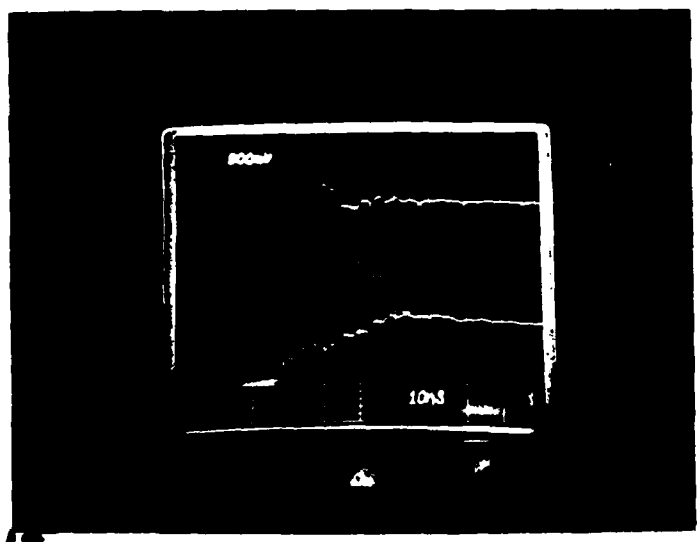
41




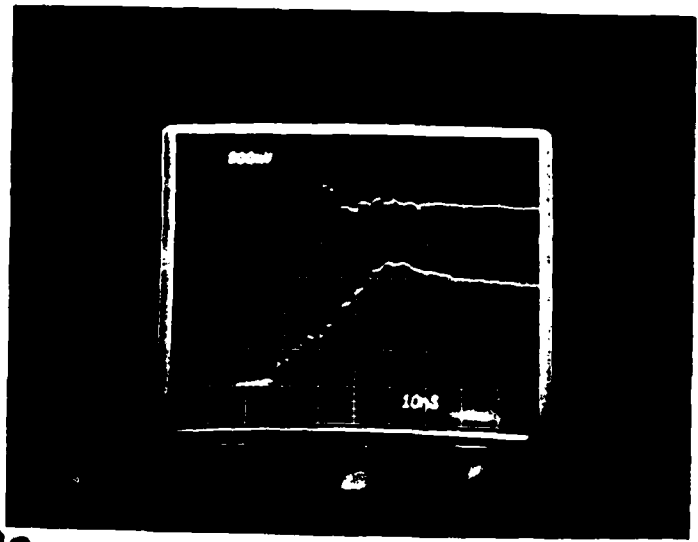
Date **5-23-85**  
 Test Point **27R-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) 4V/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

42

42



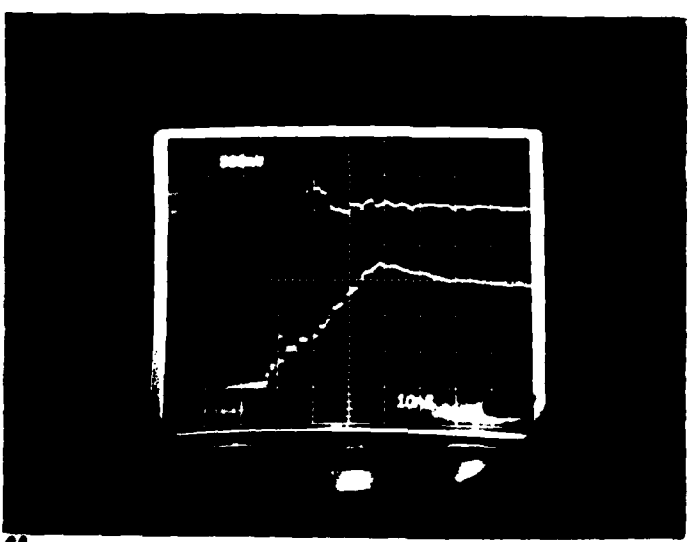
Date **5-23-85**  
 Test Point **29-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V(120V)  /div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link



Comments: **43**

**43**

Date **5-23-85**  
 Test Point **29R-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

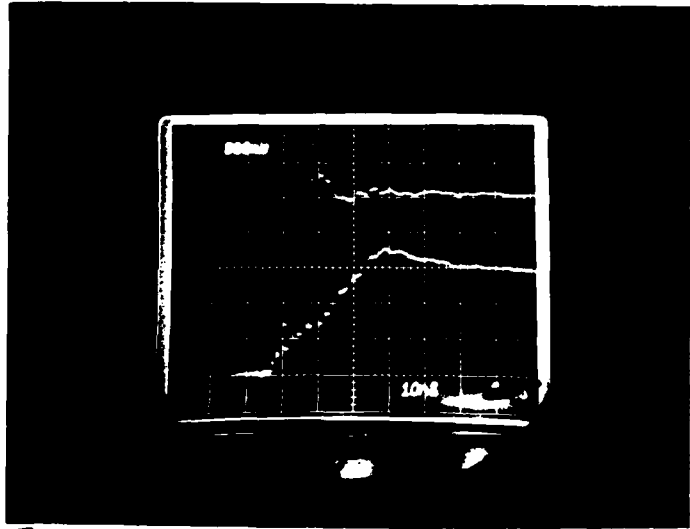


Comments: **44**

**44**

Date **5-23-85**  
 Test Point **29-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

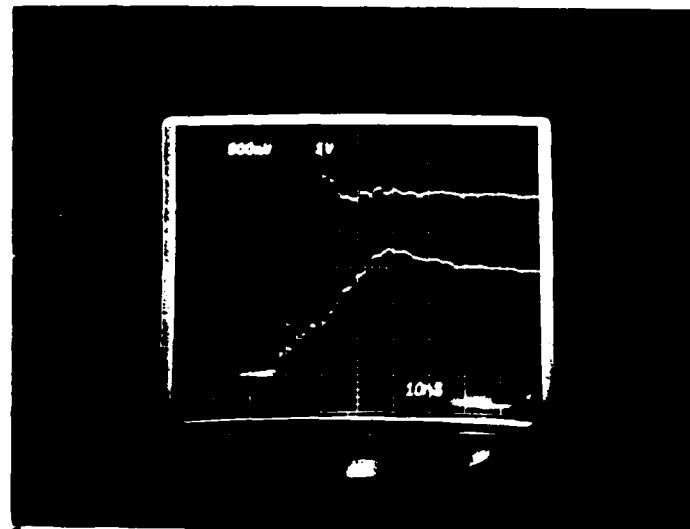
45



45

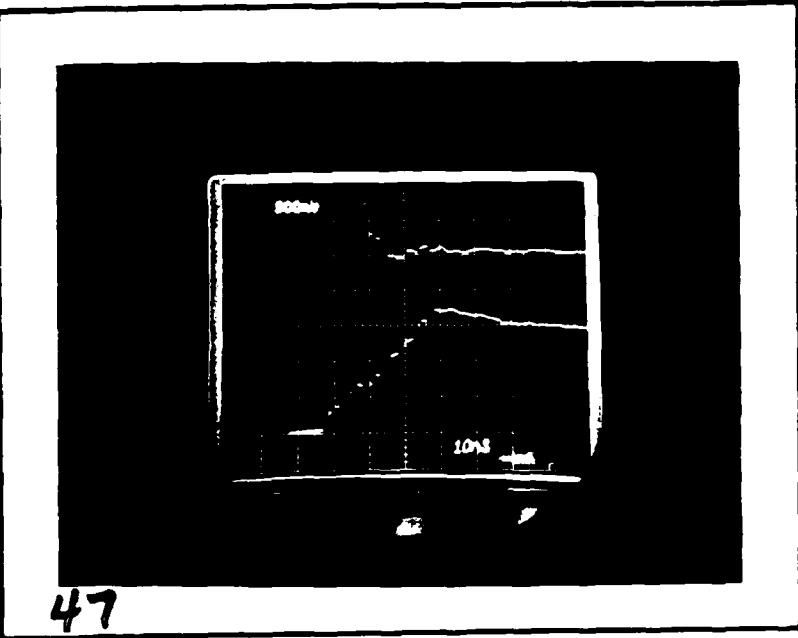
Date **5-23-85**  
 Test Point **29R-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

46

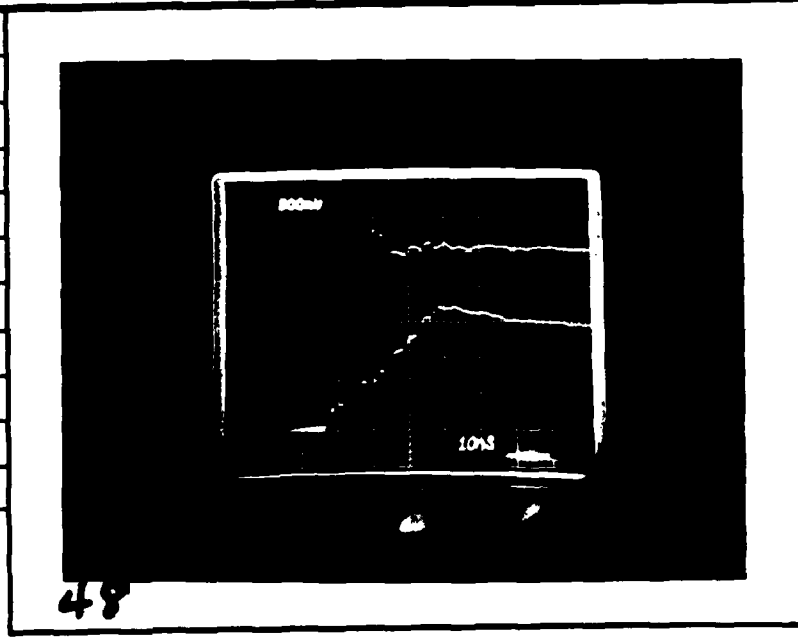


46

Date	5-23-85
Test Point	29-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	0.5V (120V) 1/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	47



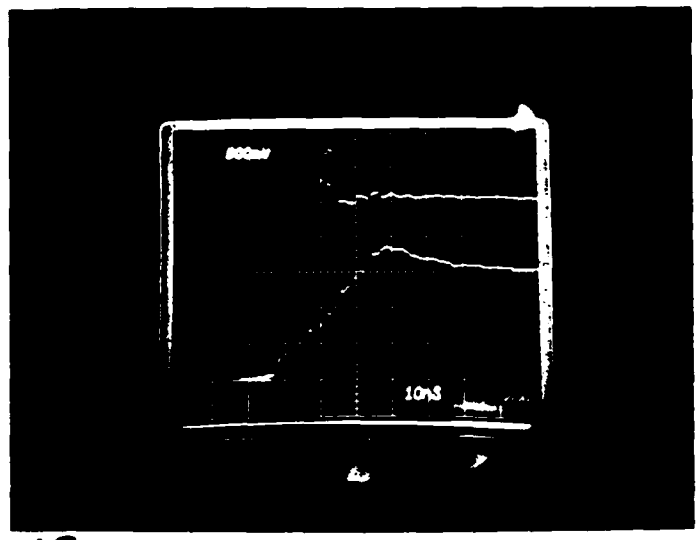
Date	5-23-85
Test Point	29R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	0.5V (120V) 1/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	48



Date 5-23-85  
 Test Point 29-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical 0.5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

49

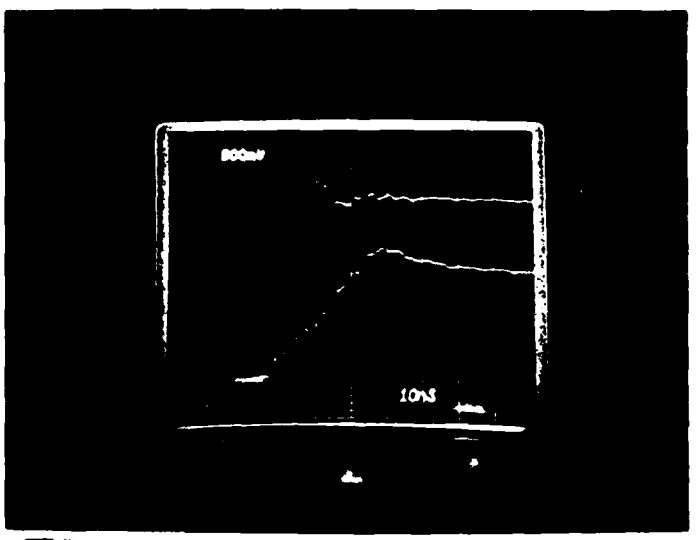
49



Date 5-23-85  
 Test Point 29R-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical 0.5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

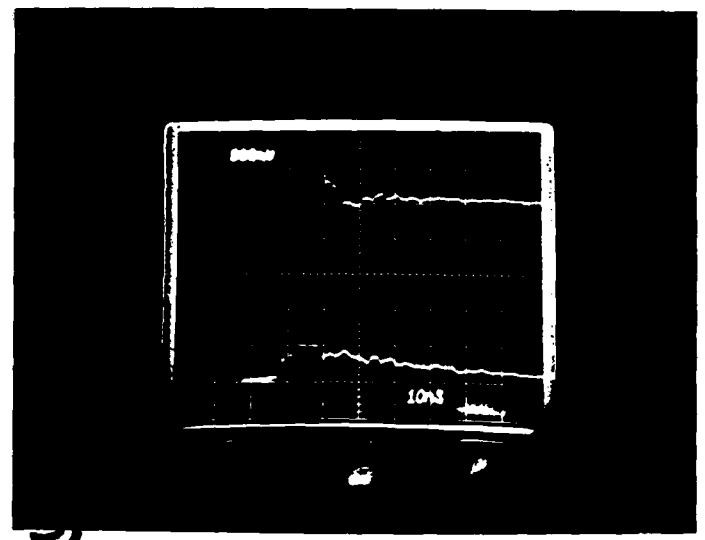
50

50



Date **5-23-85**  
 Test Point **31-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) 1/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

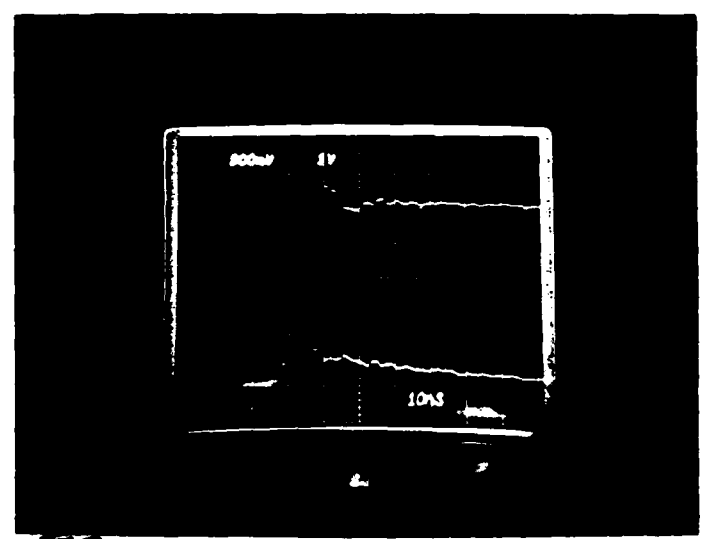
51



51

Date **5-23-85**  
 Test Point **31R-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) 1/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

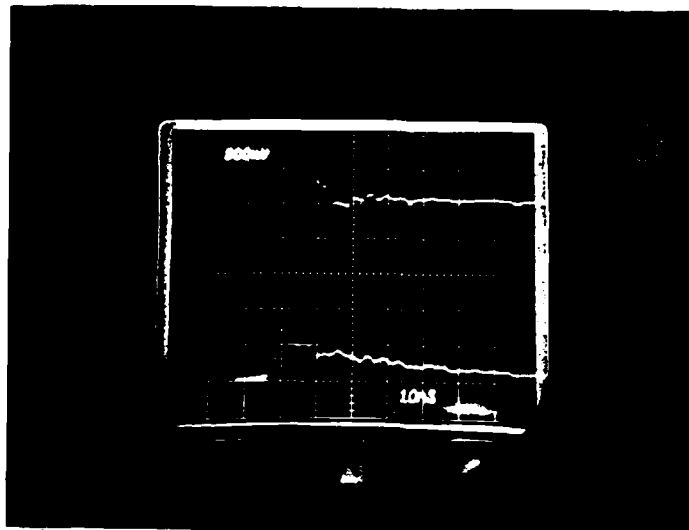
52



52

Date **5-23-85**  
 Test Point **31-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

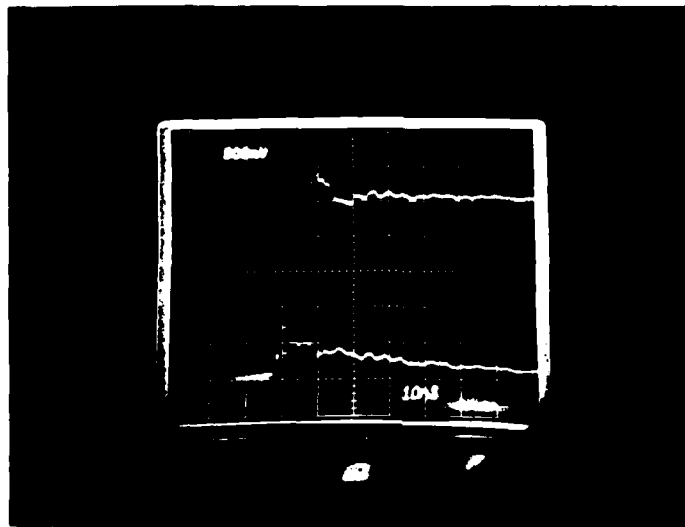
Comments: **53**



**53**

Date **5-23-85**  
 Test Point **31R-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10** ns/div 1  
 Vertical **5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **54**



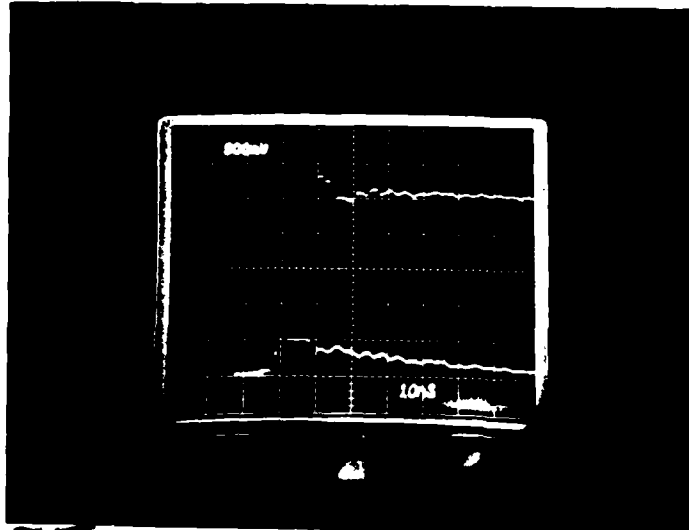
**54**

Date **5-23-85**  
 Test Point **31-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments:

55

55

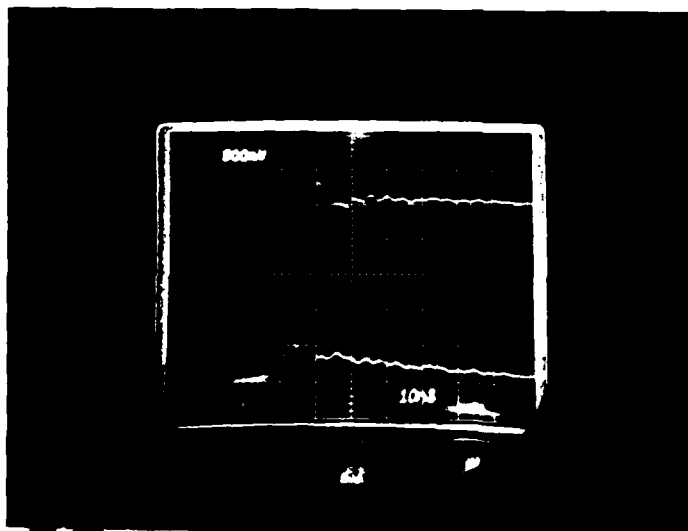


Date **5-23-85**  
 Test Point **31R-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments:

56

56

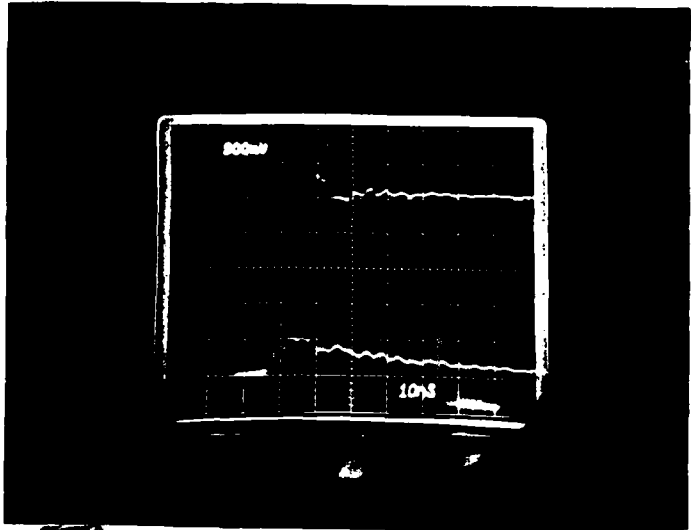




Date **5-23-85**  
 Test Point **31-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulser Level **600V**  
 Data Link

Comments:

**57**

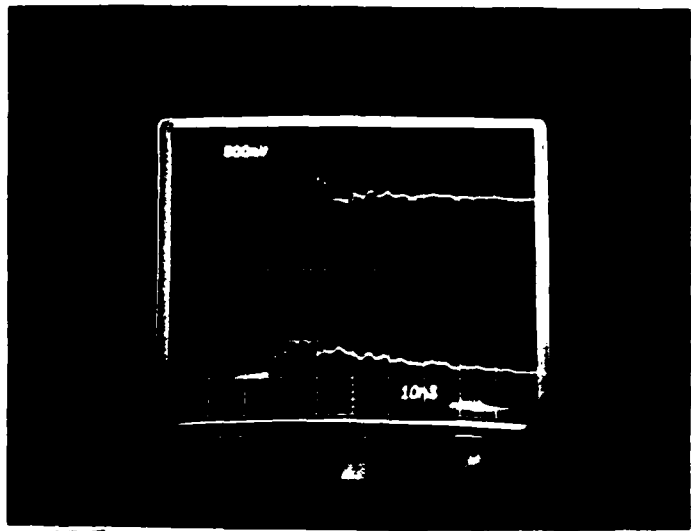


**57**

Date **5-23-85**  
 Test Point **31R-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulser Level **600V**  
 Data Link

Comments:

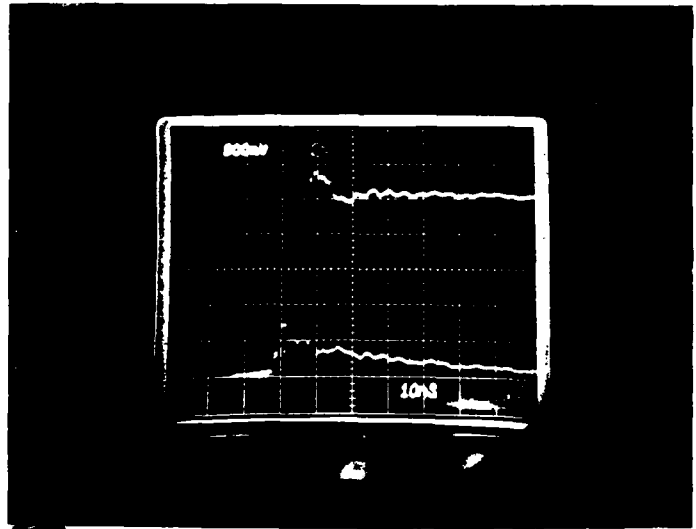
**58**



**58**

Date	5-23-85
Test Point	31-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

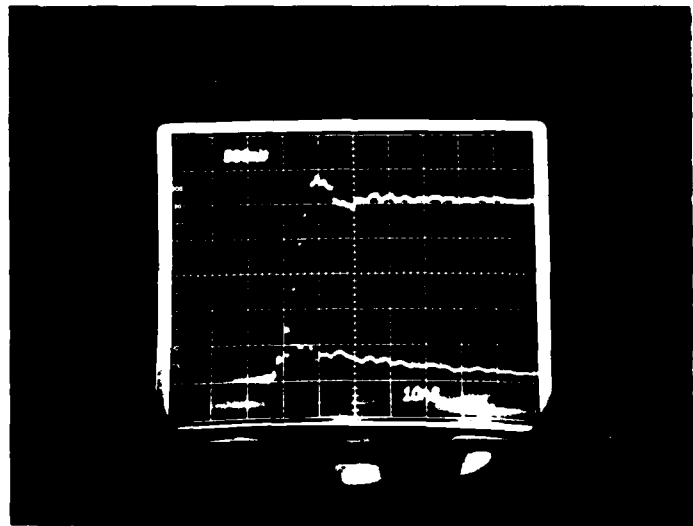
59



59

Date	5-23-85
Test Point	31R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

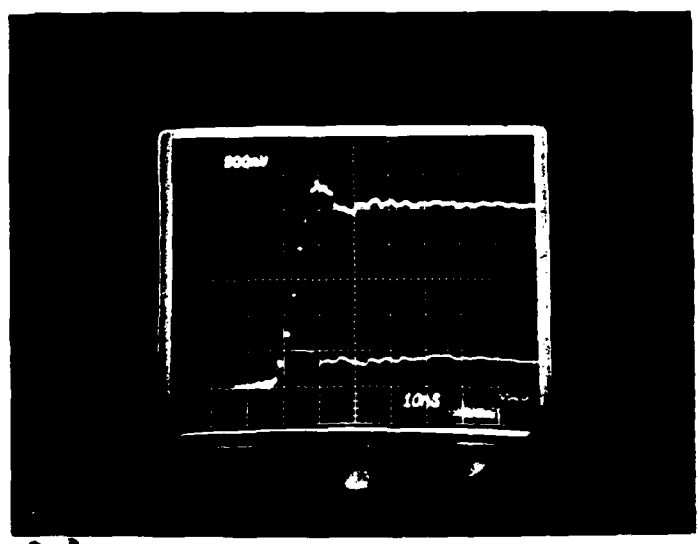
60



60

Date **5-23-85**  
 Test Point **34-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) ~~10~~/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

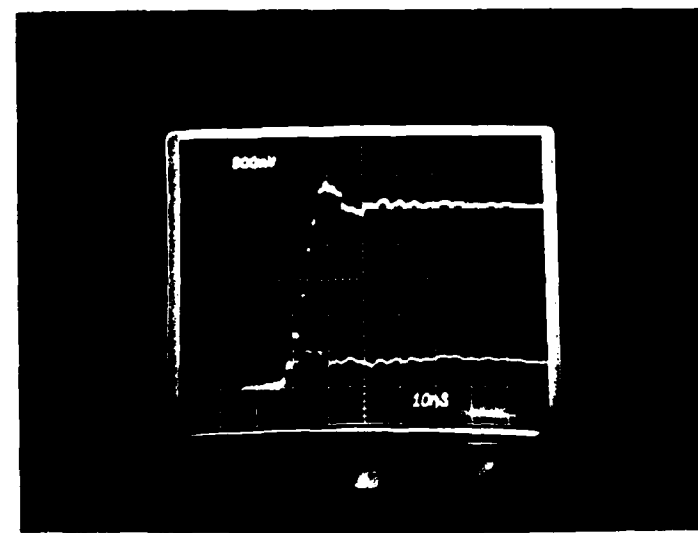
**61**



**61**

Date **5-23-85**  
 Test Point **34R-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) ~~10~~/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

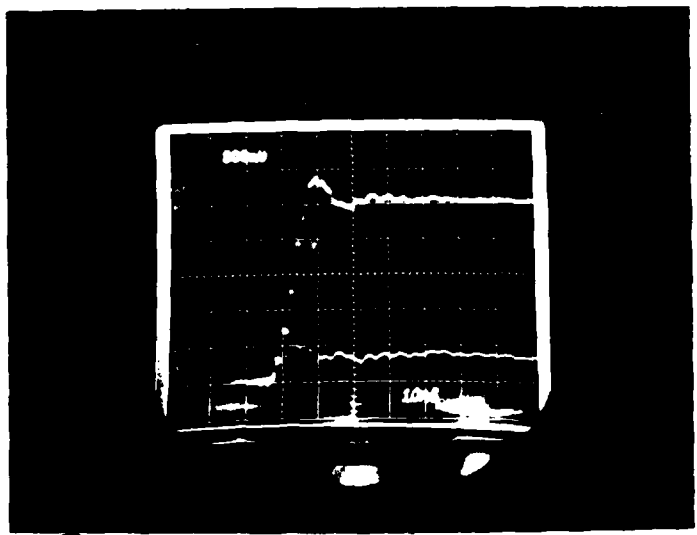
**62**



**62**

Date	5-23-85
Test Point	34-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V(120V) <del>10V</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

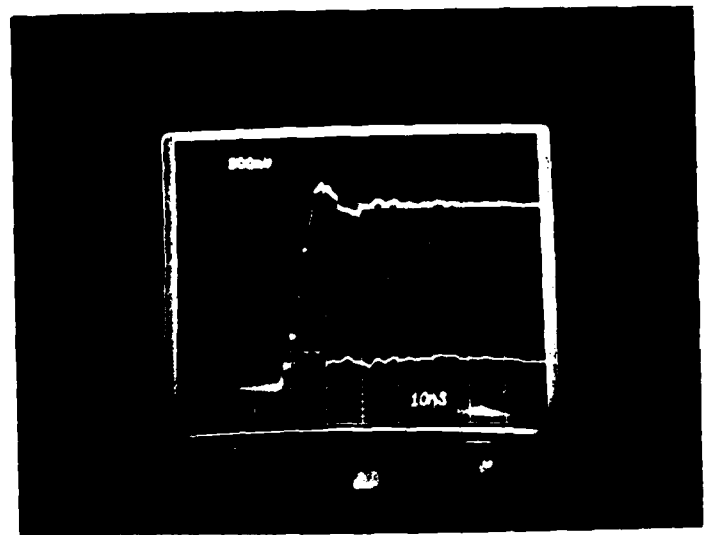
63



63

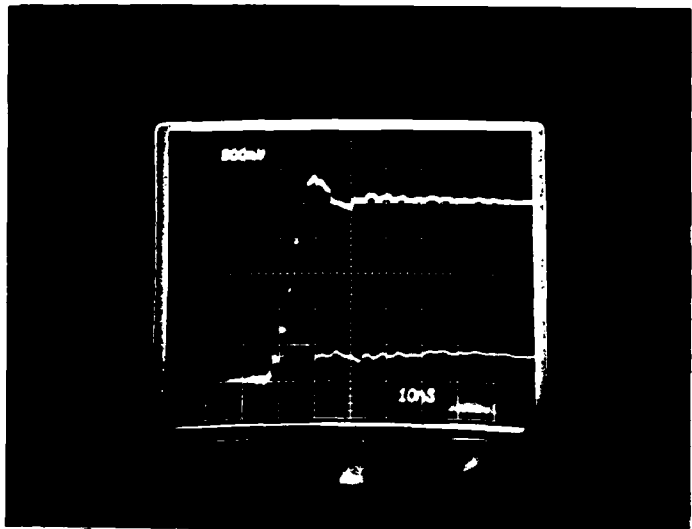
Date	5-23-85
Test Point	34R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V(120V) <del>10V</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

64



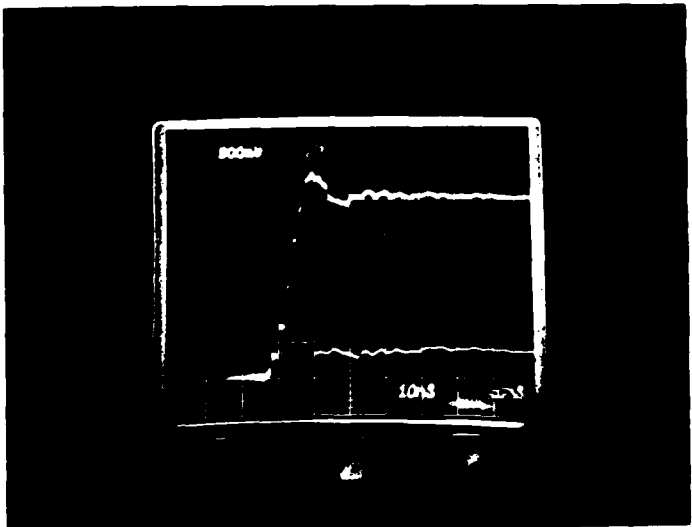
64

Date	5-23-85
Test Point	34-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	65



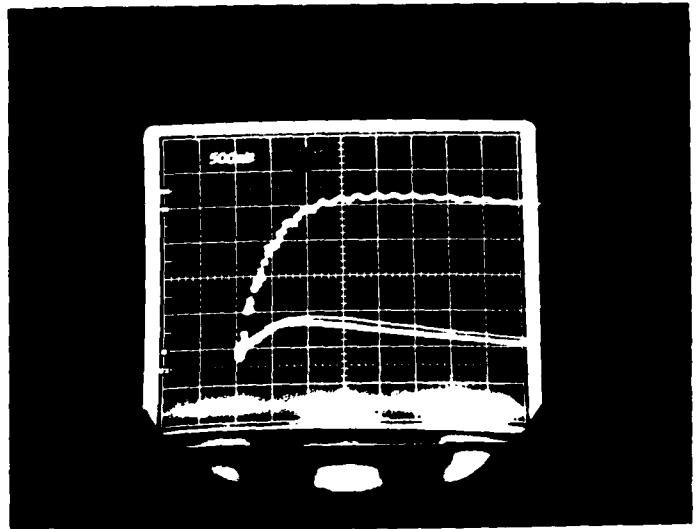
65

Date	5-23-85
Test Point	34R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	66



66

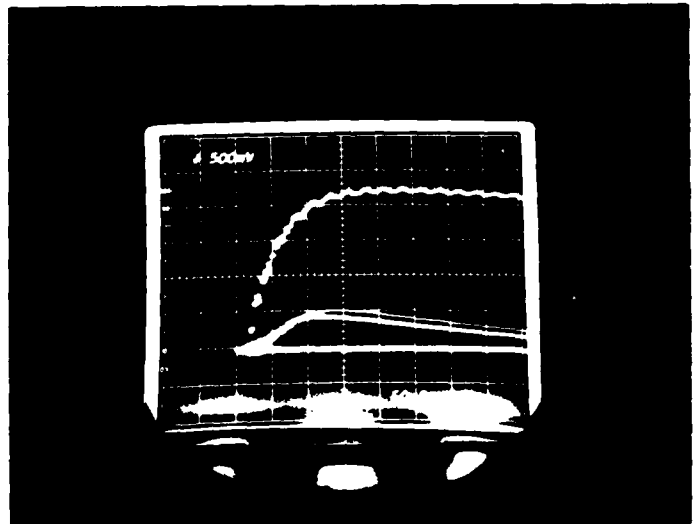
Date **5-30-85**  
 Test Point **39-AL-1/10-φ**  
 Amplification **-** dB  
 Attenuation **-** dB  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **+ 600V**  
 Data Link  
 Comments: **456**



**456**

**NEUTRAL LEAD**

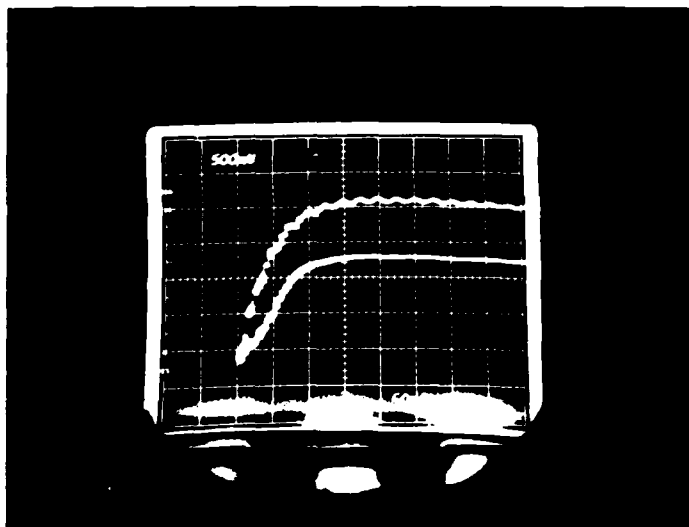
Date **5-30-85**  
 Test Point **39R-AL-1/10-φ**  
 Amplification **-** dB  
 Attenuation **-** dB  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **- 600V**  
 Data Link  
 Comments: **457**



**457**

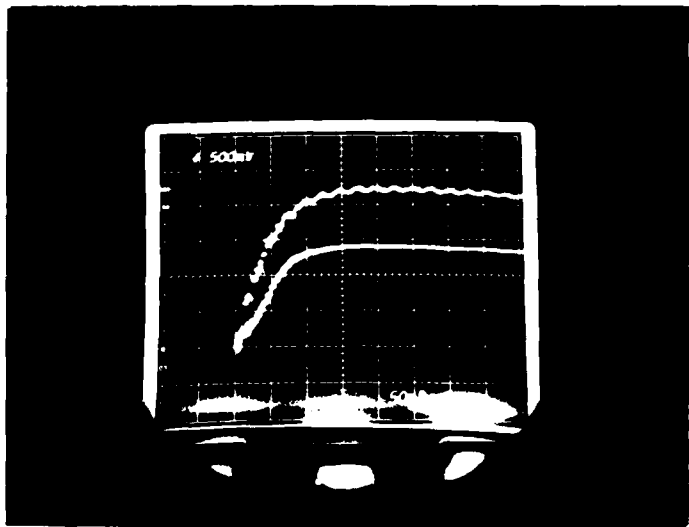
**NEUTRAL LEAD**

Date	5-30-85
Test Point	39-AL-1/10-φ
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.5V (120) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	+ 600V
Data Link	
Comments:	458
	POSITIVE LEAD TEST



458

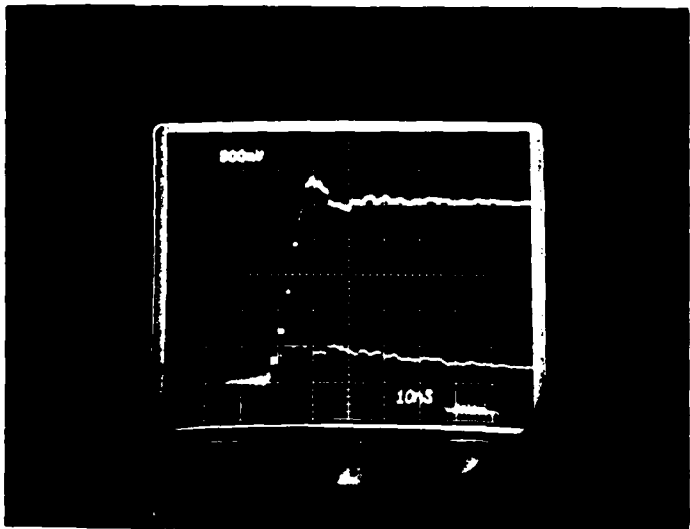
Date	5-30-85
Test Point	39R-AL-1/10-φ
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.5V (120) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	- 600V
Data Link	
Comments:	459
	POSITIVE LEAD TEST



459

Date	5-23-85
Test Point	40-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V (120V) 100V/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

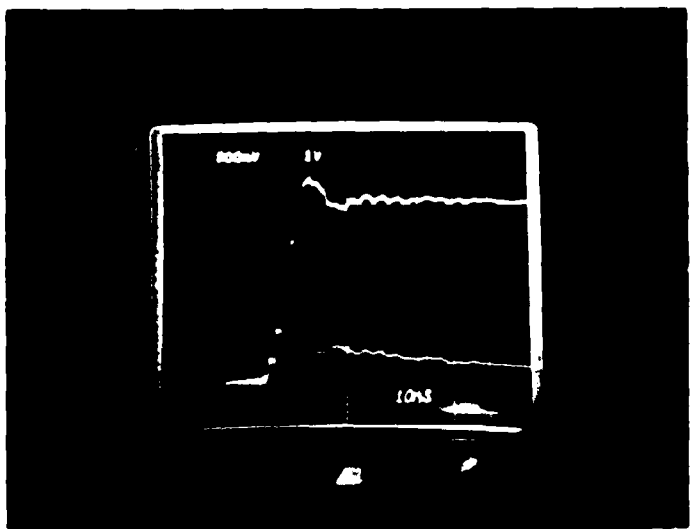
67



67

Date	5-23-85
Test Point	40R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

68

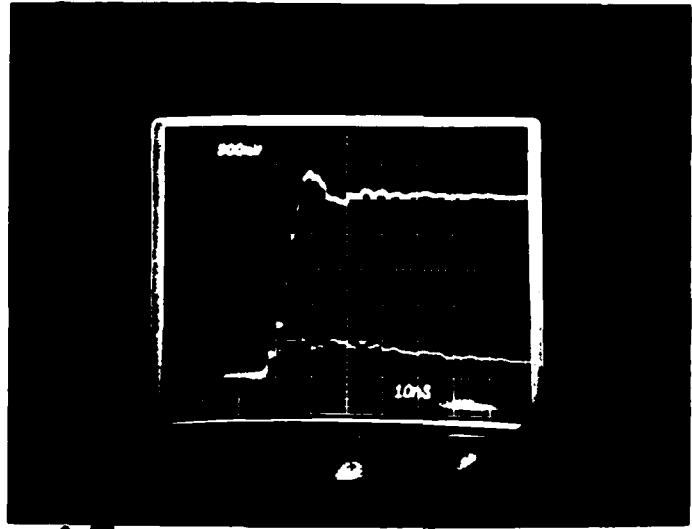


68



Date **5-23-85**  
 Test Point **40-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments:

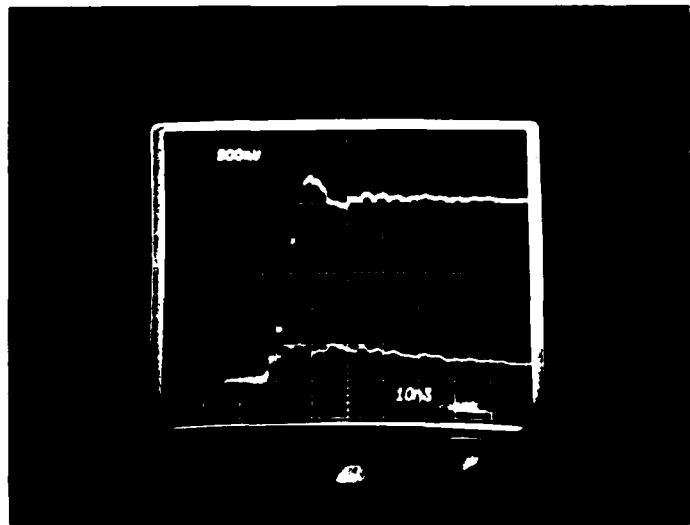
**69**



**69**

Date **5-23-85**  
 Test Point **40R-BL-1/10-B**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments:

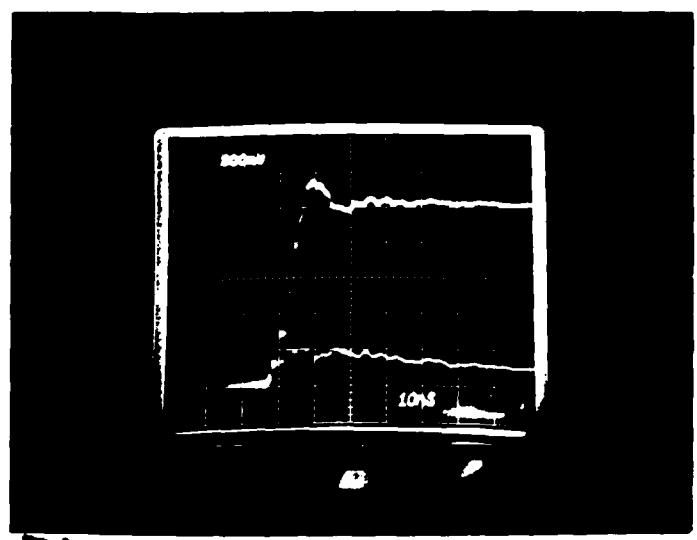
**70**



**70**

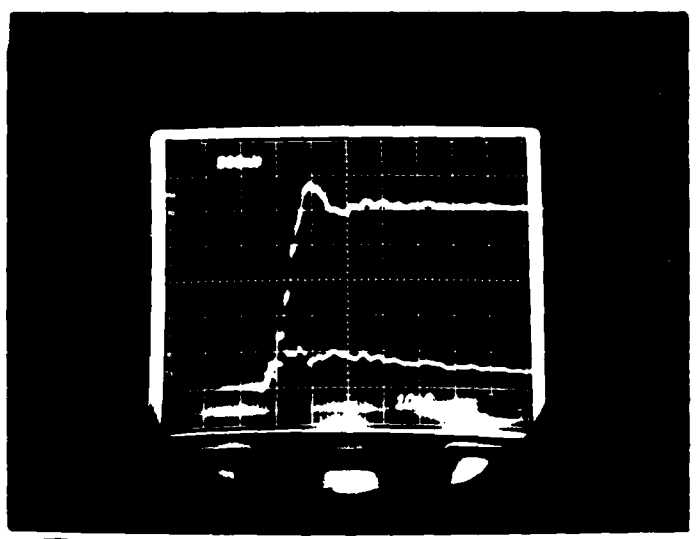
Date **5-23-85**  
 Test Point **40-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

71



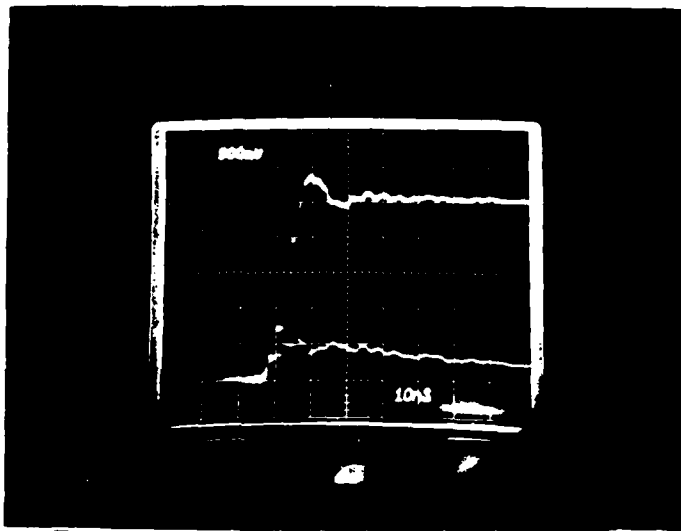
Date **5-23-85**  
 Test Point **40R-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **0.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

72



Date 5-23-85  
 Test Point 40-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

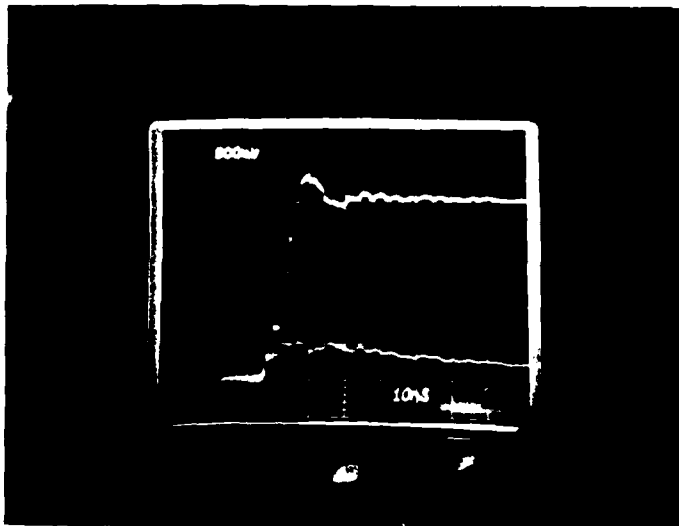
73



73

Date 5-23-85  
 Test Point 40R-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 10 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

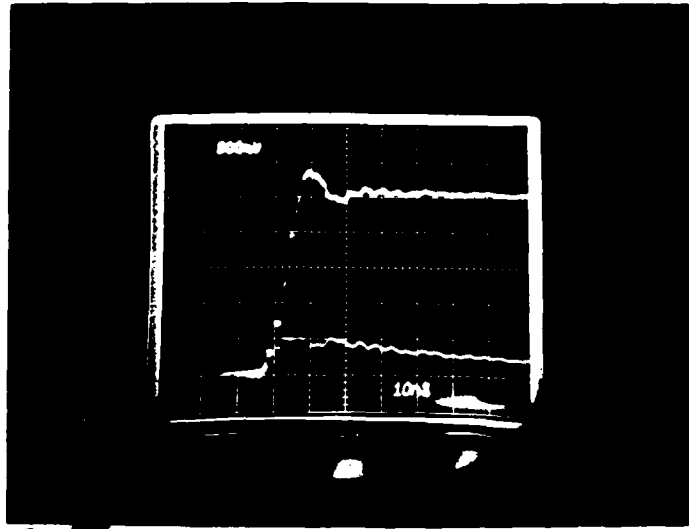
74



74

Date **5-23-85**  
 Test Point **40-BL-1/10-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **10** ns/div 1  
 Vertical **.5V(120V)** ~~mV~~ div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

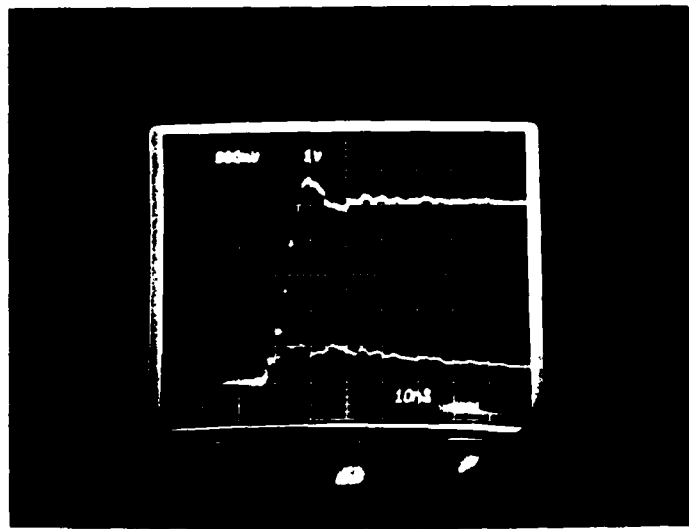
Comments: **75**



**75**

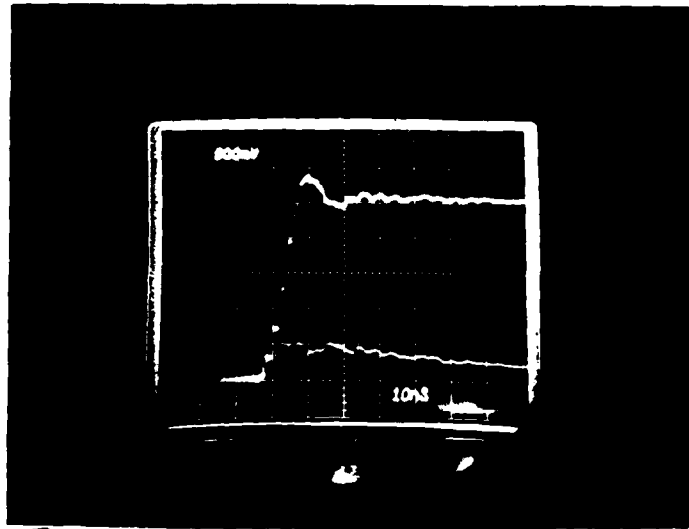
Date **5-23-85**  
 Test Point **40R-BL-1/10-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **10** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **76**



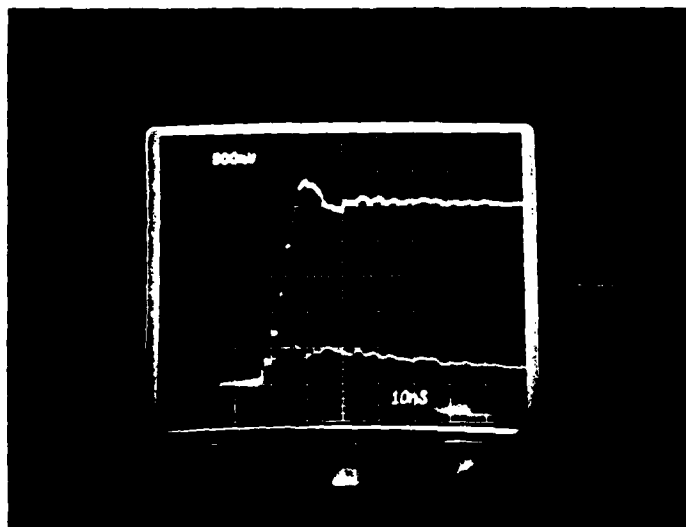
**76**

Date	5-23-85
Test Point	40-BL-1/10-F
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	0.5 (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	77



77

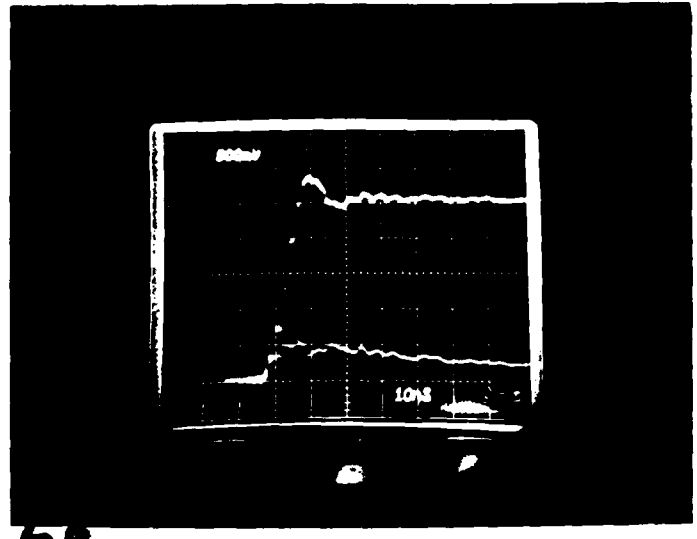
Date	5-23-85
Test Point	40R-BL-1/10-F
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	0.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	78



78

Date **5-23-85**  
 Test Point **40-BL-1/10-G**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

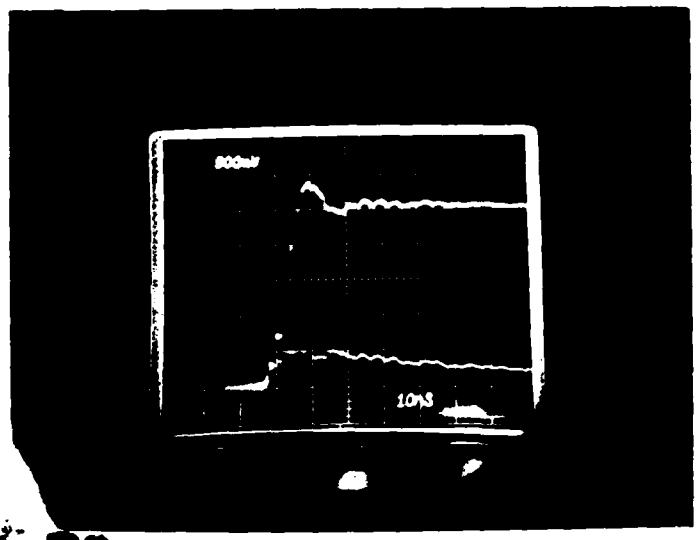
79



79

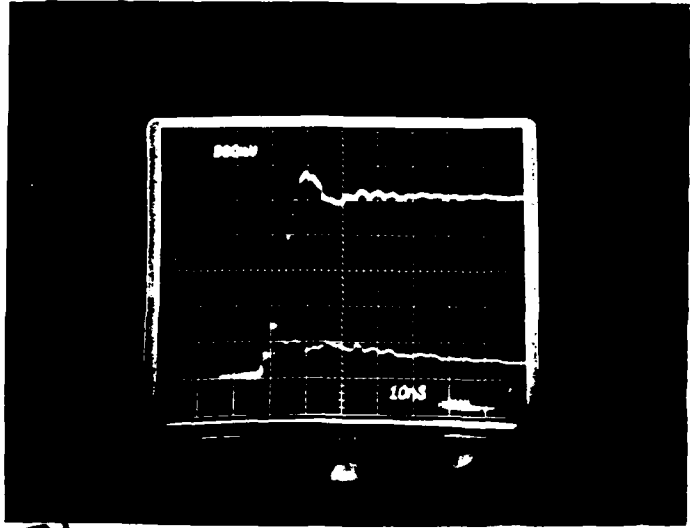
Date **5-23-85**  
 Test Point **40R-BL-1/10-G**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

80



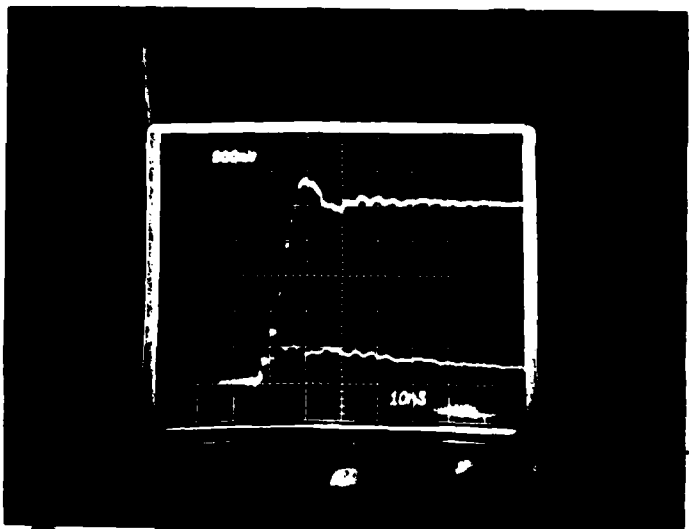
80

Date	5-23-85
Test Point	4D-BL-1/10-H
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	81



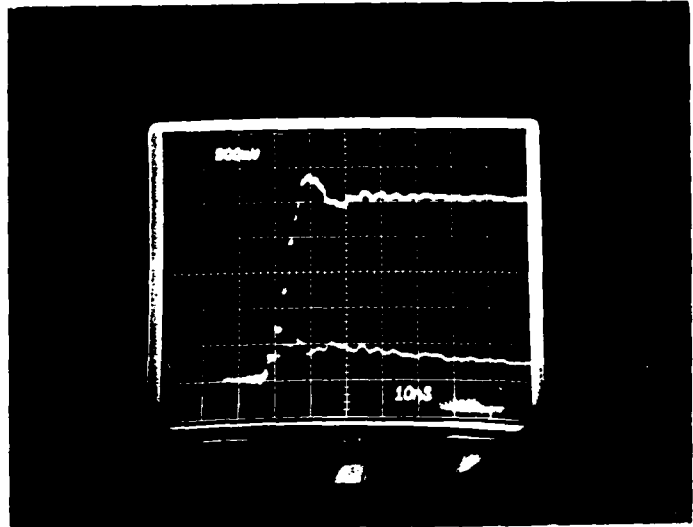
81

Date	5-23-85
Test Point	40R-BL-1/10-H
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	82



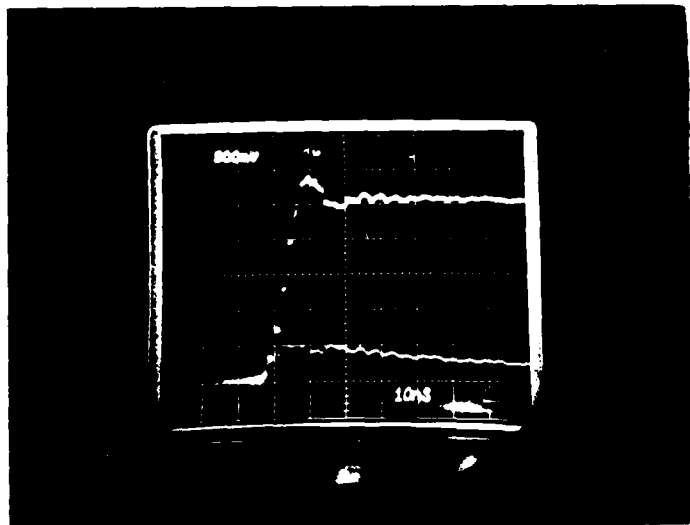
82

Date	3-23-85
Test Point	40-BL-1/10-I
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	83



83

Date	3-23-85
Test Point	40R-BL-1/10-I
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	84



84



Date **5-23-85**

Test Point **40-BL-1/10-J**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **10 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

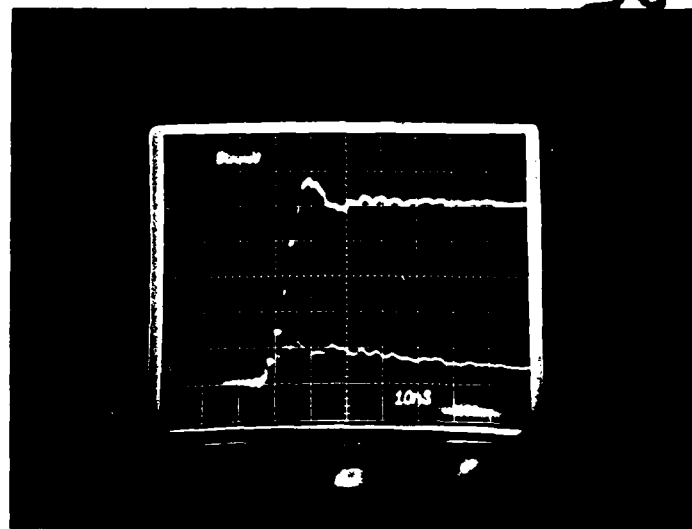
Vertical **ns/div 2**

Configuration

Pulse Level **600V**

Data Link

Comments: **85**



Date **5-23-85**

Test Point **40R-BL-1/10-J**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **10 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

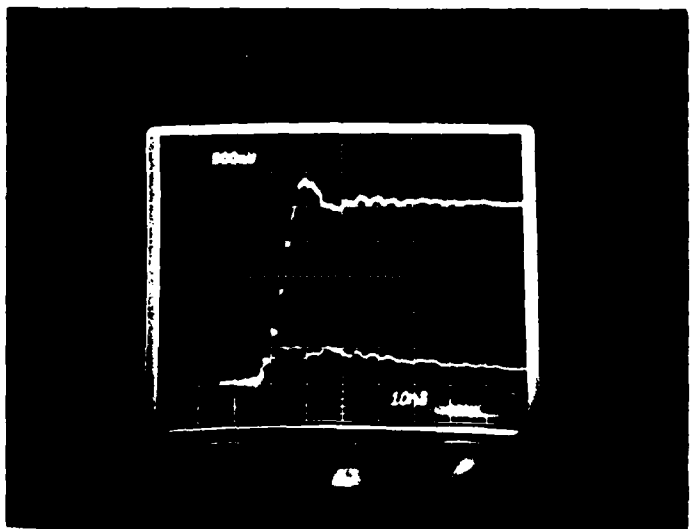
Vertical **ns/div 2**

Configuration

Pulse Level **600V**

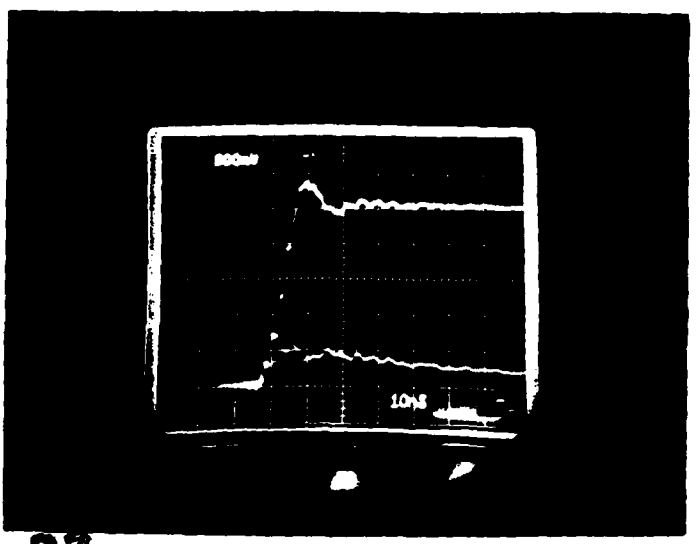
Data Link

Comments: **86**



Date **5-23-85**  
 Test Point **40-8L-1/10-K**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

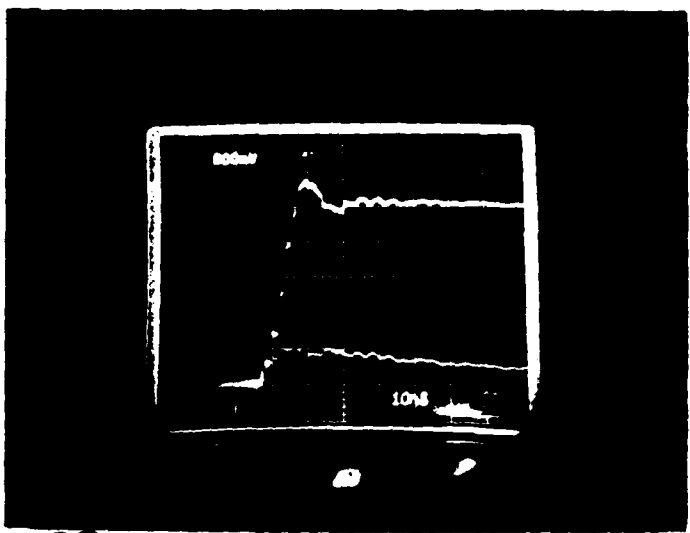
**87**



**87**

Date **5-23-85**  
 Test Point **40R-8L-1/10-K**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

**88**



**88**

Date **5-23-85**

Test Point **40-BL-1/10-L**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **10 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

Vertical **ns/div 2**

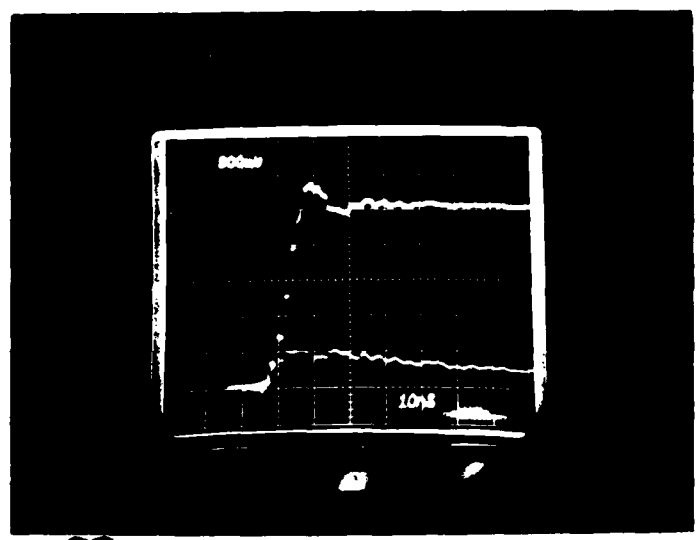
Configuration

Pulser Level **600V**

Data Link

Comments:

**89**



**89**

Date

Test Point **40R-BL-1/10-L**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **10 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

Vertical **ns/div 2**

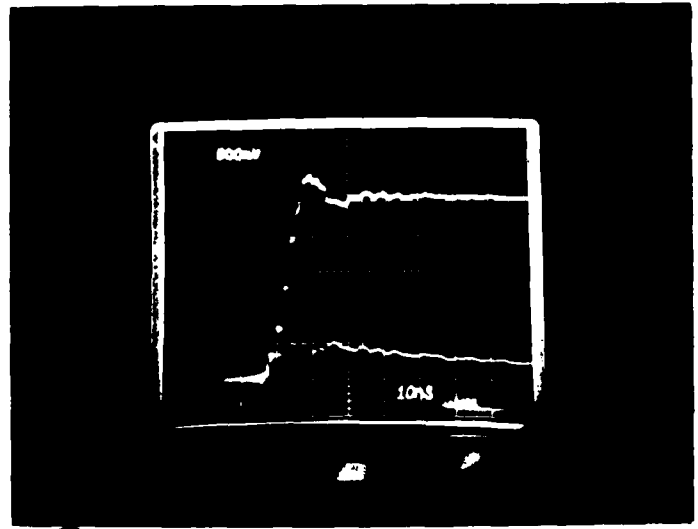
Configuration

Pulser Level **600V**

Data Link

Comments:

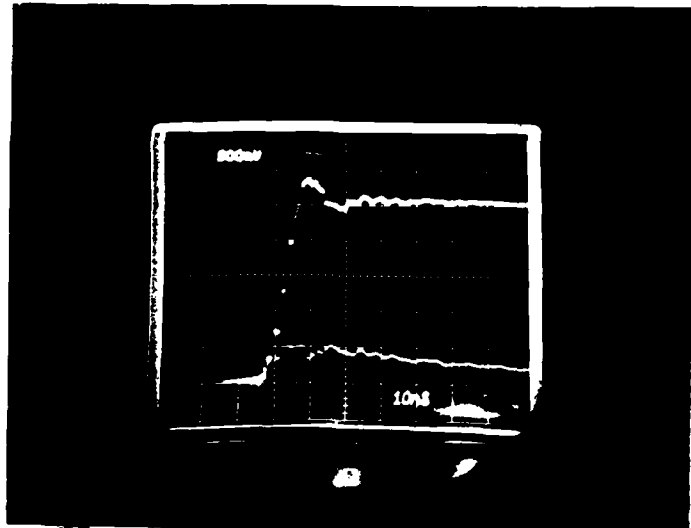
**90**



**90**

Date **5-23-85**  
 Test Point **40-BL- $\frac{1}{10}$ -M**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

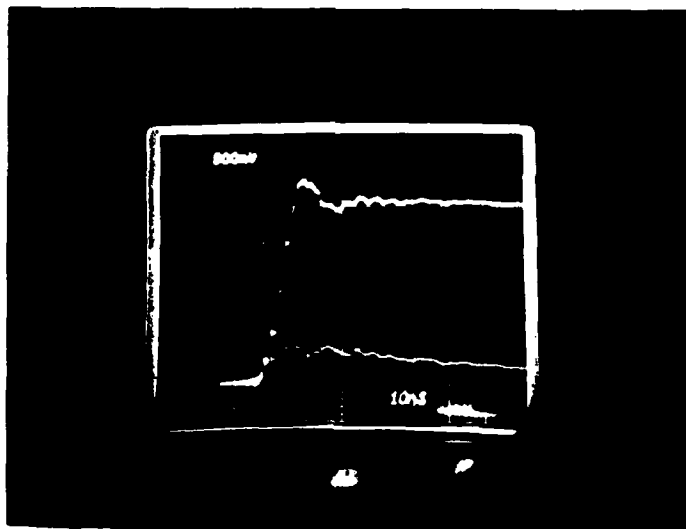
91



91

Date **5-23-85**  
 Test Point **40R-BL- $\frac{1}{10}$ -M**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **10 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

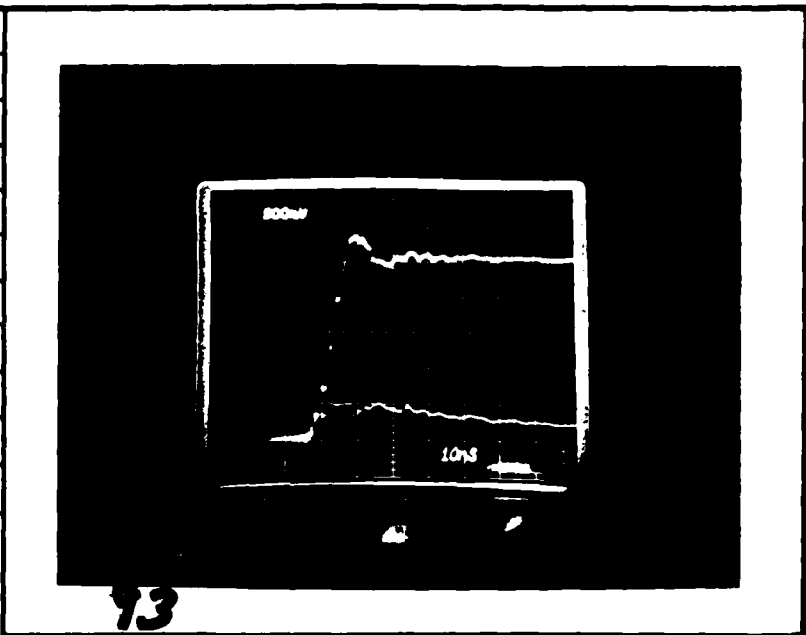
92



92

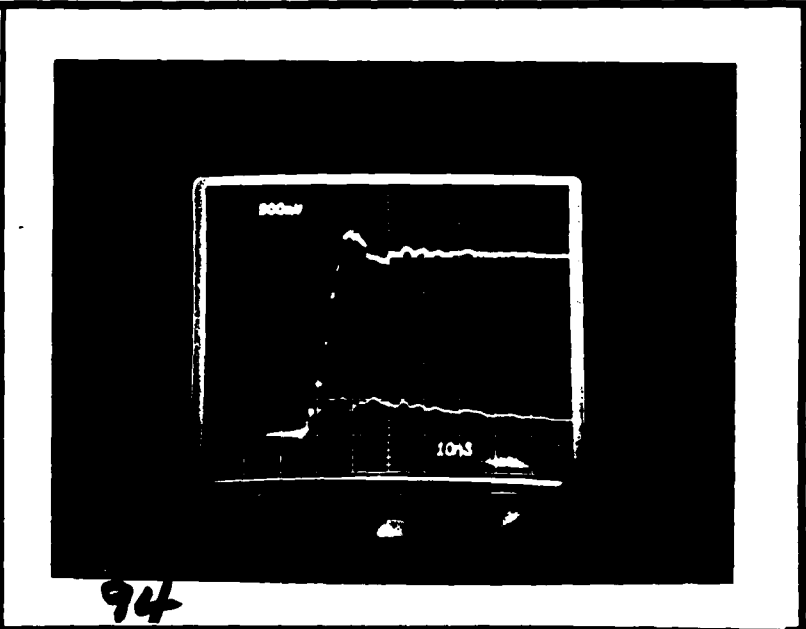
Date	5-23-85
Test Point	40-BL-1/10-N
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	

Comments: 93

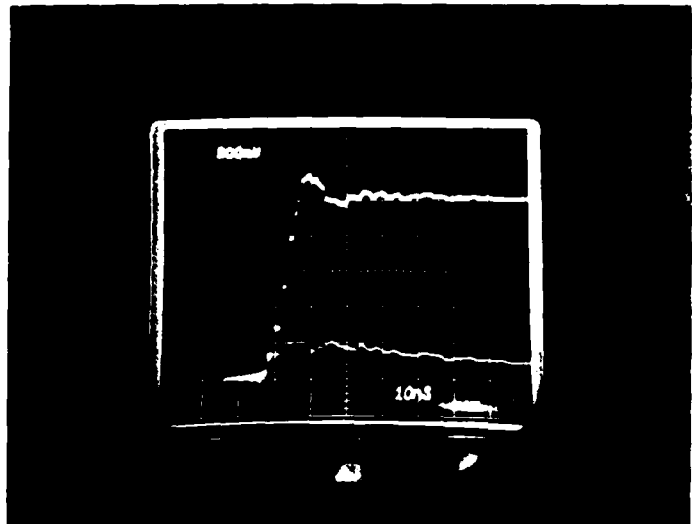


Date	5-23-85
Test Point	40R-BL-1/10-N
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	

Comments: 94

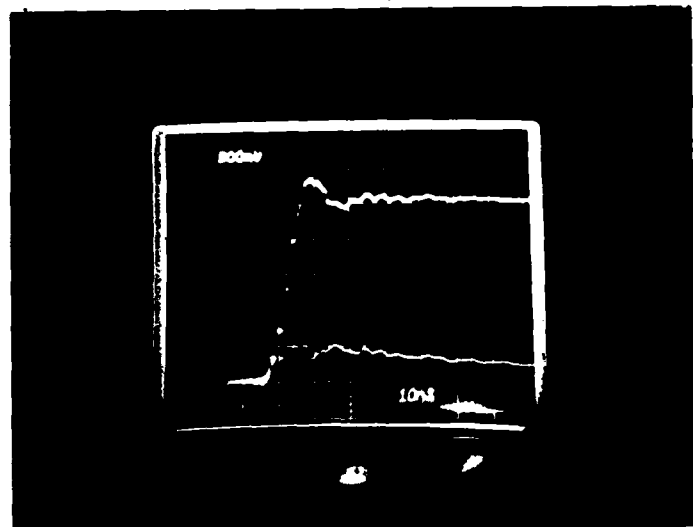


Date	5-23-85
Test Point	40-BL-110-0
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5 (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	95



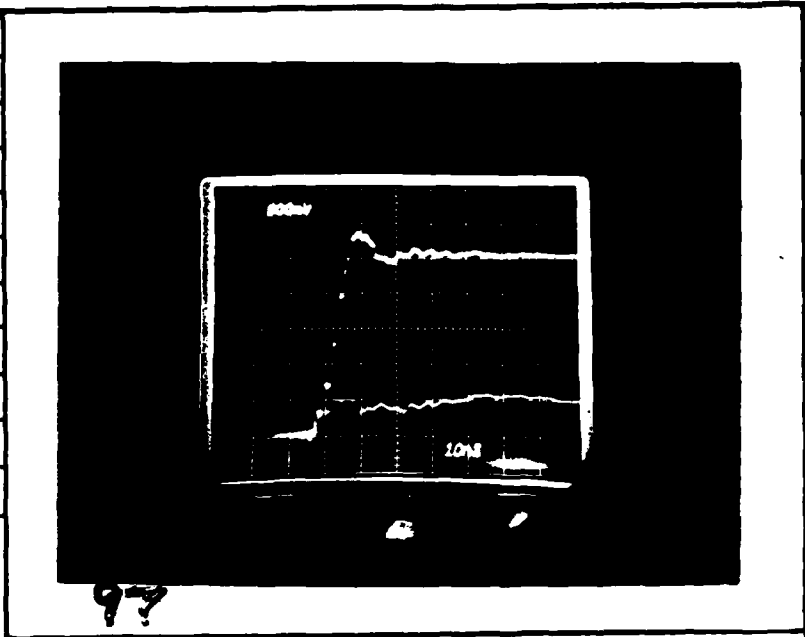
95

Date	5-23-85
Test Point	40R-BL-110-0
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	96

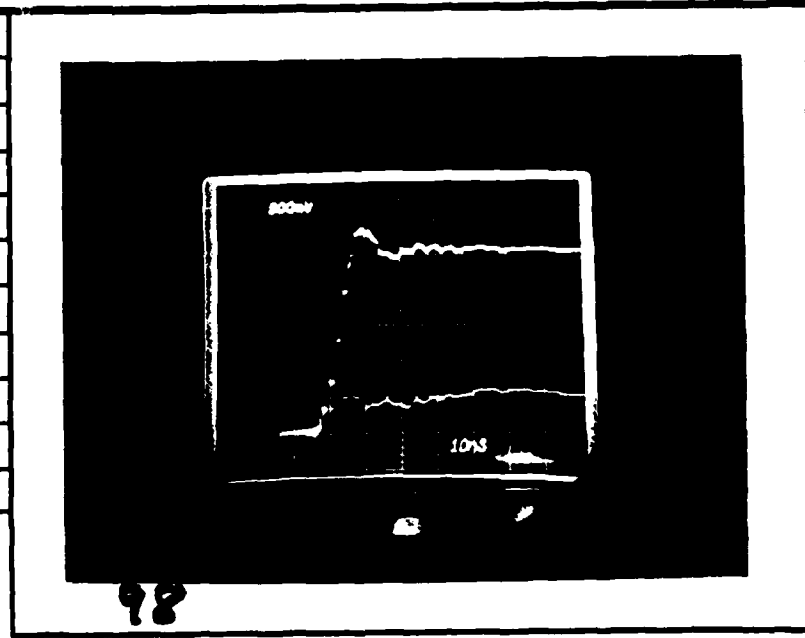


96

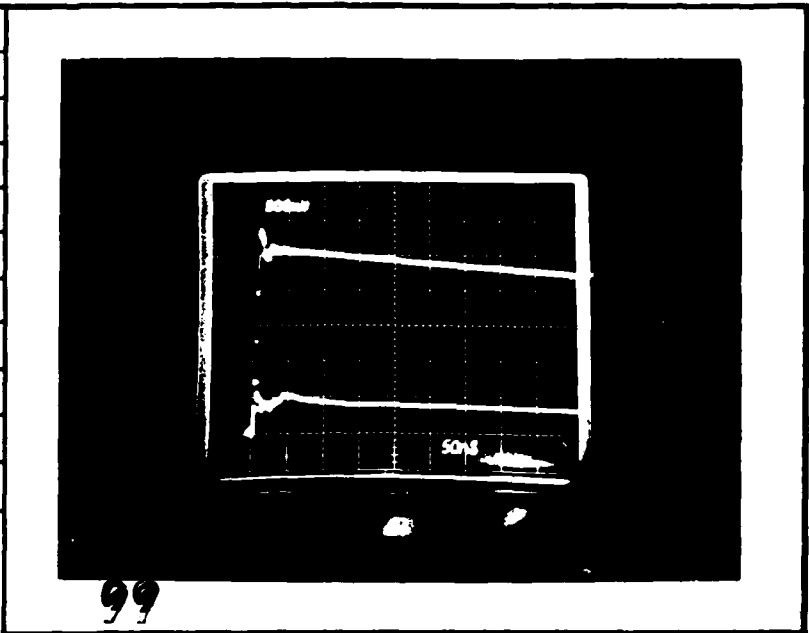
Date	5-23-85
Test Point	43-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	97



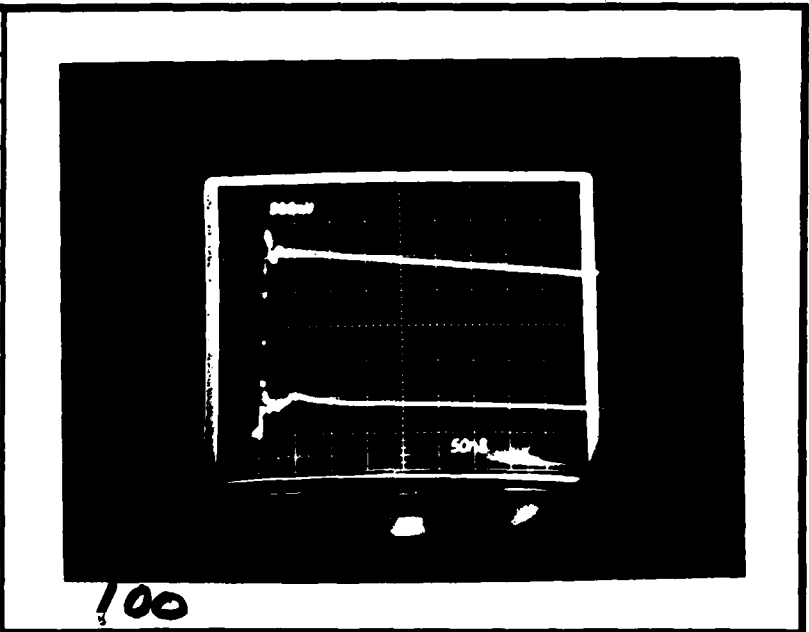
Date	5-23-85
Test Point	43R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	10 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	98



Date	5-23-85
Test Point	43-BL-1/10-B
Amplification	0dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	99
	50NS / DIV



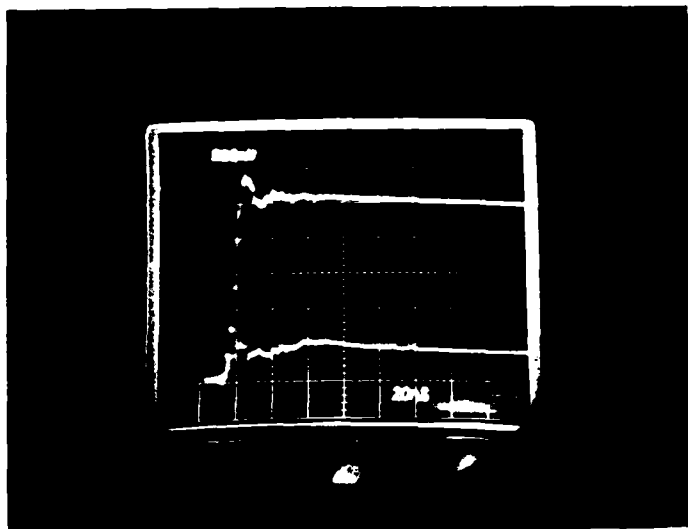
Date	5-23-85
Test Point	43R-BL-1/10-B
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	100





Date 5-23-85  
 Test Point 43-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical 0.5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

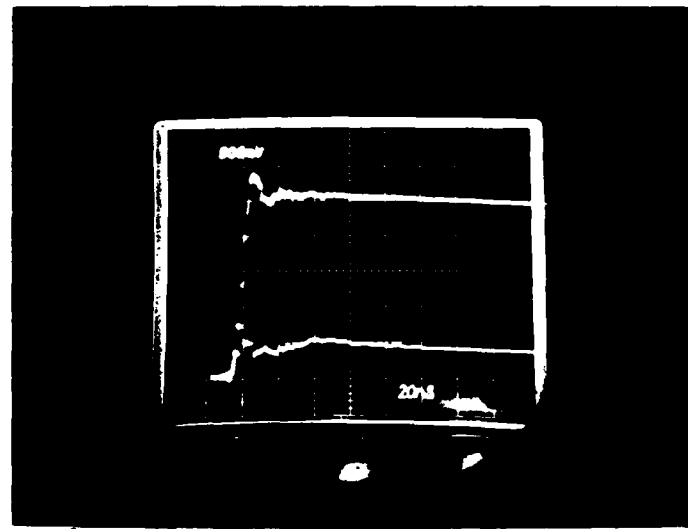
Comments: 101  
 20 NS/CM



101

Date 5-23-85  
 Test Point 43R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical 0.5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

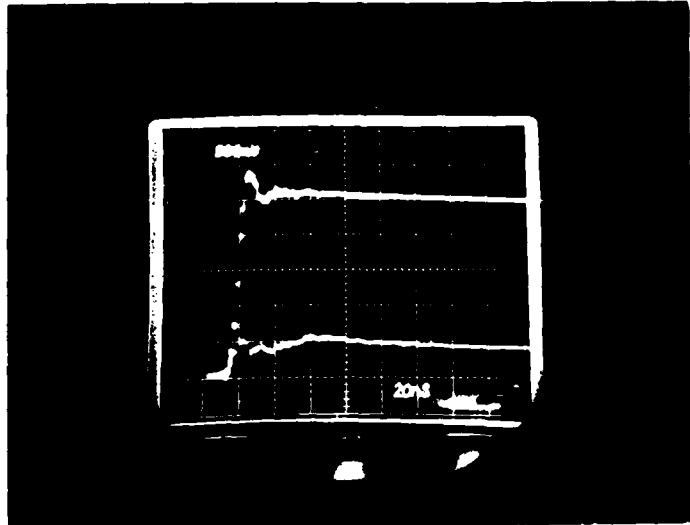
Comments: 102



102

Date **5-23-85**  
 Test Point **43-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **30 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

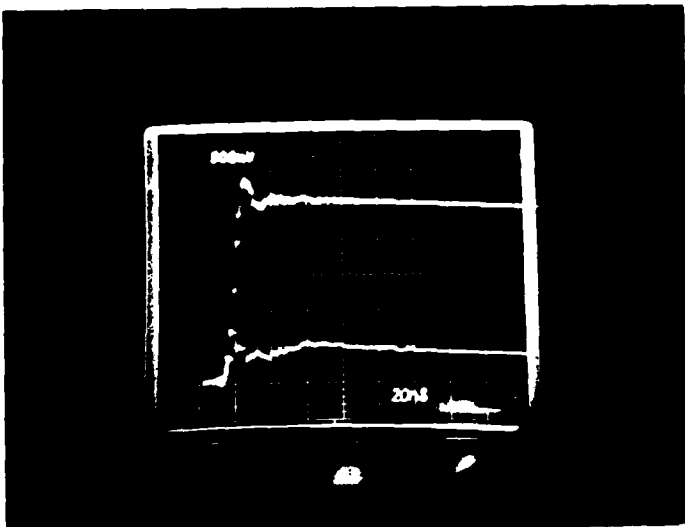
**103**



**103**

Date **5-23-85**  
 Test Point **43B-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

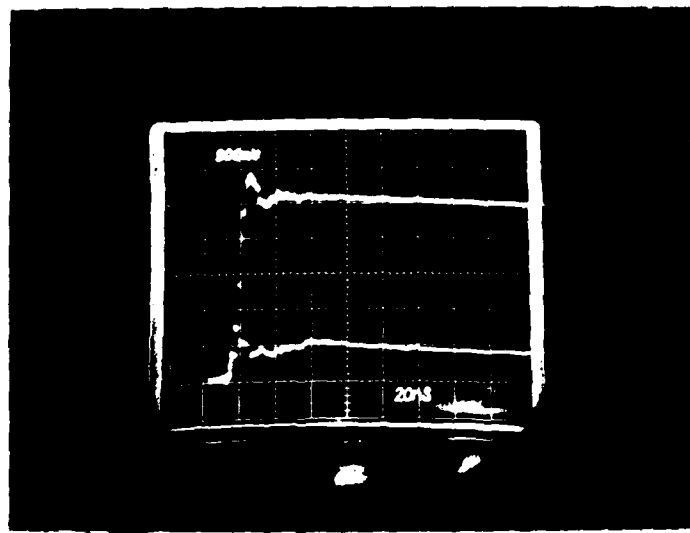
**104**



**104**

Date 5-23-85  
 Test Point 43-BL-40-E  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

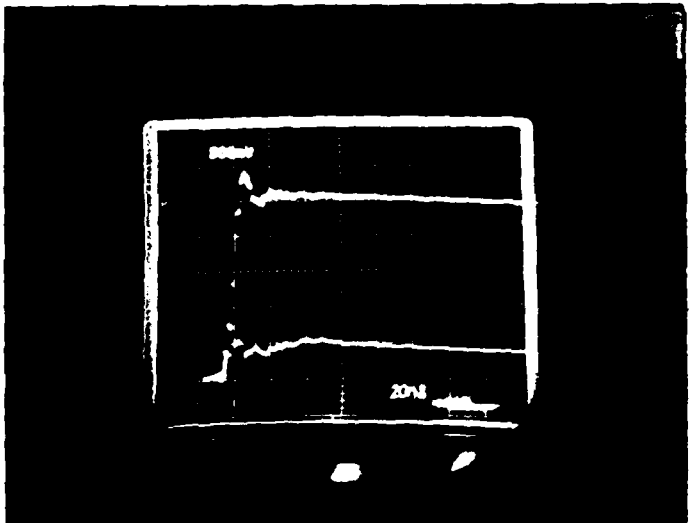
105



105

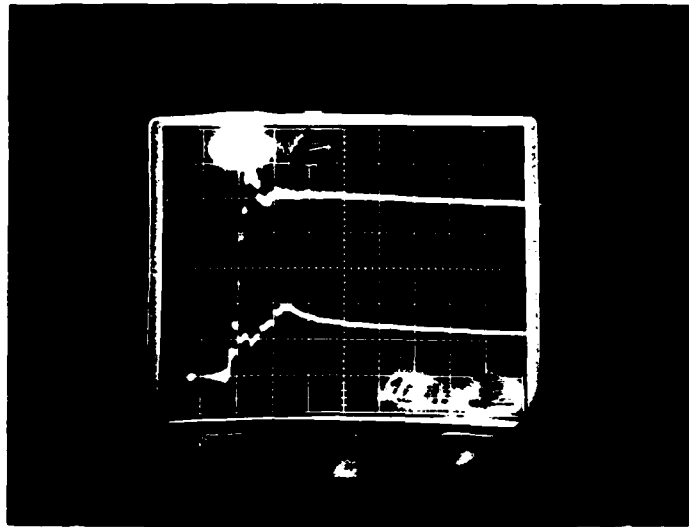
Date 5-23-85  
 Test Point 43R-BL-40-E  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal ns/div 1  
 Vertical mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level  
 Data Link  
 Comments:

106



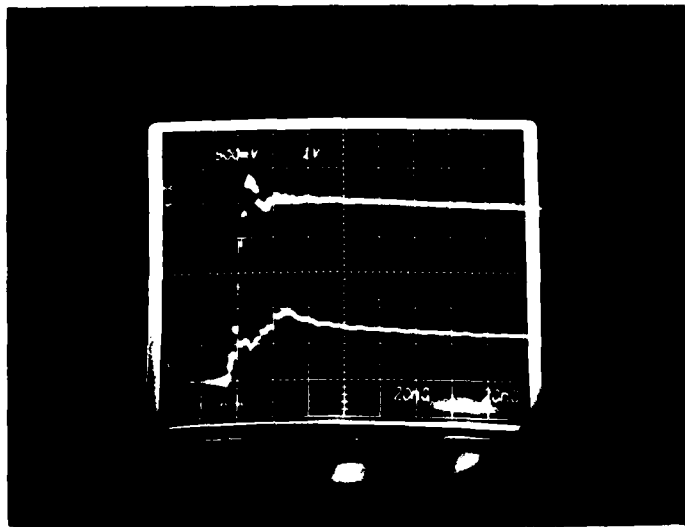
106

Date	5-24-85
Test Point	46-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	107



107

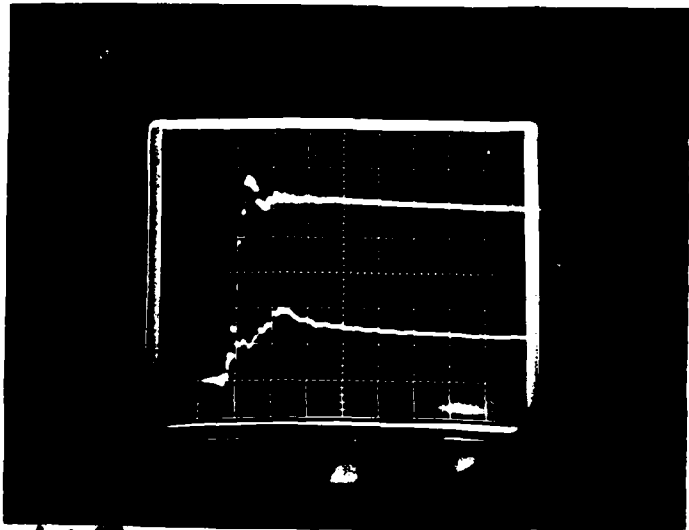
Date	5-24-85
Test Point	46R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	108



108

Date 5-24-85  
 Test Point 46-BL-4/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

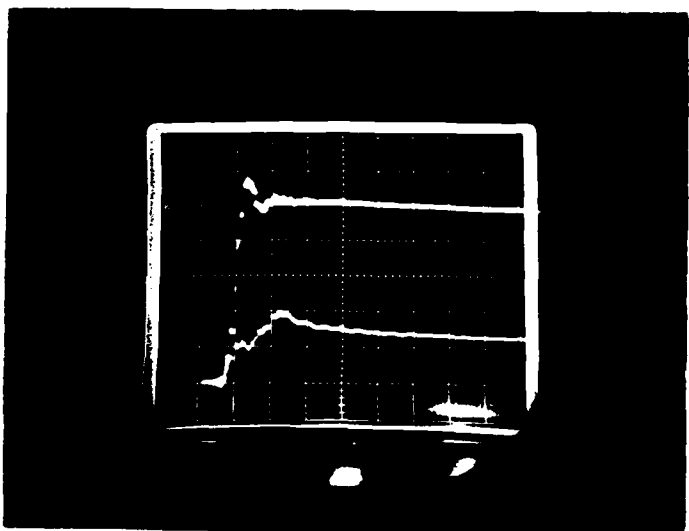
109



109

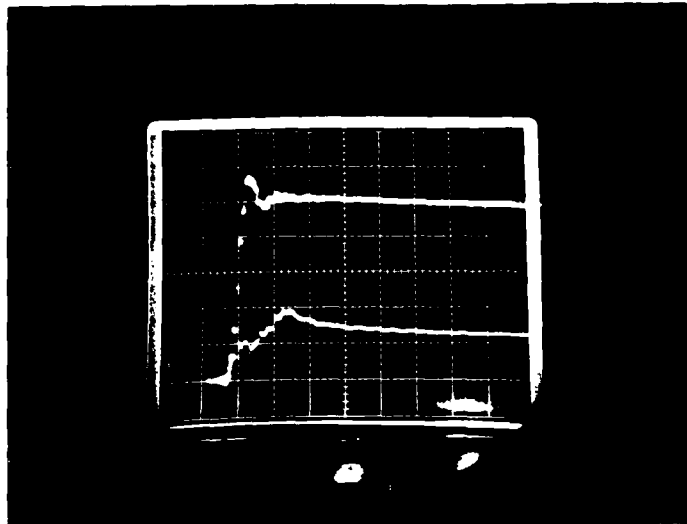
Date 5-24-85  
 Test Point 46R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

110



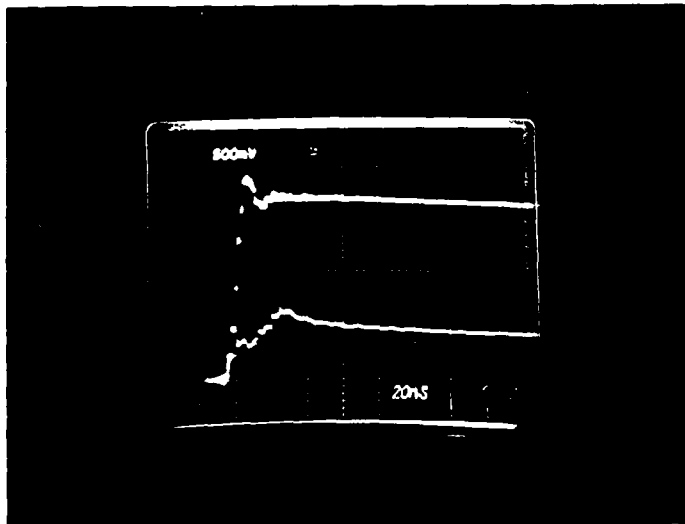
110

Date 5-24-85  
 Test Point 46-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) ~~mV~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 111



111

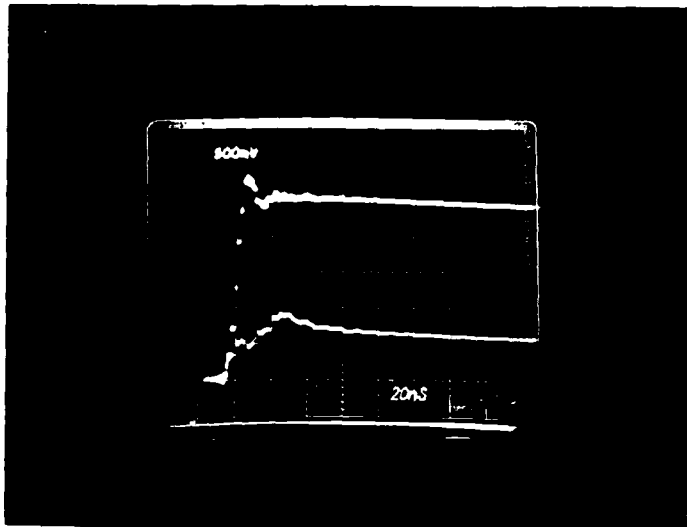
Date 5-24-85  
 Test Point 46R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 112



112

Date	5-24-85
Test Point	46-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

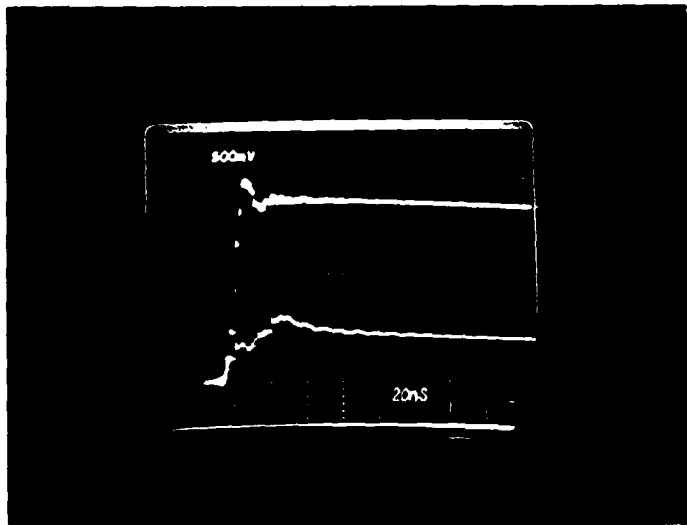
113



113

Date	5-24-85
Test Point	46R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

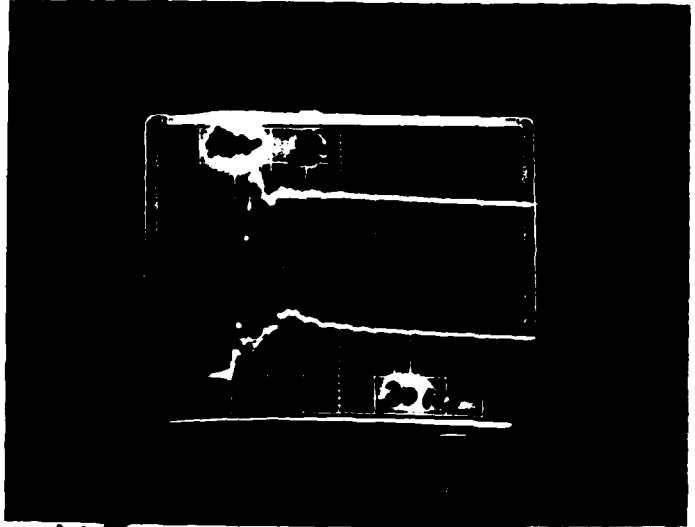
114



114

Date	5-24-85
Test Point	46-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

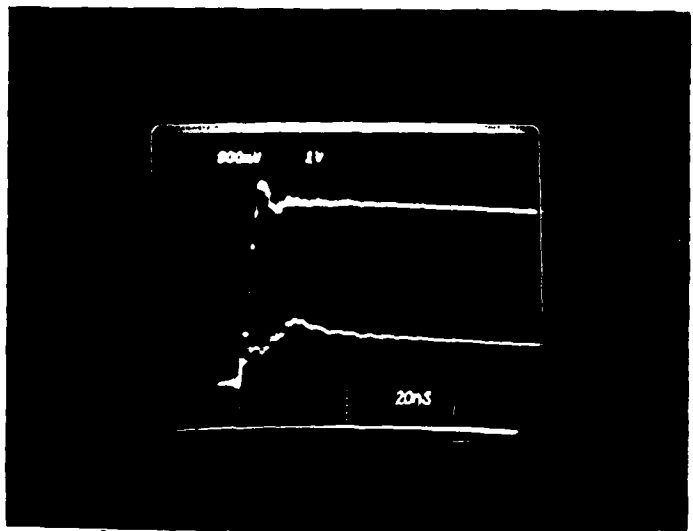
115



115

Date	5-24-85
Test Point	46R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

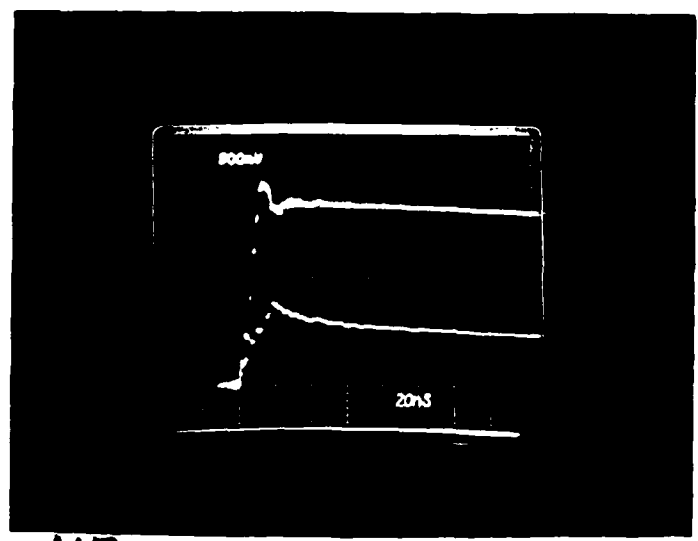
116



116

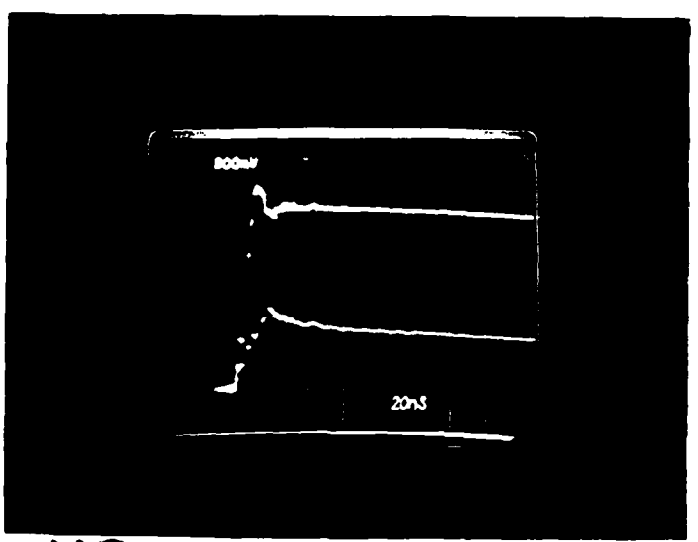


Date 5-24-85  
 Test Point 49-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mv/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 117



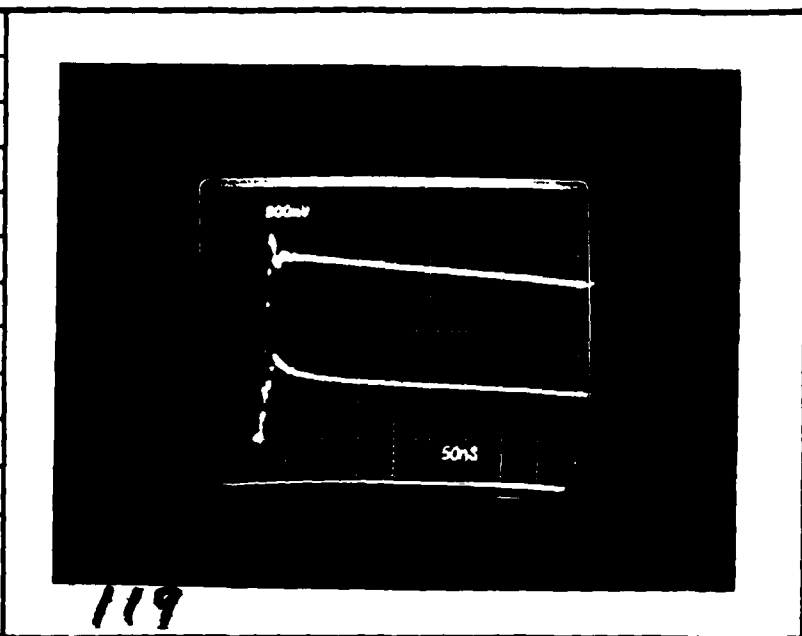
117

Date 5-24-85  
 Test Point 49R-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mv/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 118

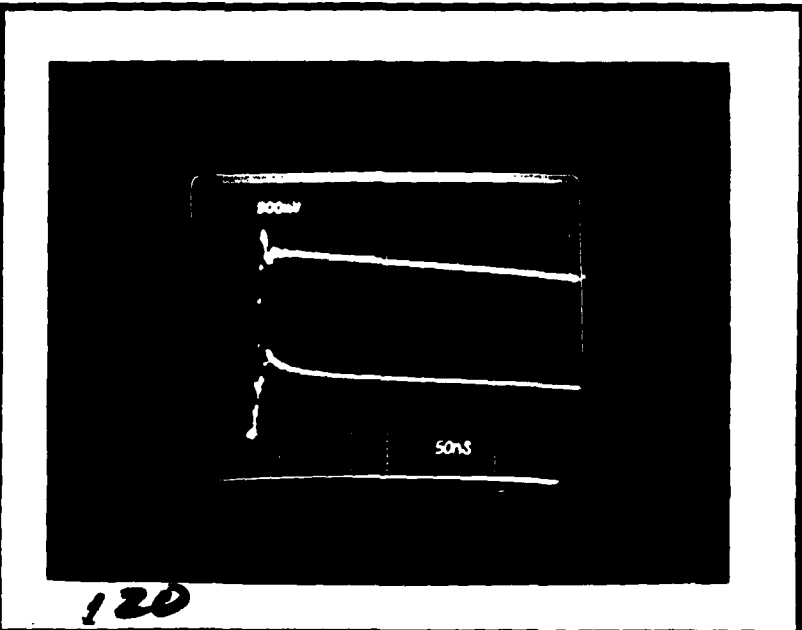


118

Date	4-24-85
Test Point	49-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	119  HORIZ = 50NS/

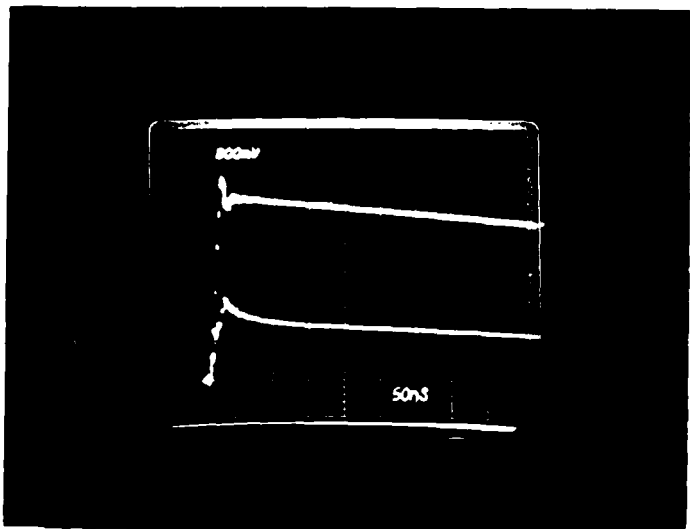


Date	4-24-85
Test Point	49R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	120



Date 5-24-85  
 Test Point 49-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

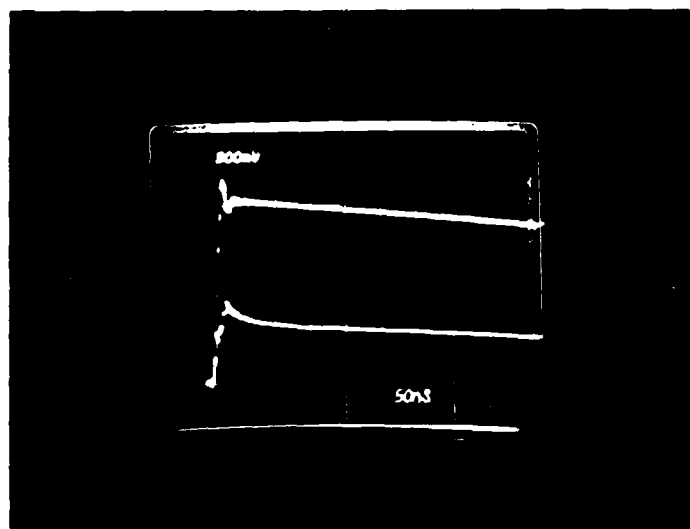
Comments: 121



121

Date 5-24-85  
 Test Point 49-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

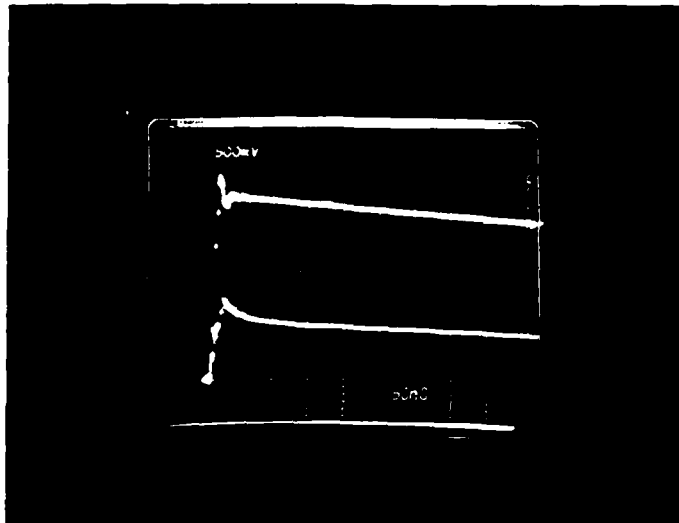
Comments: 122



122

Date	5-24-85		
Test Point	49-BL-1/10-D		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:			

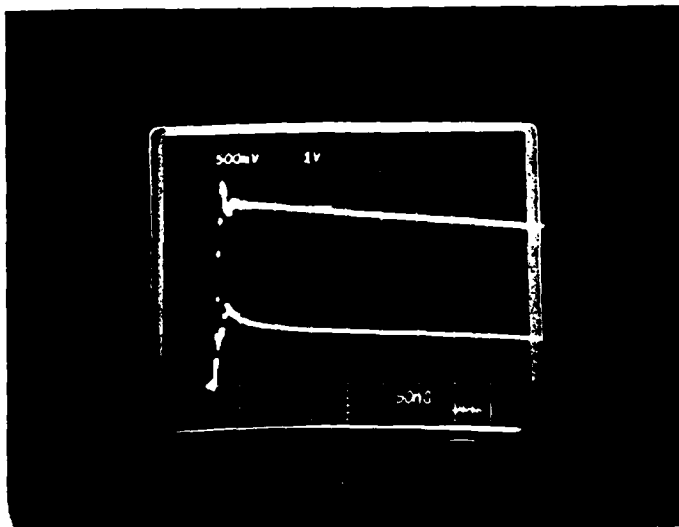
123



123

Date	5-24-85		
Test Point	49R-BL-1/10-D		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:			

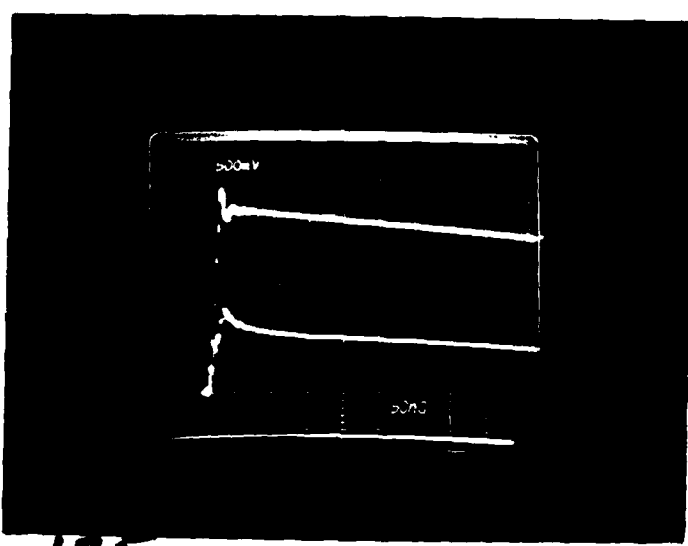
124



124

Date **5-24-85**  
 Test Point **49-BL-1/10-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

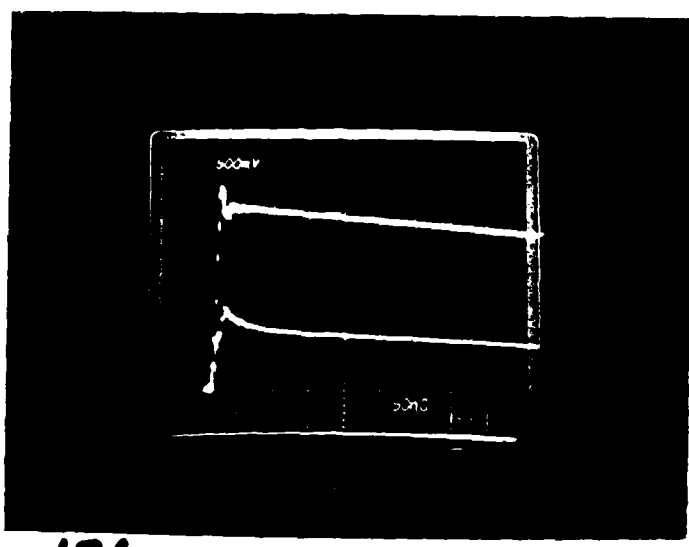
**125**



**125**

Date **5-24-85**  
 Test Point **49R-BL-1/10-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

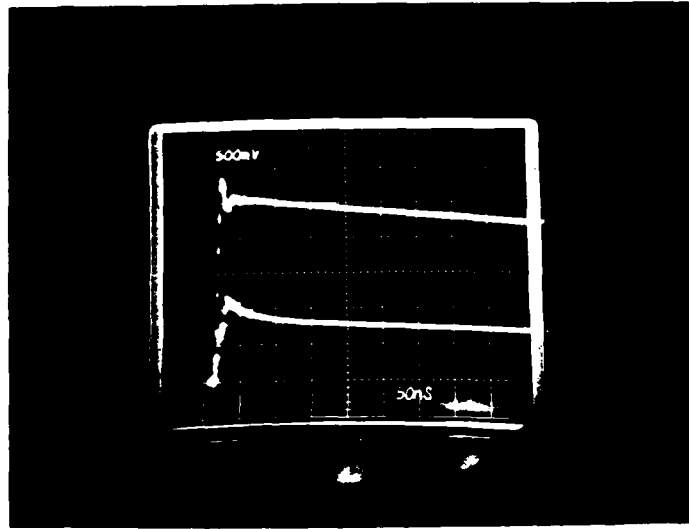
**126**



**126**

Date **5-24-85**  
 Test Point **49-BL-1/10-F**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

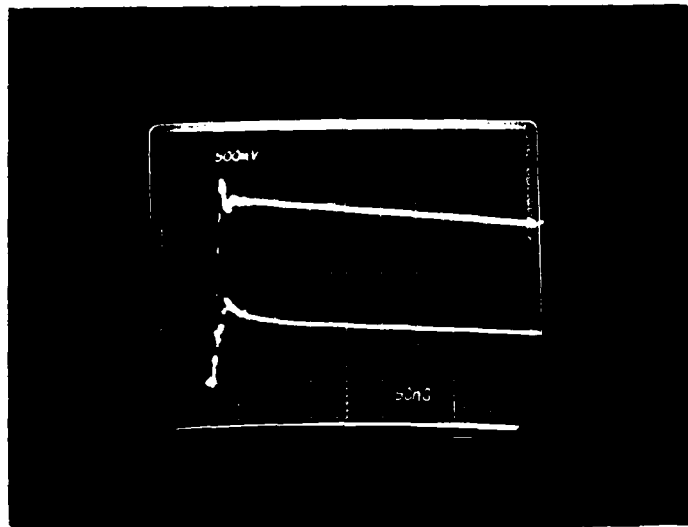
Comments: **127**



**127**

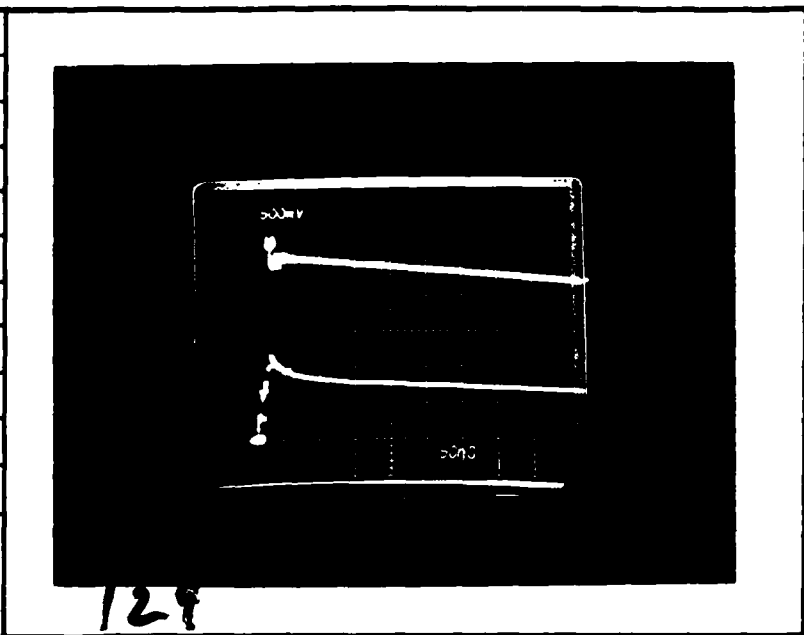
Date **5-24-85**  
 Test Point **49R-BL-1/10-F**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **128**

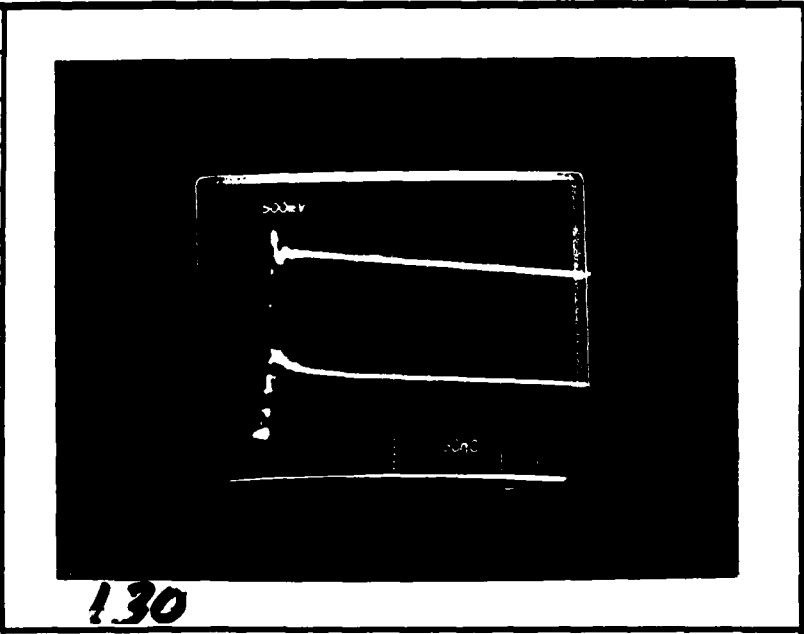


**128**

Date	5-24-85
Test Point	49-BL-1/0-G
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	129

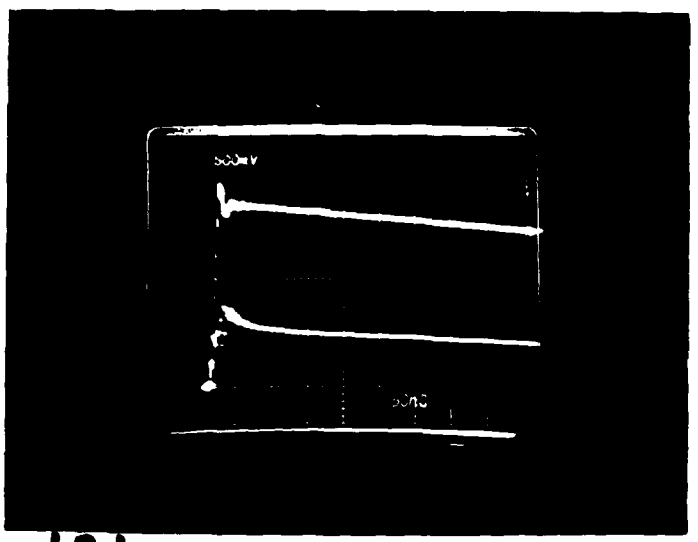


Date	5-24-85
Test Point	49R-BL-1/0-G
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	130



Date **5-24-85**  
 Test Point **49-BL-1/10-H**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

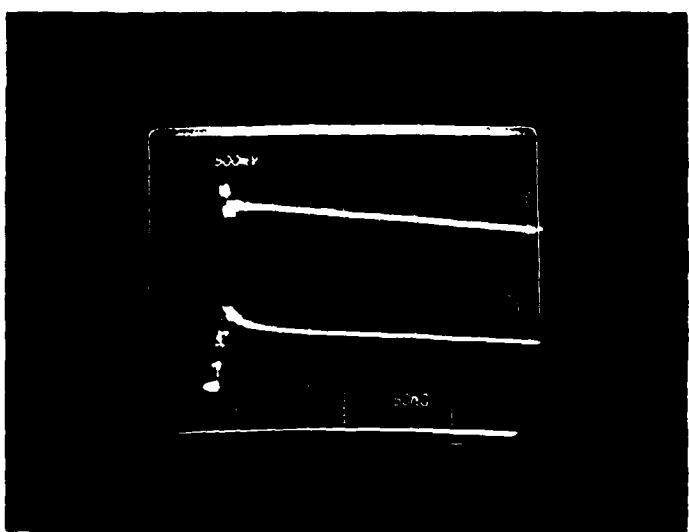
**131**



**131**

Date **5-24-85**  
 Test Point **49R-BL-1/10-H**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **50** ns/div 1  
 Vertical **.5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

**132**

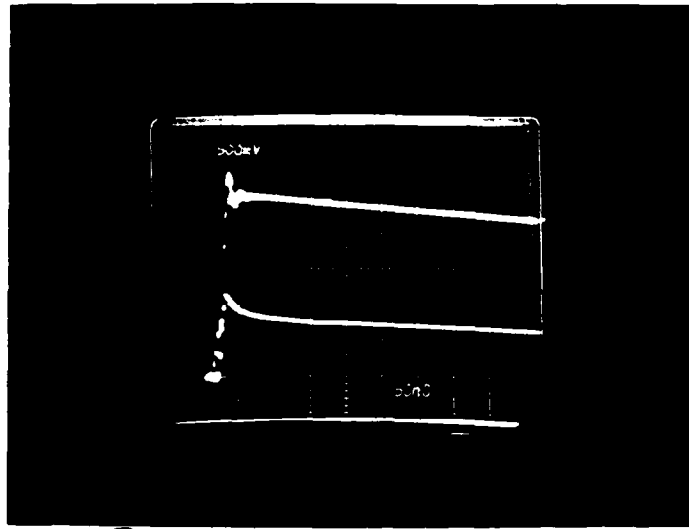


**132**



Date 5-24-85  
 Test Point 49-BL-1/10-I  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

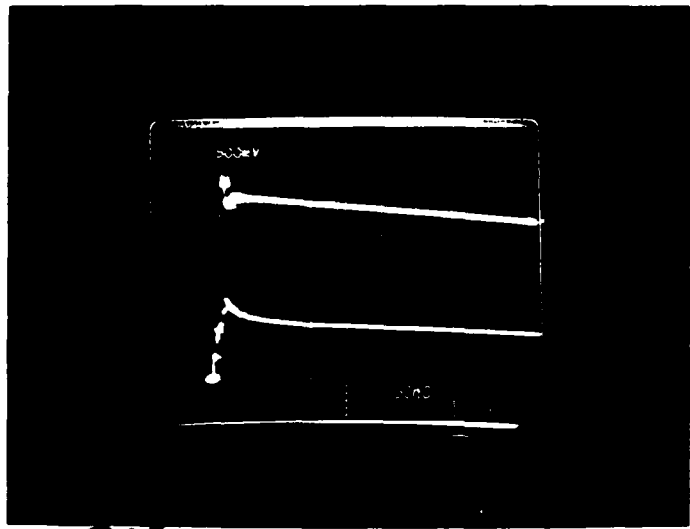
Comments: 133



133

Date 5-24-85  
 Test Point 49-BL-1/10-I  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

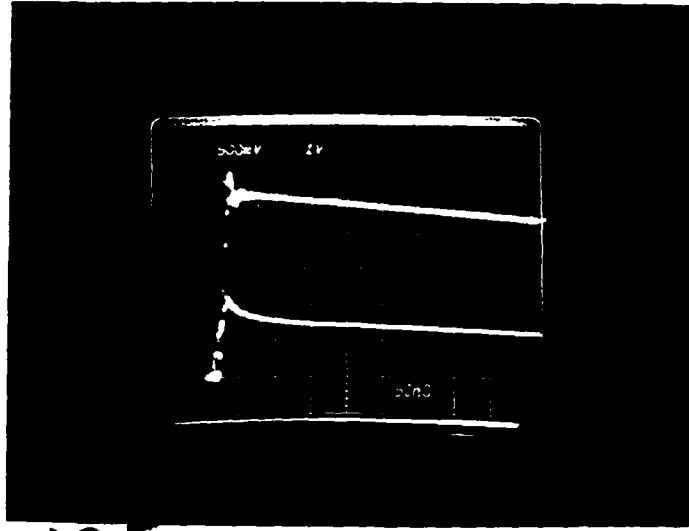
Comments: 134



134

Date 5-24-85  
 Test Point 49-BL-1/10-J  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

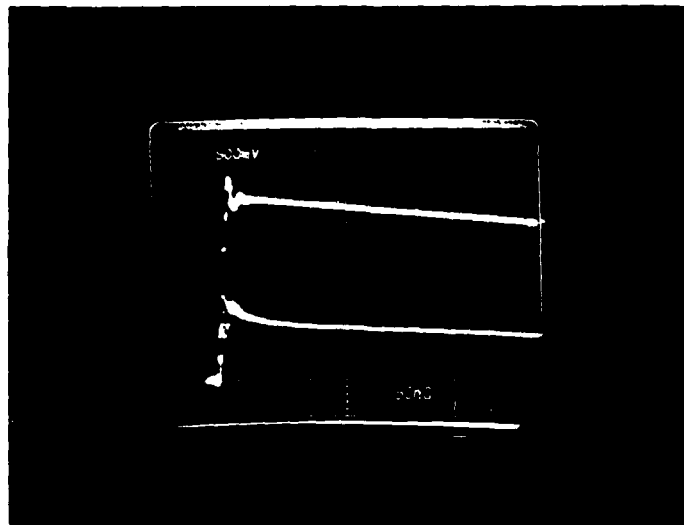
Comments: 135



135

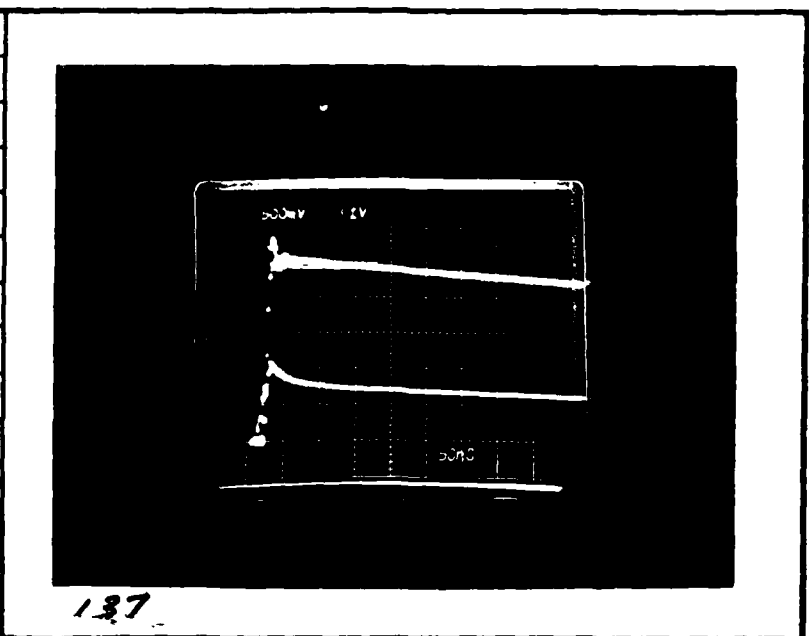
Date 5-24-85  
 Test Point 49R-BL-1/10-J  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

Comments: 136

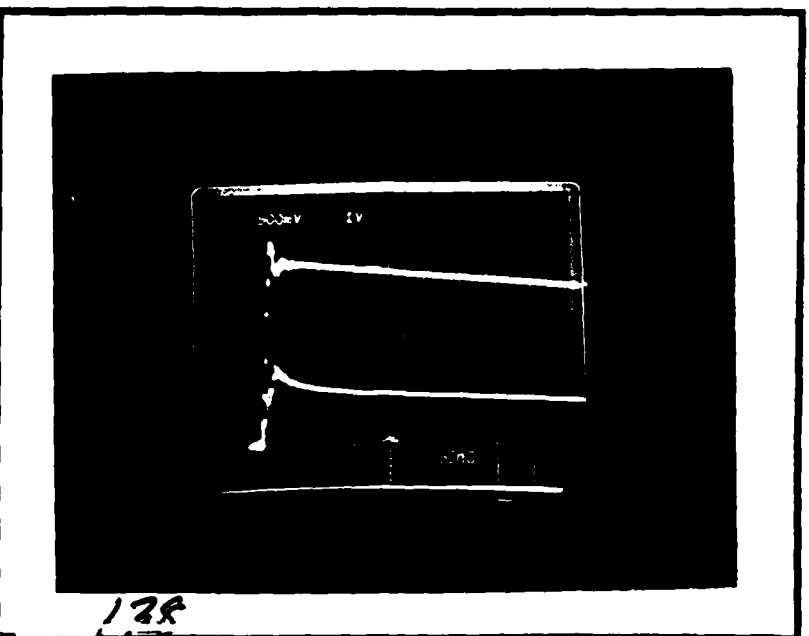


136

Date	5-24-85
Test Point	49-BL-1/10K
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	137

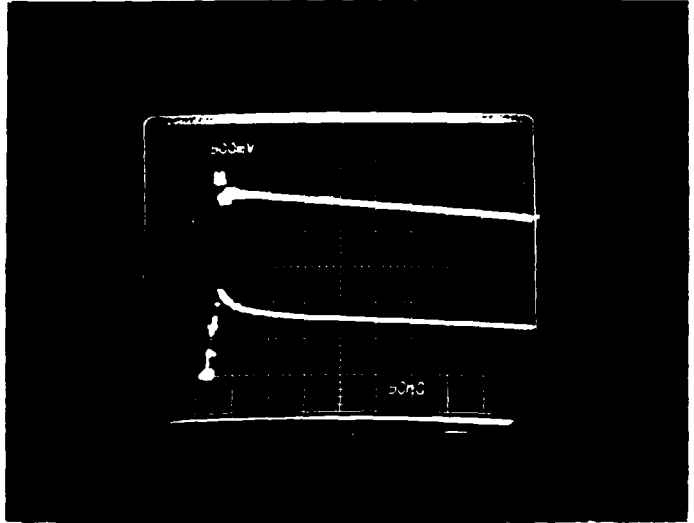


Date	5-24-85
Test Point	49R-BL-1/10-K
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	138



Date	5-24-85
Test Point	49-BL-1/10-L
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

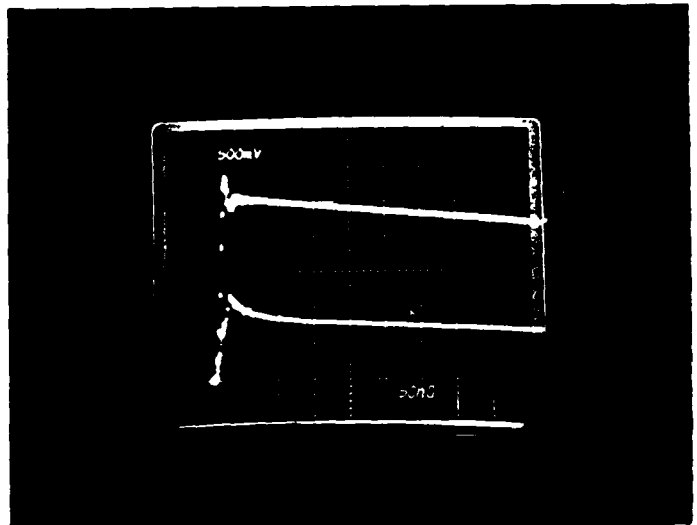
139



139

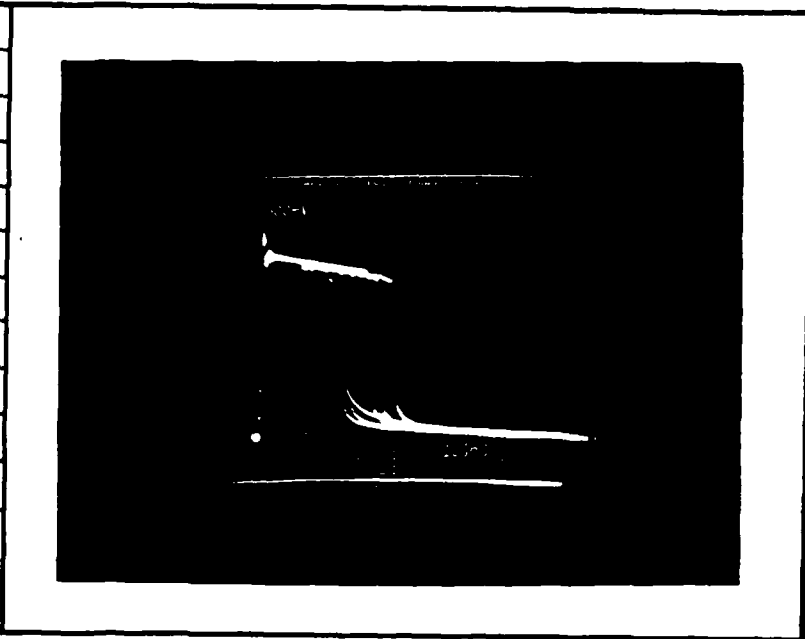
Date	5-24-85
Test Point	49R-BL-1/10-L
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

140

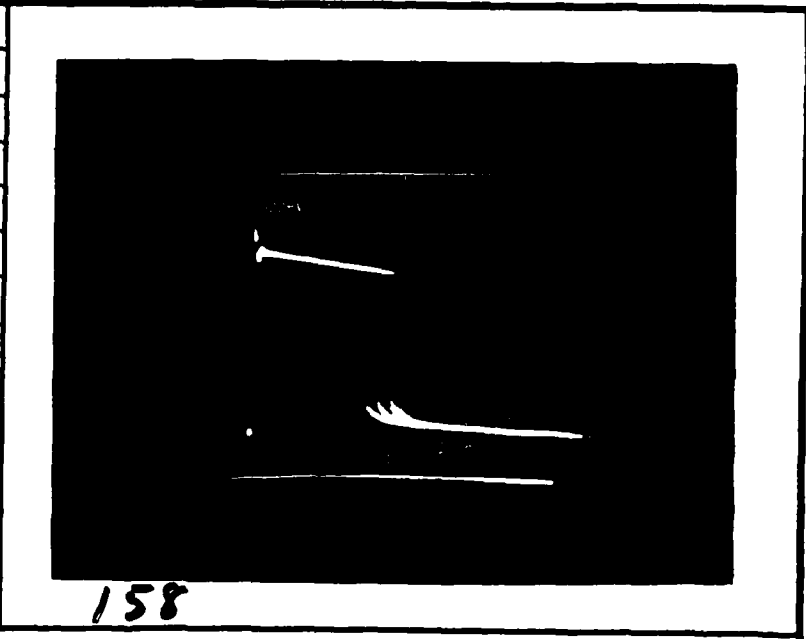


140

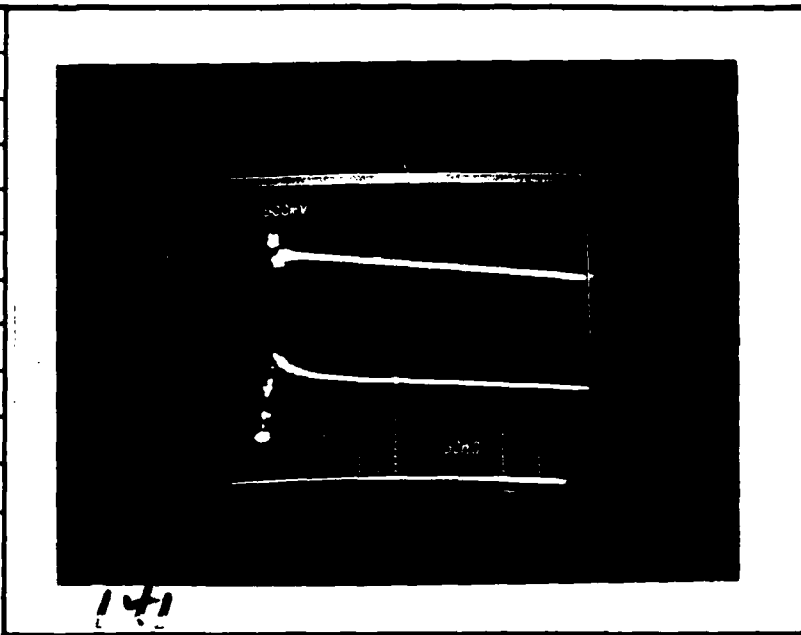
Date	5-24-85
Test Point	55-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	157
	HORIZ.=100NS/



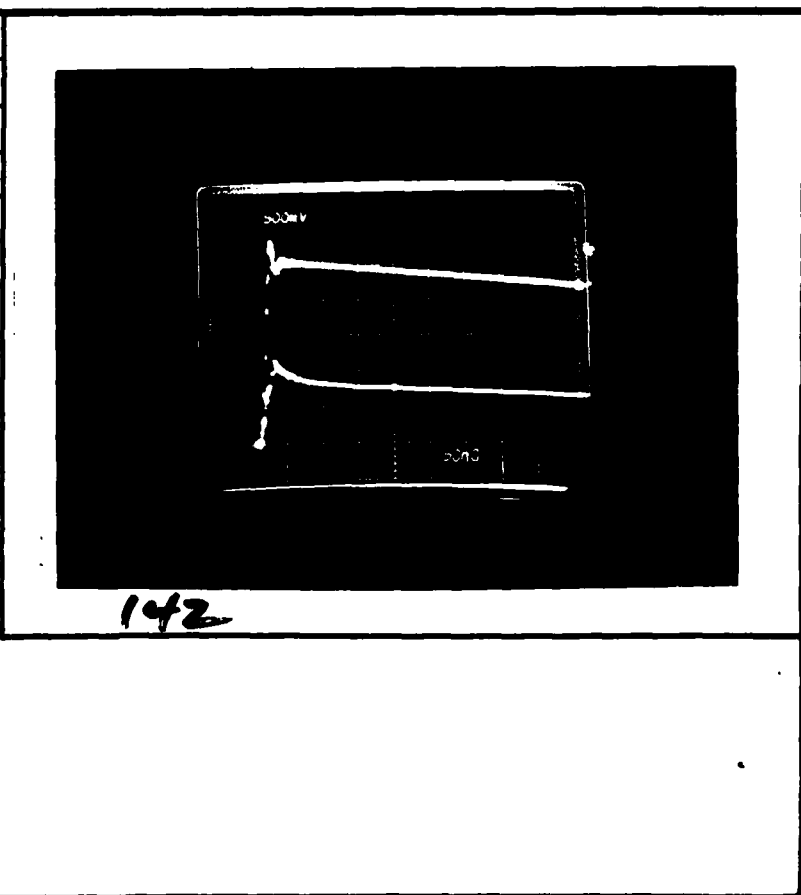
Date	5-24-85
Test Point	55R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	158



Date	5-24-85		
Test Point	49-BL-1/10-M		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	141		

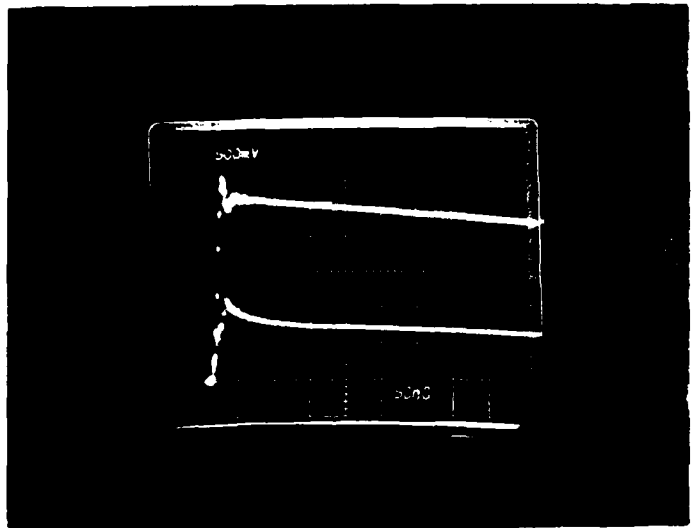


Date	5-24-85		
Test Point	49R-BL-1/10-M		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	142		



Date 5-24-85  
 Test Point 49-BL-1/10-N  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical, 5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 600V  
 Data Link

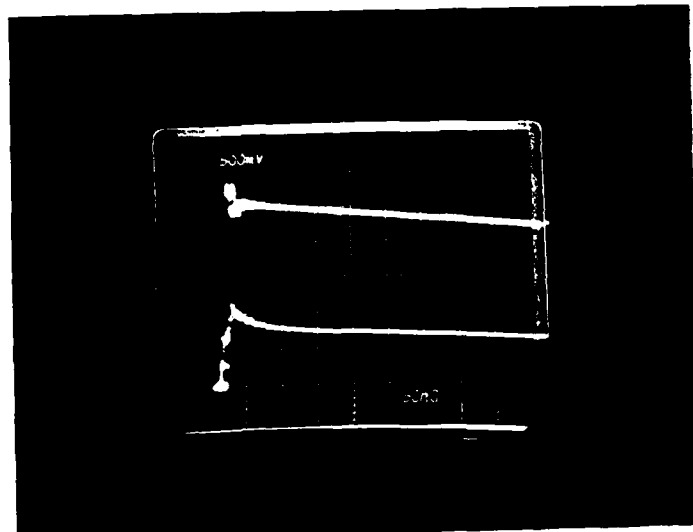
Comments: 143



143

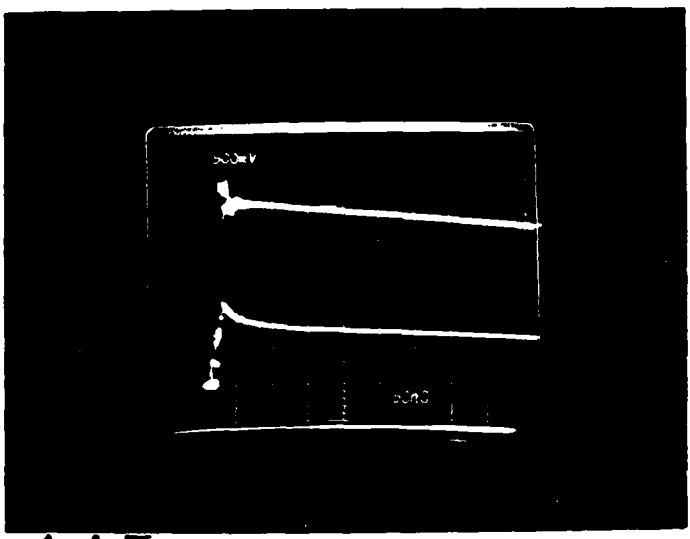
Date 5-24-85  
 Test Point 49R-BL-1/10-N  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical, 5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 600V  
 Data Link

Comments: 144



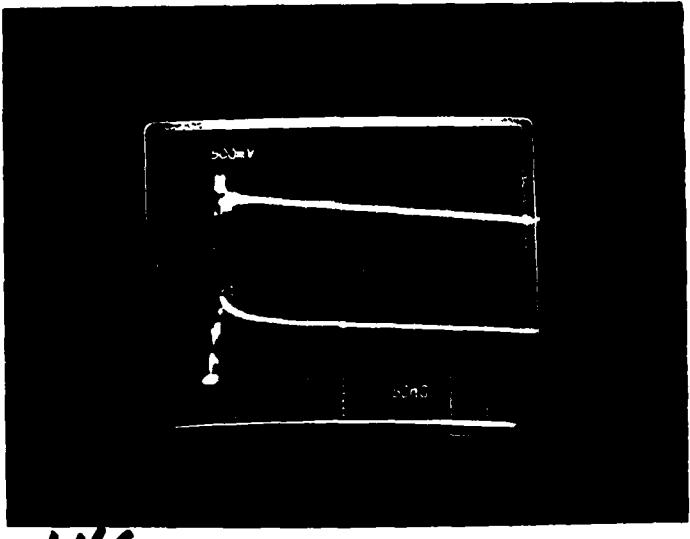
144

Date	5-24-85
Test Point	49-BL-1/10-0
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	145



145

Date	5-24-85
Test Point	49R-BL-1/10-0
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	146



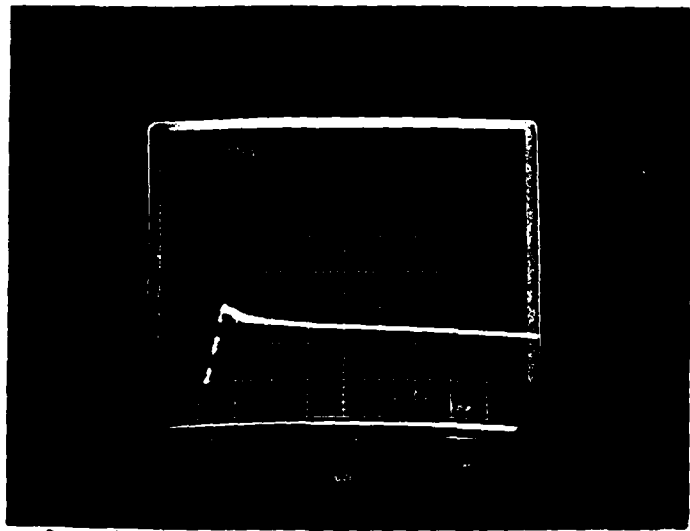
146



Date 5-24-85  
 Test Point 49-BL-1/10 - P +  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

Comments: 167

1 "BEAD" ADDED

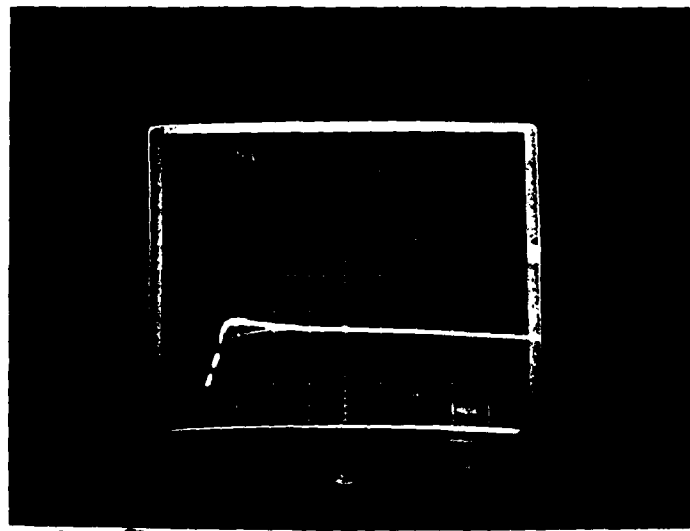


167

Date  
 Test Point 49-BL-1/10 - P +  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

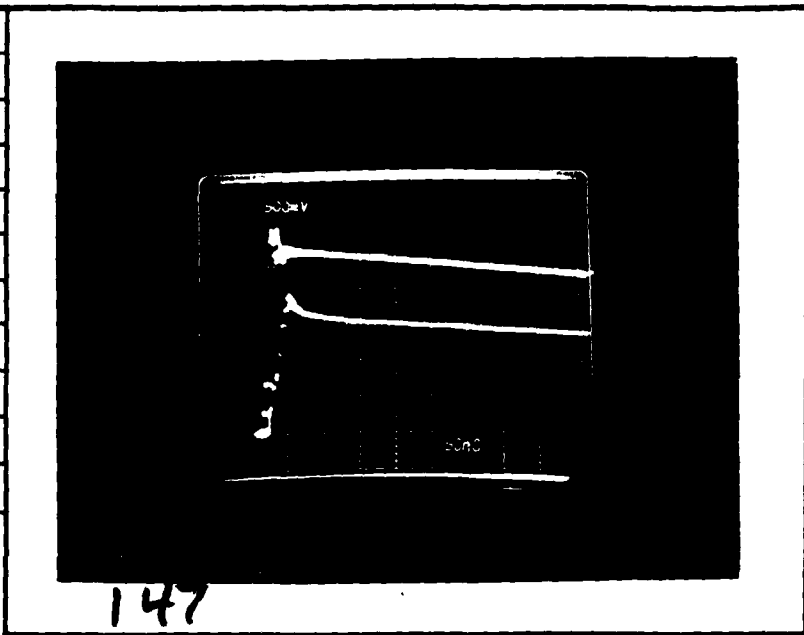
Comments: 168

3 "BEADS" ADDED

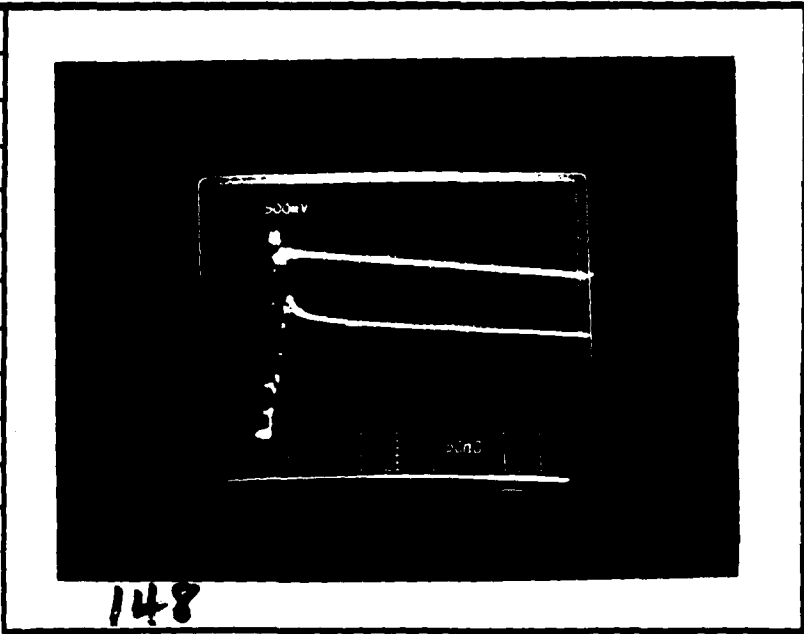


168

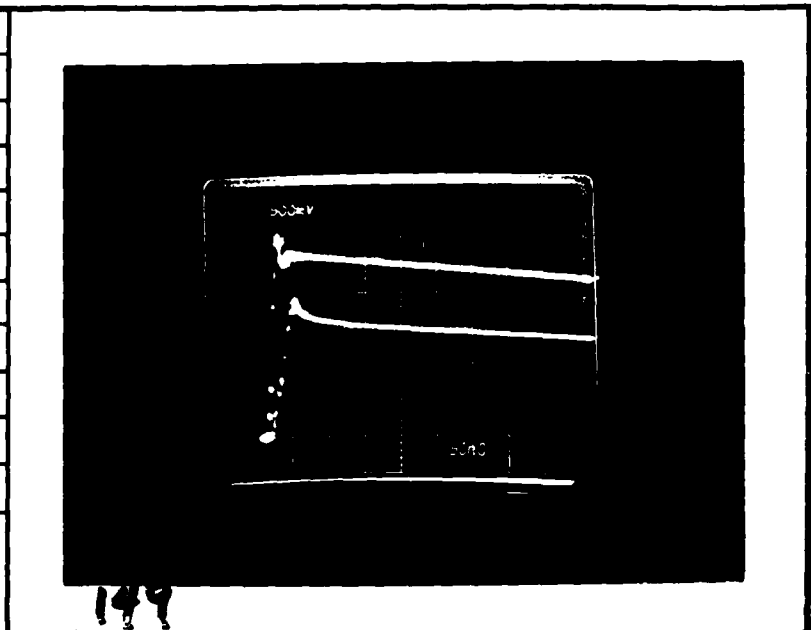
Date	5-24-85
Test Point	52-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	147



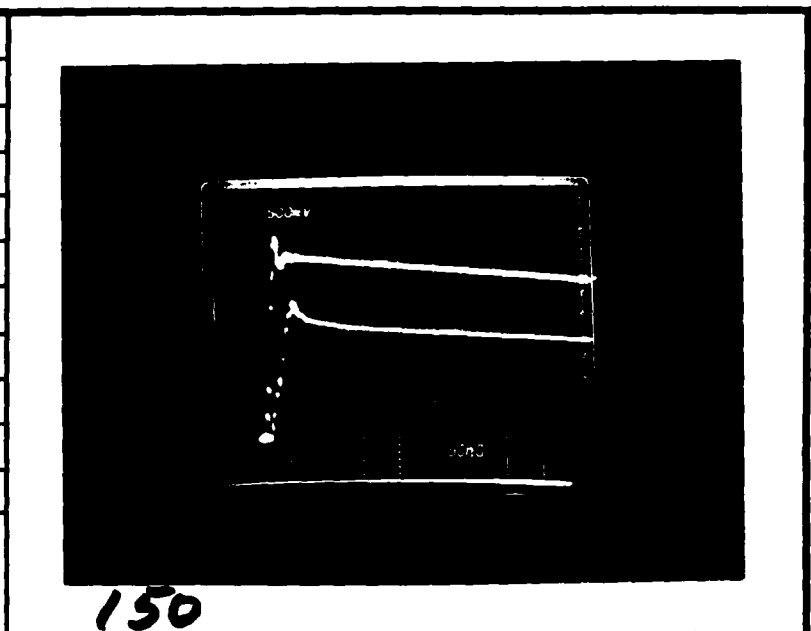
Date	5-24-85
Test Point	52R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	148



Date	5-24-85		
Test Point	52-BL-1/10-B		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulse Level	600V		
Data Link			
Comments:	149		

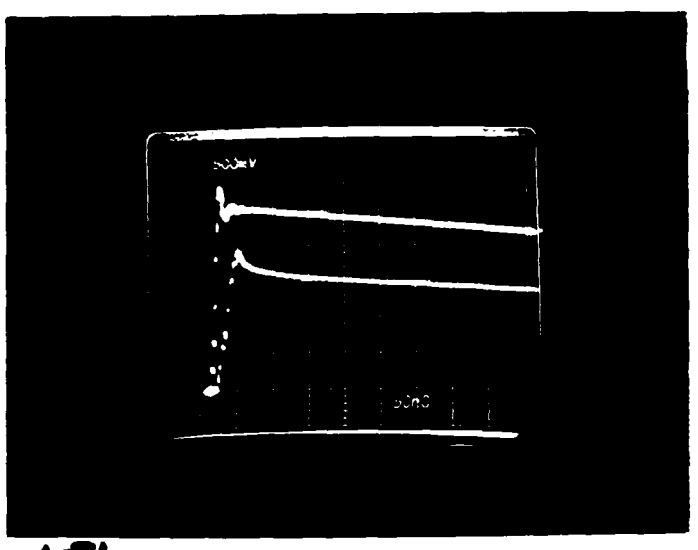


Date	5-24-85		
Test Point	52R-BL-1/10-B		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	mV/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulse Level	600V		
Data Link			
Comments:	150		



Date **5-24-85**  
 Test Point **52-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **50 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

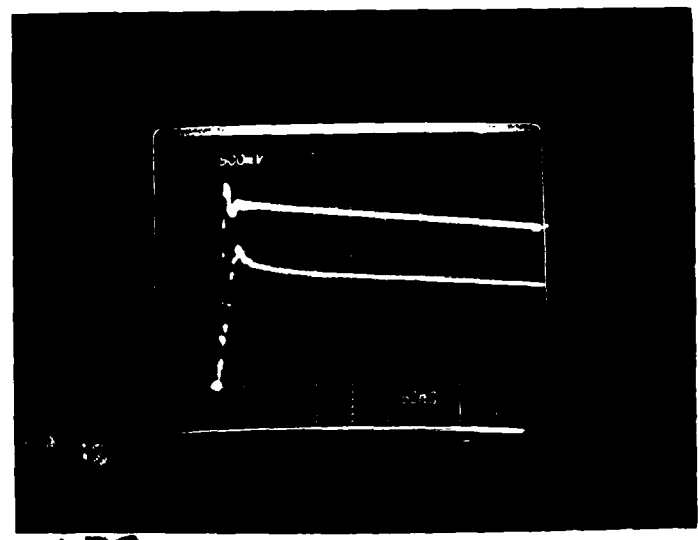
Comments: **(151)**



**151**

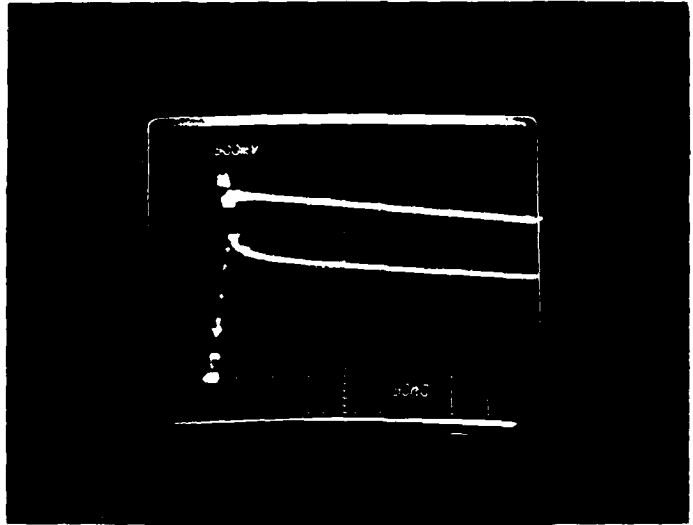
Date **5-24-85**  
 Test Point **52R-BL-1/10-C**  
 Amplification **0dB**  
 Attenuation **0 dB**  
 Horizontal **50 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **152**



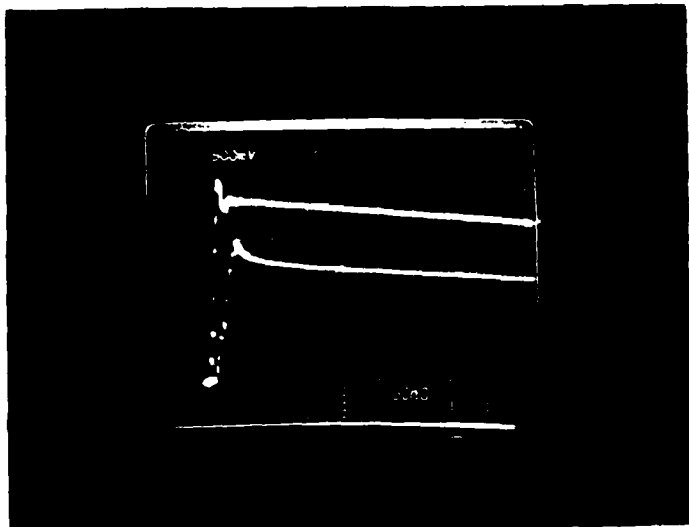
**152**

Date	5-24-85
Test Point	52-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	153



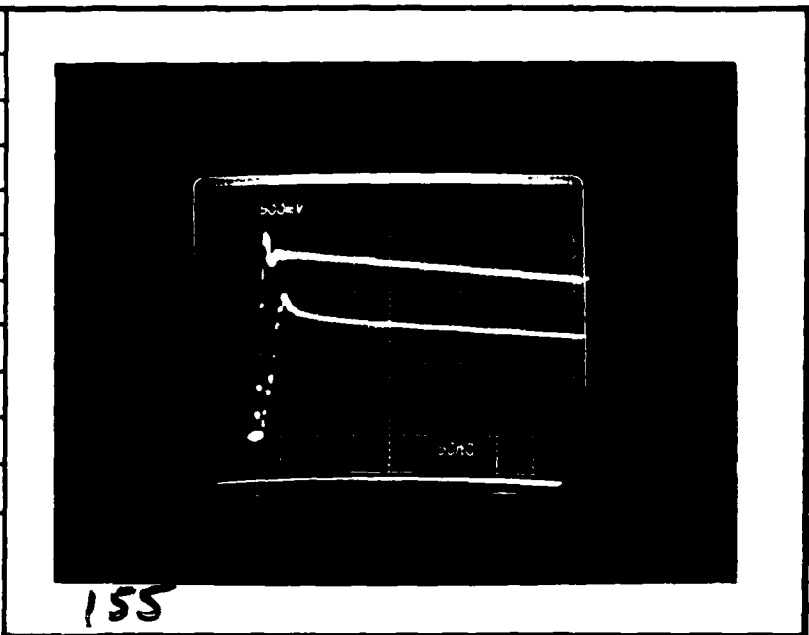
153

Date	5-24-85
Test Point	52R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	154

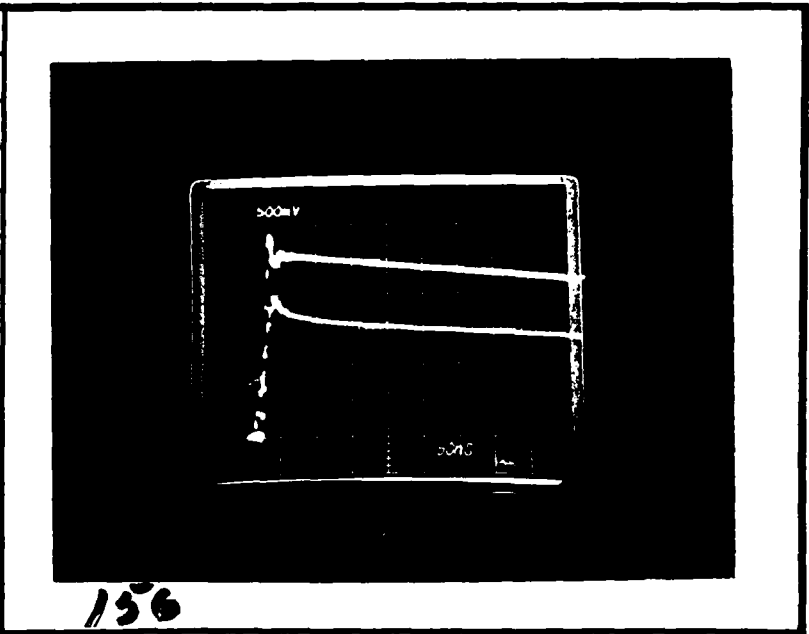


154

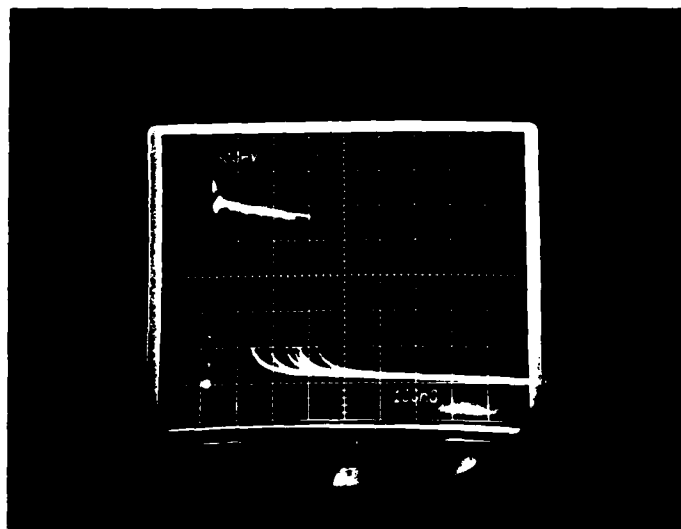
Date	5-24-85
Test Point	52-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	155



Date	5-24-85
Test Point	52R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	156

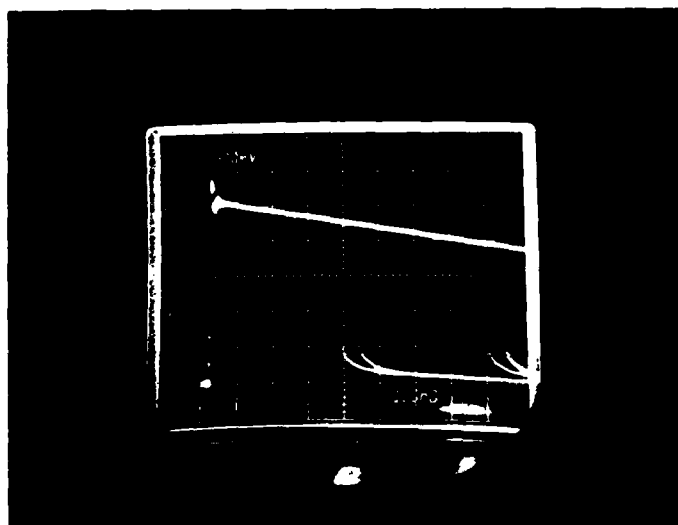


Date	5-24-85
Test Point	55-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	159



159

Date	5-24-85
Test Point	55R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	160



160

Date 5-24-85

Test Point 55-BL-1/10-B

Amplification 0 dB

Attenuation 0 dB

Horizontal 100 ns/div 1

Vertical .5V (120V) mV/div 1

Horizontal ns/div 2

Vertical ns/div 2

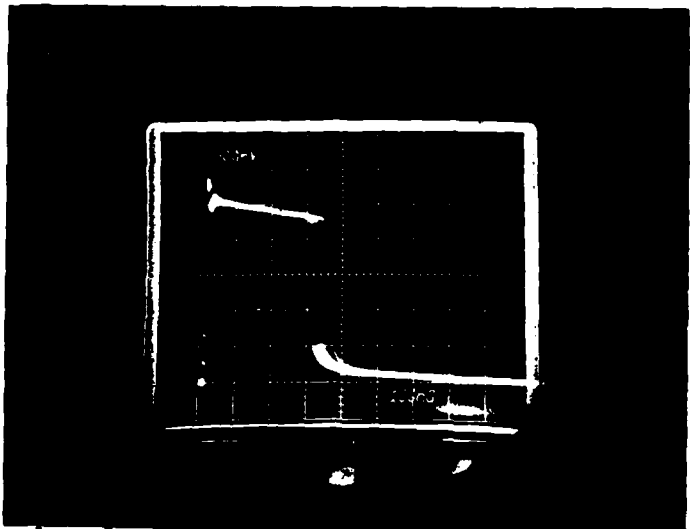
Configuration

Pulser Level 600V

Data Link

Comments:

161



161

Date

Test Point 53R-BL-1/10-B

Amplification 0 dB

Attenuation 0 dB

Horizontal 500 ns/div 1

Vertical .5V (120V) mV/div 1

Horizontal ns/div 2

Vertical ns/div 2

Configuration

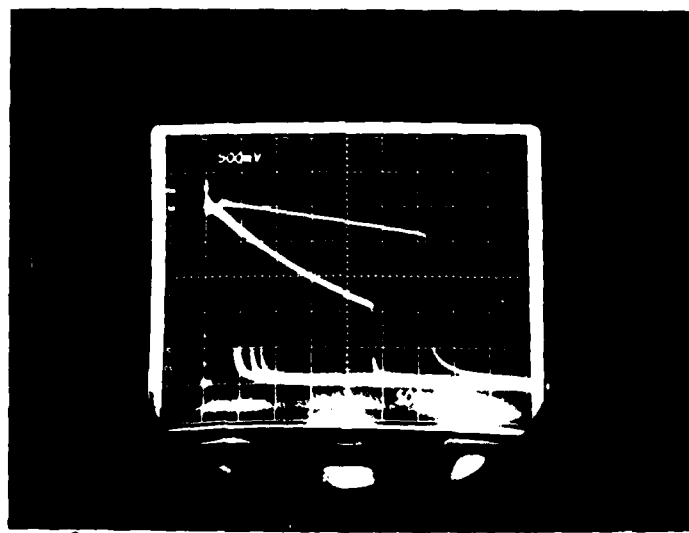
Pulser Level

Data Link

Comments:

162

500ns/

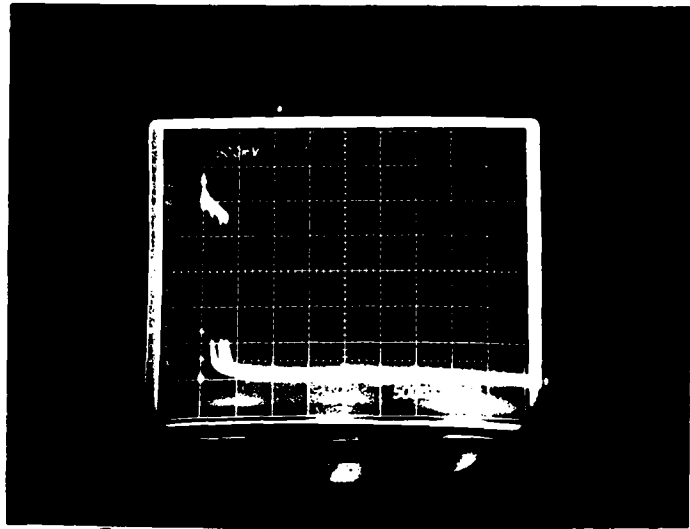


162



Date 5-24-85  
 Test Point 55-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 600V  
 Data Link

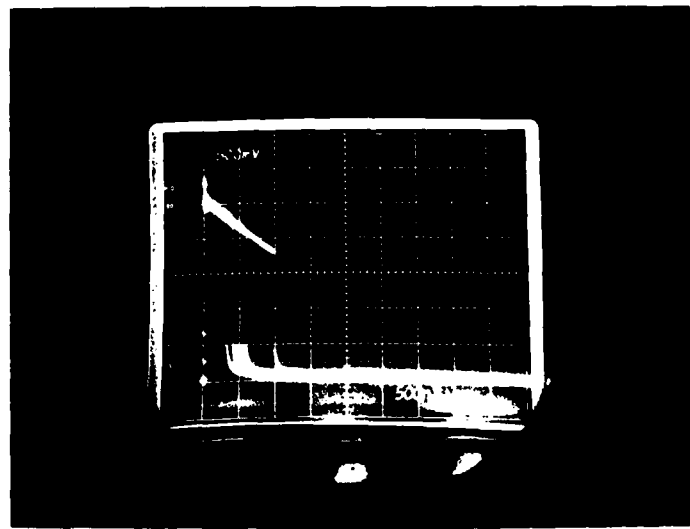
Comments: 163



163

Date  
 Test Point 55R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level 600  
 Data Link

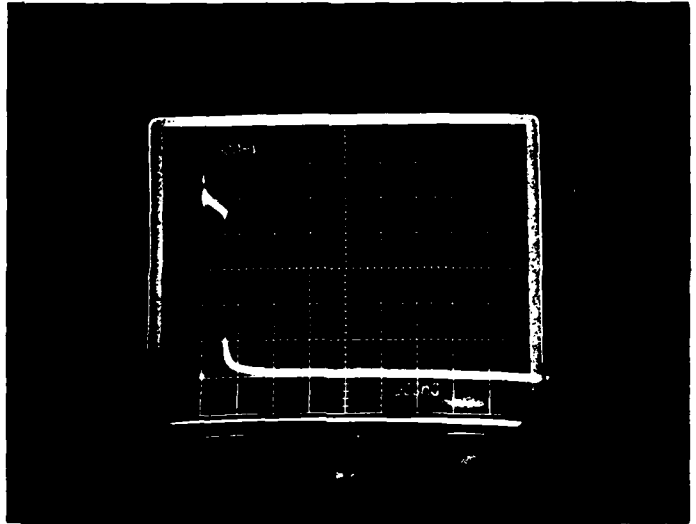
Comments: 164



164

Date 5-24-85  
 Test Point 55-BL-1/4-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

163

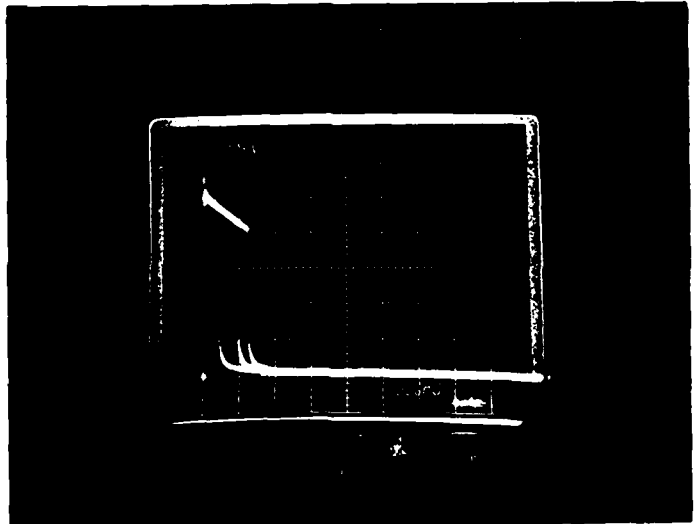


163

PULSE RATE SLOWED TO 4/4 SEC (4 PULSES)

Date  
 Test Point 55R-BL-1/4-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

164



164

PULSE RATE SLOWED TO 4/4 SEC (4 PULSES)

AD-A164 435

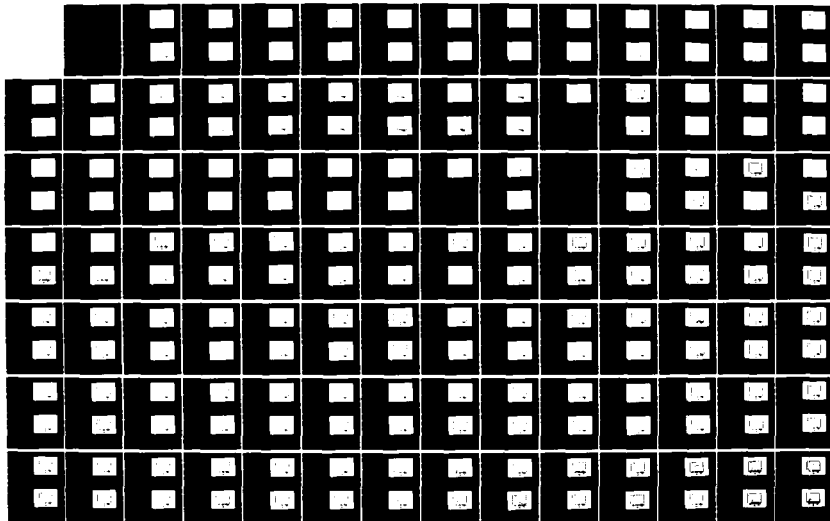
ELECTROMAGNETIC PULSE/TRANSIENT THREAT TESTING OF  
PROTECTION DEVICES FOR (U) ELECTROSPACE SYSTEMS INC  
ARLINGTON VA D BODSON ET AL 31 OCT 85

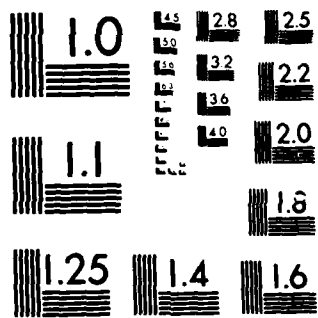
2/3

UNCLASSIFIED

NCS-T18-85-10-VOL-3-SEC-4 DCR100-85-C-0010 F/8 20/14

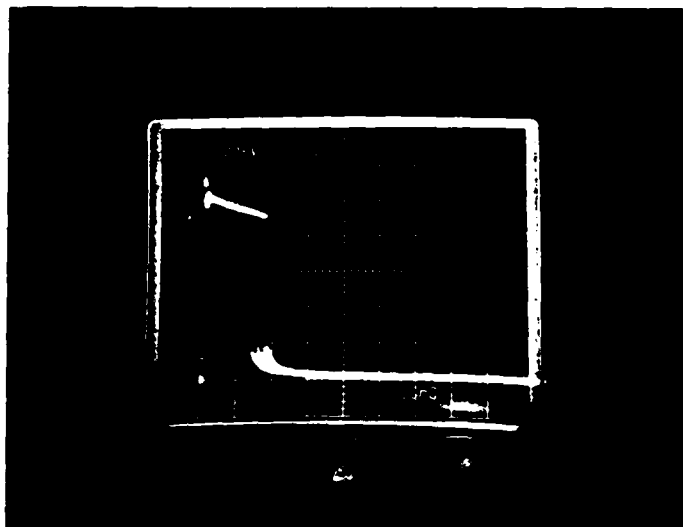
NL



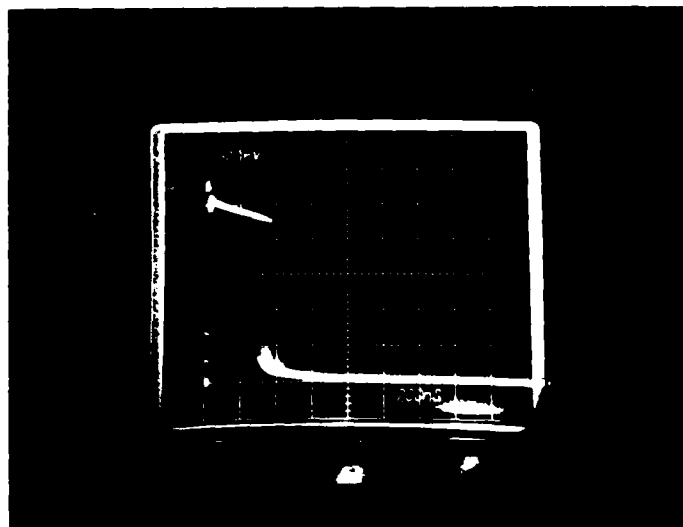


MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

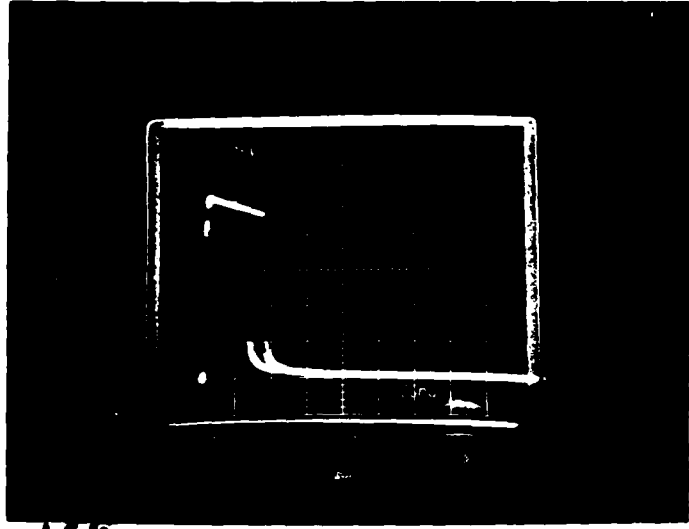
Date 5-24-85  
 Test Point 55-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:  
200NS/ 165



Date 5-24-85  
 Test Point 55R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:  
166

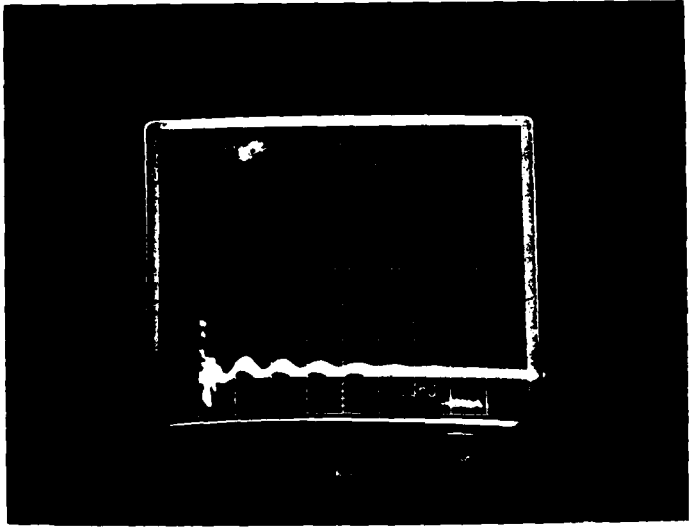


Date 5-24-85  
 Test Point 55-BL-1/10-C+  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulse Level 600V  
 Data Link  
 Comments:



169  
 "3 BEADS"

Date  
 Test Point 55-BL-1/10-C+  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulse Level 600V  
 Data Link  
 Comments:



170  
LARGE INDUCTOR ADDED

Date **5-24-85**

Test Point **REF of LG INDUCTOR**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **200 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

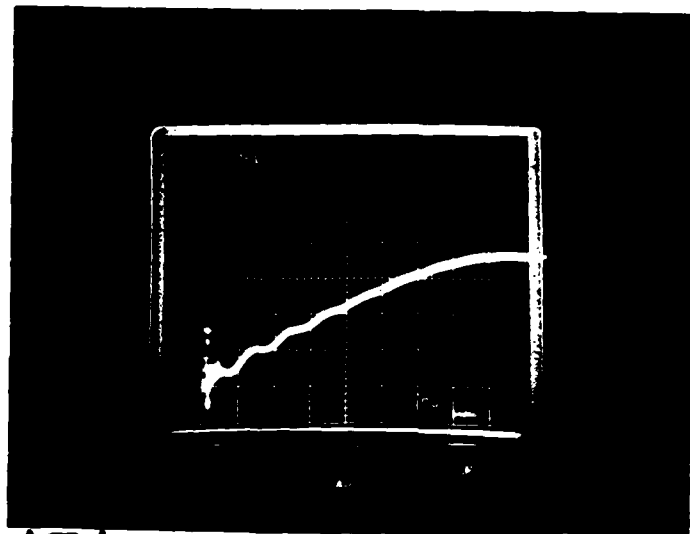
Vertical **ns/div 2**

Configuration

Pulser Level **600V**

Data Link

Comments: **171**



**!71**

Date

Test Point **49-BL-Y10-D**

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **200 ns/div 1**

Vertical **.5V (120V) mV/div 1**

Horizontal **ns/div 2**

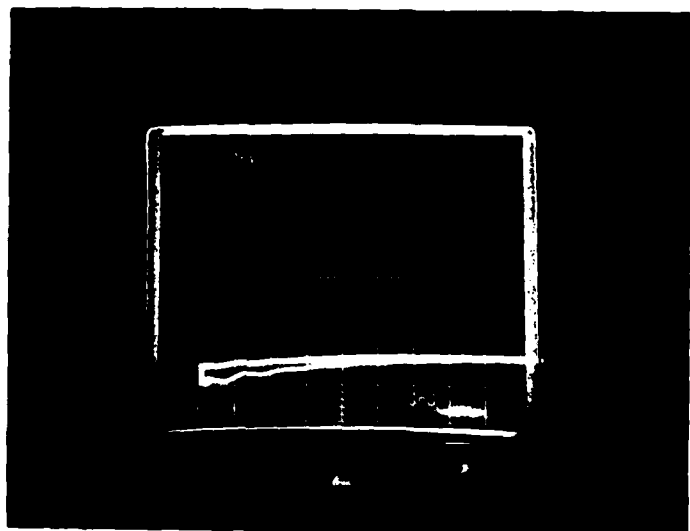
Vertical **ns/div 2**

Configuration

Pulser Level **600V**

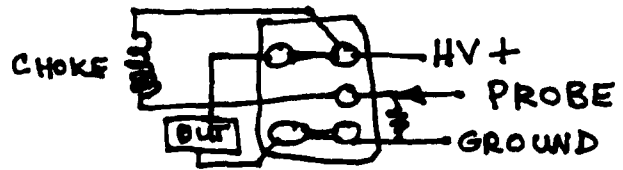
Data Link

Comments: **172**

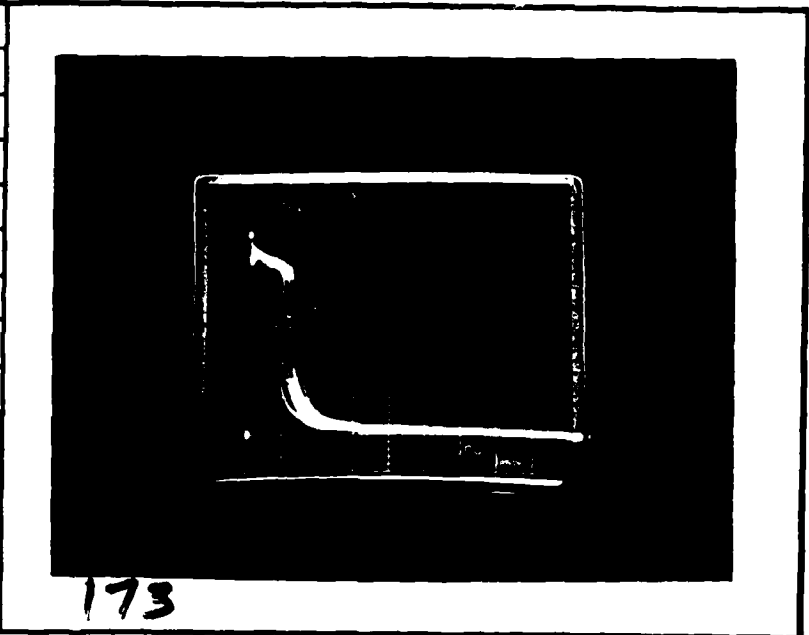


**!72**

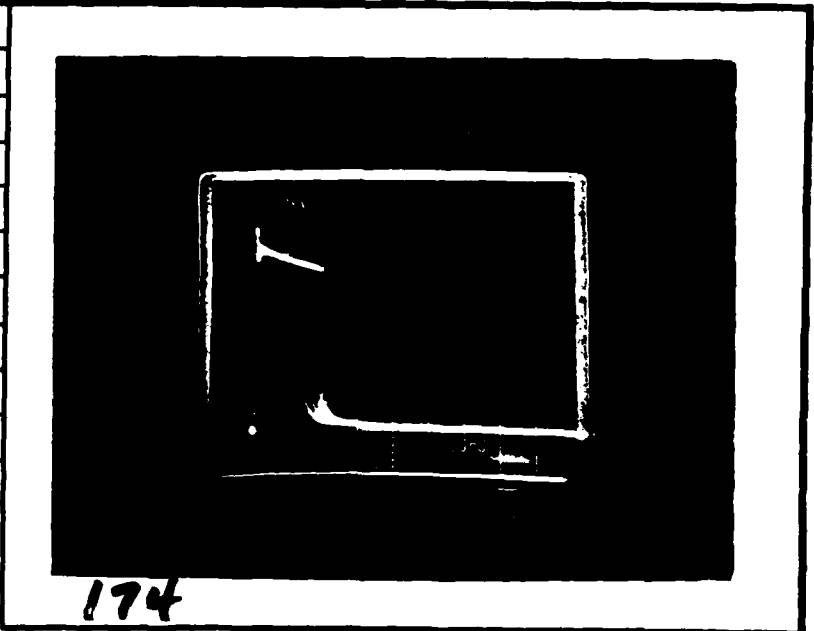
SET UP FOR 167-172:



Date	5-24-85
Test Point	55-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	200 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	173



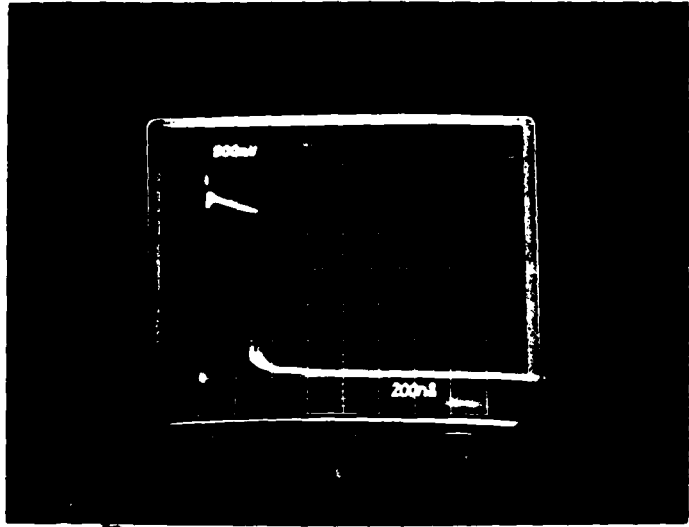
Date	5-24-85
Test Point	55R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	200 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	174





Date 5-24-85  
 Test Point 55-BL-1/10-E  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

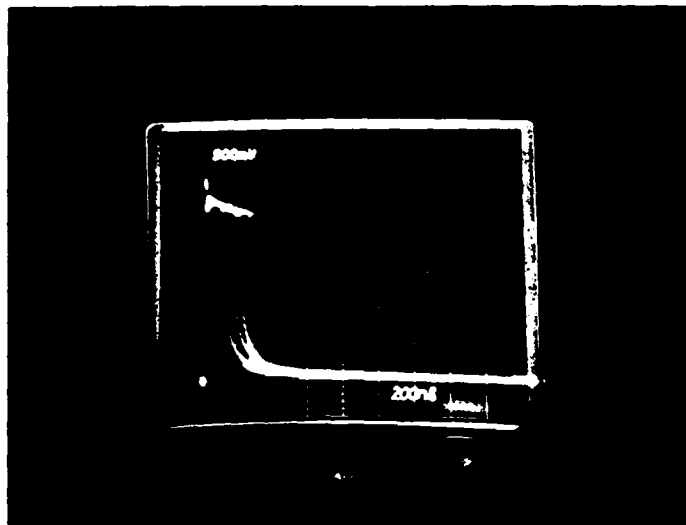
175



175

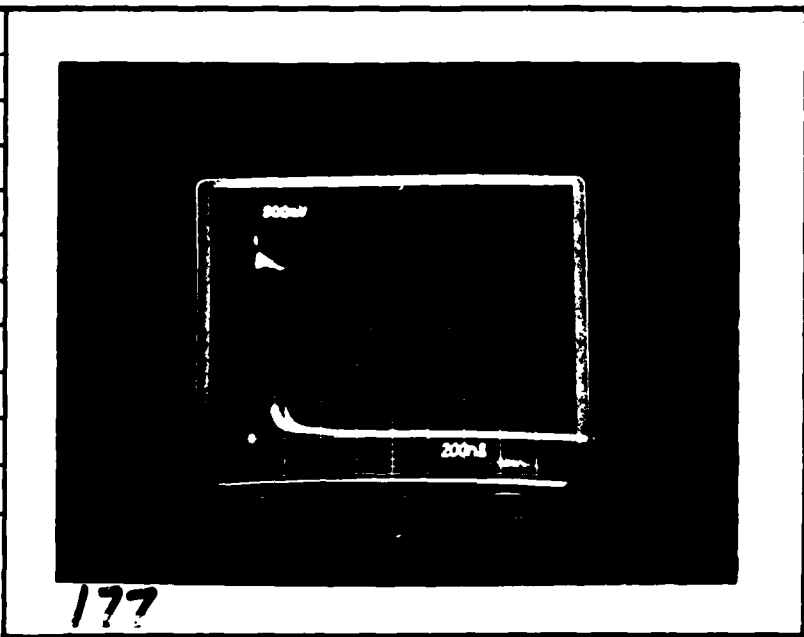
Date 5-24-85  
 Test Point 55R-BL-1/10-E  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

176

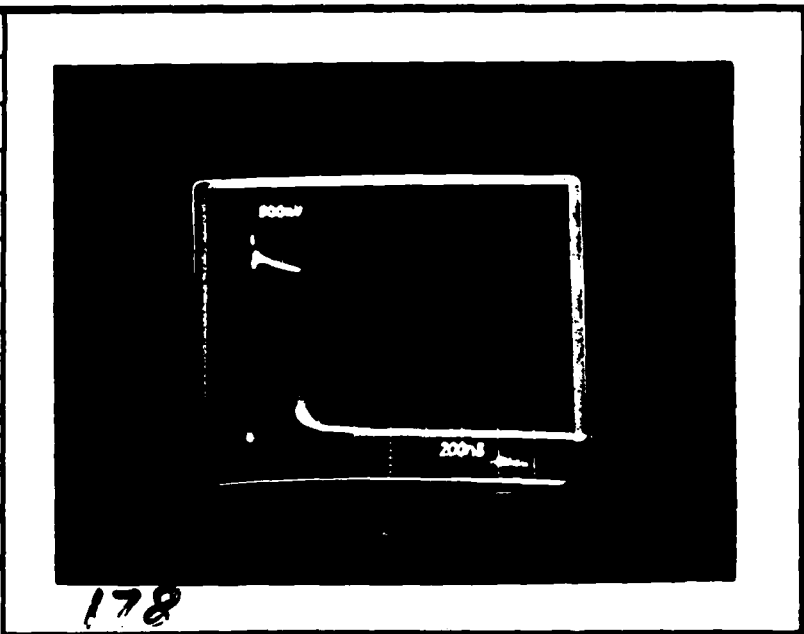


176

Date 5-24-85  
 Test Point 58-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V (120V) ~~ns~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 177

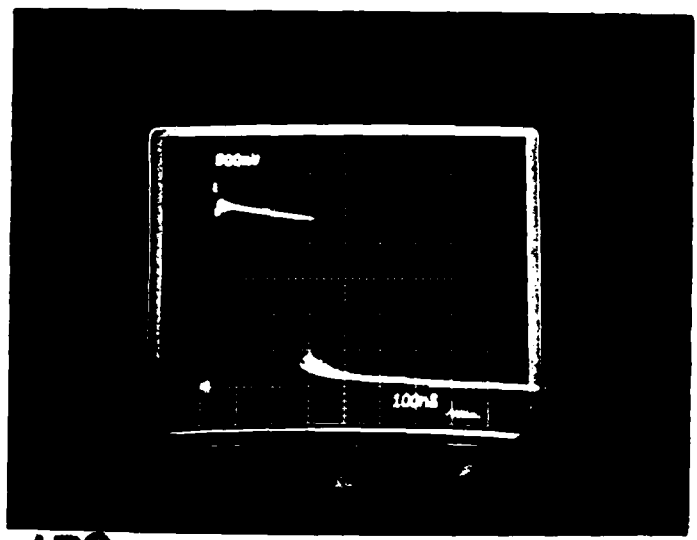


Date 5-24-85  
 Test Point 58R-BL-1/10-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 200 ns/div 1  
 Vertical .5V (120V) ~~ns~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 178



Date 5-24-85  
 Test Point 58-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

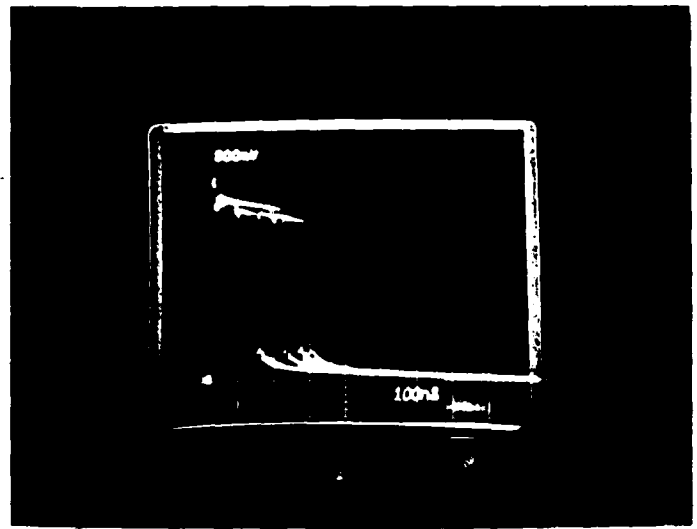
Comments: 179  
100NS/



179

Date 5-24-85  
 Test Point 58R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

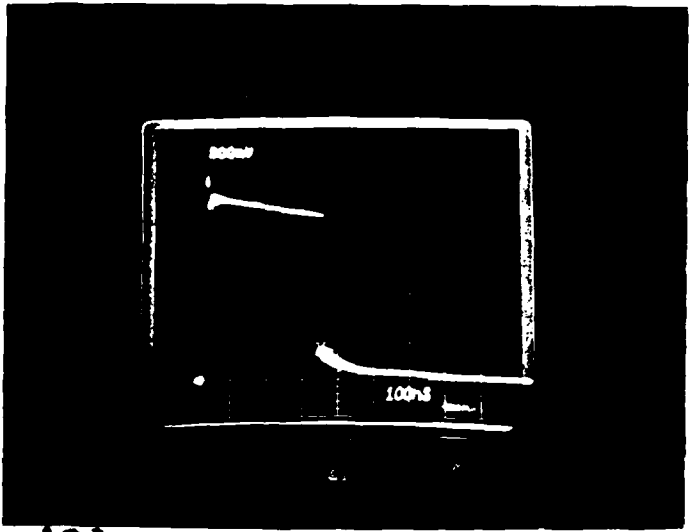
Comments: 180



180

Date 5-24-85  
 Test Point 58-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

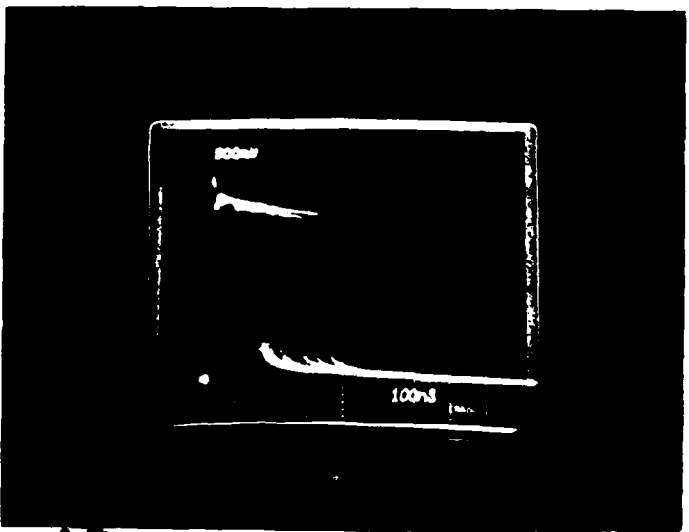
Comments: 181



181

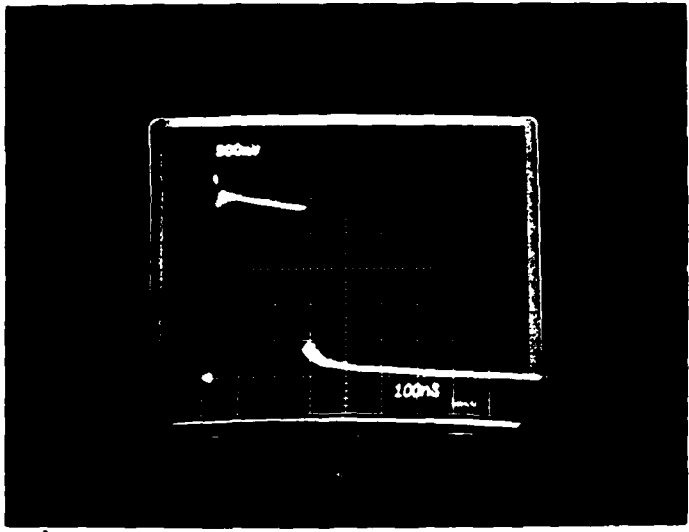
Date 5-24-85  
 Test Point 58R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

Comments: 182



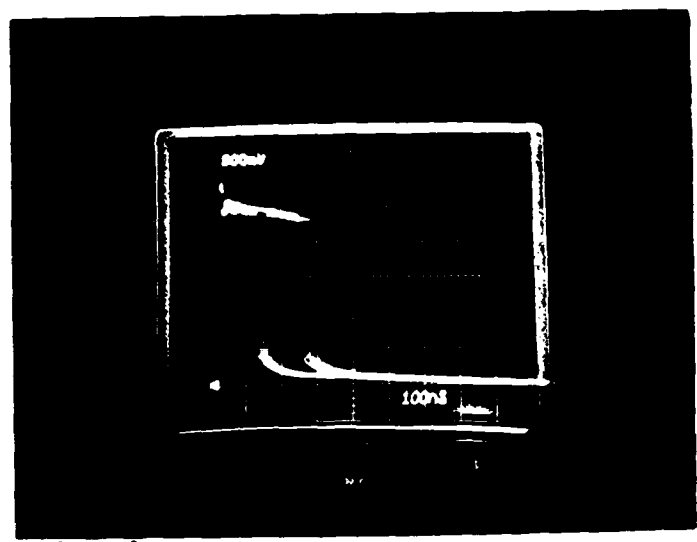
182

Date 5-24-85  
 Test Point 58-BL-Y10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 183



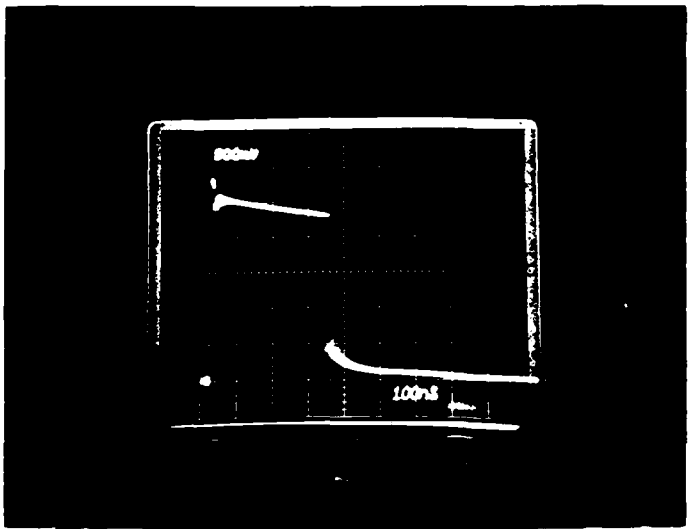
183

Date 5-24-85  
 Test Point 58R-BL-Y10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 184

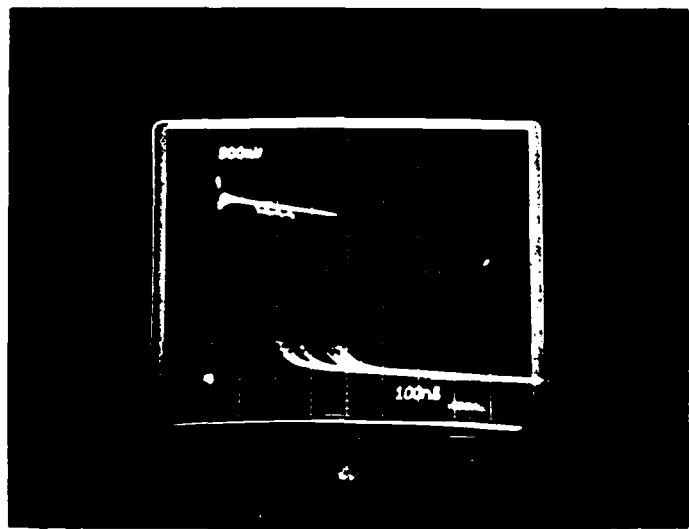


184

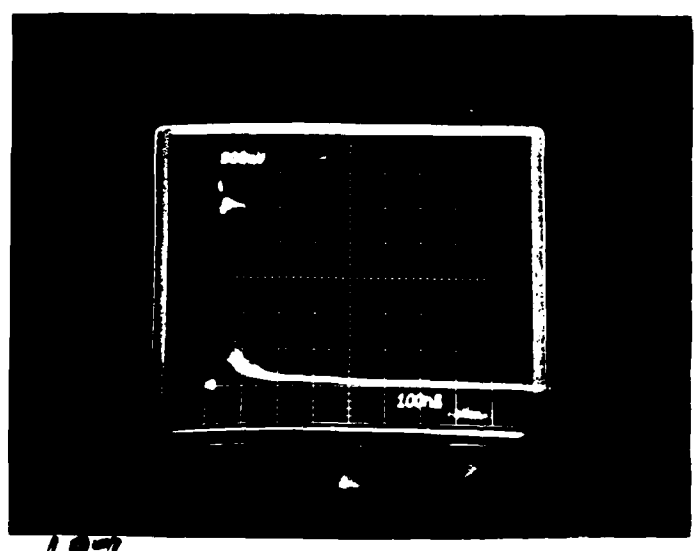
Date 5-24-85  
 Test Point 58-BL-1/10-E  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 185



Date 5-24-85  
 Test Point 58R-BL-1/10-E  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 100 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600  
 Data Link  
 Comments: 186

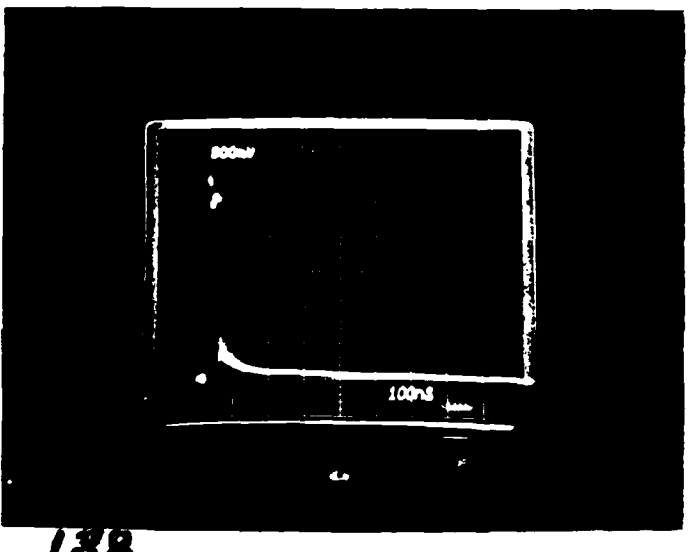


Date	5-24-85
Test Point	6I-BL-110-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	187



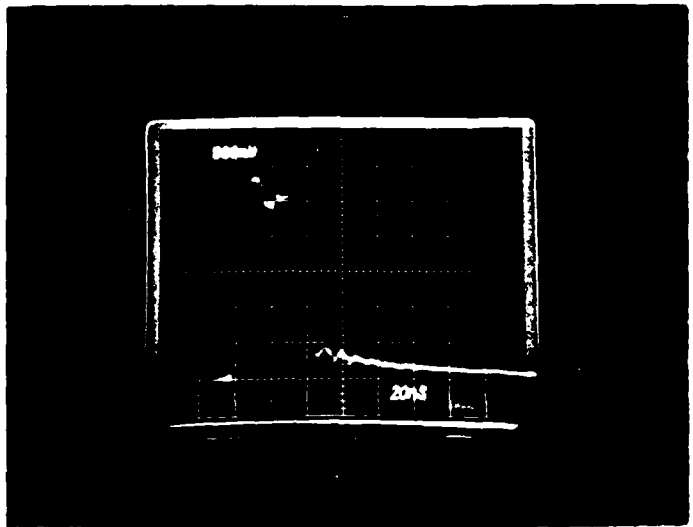
187

Date	5-24-85
Test Point	6IR-BL-110-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	100 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	188

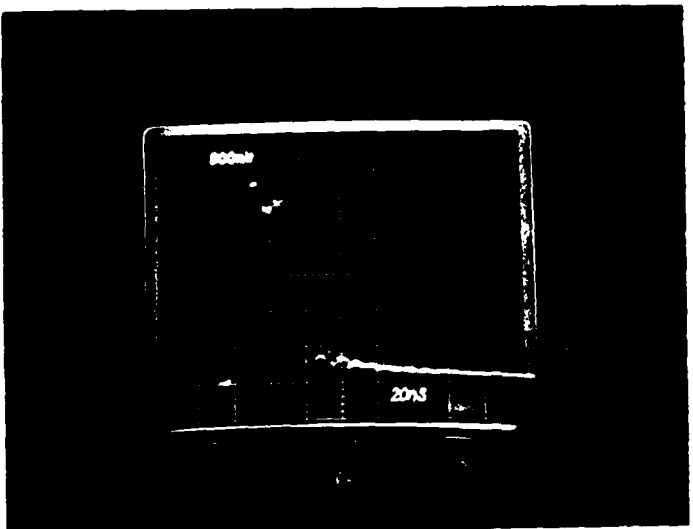


188

Date	5-24-85
Test Point	61-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Date Link	
Comments:	189
	20NS/

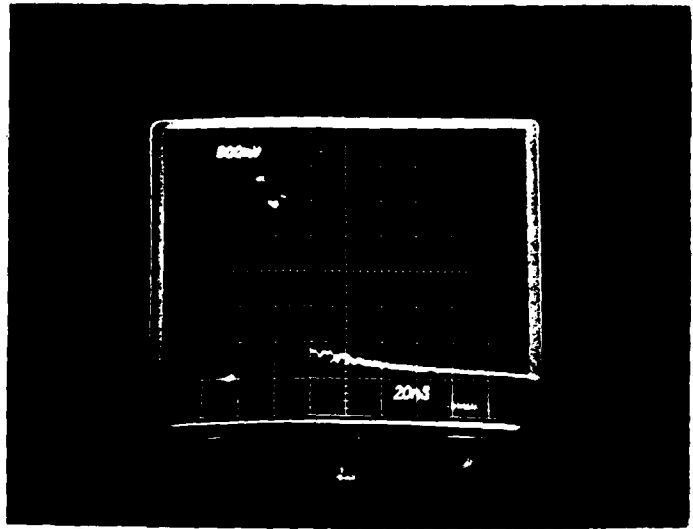


Date	5-24-85
Test Point	61R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Date Link	
Comments:	190



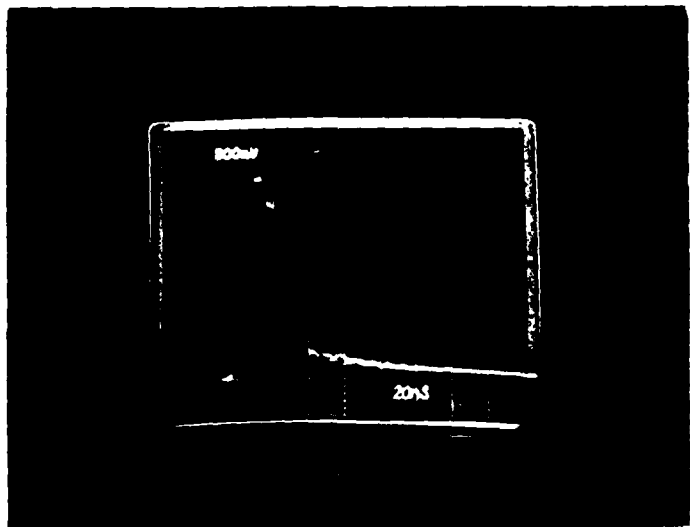


Date	5-24-85
Test Point	61-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	191



191

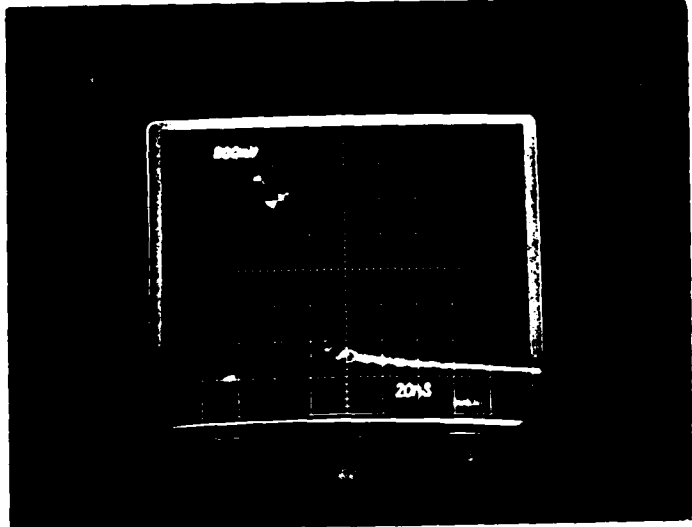
Date	5-24-85
Test Point	61R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	192



192

Date	5-24-85
Test Point	61-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	

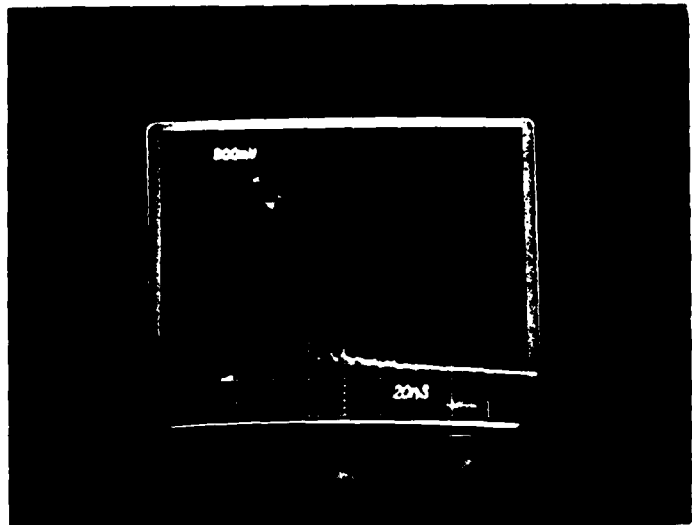
Comments: 193



193

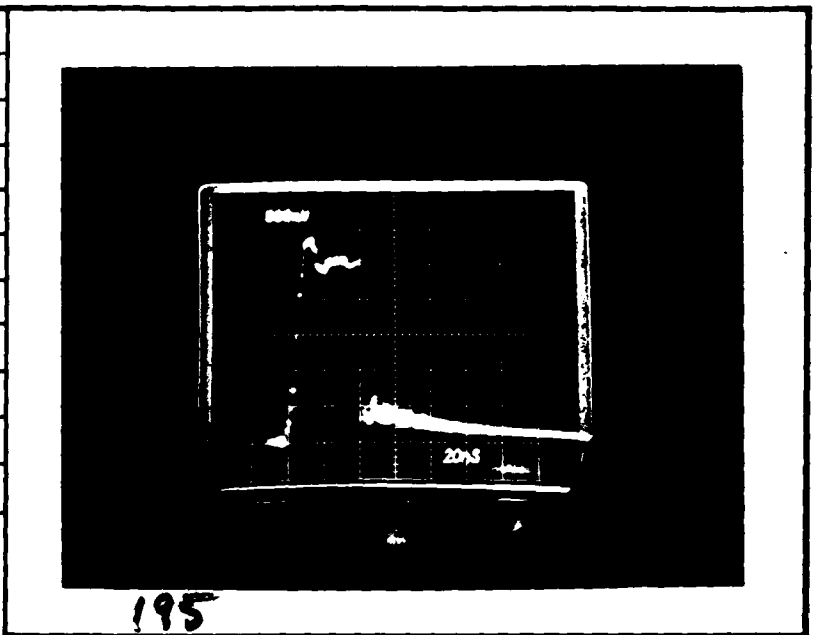
Date	5-24-85
Test Point	61R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	

Comments: 194



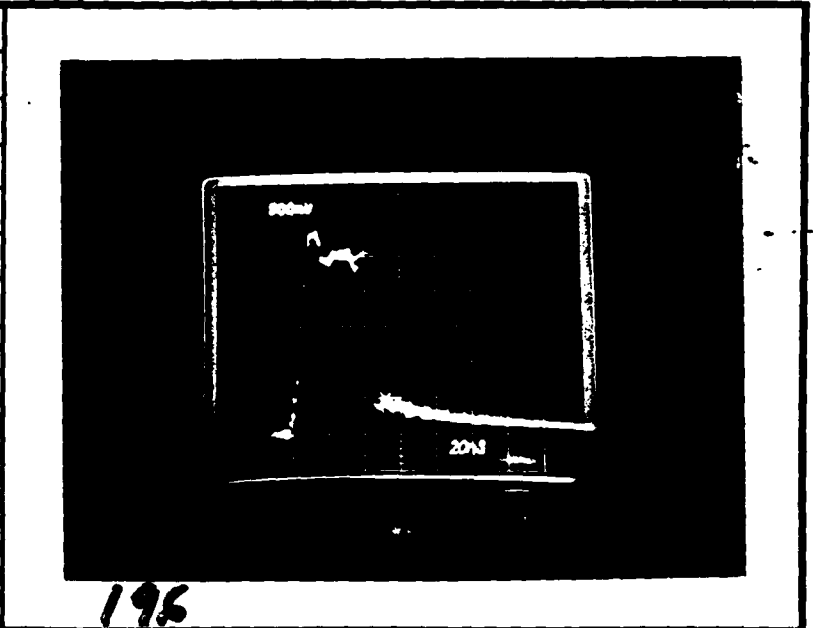
194

Date	5-24-85
Test Point	61-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	195



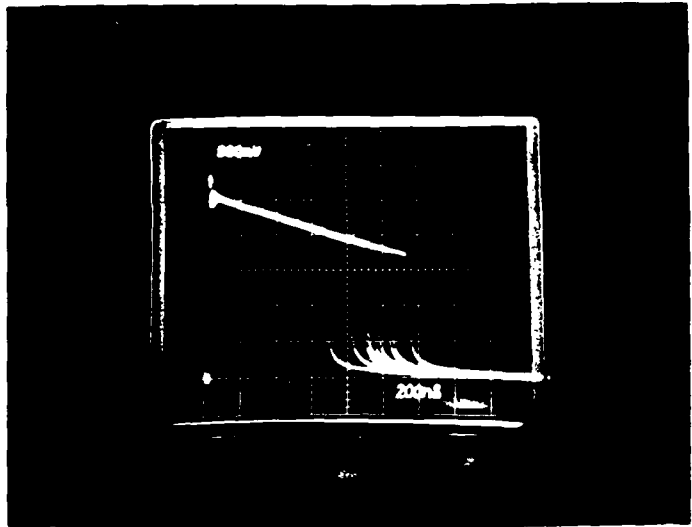
RUN WITH PULSER  
TO SHOW RISE + FALL

Date	5-24-85
Test Point	61R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	196



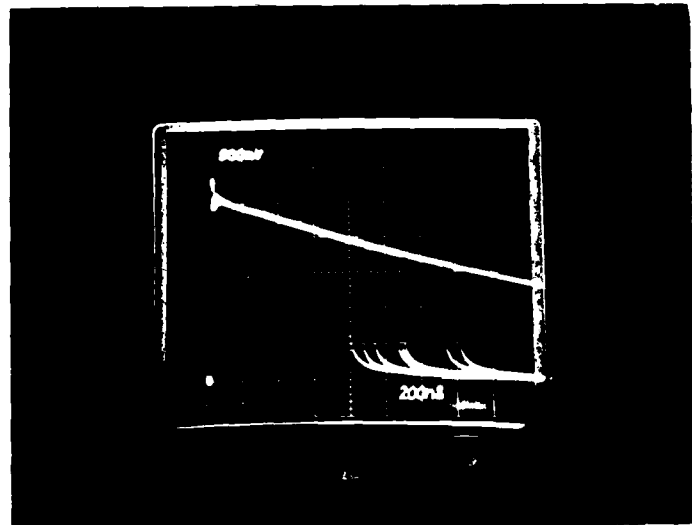
RUN WITH PULSER TO  
SHOW RISE + FALL

Date	5-24-85
Test Point	64-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	200 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	
Comments:	197



197

Date	5-24-85
Test Point	64R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	200 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	
Comments:	198



198

Date **5-24-85**

Test Point **64-BC-1/10-A** ←

Amplification **0 dB**

Attenuation **0 dB**

Horizontal **500 ns/div 1**

Vertical **.5V(120V) mV/div 1**

Horizontal **ns/div 2**

Vertical **ns/div 2**

Configuration

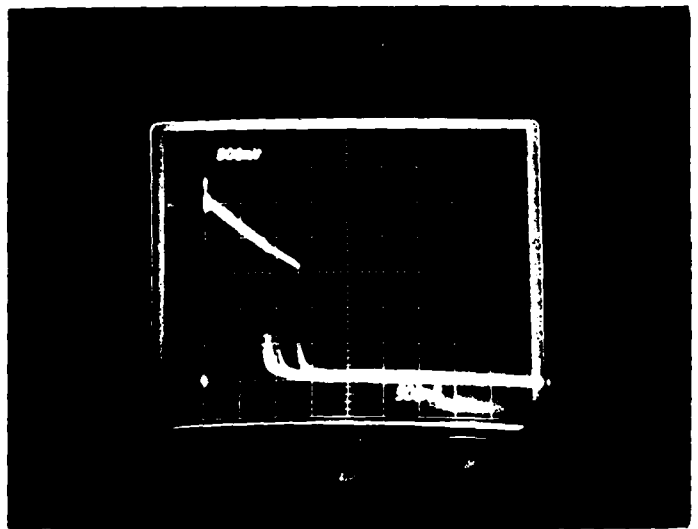
Pulser Level **600V**

Data Link

Comments:

199

500ns/



199

Date

Test Point **64-PL-1/10 A** ←

Amplification **dB**

Attenuation **dB**

Horizontal **ns/div 1**

Vertical **mV/div 1**

Horizontal **ns/div 2**

Vertical **ns/div 2**

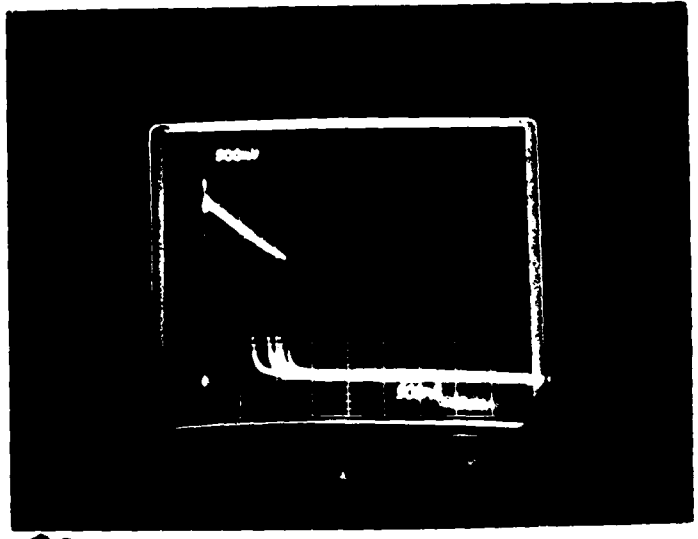
Configuration

Pulser Level

Data Link

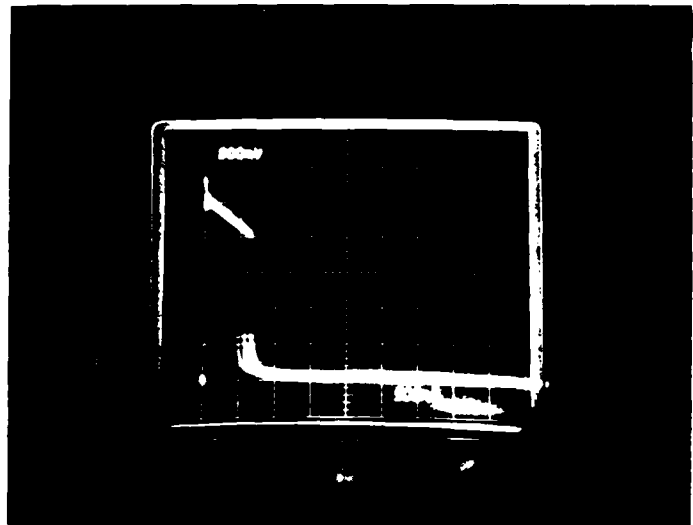
Comments:

200

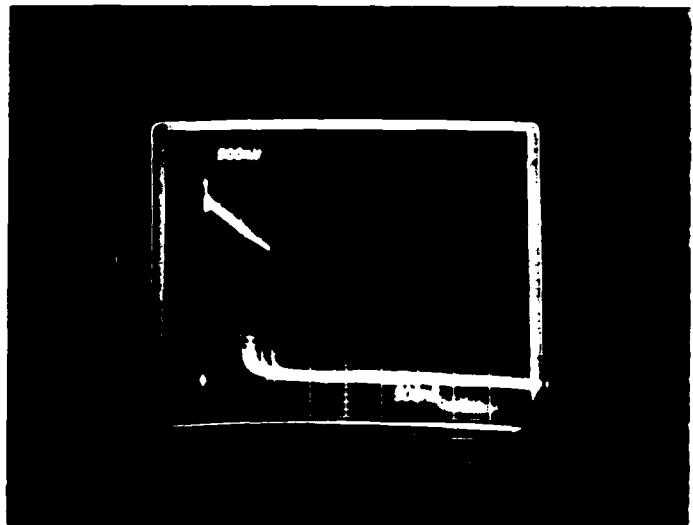


200

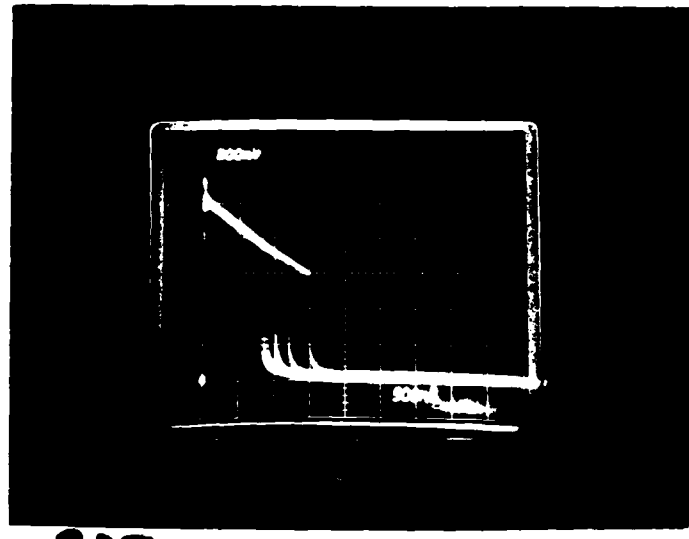
Date	5-24-85
Test Point	64-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	500 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	201



Date	5-24-85
Test Point	64R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	500 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	202

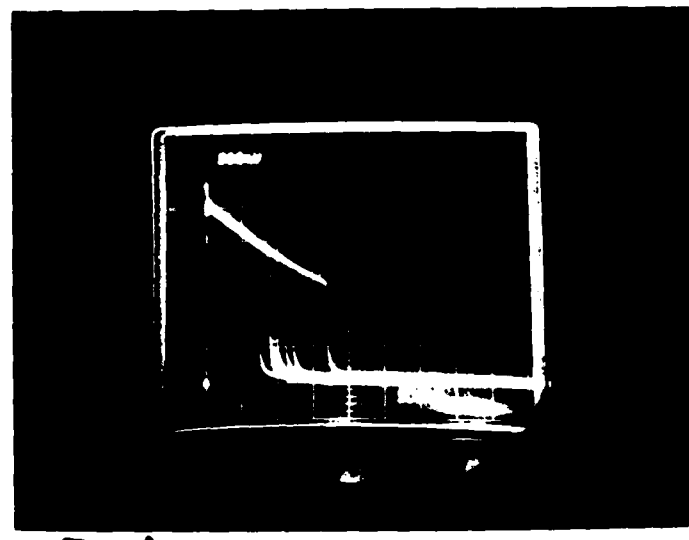


Date 5-24-85  
 Test Point 64-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 203



203

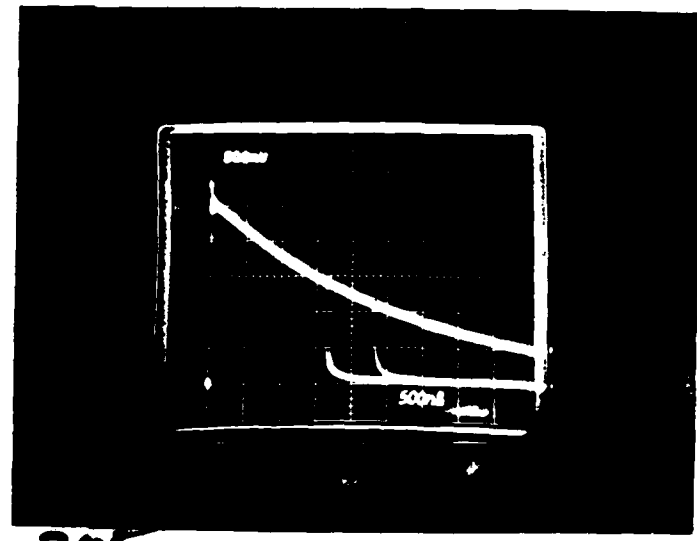
Date 5-24-85  
 Test Point 64R-BL-1/10-C  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 204



204

Date 5-24-85  
 Test Point 64-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

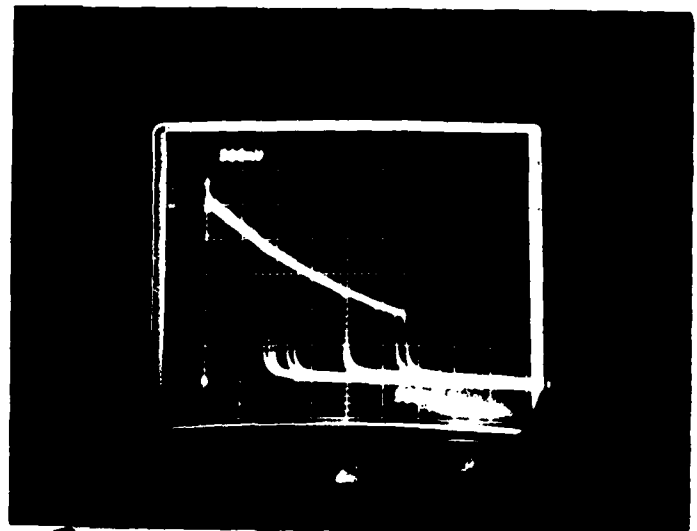
205



205

Date 5-24-85  
 Test Point 64R-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 500 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

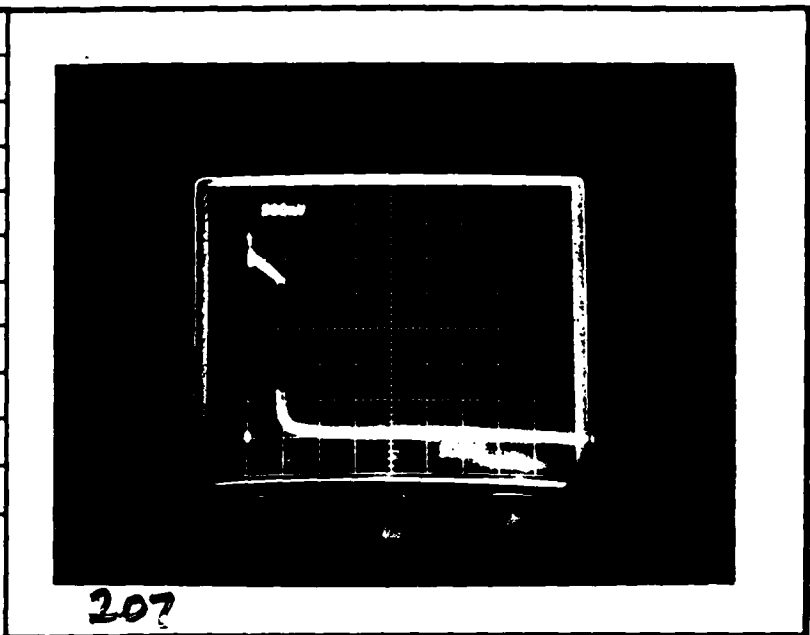
206



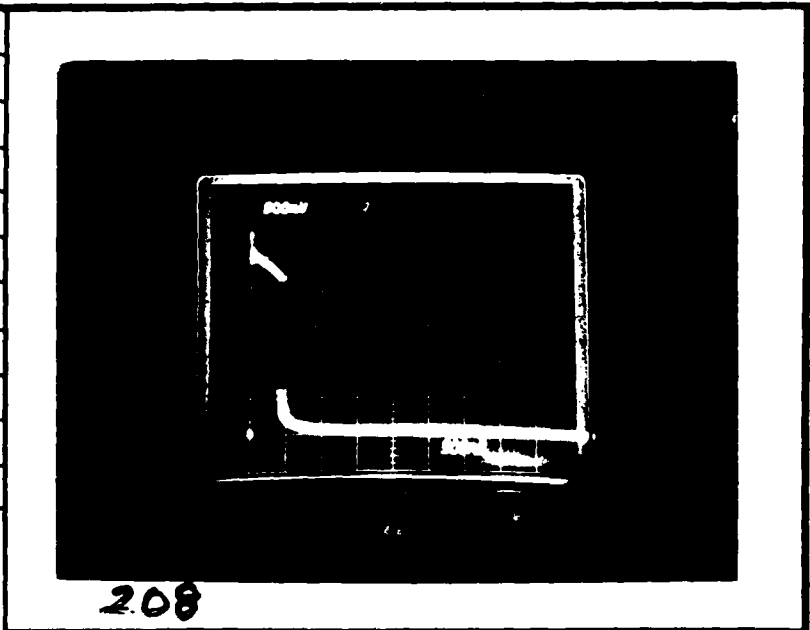
206



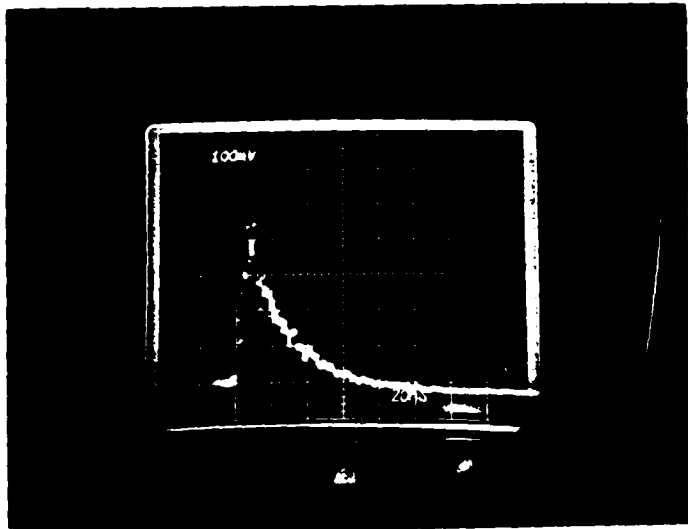
Date	5-24-85
Test Point	64-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	500 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	207



Date	5-24-85
Test Point	64R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	500 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	208

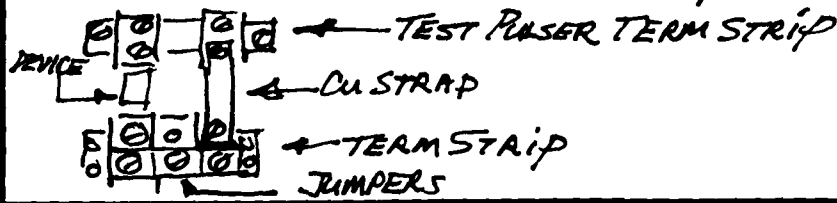


Date	5-28-85
Test Point	70-BL
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.1 (24V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	307

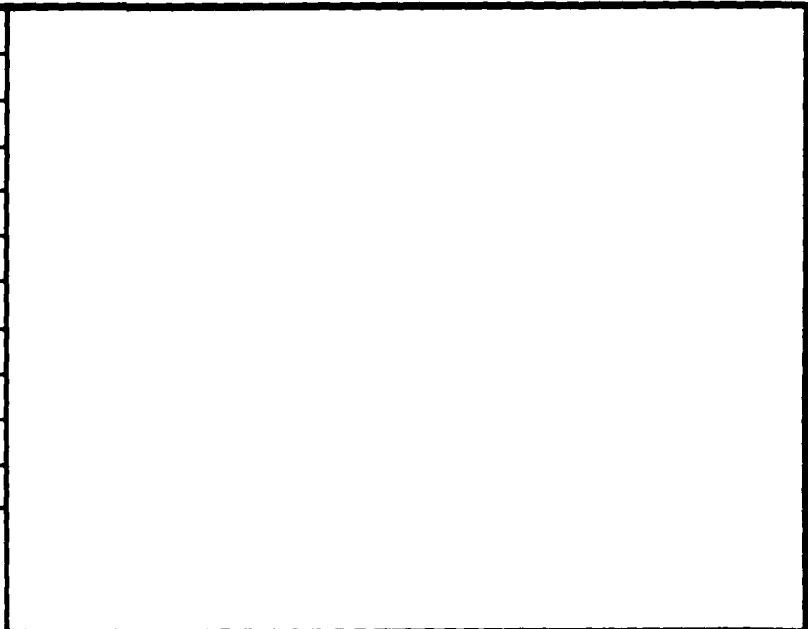


307

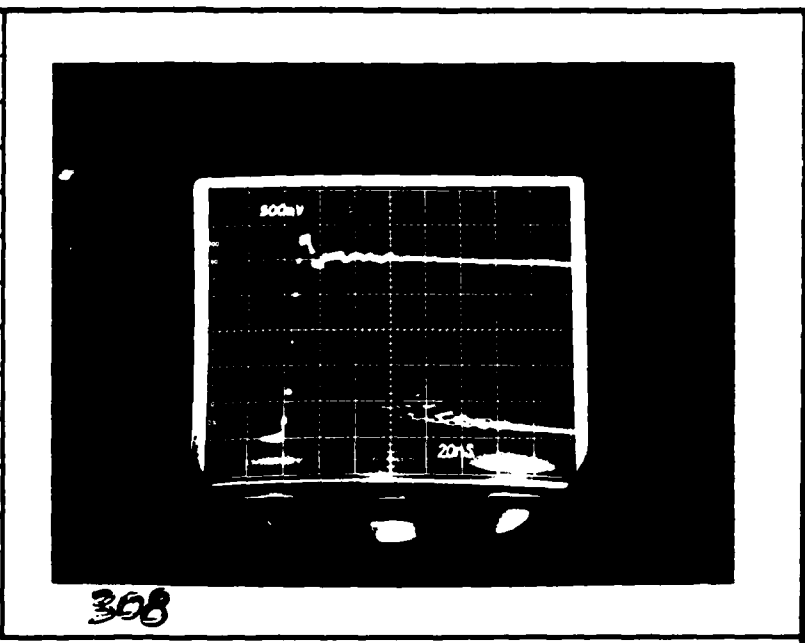
RISE TIME CK WITH TEST ADAPTER FOR SB-C150



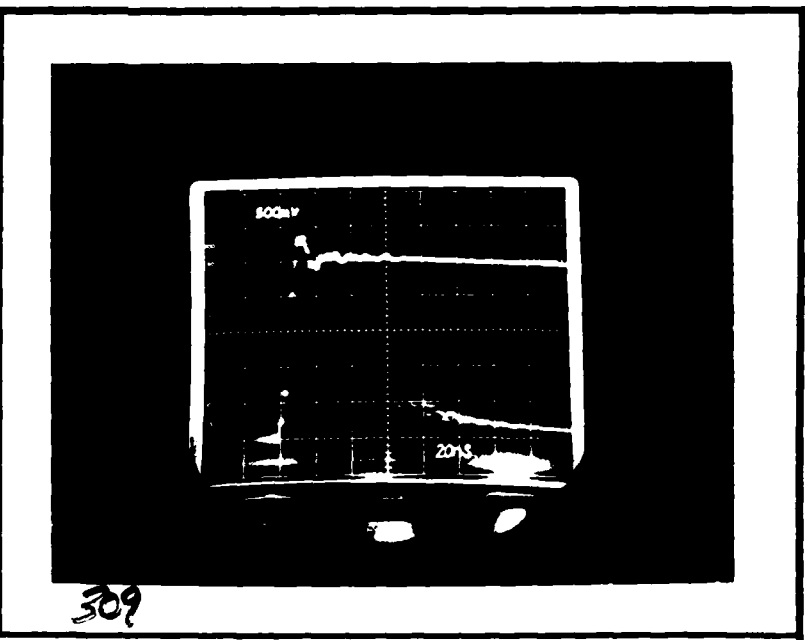
Date	
Test Point	
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	
Comments:	



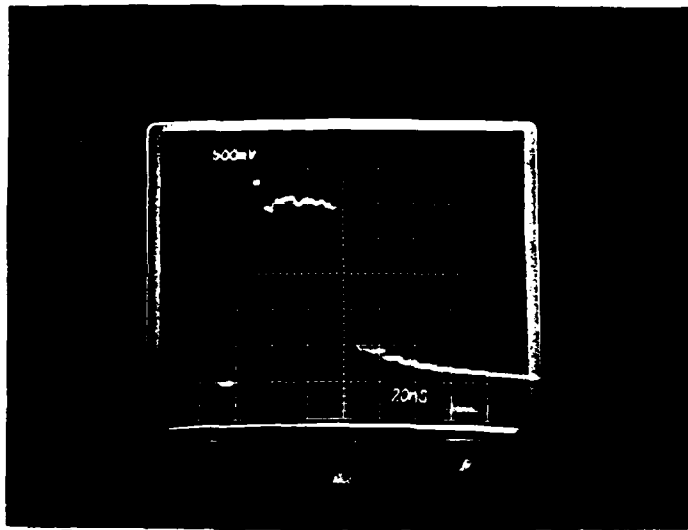
Date	5-28-85
Test Point	70-BL-410-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	308



Date	5-28-85
Test Point	70R-BL-410-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	309

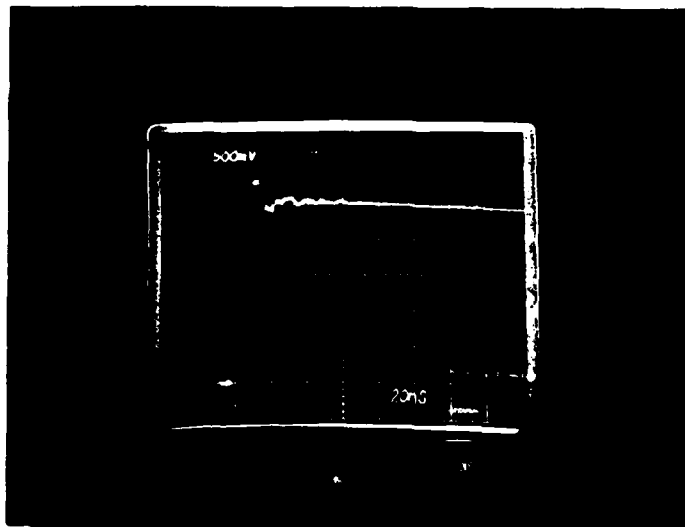


Date	5-28-85
Test Point	70-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(20V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	310



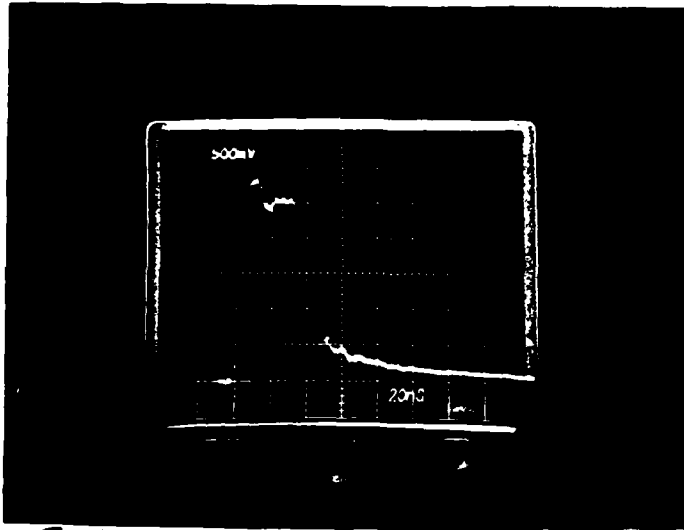
310

Date	5-28-85
Test Point	70R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(20V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	311



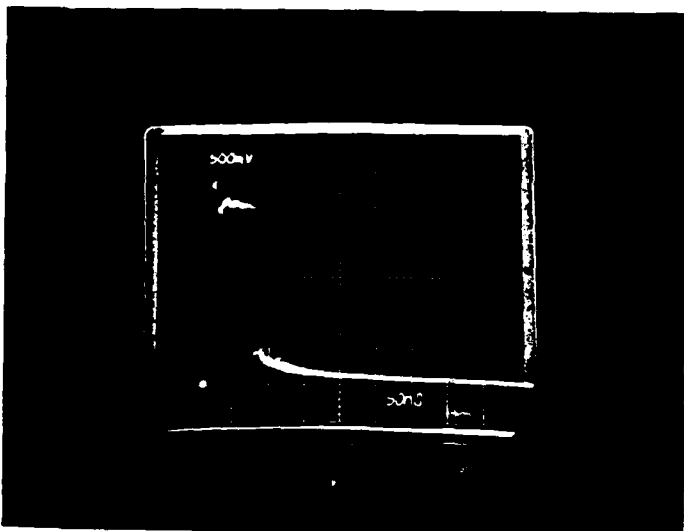
311

Date	5-28-85
Test Point	70-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	312



312

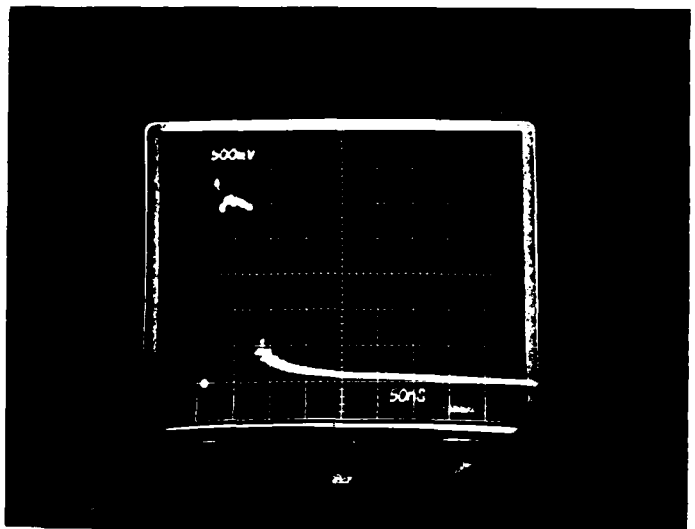
Date	5-28-85
Test Point	70R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	313



313

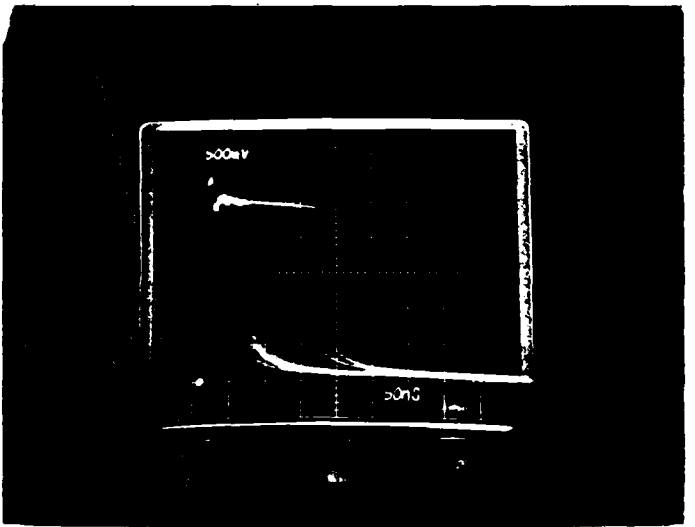
50ND/DIV

Date	5-28-85
Test Point	70-BL-4/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	314



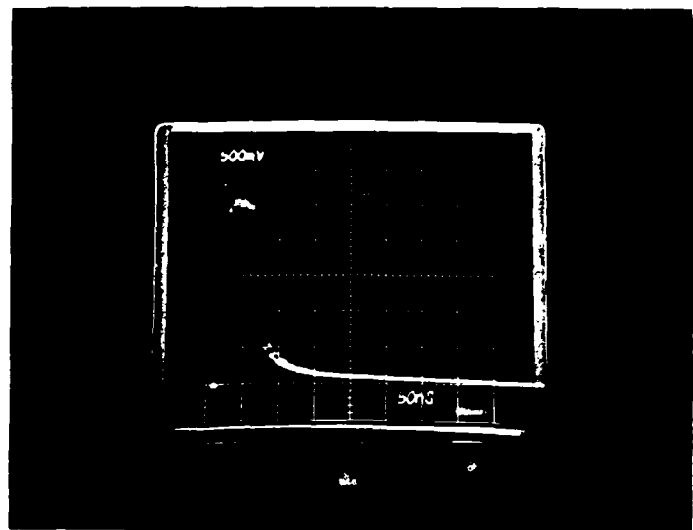
314

Date	5-28-85
Test Point	70R-BL-4/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	315



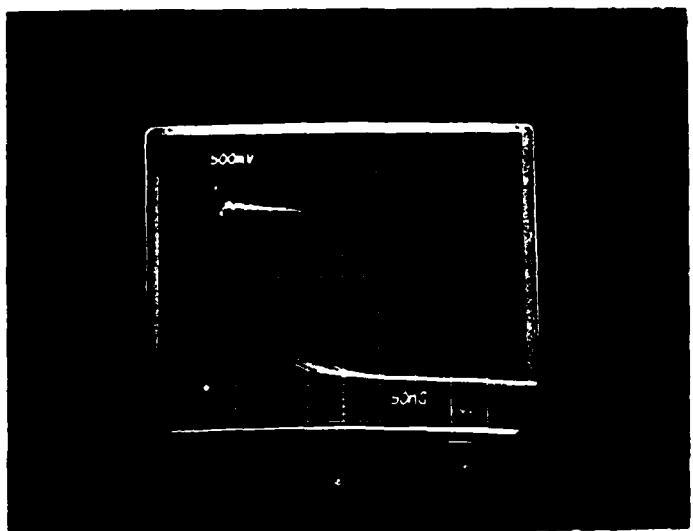
315

Date	5-28-85
Test Point	70-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	316
4 PULSES IN 4 SEC.	



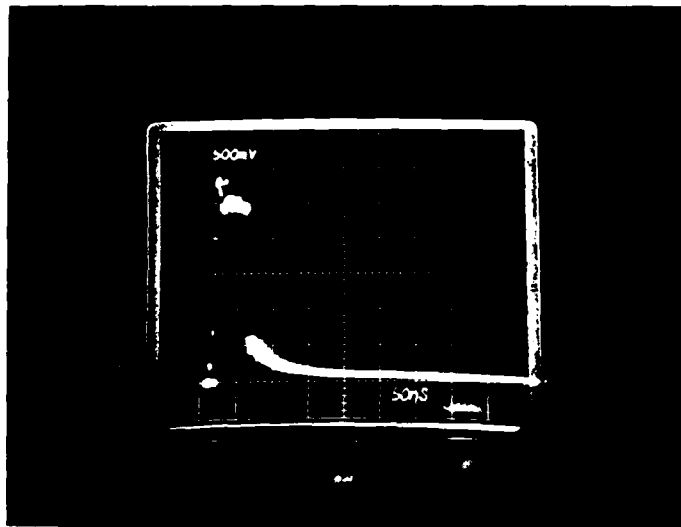
316

Date	5-28-85
Test Point	70R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	317
4 PULSES IN 4 SEC.	



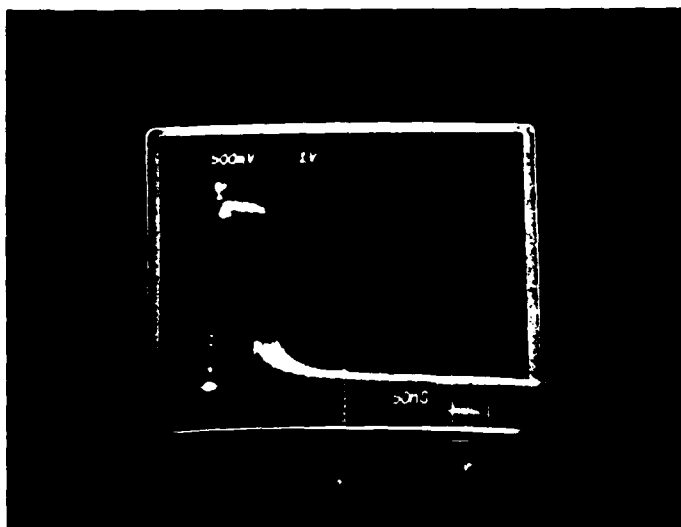
317

Date	5-28-85
Test Point	70-BL-1/10-F
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	318



318

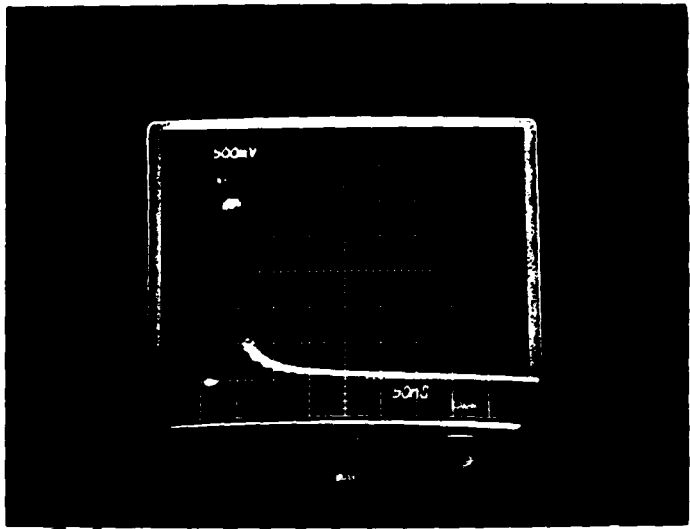
Date	5-28-85
Test Point	70R-BL-1/10-F
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	319



319

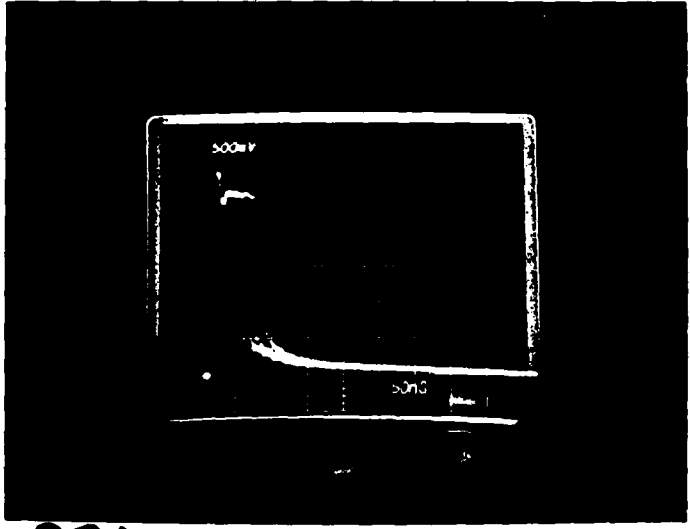


Date 5-28-85  
 Test Point 70-BL-1/0-G  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 320



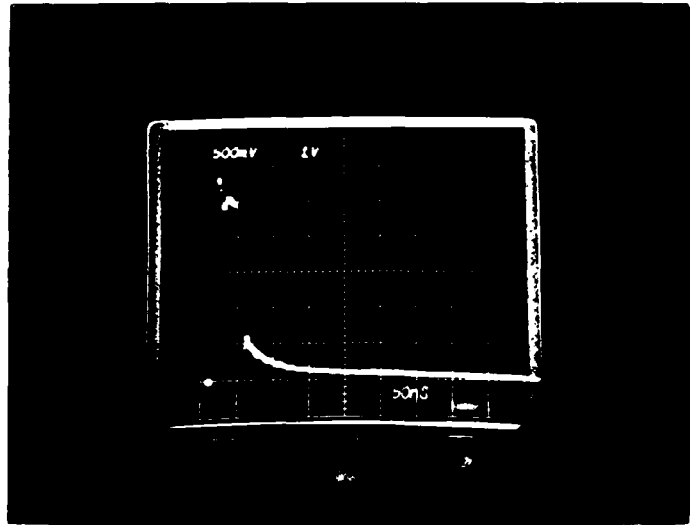
320

Date 5-28-85  
 Test Point 70R-BL-1/0-G  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 321



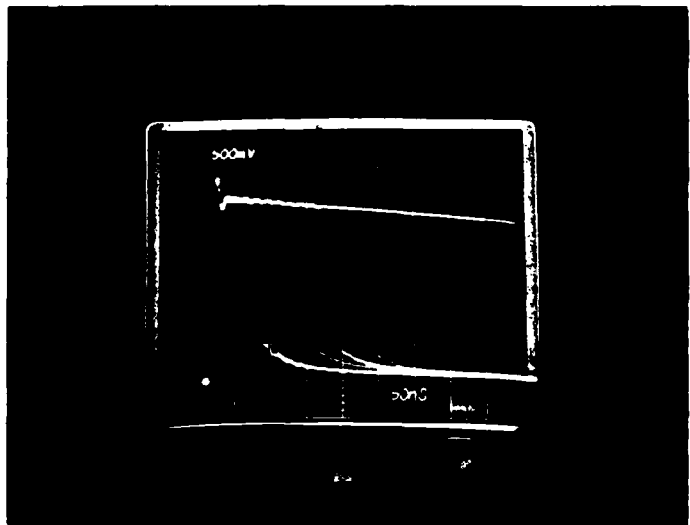
321

Date	5-28-85		
Test Point	70-BL-1/10-H		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	322		



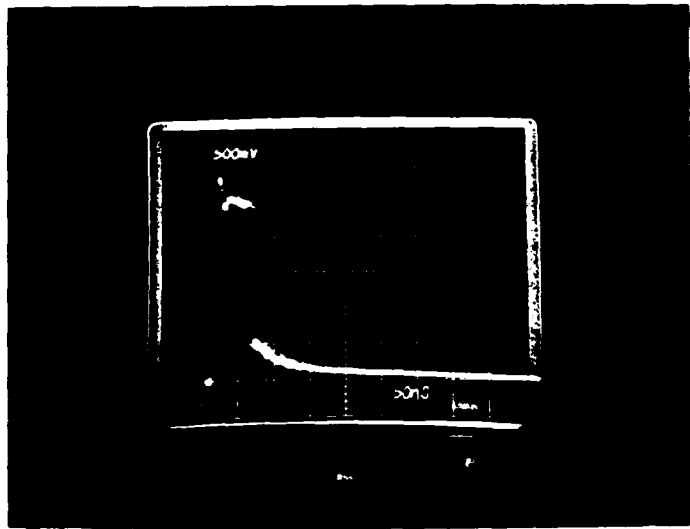
322

Date	5-28-85		
Test Point	70R-BL-1/10-H		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	50	ns/div	1
Vertical	.5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	323		

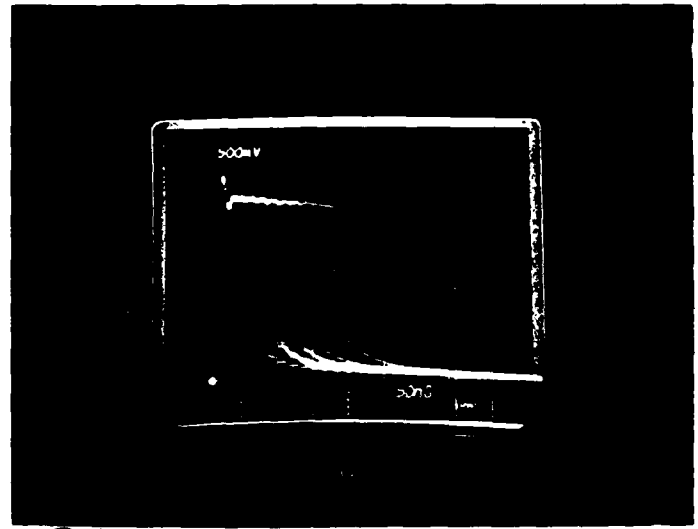


323

Date	5-28-85
Test Point	70-BL-1/10-I
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) <del>100V</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	324

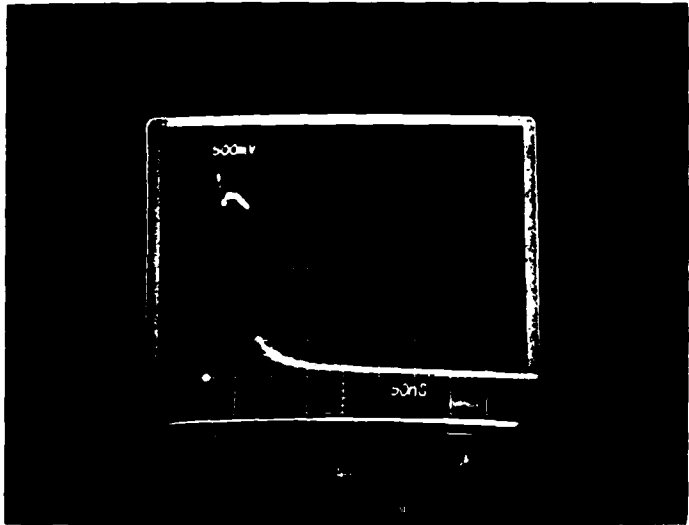


Date	5-28-85
Test Point	70R-BL-1/10-I
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) <del>100V</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	325



Date	5-25-85
Test Point	70-BL-1/10-J
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

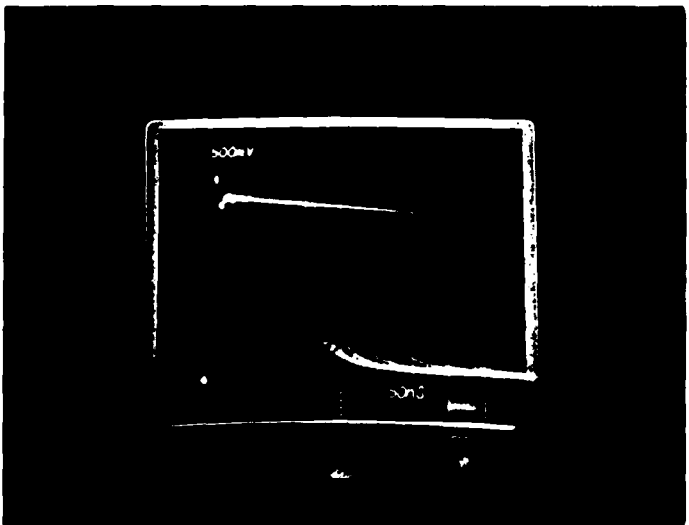
326



326

Date	5-28-85
Test Point	70R-BL-1/10-J
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:	

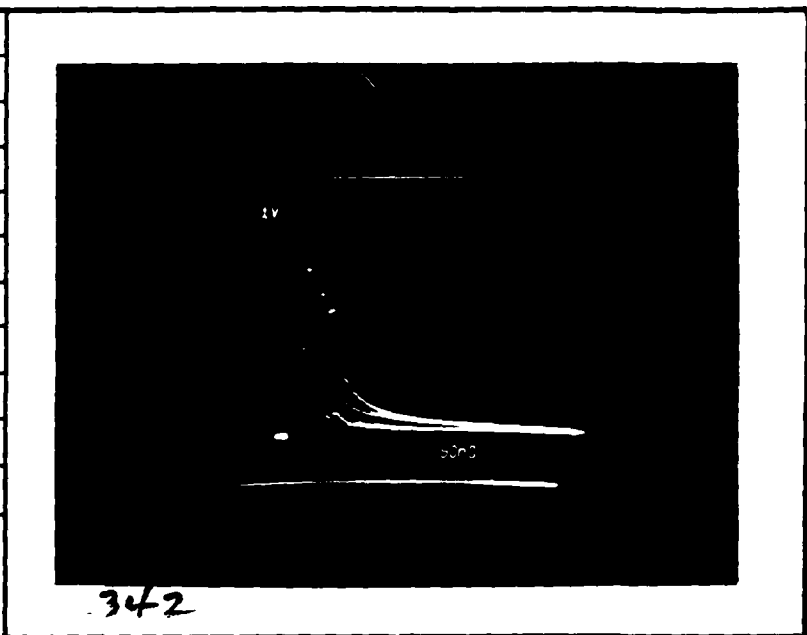
327



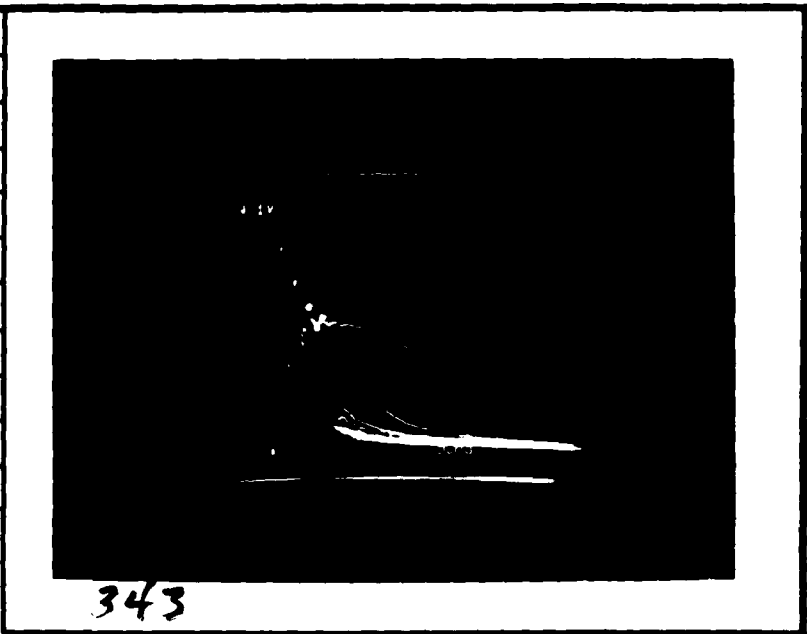
327

5.2 div = 600V (calibrated)  
 1 div = 115.4

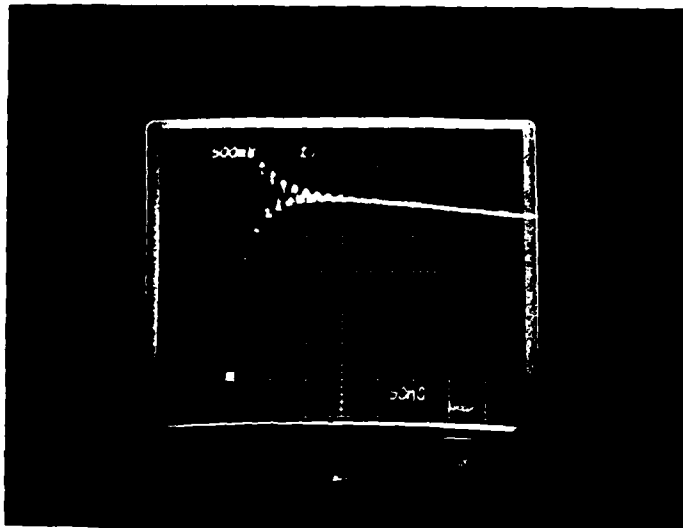
Date	5-29-85
Test Point	74-BL-1/10-Ø
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	1.0V(240V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	+600V
Data Link	
Comments:	342



Date	5-29-85
Test Point	74R-BL-1/10-Ø
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	1.0V(240V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	-600V
Data Link	
Comments:	343



Date	5-29-85
Test Point	
Amplification	- dB
Attenuation	- dB
Horizontal	50 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	+600V
Data Link	
Comments:	



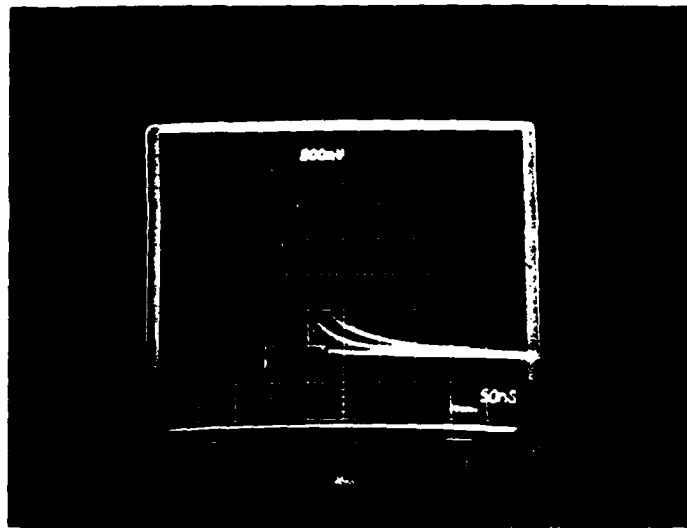
346

346

O-SCOPE CALIBRATION CHECK

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:	

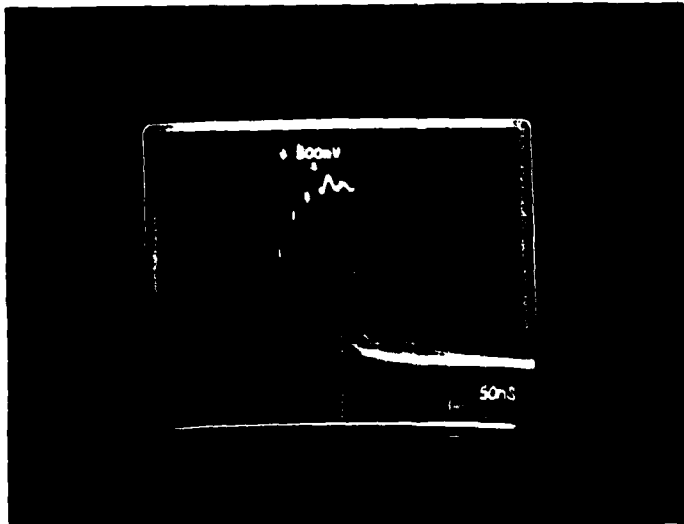
Date	5-29-85
Test Point	74-BL-1/10-Ø
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	+600V
Data Link	
Comments:	#349



349

Date	5-29-85
Test Point	74R-DL-1/10-Ø
Amplification	0 dB
Attenuation	0 dB
Horizontal	50 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	-(20V)
Data Link	
Comments:	#350

INVERT SCOPE



350

## Cal notes

Before Attenuator  
of signal  
used 2.75 divs

after Attenuator  
same input  
used 3.50 divs

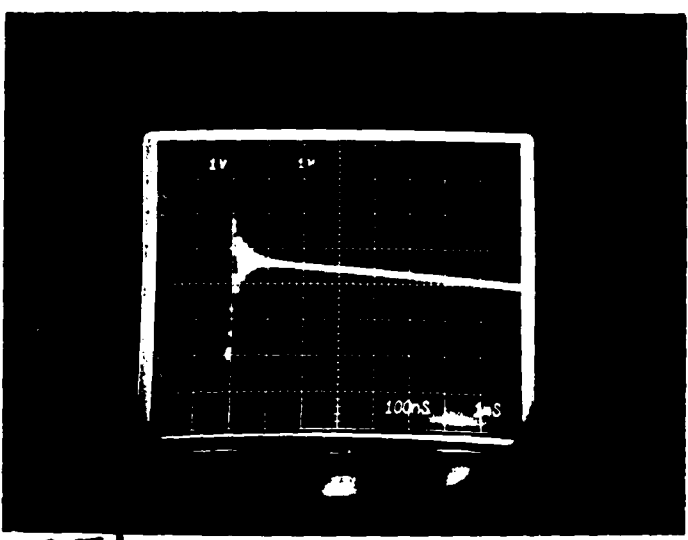
---

error is 2.09 db  
or 127.2 to 100  
or 100 to 78.6



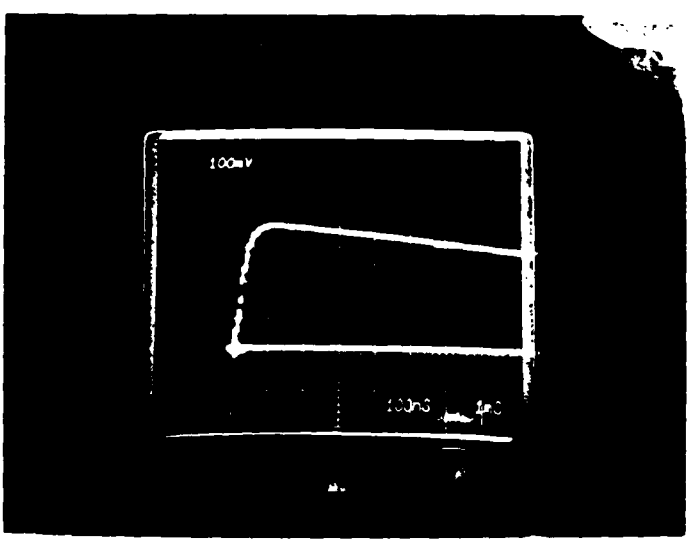
Date 5-29-85  
 Test Point CALIB  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 100 ns/div 1  
 Vertical 1V ~~1V~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

354  
 NO ATTENUATION

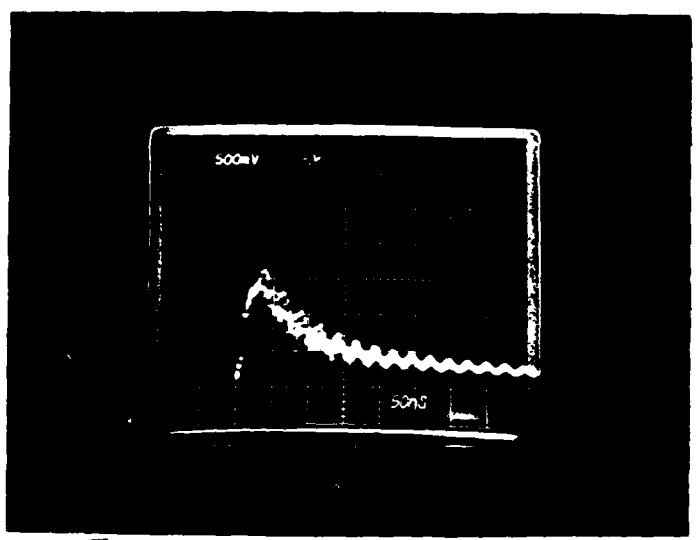


Date  
 Test Point CALIB  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 100 ns/div 1  
 Vertical .1V mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600X  
 Data Link  
 Comments:

355  
 NOTES 1V = 1900V WHEN  
 USING 20 dB ATTEN.  
 MOV IN SIGNAL LINE TO STOP DAMAGE TO SCOPE  
 WITH 20dB ATTN - MULTIPLY BY 78.6% FOR VOLTAGE LEVEL.

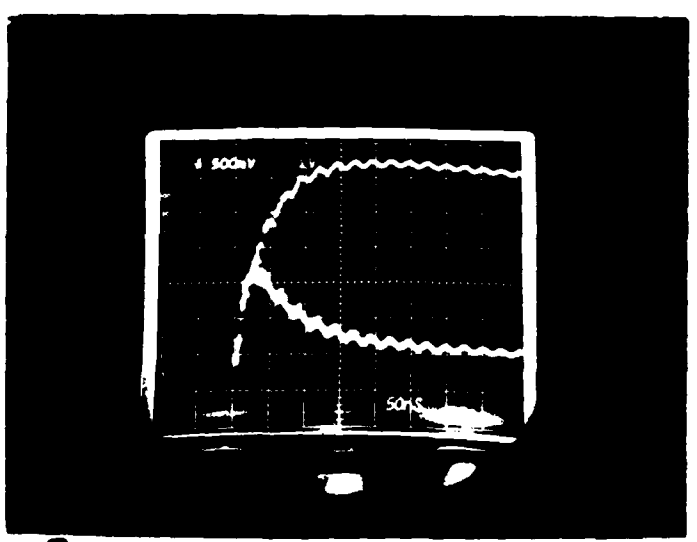


Date 5-29-85  
 Test Point 75-BL-#10-Ø  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (240V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link  
 Comments: # 356



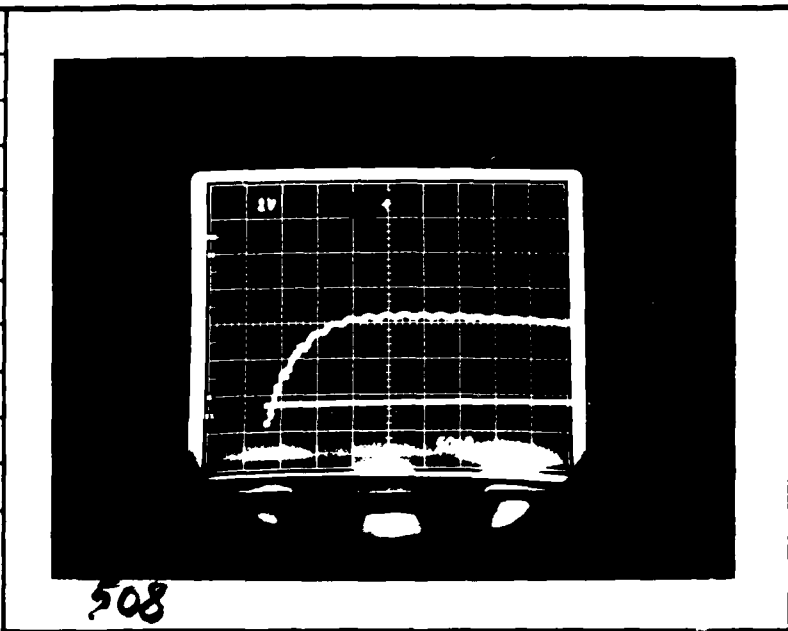
356

Date 5.29-85  
 Test Point 75R-BL-1/10-Ø  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (240V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link  
 Comments: #357  
WITH REF TRACE



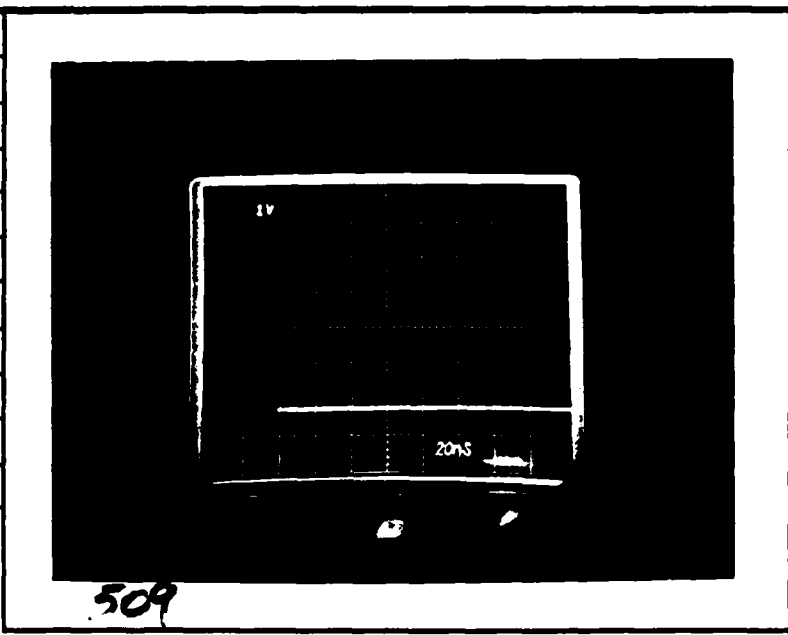
357

Date	5-31-85
Test Point	76-AL-410-Ø
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	1V (190V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	+600V
Comments:	508
	HOT



508

Date	5-31-85
Test Point	76-AL-110 Ø
Amplification	dB
Attenuation	dB
Horizontal	20 ns/div 1
Vertical	1V (190V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	
Data Link	+600V
Comments:	509

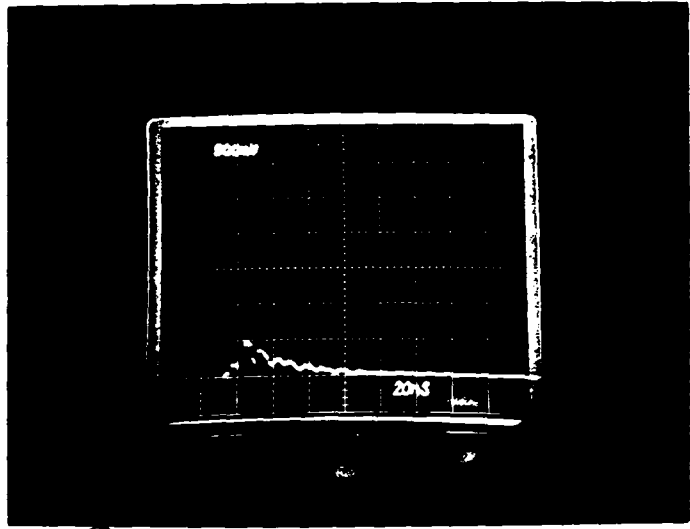


509

NO REF TRACE

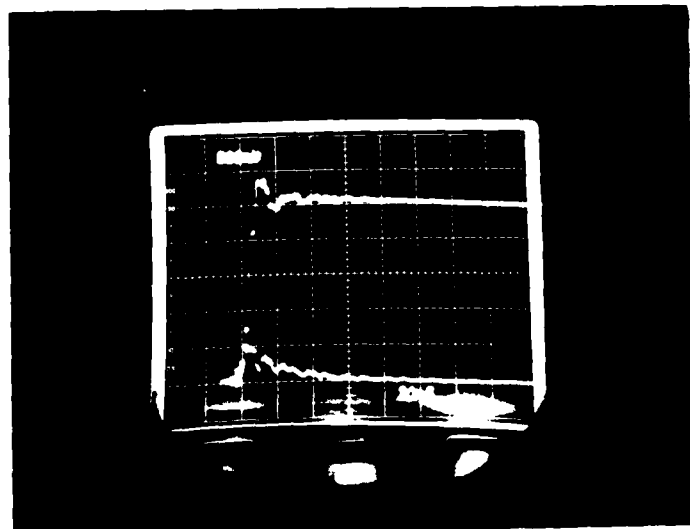
HOT

Date	5-24-85	
Test Point	77-BL-1/10-A	
Amplification	dB	
Attenuation	dB	
Horizontal	20	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulser Level	600V	
Data Link		
Comments:	209	
	USE REF BELOW	



209

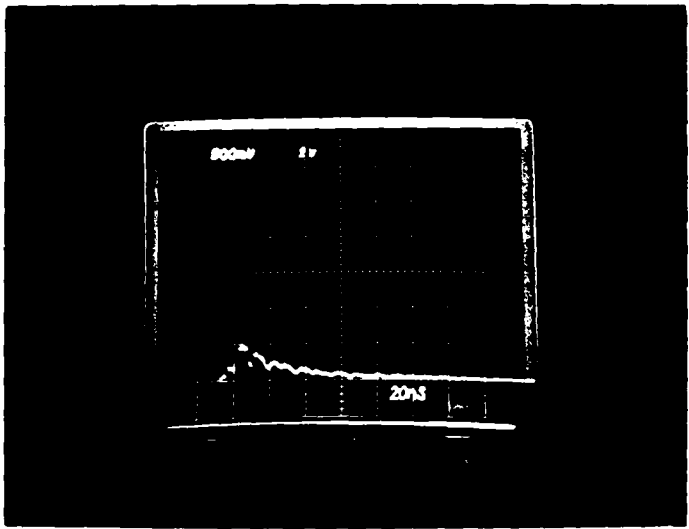
Date	5-24-85	
Test Point	77R-BL-1/10-A	
Amplification	0 dB	
Attenuation	0 dB	
Horizontal	20	ns/div 1
Vertical	.5V (120V)	mV/div 1
Horizontal	ns/div 2	
Vertical	ns/div 2	
Configuration		
Pulser Level	600V	
Data Link		
Comments:	210	



210

Date 5-24-85  
 Test Point 77-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) ~~mv~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

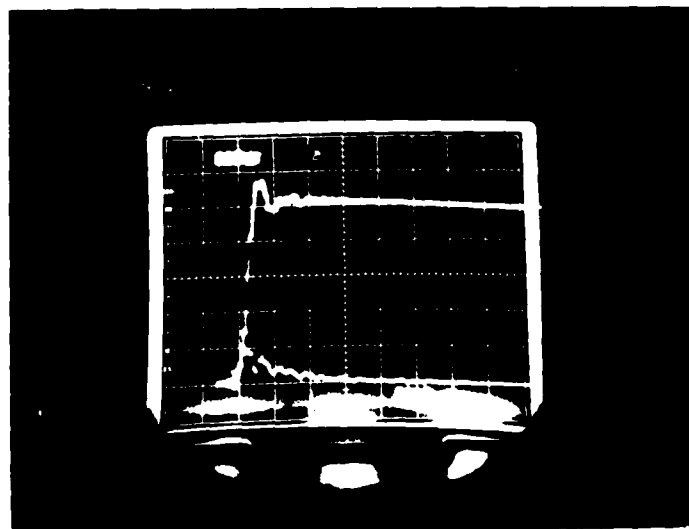
Comments:  
211



211

Date 5-24-85  
 Test Point 77R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) ~~mv~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

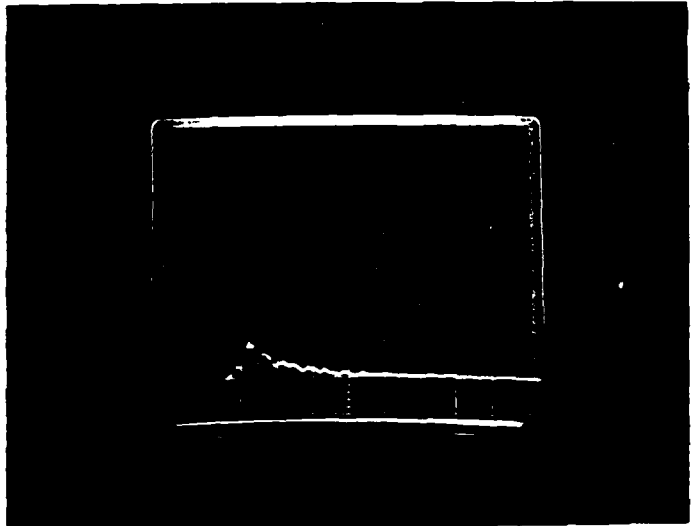
Comments:  
212



212

Date 5-28-85  
 Test Point 77-8L-1/10-C  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

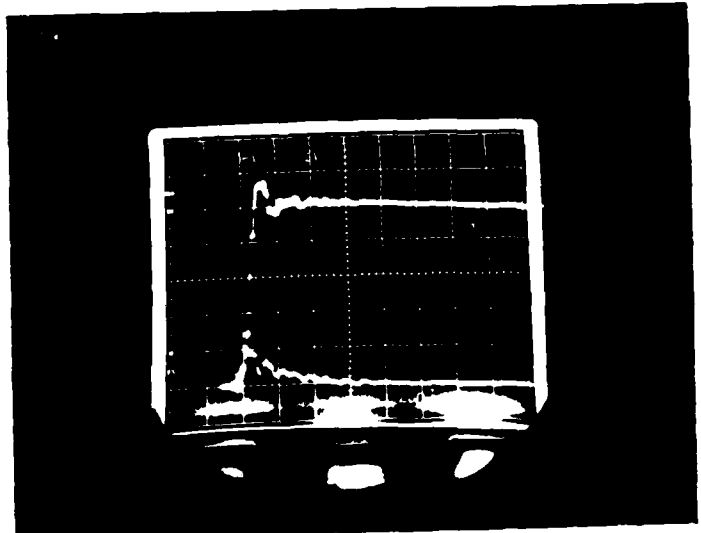
Comments: 213  
NO REF PULSE



213

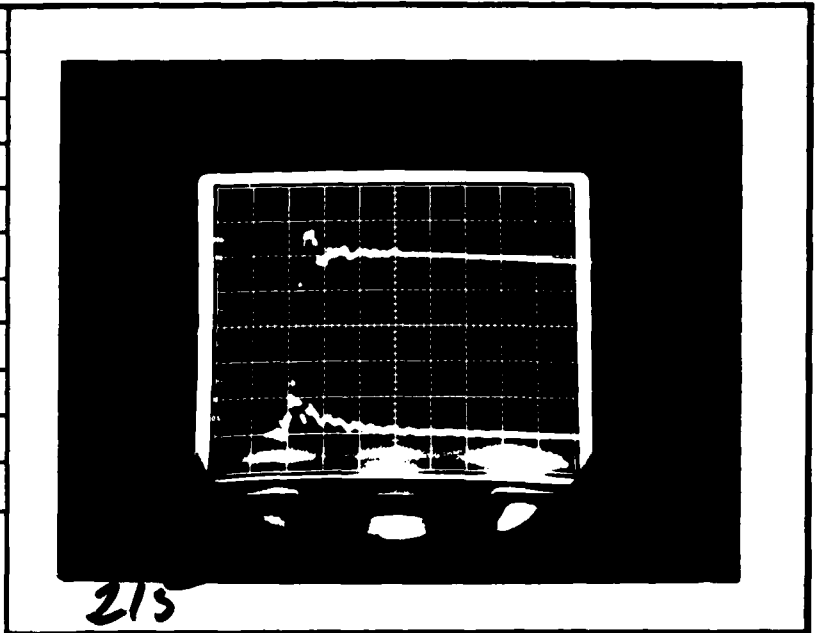
Date 5-28-85  
 Test Point 77R-0L-1/10-C  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link

Comments: 214

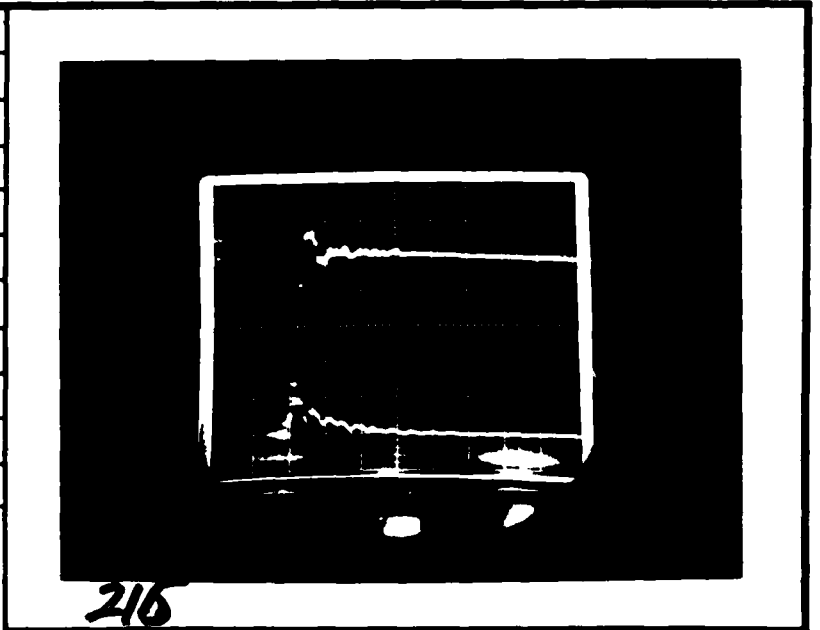


214

Date	5-28-85
Test Point	77-0L-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	215

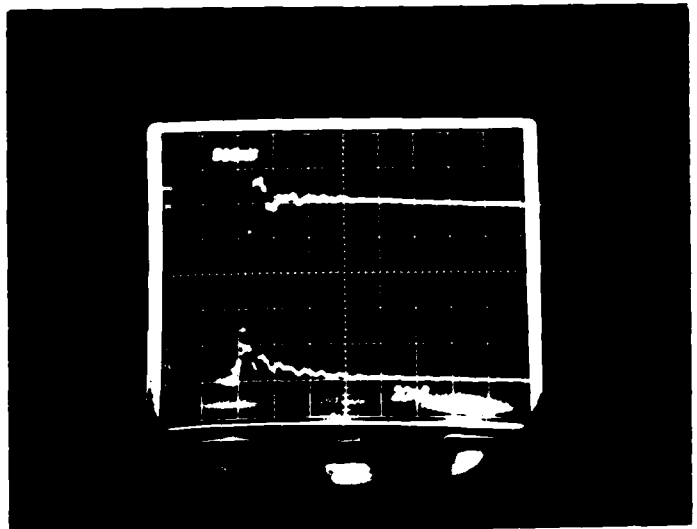


Date	5-28-85
Test Point	77R-0L-4/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	216



Date	5-28-85
Test Point	77-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	

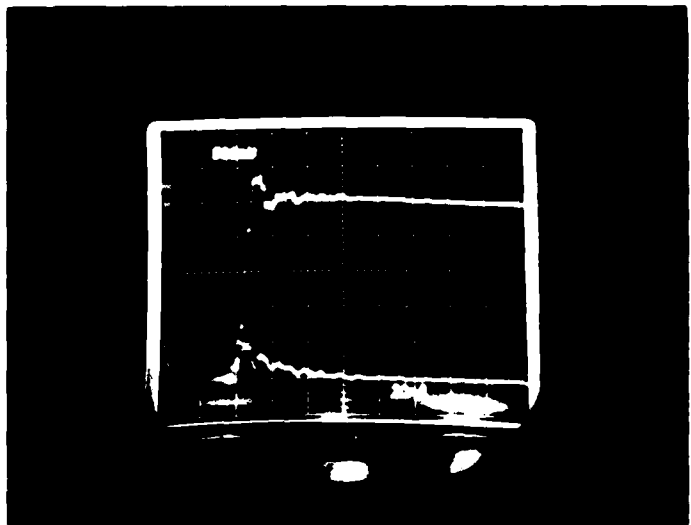
Comments: 217



217

Date	5-28-85
Test Point	77R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	

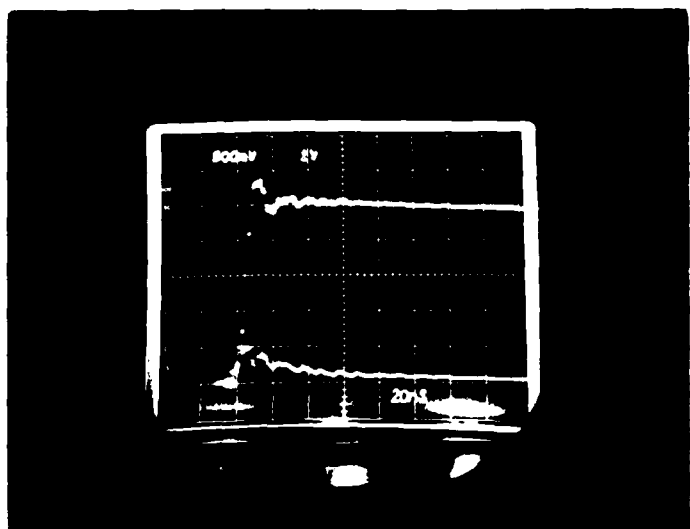
Comments: 218



218

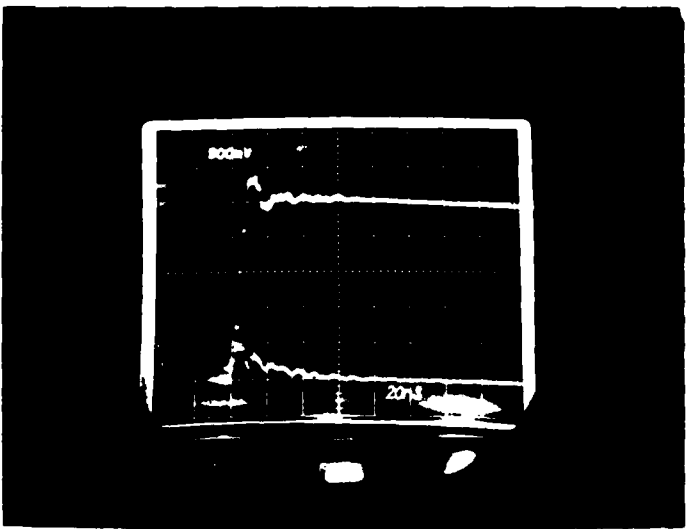


Date 5-28-85  
 Test Point 80-BL-1/10-A  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 219



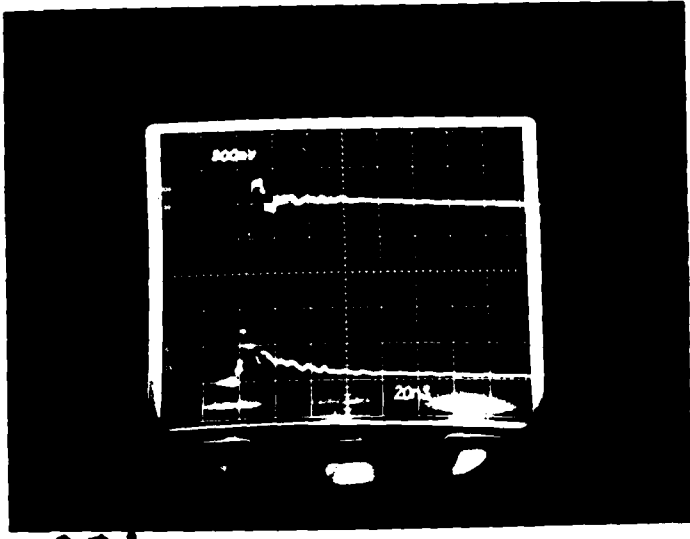
219

Date 5-28-85  
 Test Point 80R-BL-1/10 A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 220



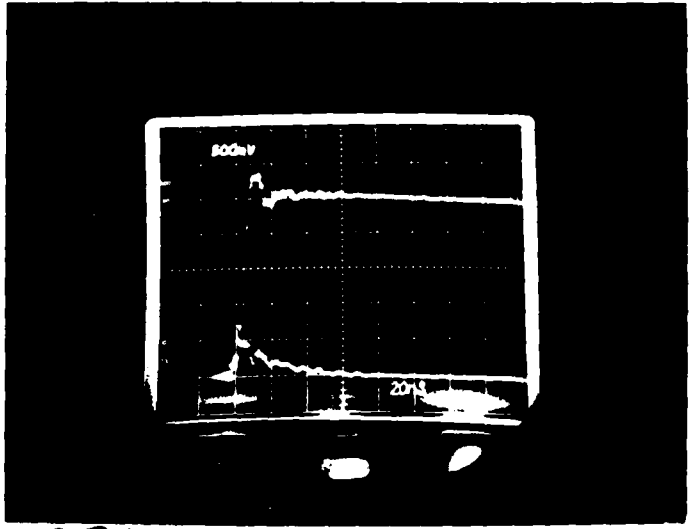
220

Date	5-28-85
Test Point	80-BL- 1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	221



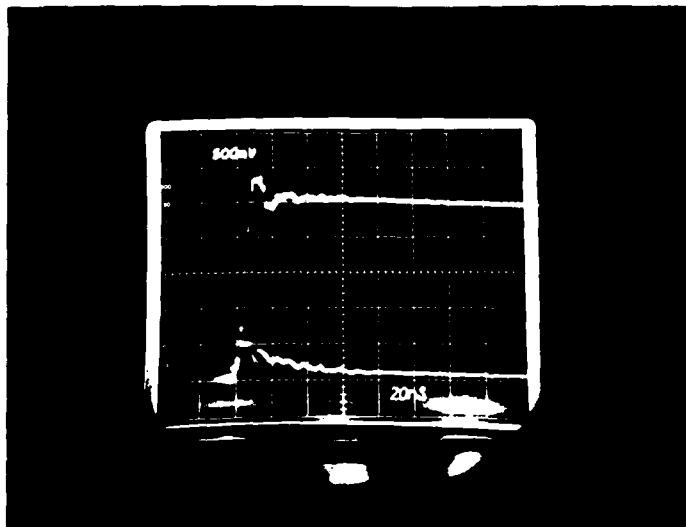
221

Date	5-28-85
Test Point	80-BL- 1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	222



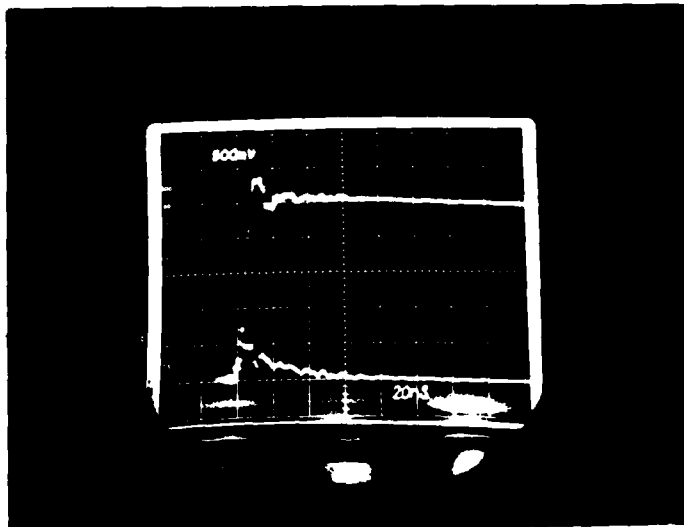
222

Date **5-28-85**  
 Test Point **80-BL-410-c**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **223**



**223**

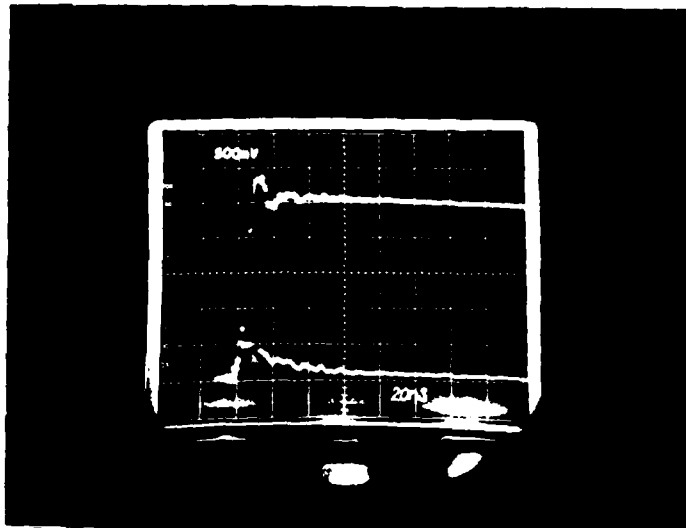
Date **5-28-85**  
 Test Point **80R-BL-110c**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600**  
 Data Link  
 Comments: **224**



**224**

Date	5-28-85
Test Point	80-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

225

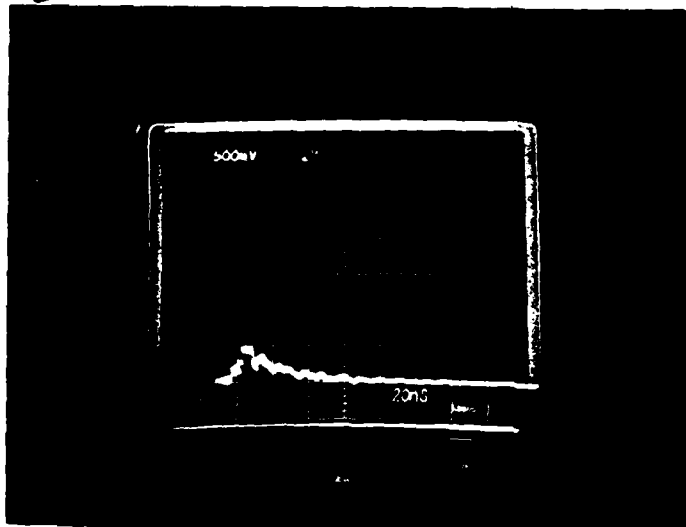


225

Date	5-28-85
Test Point	80R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	

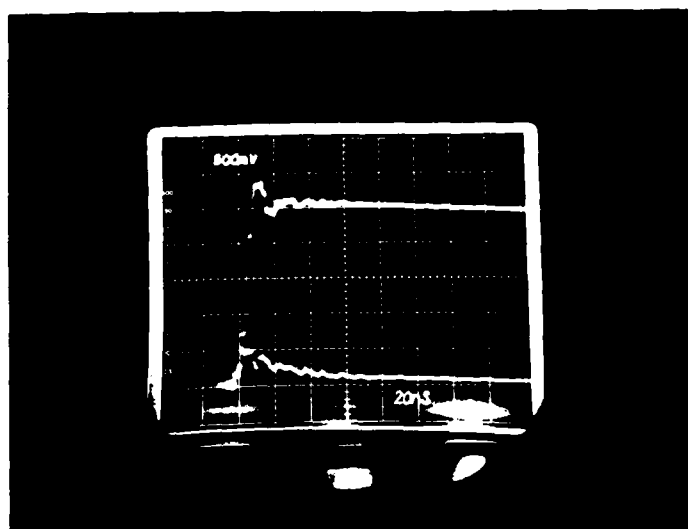
226

No Ref.



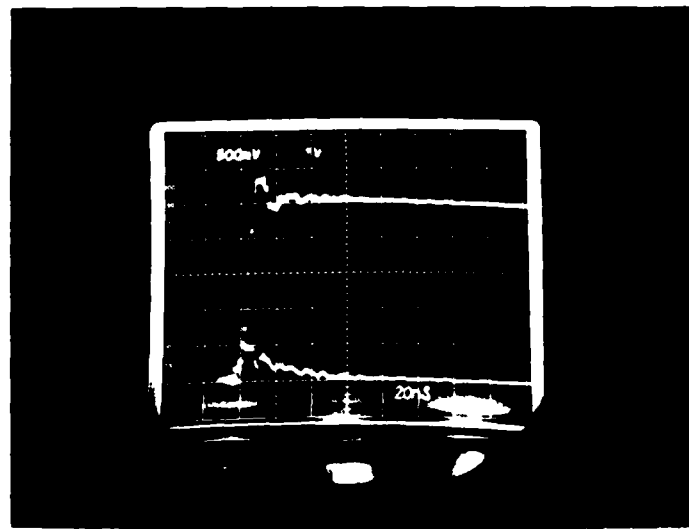
226

Date **5-28-85**  
 Test Point **80-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** **1** /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **227**



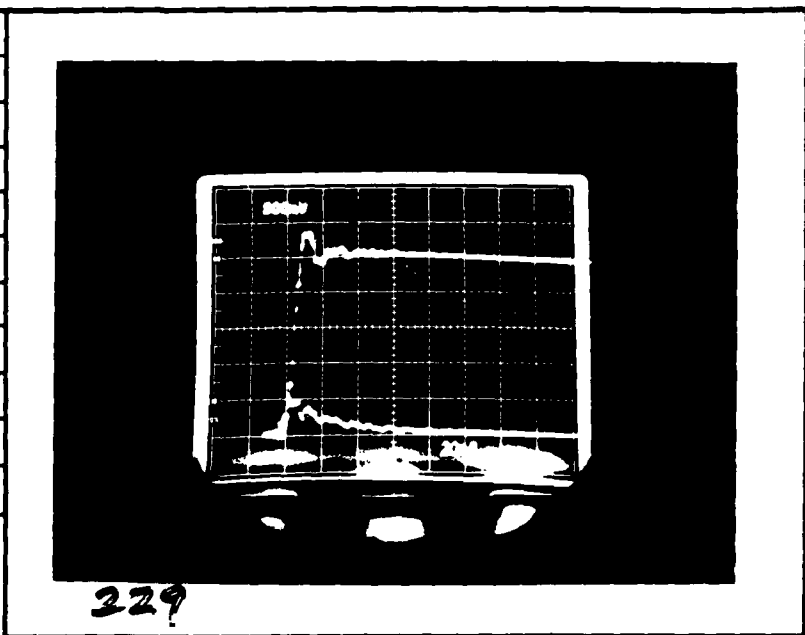
227

Date **5-28-85**  
 Test Point **80R-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** **1** /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **228**

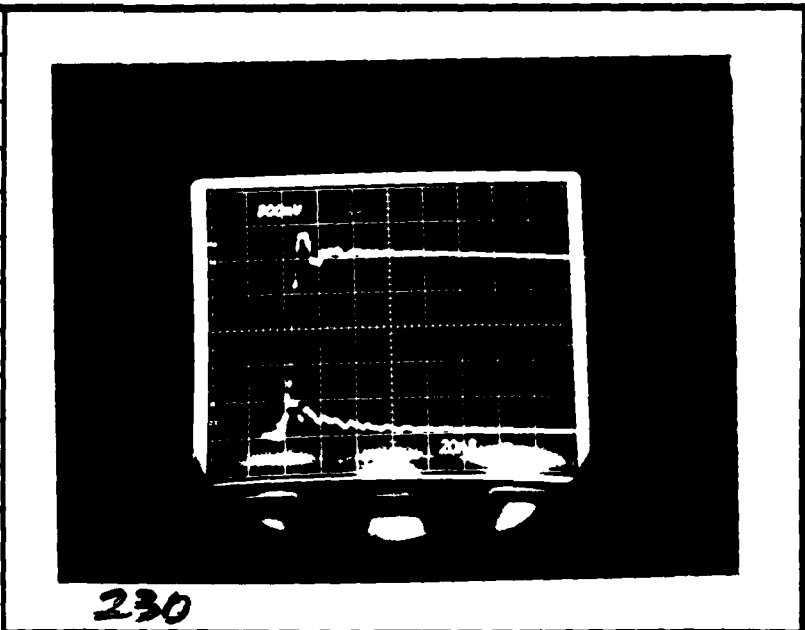


228

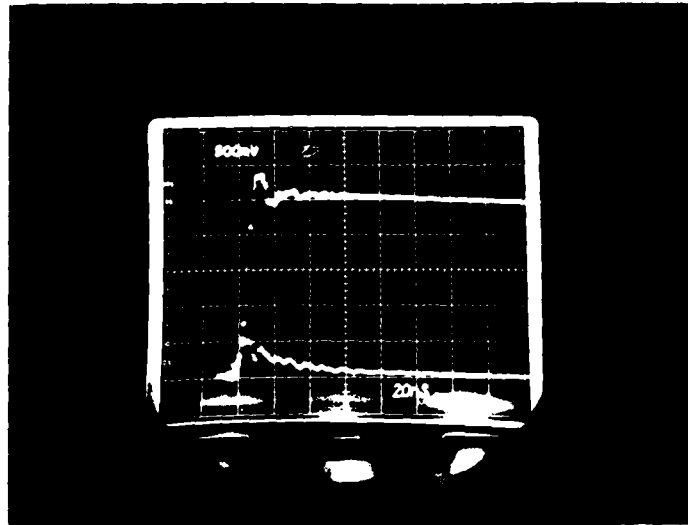
Date	5-28-85		
Test Point	83-BL-1/10-A		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	20	ns/div	1
Vertical	.5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	229		



Date	5-28-85		
Test Point	83R-BL-1/10-A		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	20	ns/div	1
Vertical	.5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	230		

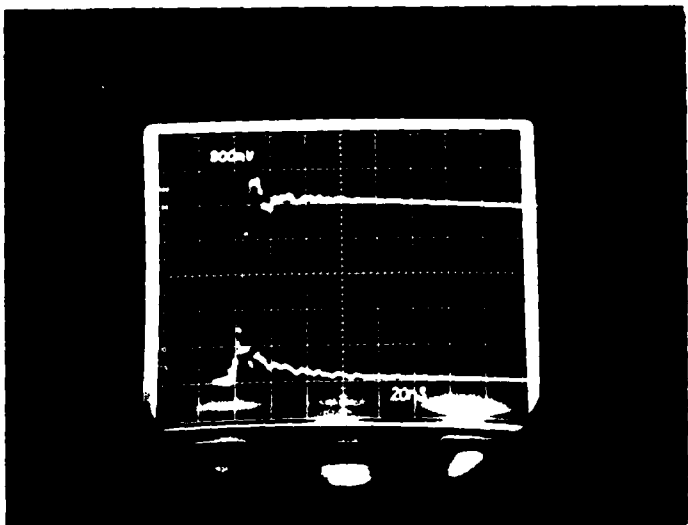


Date 5-28-85  
 Test Point 83-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V (120V) ns/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 231



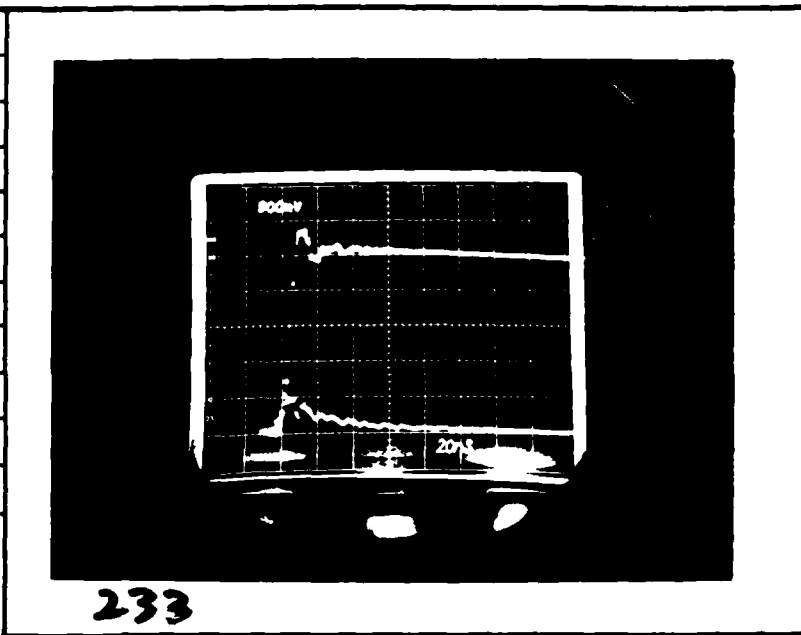
231

Date 5-28-85  
 Test Point 85R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 232

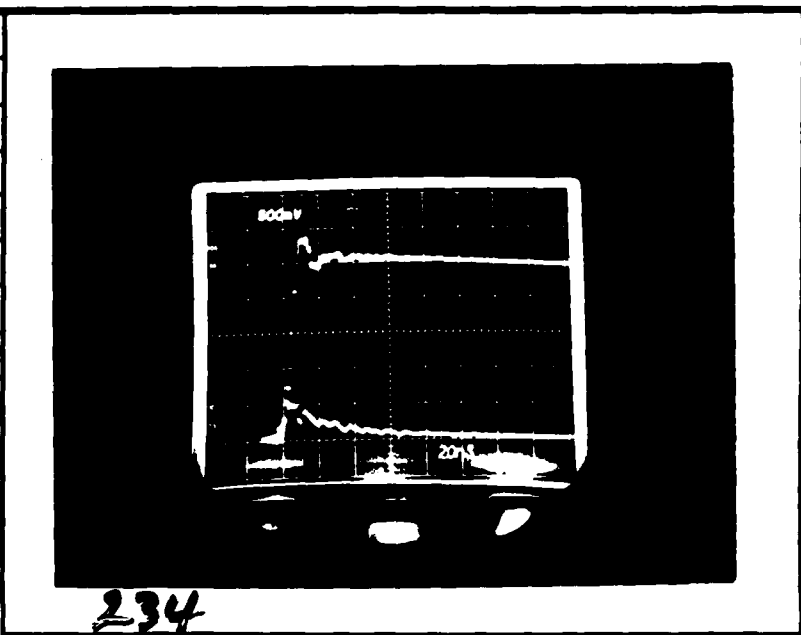


232

Date	5-28-85
Test Point	83-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	233

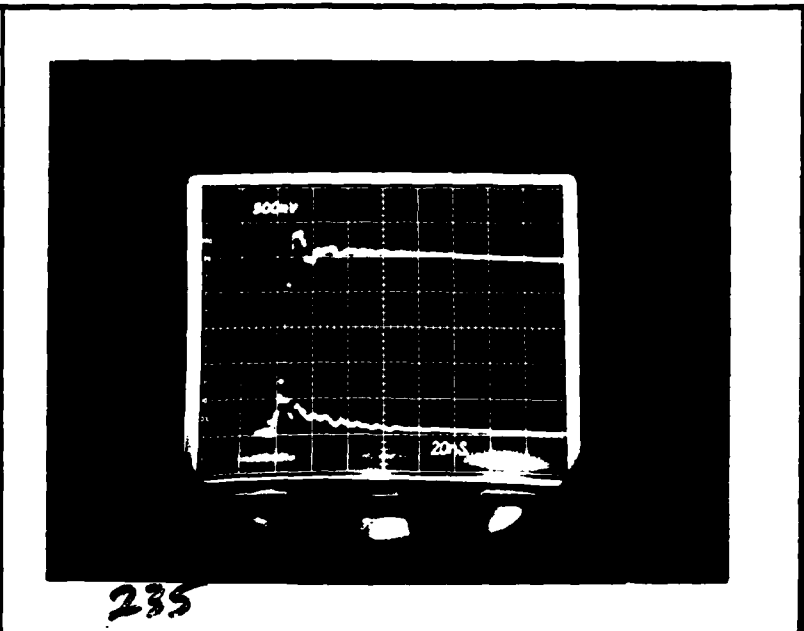


Date	5-28-85
Test Point	83R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	234

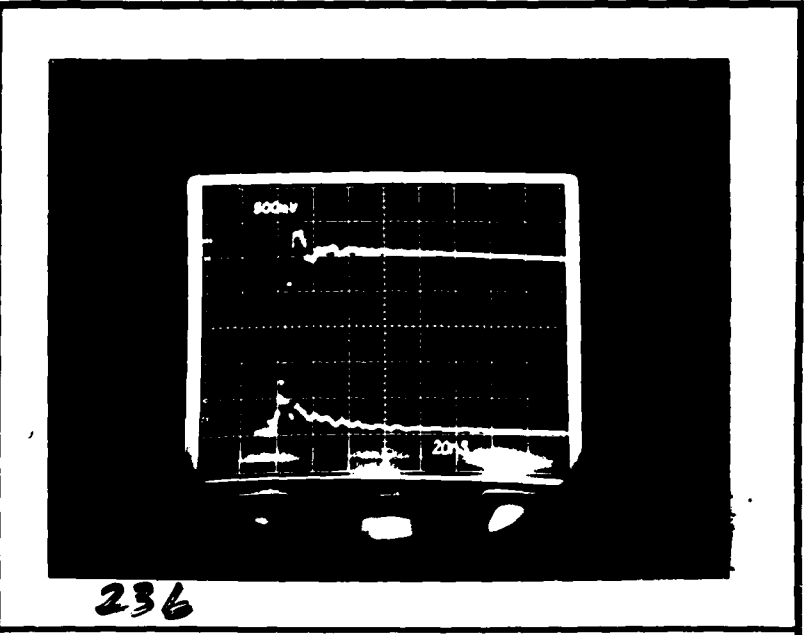




Date	5-28-85
Test Point	83-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) <del>100</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Lnk	
Comments:	235

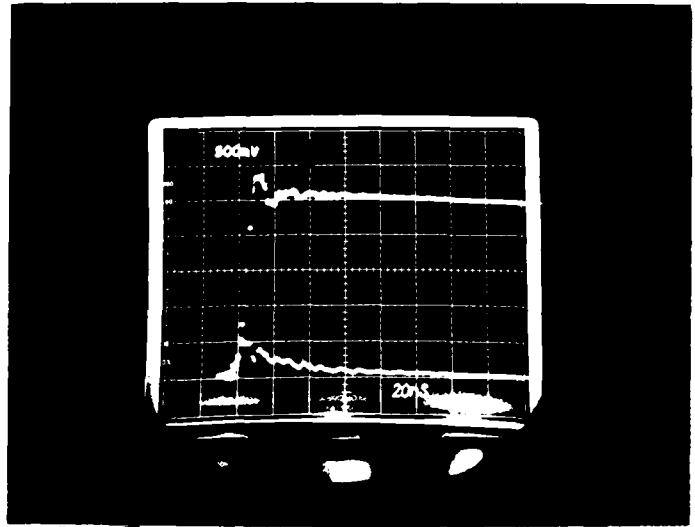


Date	5-28-85
Test Point	83R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) <del>100</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Lnk	
Comments:	236



Date **5-28-85**  
 Test Point **83-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

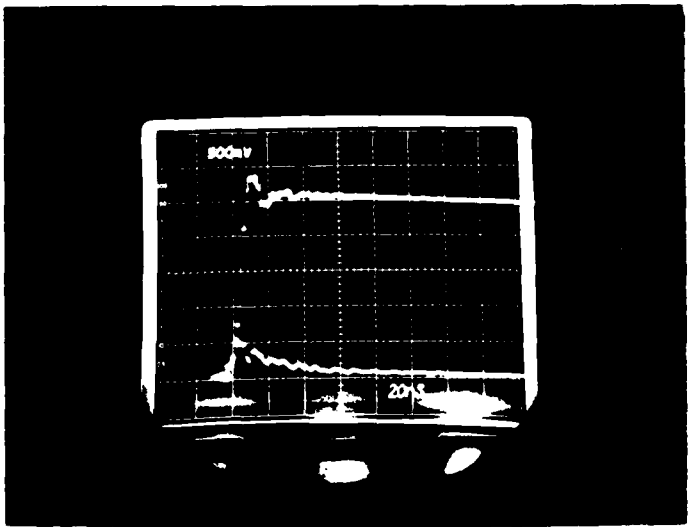
Comments: **237**



**237**

Date **5-28-85**  
 Test Point **83R-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

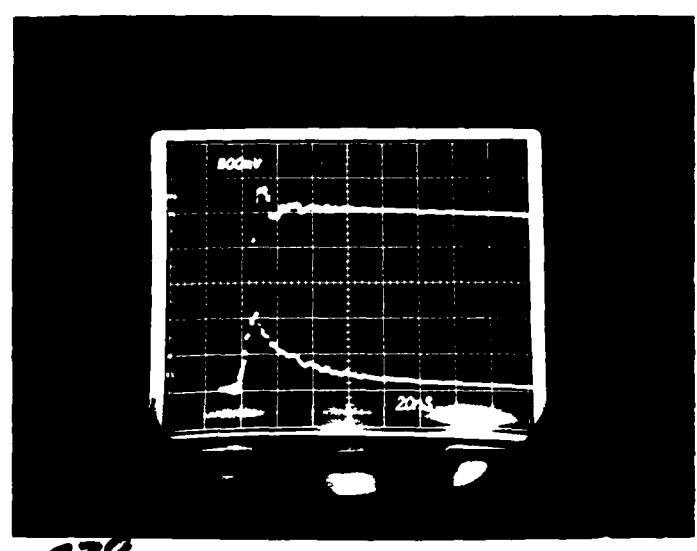
Comments: **238**



**238**

Date **5-28-85**  
 Test Point **86-BL-110-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

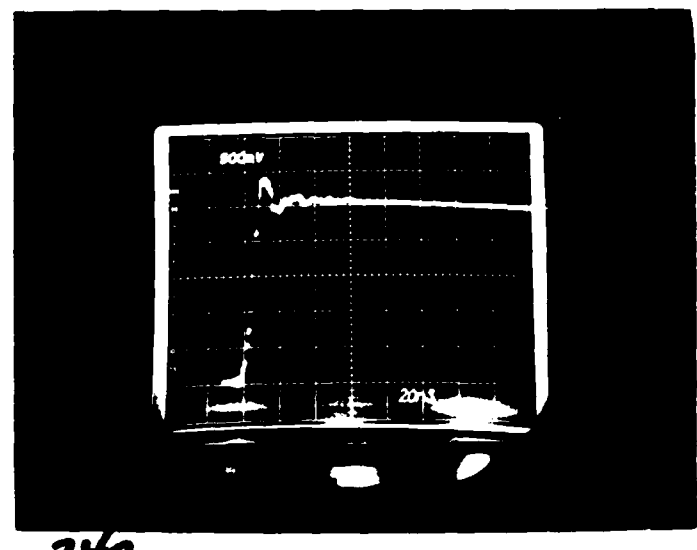
**239**



**239**

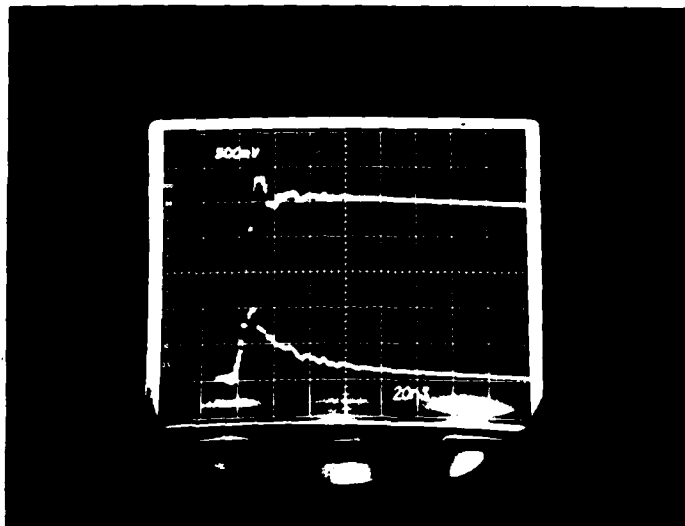
Date **5-28-85**  
 Test Point **86R-BL-110-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

**240**



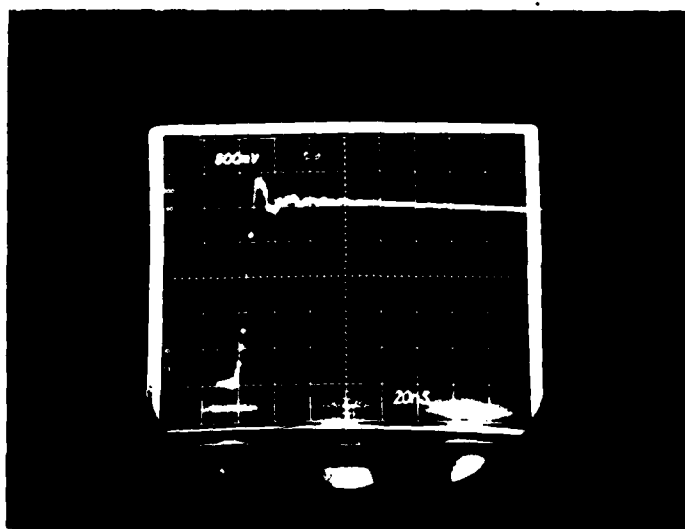
**240**

Date	5-28-85
Test Point	86-BL-110-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) 100/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	241



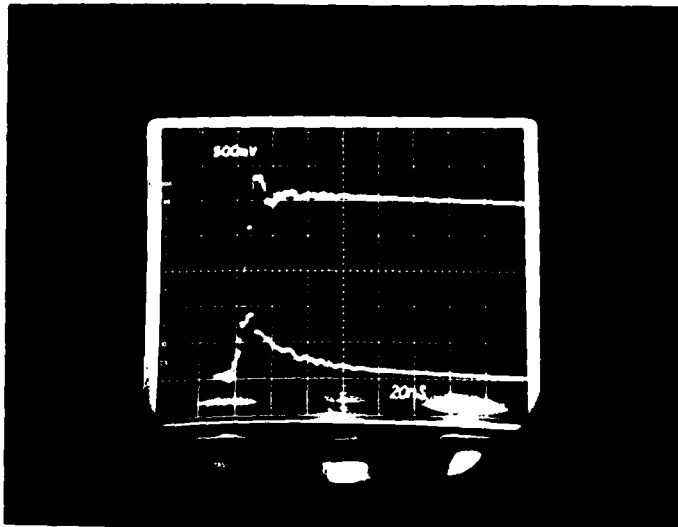
241

Date	5-28-85
Test Point	86R-BL-110-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) 100/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	242



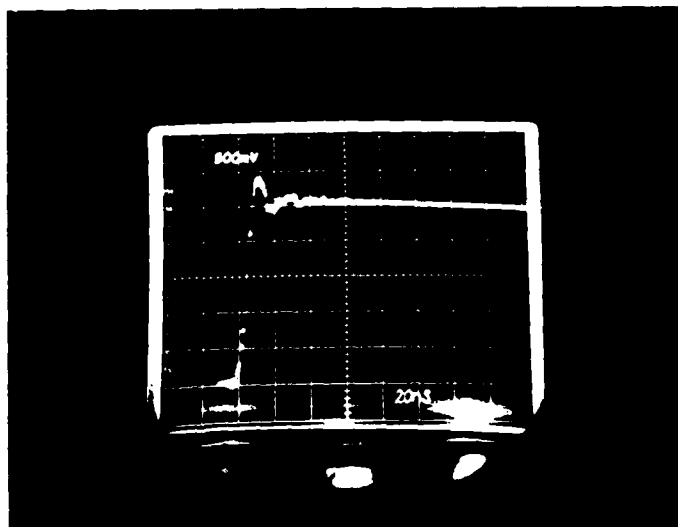
242

Date	5-28-85
Test Point	86-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) <del>mV</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	243



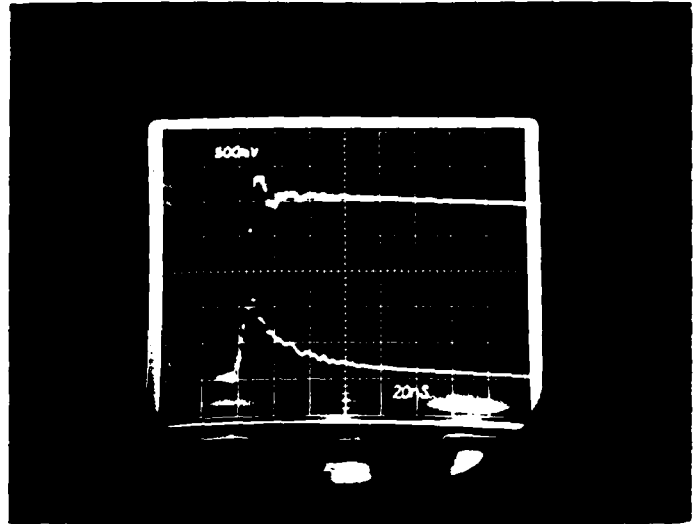
243

Date	5-28-85
Test Point	86R-RL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) <del>mV</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	244



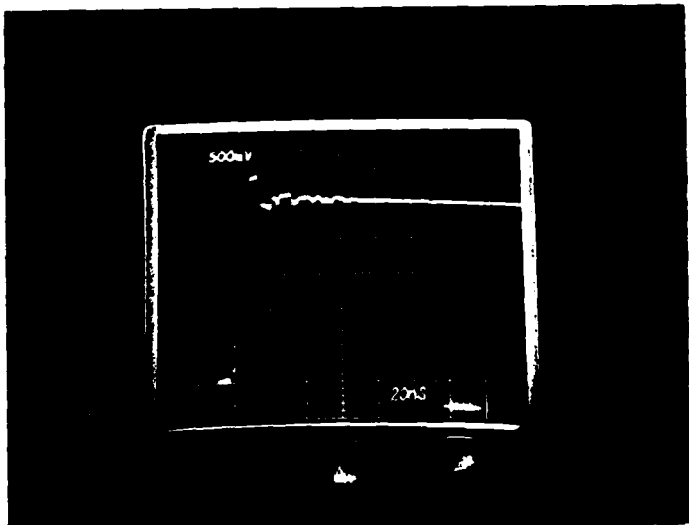
244

Date	5-28-85
Test Point	86-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) <del>ms</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	245



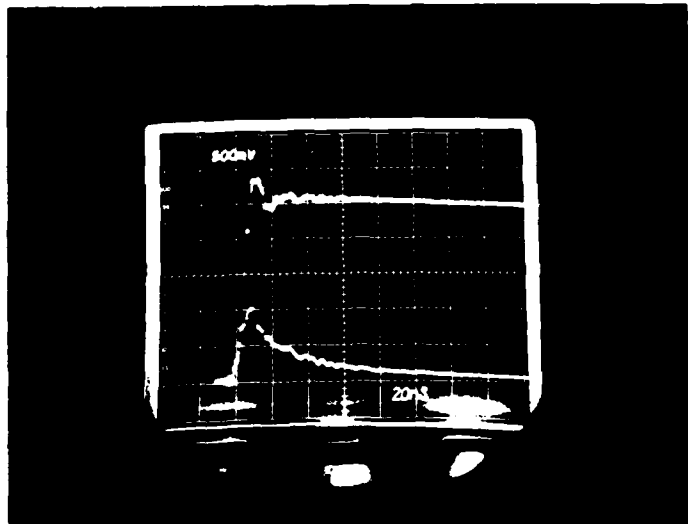
245

Date	5-28-85
Test Point	86R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) <del>ms</del> /div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	246



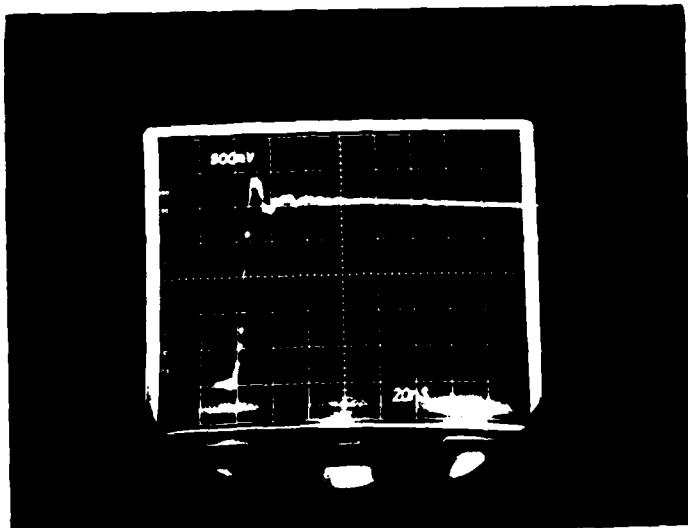
246

Date **5-28-85**  
 Test Point **86-BL-110-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** **1** **1** /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **247**



**247**

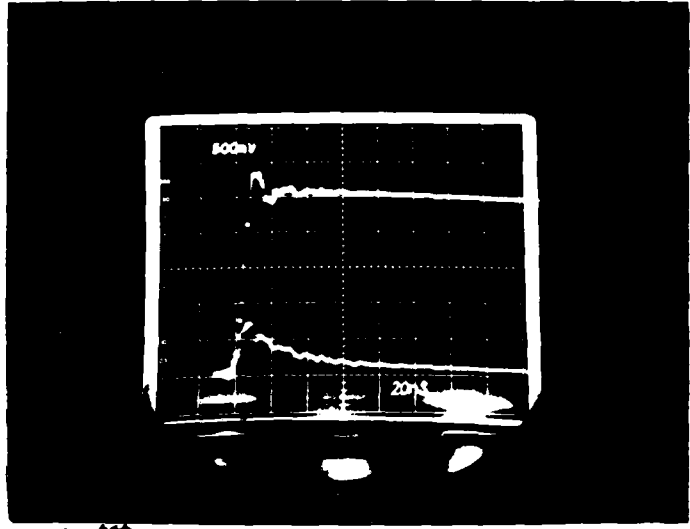
Date **5-28-85**  
 Test Point **86R-BL-110-E**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** **1** **1** /div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **248**



**248**

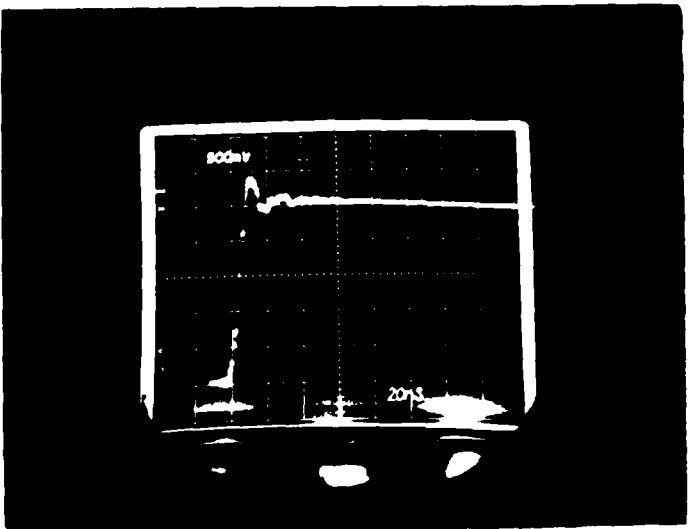
Date **5-28-85**  
 Test Point **89-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **249**



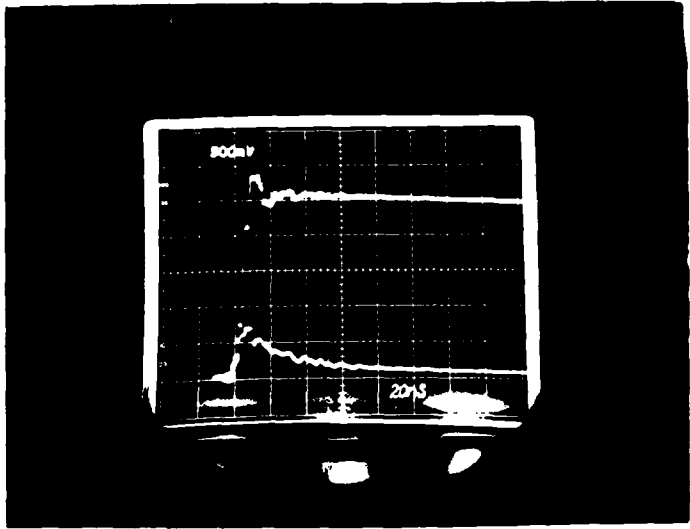
Date **5-28-85**  
 Test Point **89R-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V(120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **250**

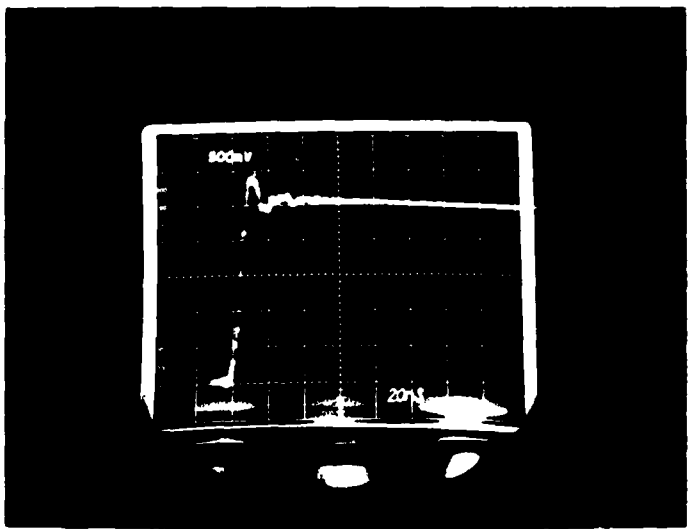




Date **5-28-85**  
 Test Point **89-BL-110-B**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **20ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **251**

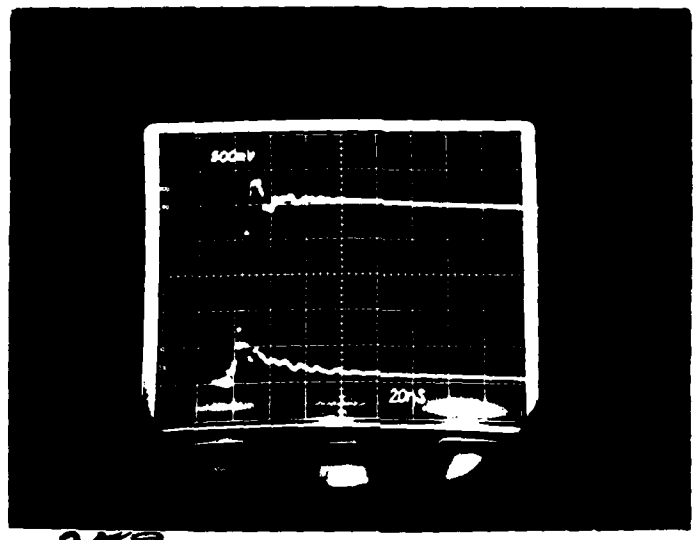


Date **5-28-85**  
 Test Point **89R-BL-110-B**  
 Amplification **0dB**  
 Attenuation **0dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **252**



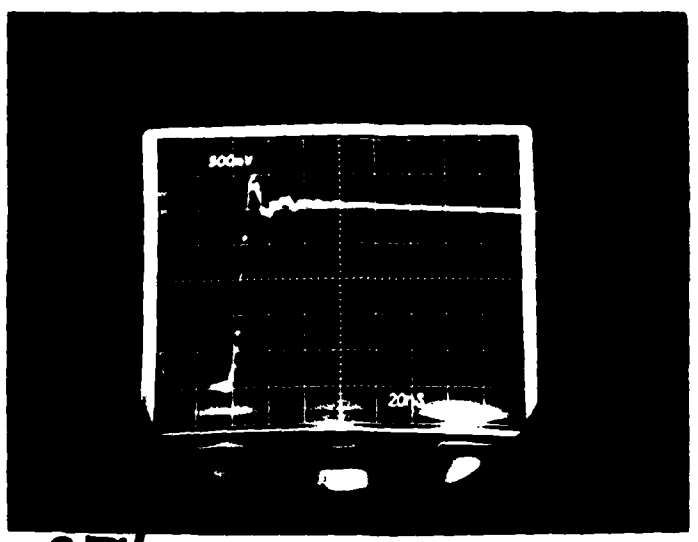
**250**

Date **5-28-85**  
 Test Point **89-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **253**



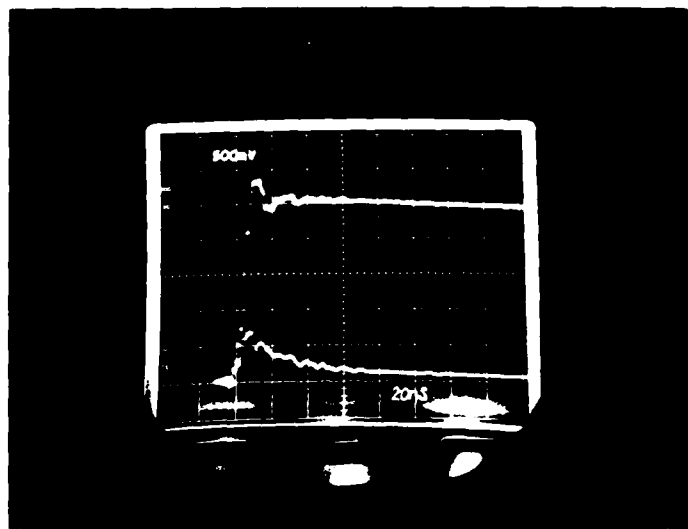
**253**

Date **5-28-85**  
 Test Point **89R-BL-1/10-C**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **254**



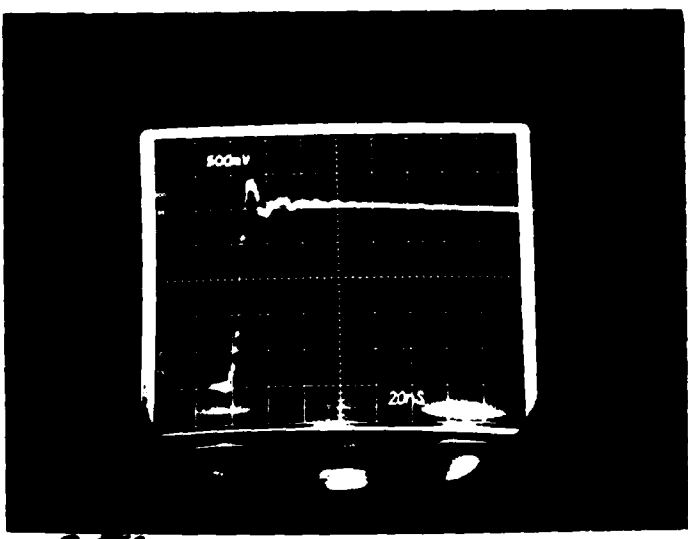
**254**

Date **5-28-85**  
 Test Point **89-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5 (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **255**



**255**

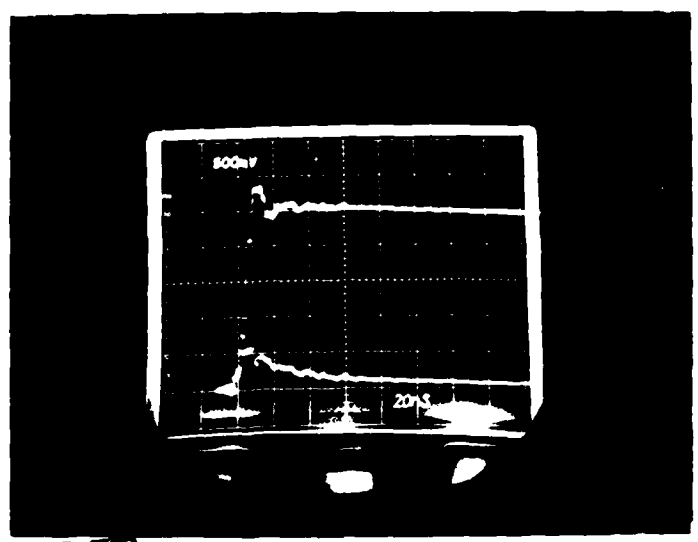
Date **5-28-85**  
 Test Point **89R-BL-1/10-D**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20** ns/div 1  
 Vertical **.5V (120V)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **256**



**256**

Date **5-28-85**  
 Test Point **89-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) ~~ms~~ div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

**257**



**257**

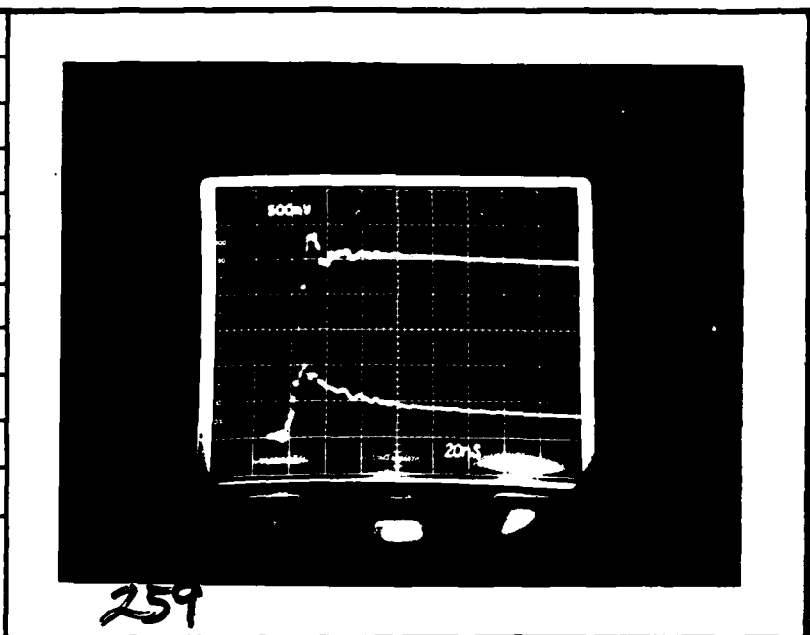
Date **5-28-85**  
 Test Point **89R-BL-1/10-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V (120V) ~~ms~~ div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments:

**258**

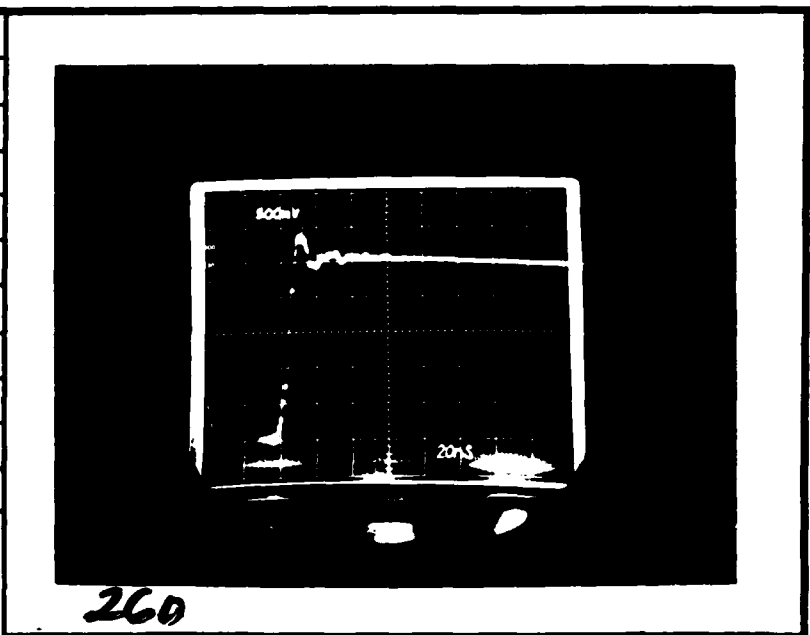


**258**

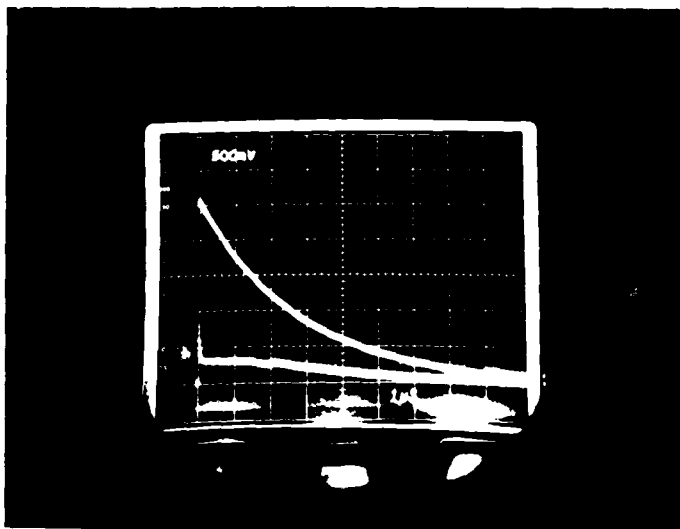
Date	5-28-85
Test Point	92-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	259



Date	5-28-85
Test Point	92R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	260

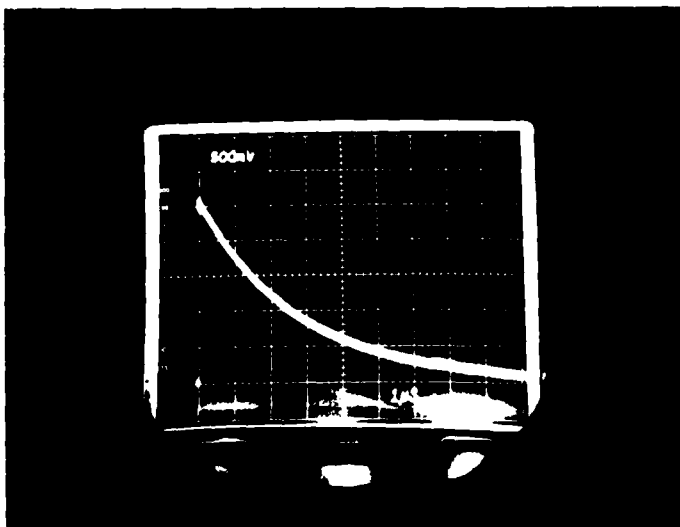


Date	5-28-85
Test Point	92-BL-110-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	1 $\mu$ s /div 1
Vertical	.5V(120V) $\mu$ V/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	261
1 $\mu$ s /div	



261

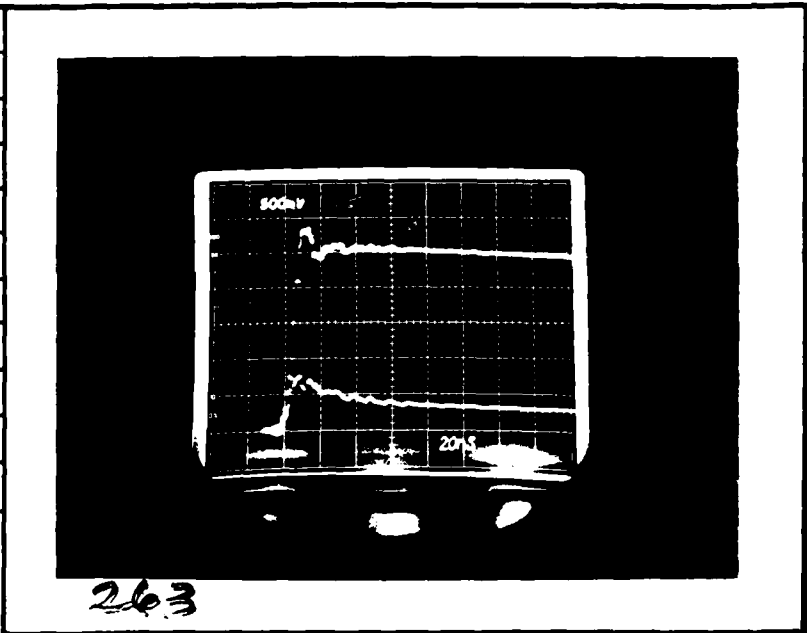
Date	5-28-85
Test Point	92R-BL-110-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	1 $\mu$ s /div 1
Vertical	.5V(120V) $\mu$ V/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	262
1 $\mu$ s /div	



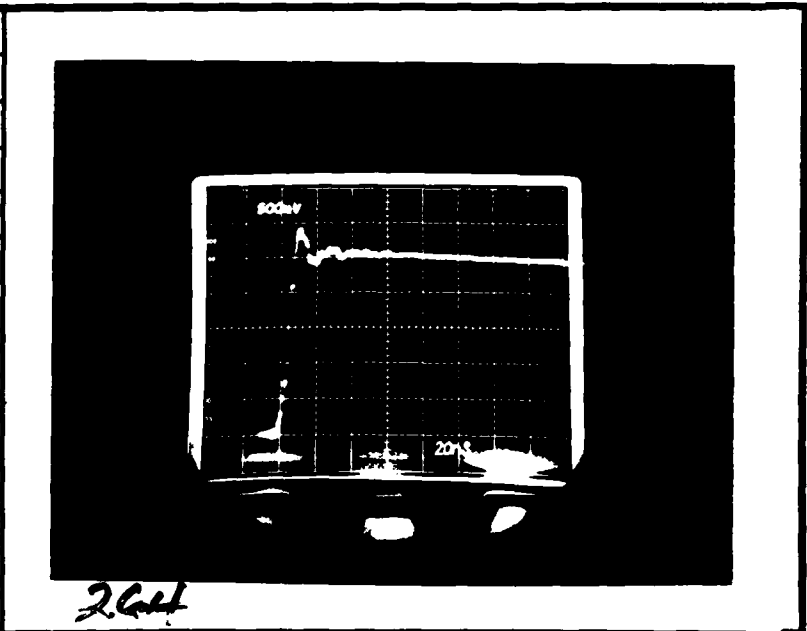
262

Date	5-28-85
Test Point	92-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5 (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600
Data Link	
Comments:	263

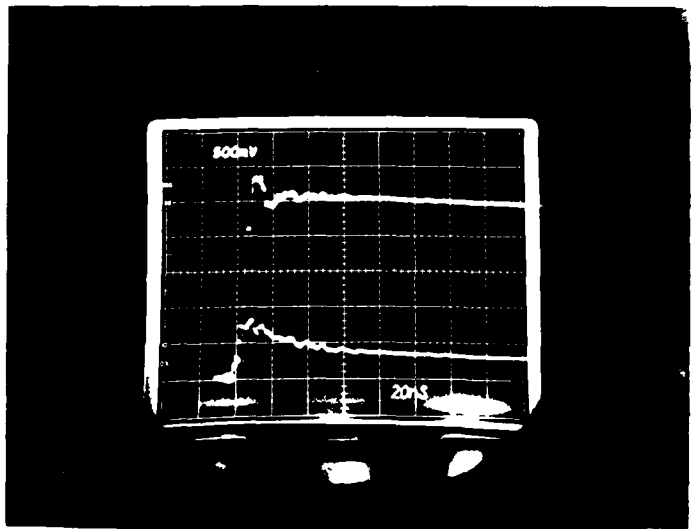
20ns/div



Date	5-28-85
Test Point	92R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	264

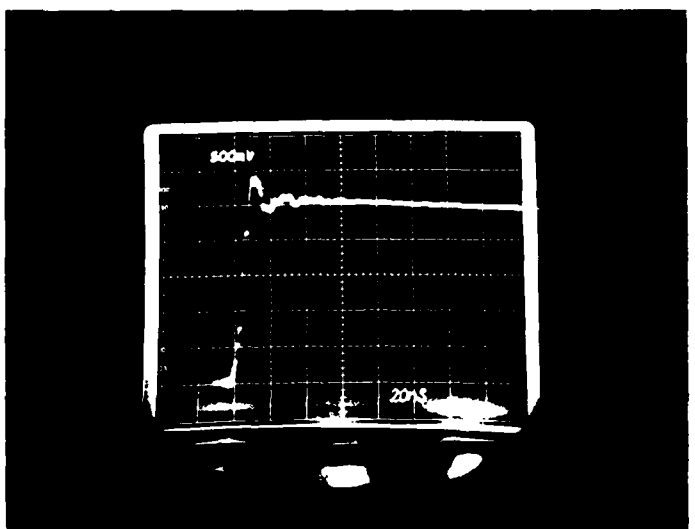


Date	5-28-85
Test Point	92-BL-1/10-D
Amplification	0dB
Attenuation	0dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	265



265

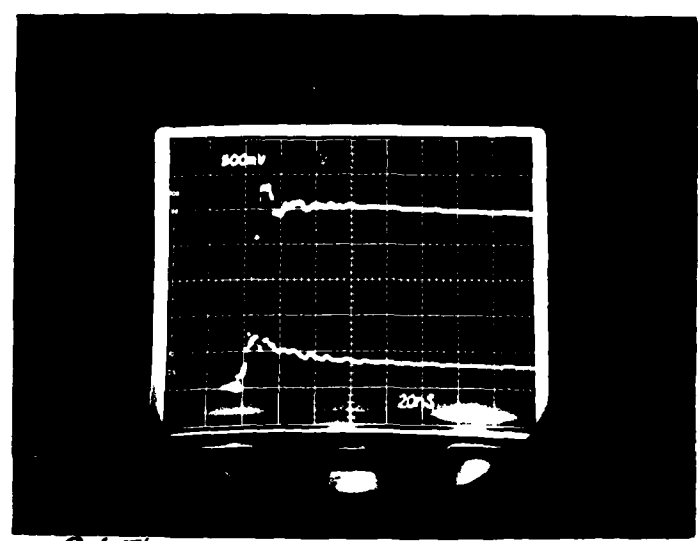
Date	5-28-85
Test Point	92R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	266



266

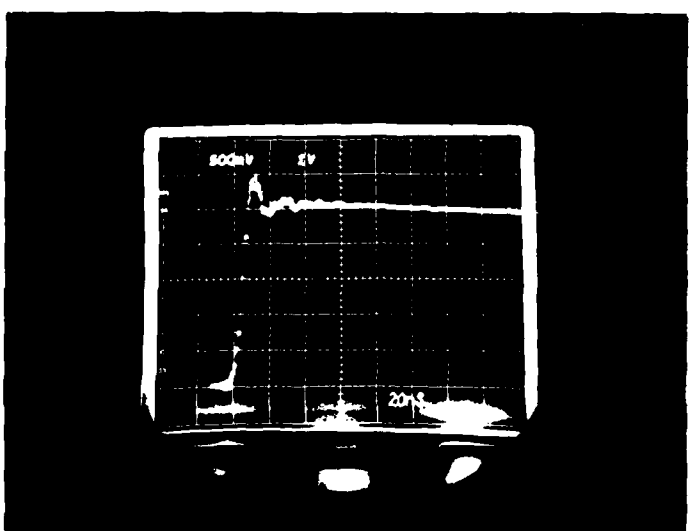


Date **5-28-85**  
 Test Point **92-BL-110-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **30 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **267**



**267**

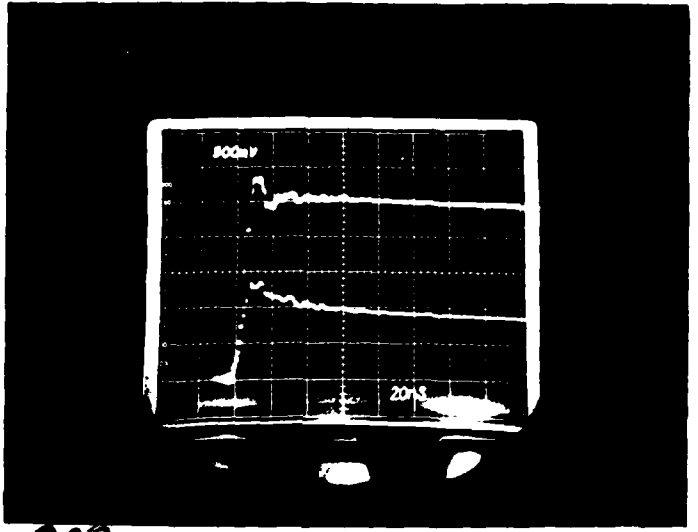
Date **5-28-85**  
 Test Point **92R-BL-110-E**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link  
 Comments: **268**



**268**

Date **5-28-85**  
 Test Point **98-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

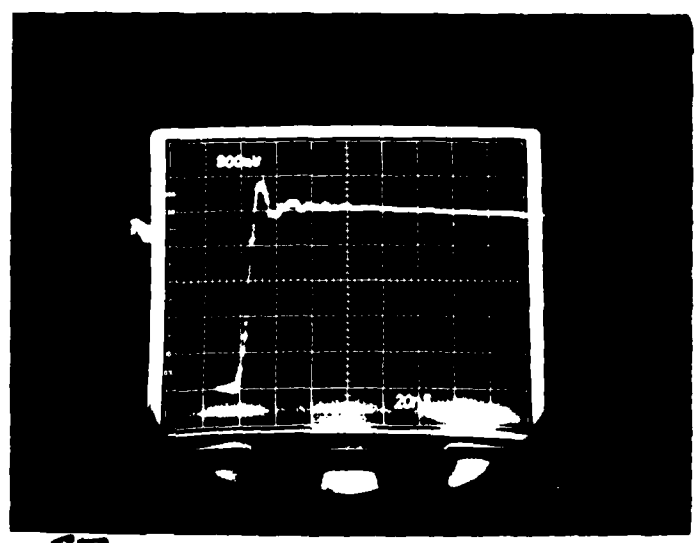
Comments: **269**  
**LCE 130A**



**269**

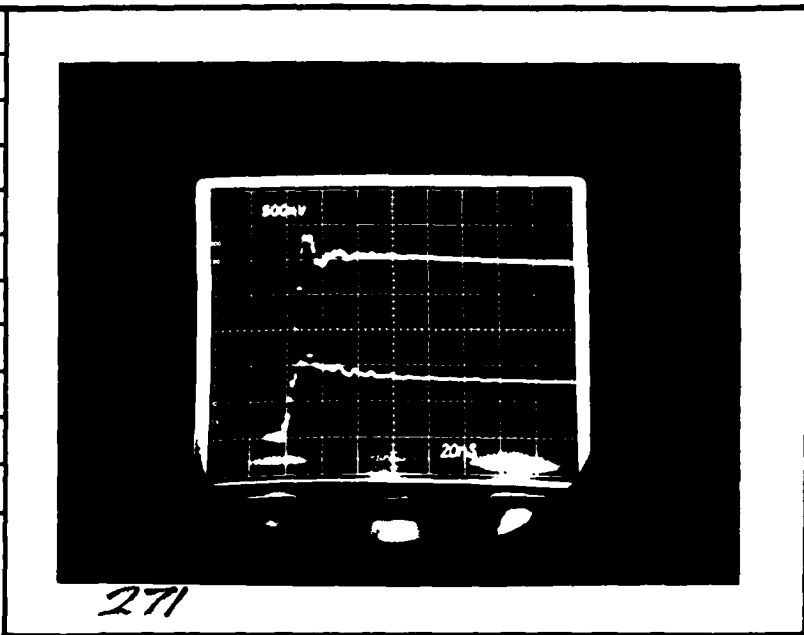
Date **5-28-85**  
 Test Point **98R-BL-1/10-A**  
 Amplification **0 dB**  
 Attenuation **0 dB**  
 Horizontal **20 ns/div 1**  
 Vertical **.5V(120V) mV/div 1**  
 Horizontal **ns/div 2**  
 Vertical **ns/div 2**  
 Configuration  
 Pulsar Level **600V**  
 Data Link

Comments: **270**  
**LCE 130A**

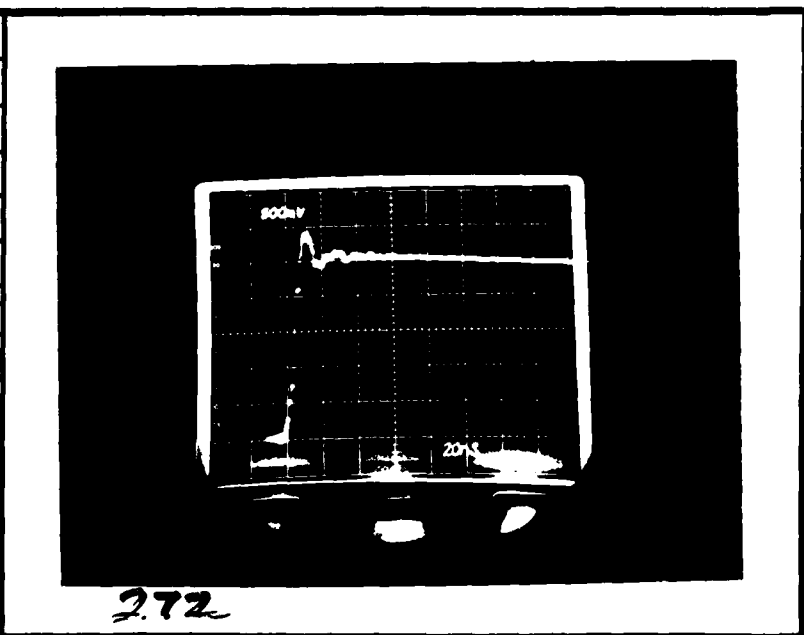


**270**

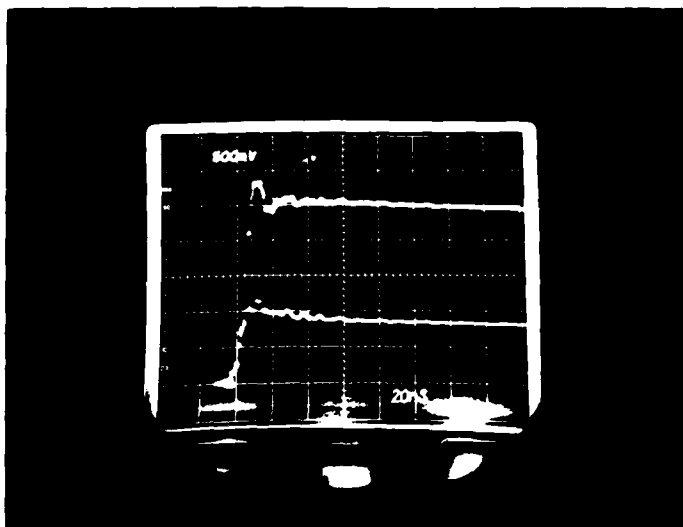
Date	5-28-85
Test Point	98-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	271



Date	5-28-85
Test Point	98R-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	600V
Data Link	
Comments:	272

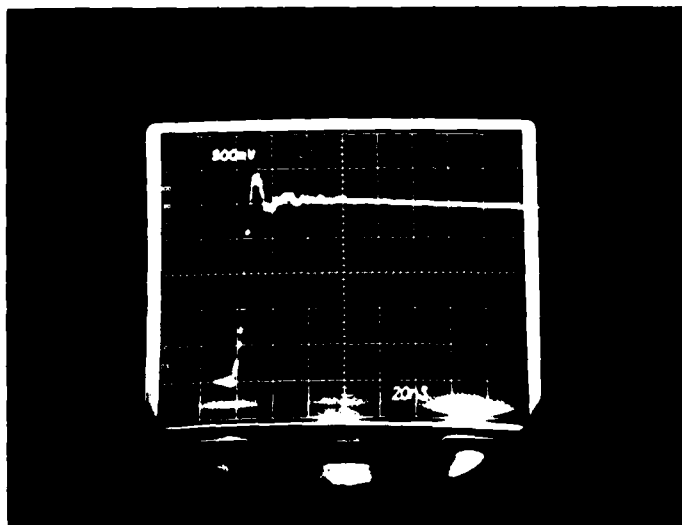


Date	5-28-85		
Test Point	99-BL-1/10-C		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	20	ns/div	1
Vertical	5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	273		



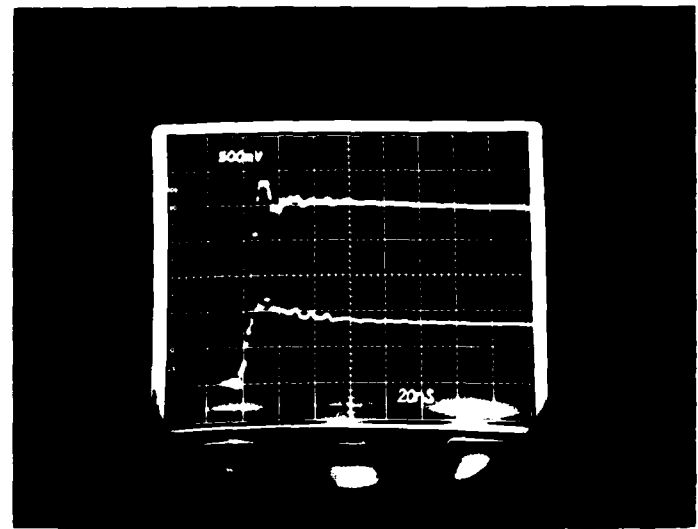
273

Date	5-28-85		
Test Point	98R-BL-1/10-C		
Amplification	0 dB		
Attenuation	0 dB		
Horizontal	20	ns/div	1
Vertical	5V(120V)	ns/div	1
Horizontal		ns/div	2
Vertical		ns/div	2
Configuration			
Pulser Level	600V		
Data Link			
Comments:	274		



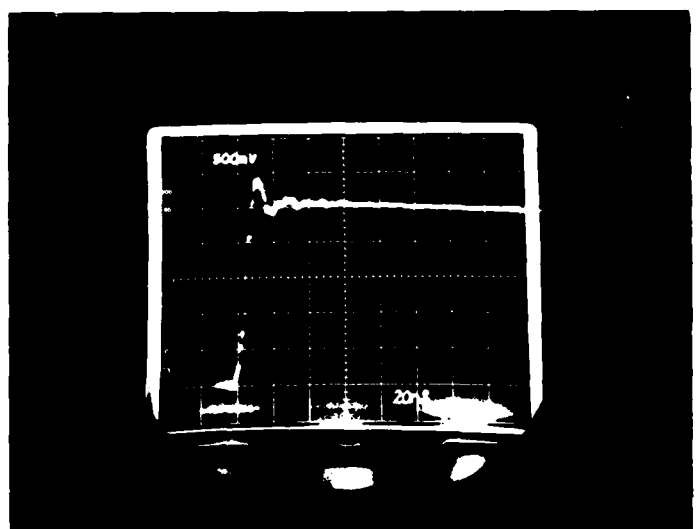
274

Date 5-28-85  
 Test Point 98-BL-1110-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) ~~500V~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 275



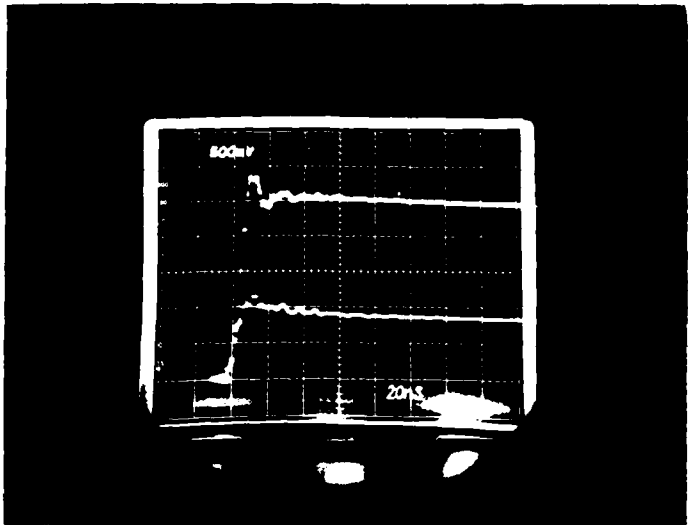
275

Date 5-28-85  
 Test Point 98R-BL-1110-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) ~~500V~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 276



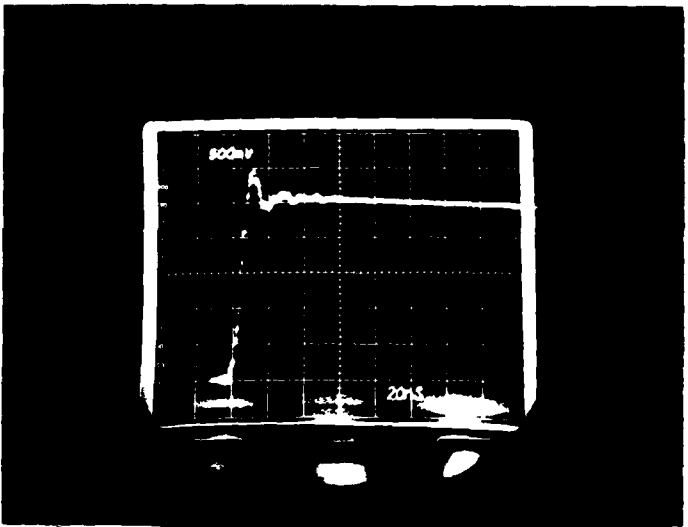
276

Date	5-28-85
Test Point	98-BL-110-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	277



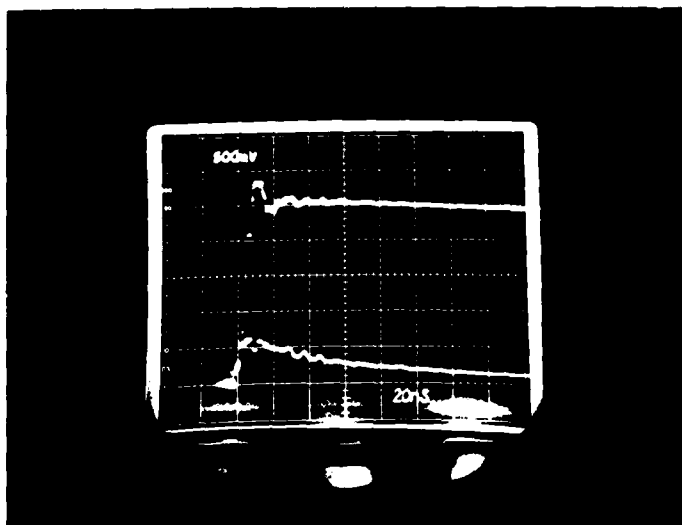
277

Date	5-28-85
Test Point	98R-BL-110-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	278



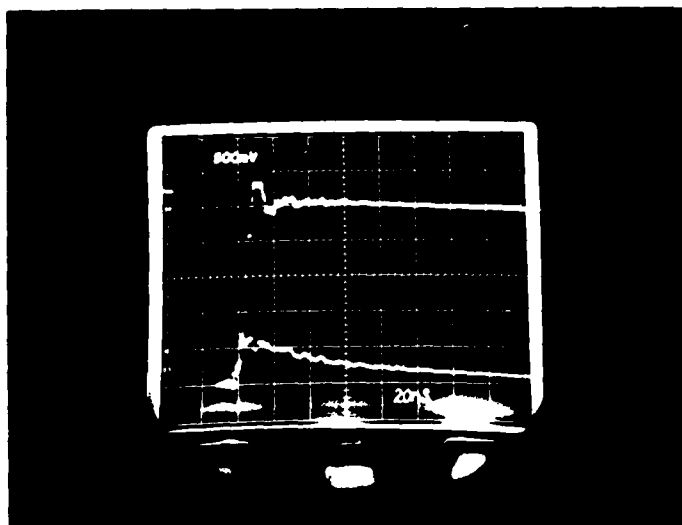
278

Date	5-28-85
Test Point	102-BL-1/16-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	
Comments:	279



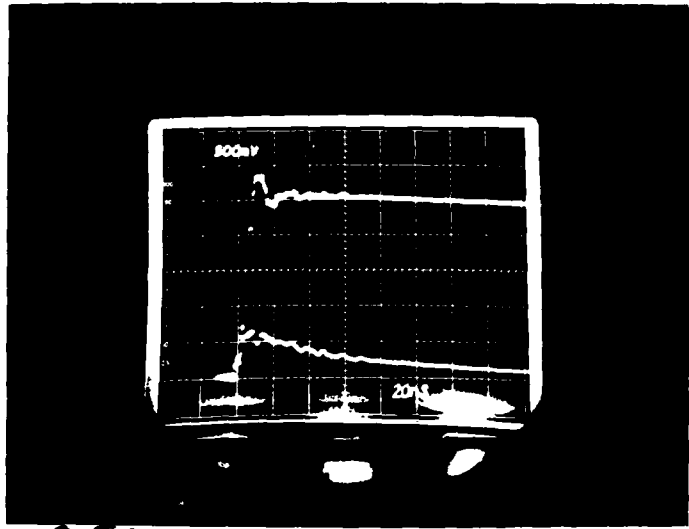
279

Date	5-28-85
Test Point	102R-BL-1/10-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulsar Level	600V
Data Link	
Comments:	280



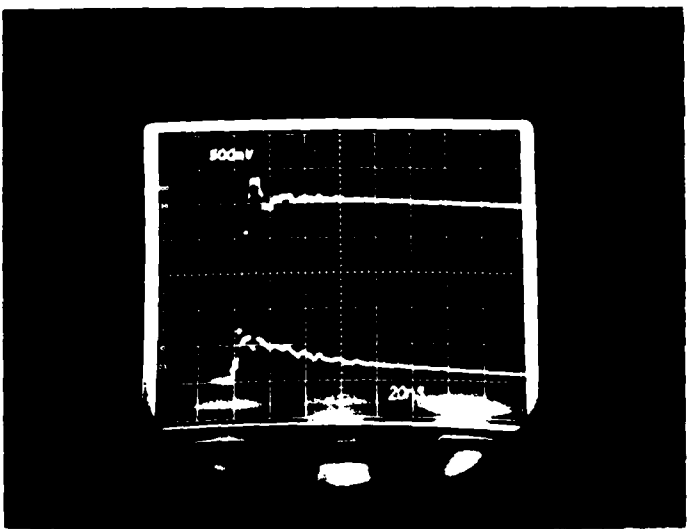
280

Date	5-28-85
Test Point	102-BL-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	281



281

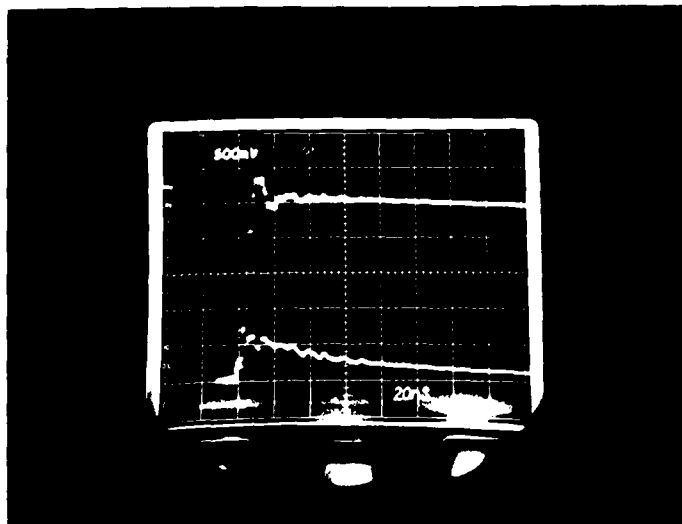
Date	5-28-85
Test Point	102R-8L-1/10-B
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	282



282

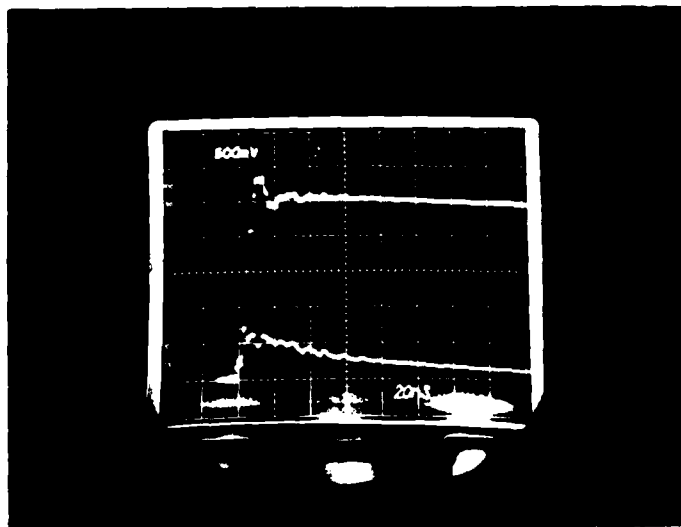


Date	5-28-85
Test Point	102-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	283



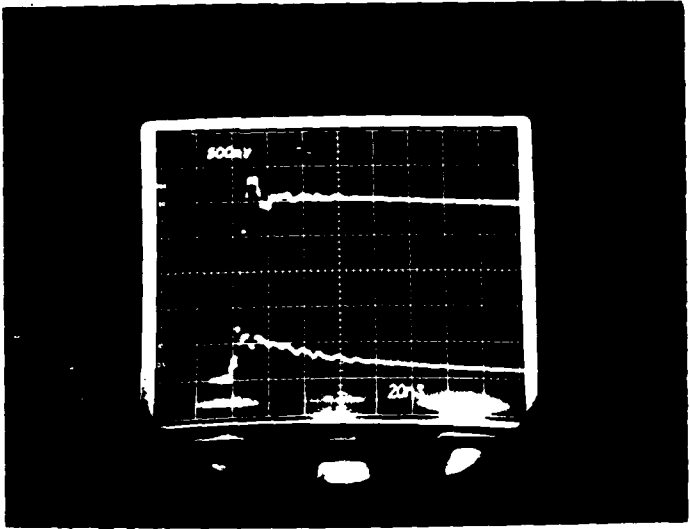
283

Date	5-28-85
Test Point	102R-BL-1/10-C
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	284



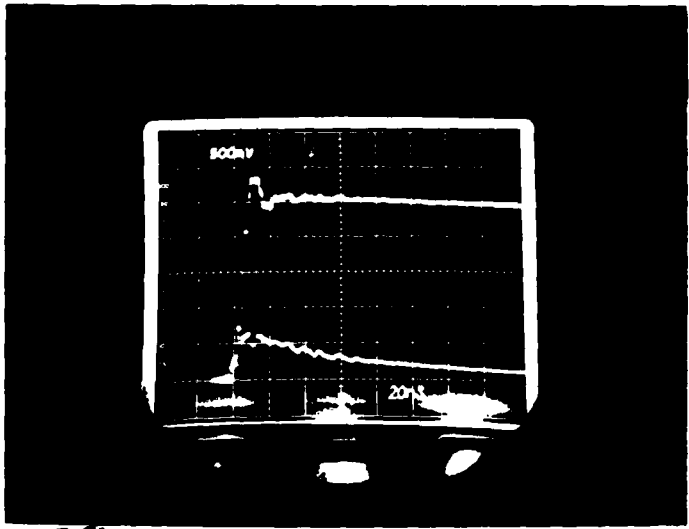
284

Date 5-28-85  
 Test Point 102-BL-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V)  $\mu$ V/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 285



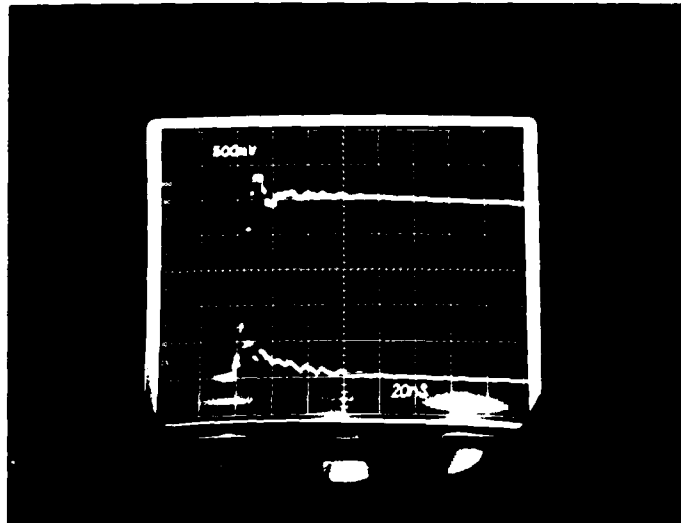
285

Date 5-28-85  
 Test Point 102R-BH-1/10-D  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V)  $\mu$ V/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 286



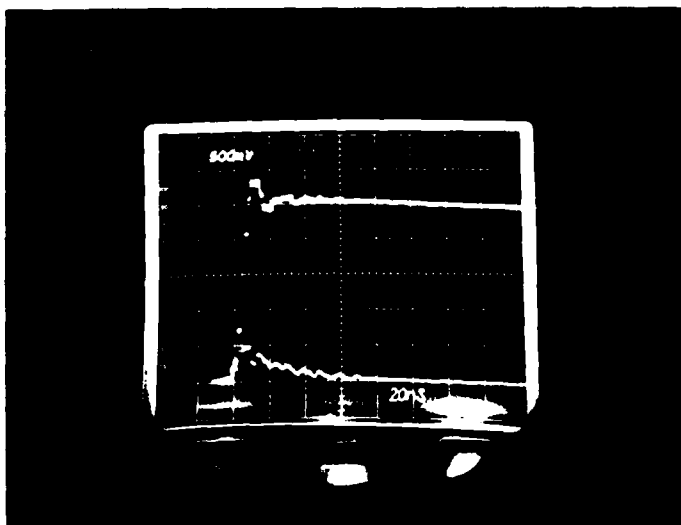
286

Date	5-28-85
Test Point	103-BL-110-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600
Date Link	
Comments:	287



287

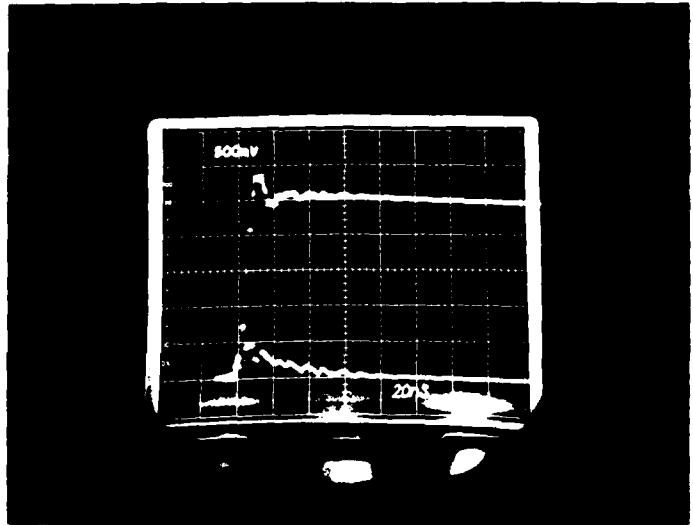
Date	5-28-85
Test Point	103R-BL-110-A
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Date Link	
Comments:	288



288

Date 5-28-85  
 Test Point 103-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

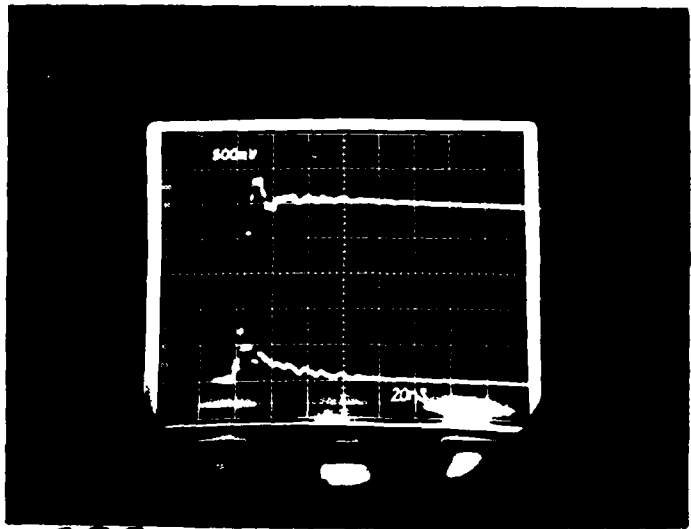
289



289

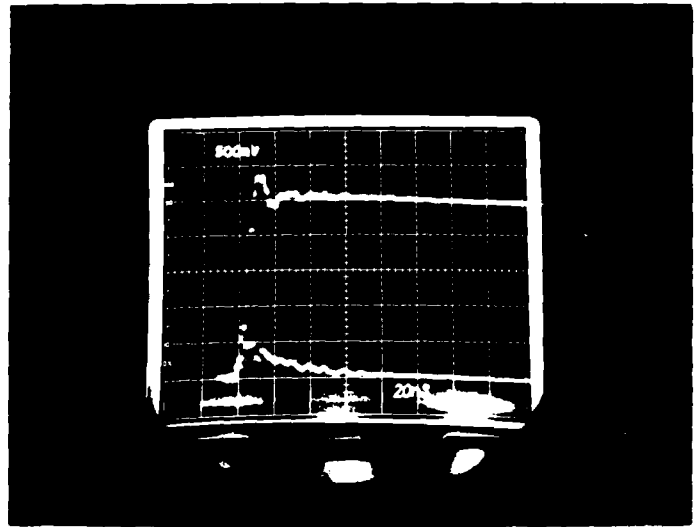
Date 5-28-85  
 Test Point 103R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments:

290



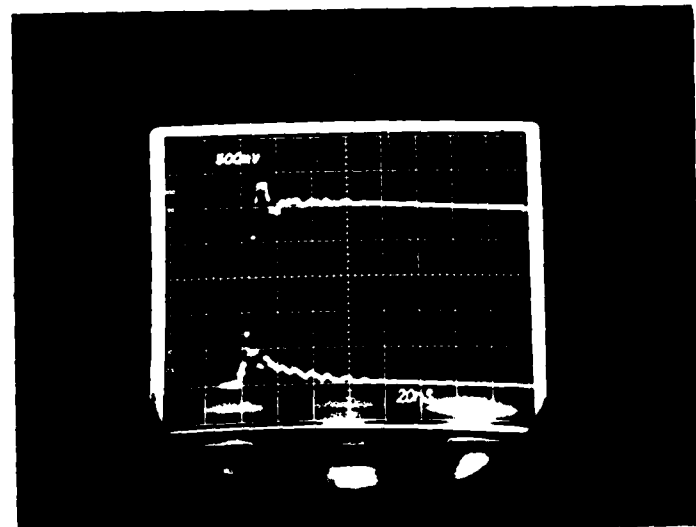
288-290-

Date	5-28-85
Test Point	103-BL-1/10-C
Amplification	0dB
Attenuation	0dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	291



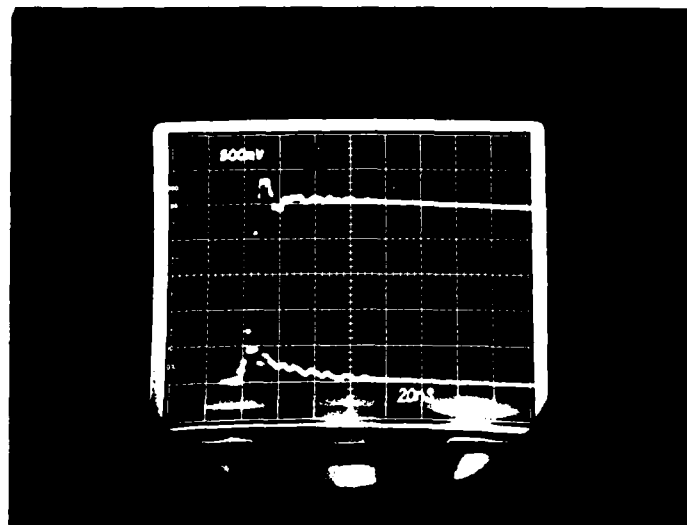
291

Date	5-28-85
Test Point	103R-BL-1/10-C
Amplification	0dB
Attenuation	0dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	292



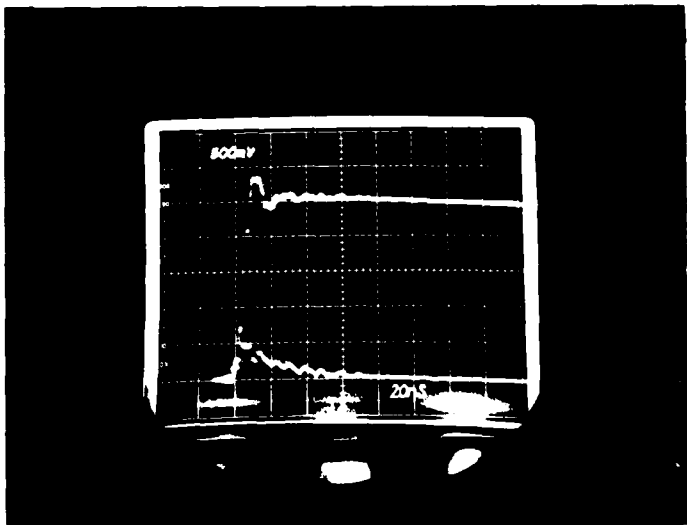
292

Date	5-28-85
Test Point	103-BL-1/10-D
Amplification	0dB
Attenuation	0dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	293



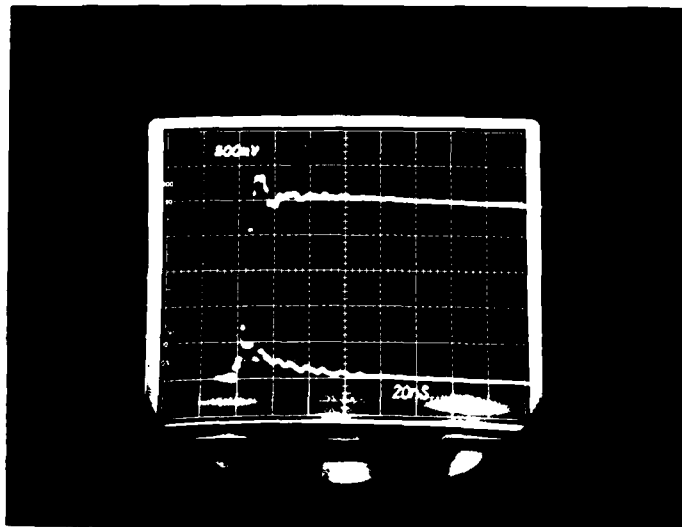
293

Date	5-28-85
Test Point	103R-BL-1/10-D
Amplification	0dB
Attenuation	0dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	294



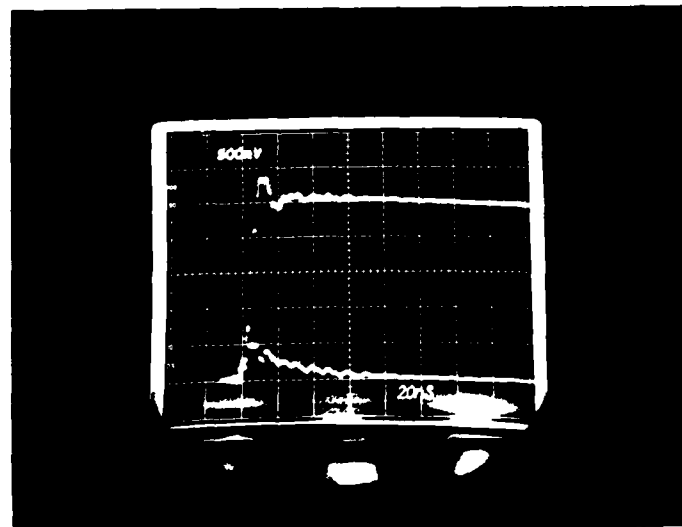
294

Date	5-28-85
Test Point	103-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	295



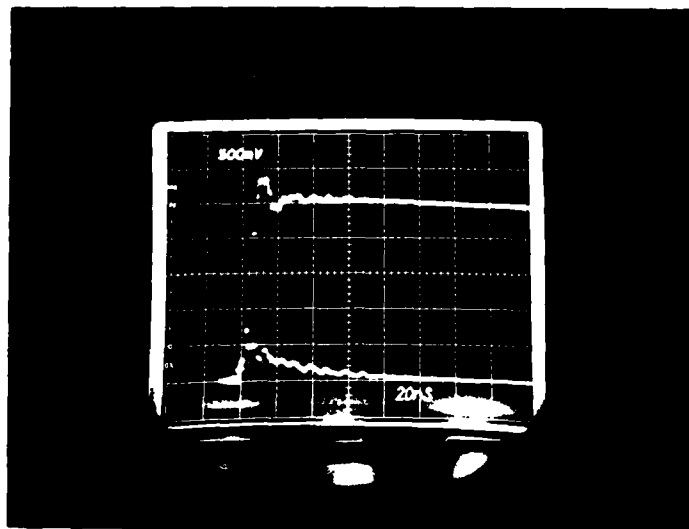
295

Date	5-28-85
Test Point	103R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	296



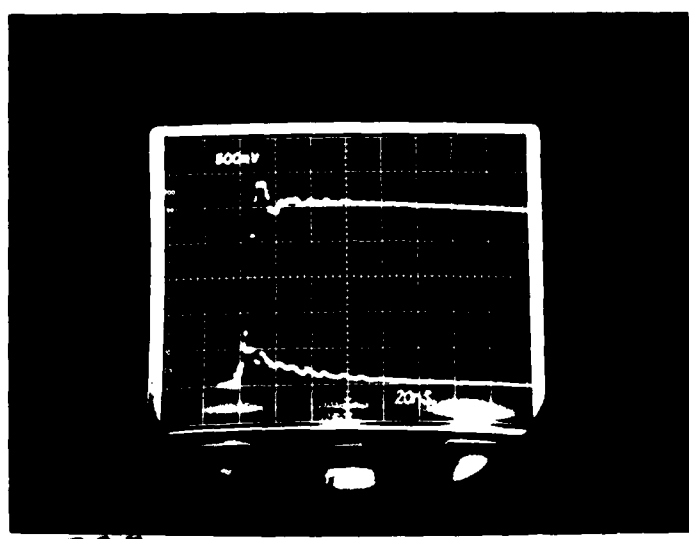
296

Date 5-28-85  
 Test Point 106-BL-110-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 297



297

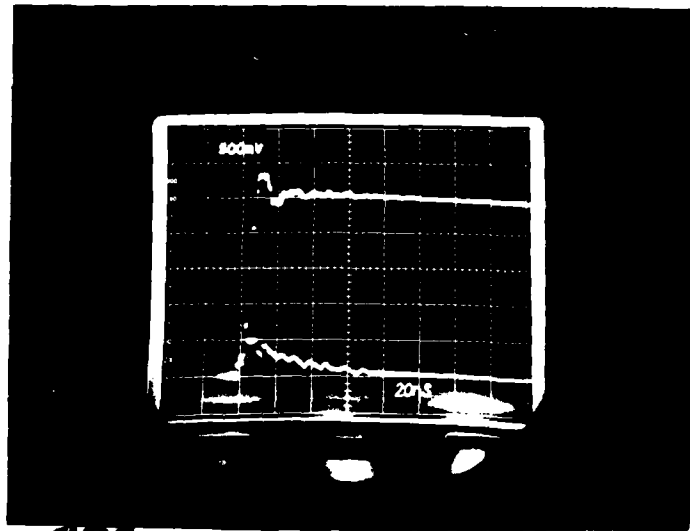
Date 5-28-85  
 Test Point 106R-BH-1-A  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 298



298

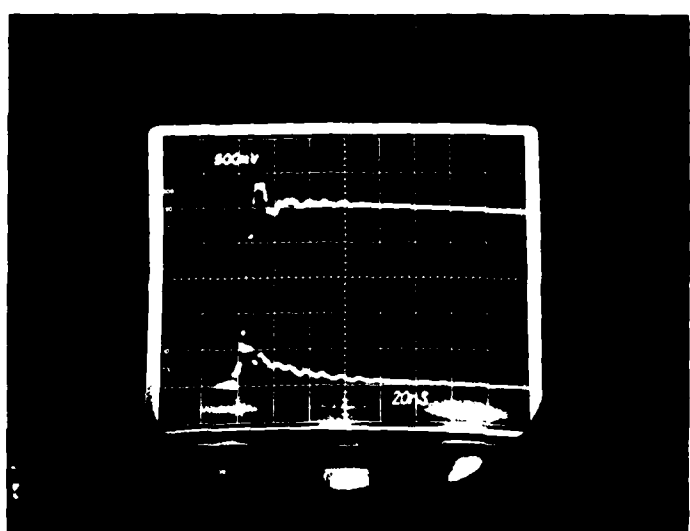


Date 5-28-85  
 Test Point 106-BL-1/10-B  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 299



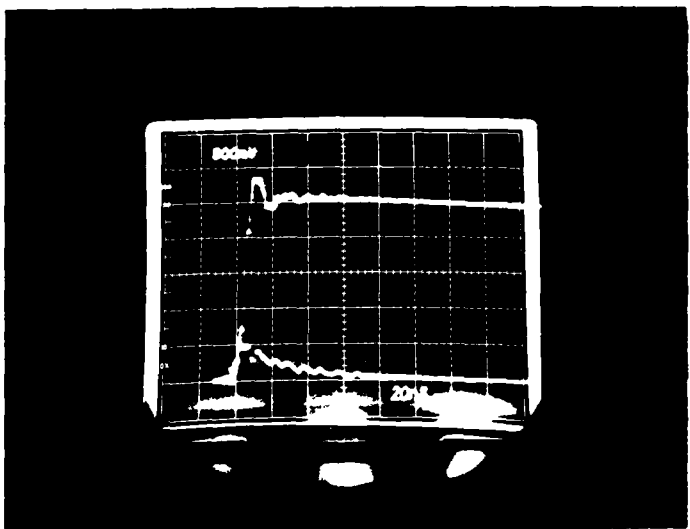
299

Date 5-28-85  
 Test Point 106R-BL-1/10-B  
 Amplification 0 dB  
 Attenuation 0 dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 300



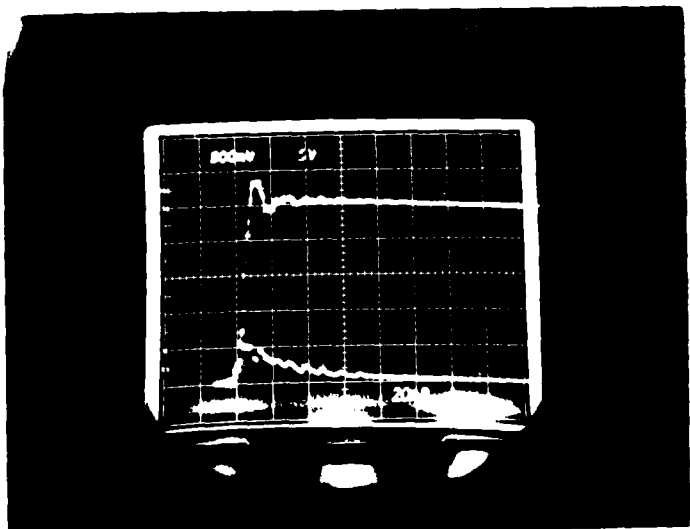
300

Date 5-28-85  
 Test Point 106-BL-1/10-C  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 301



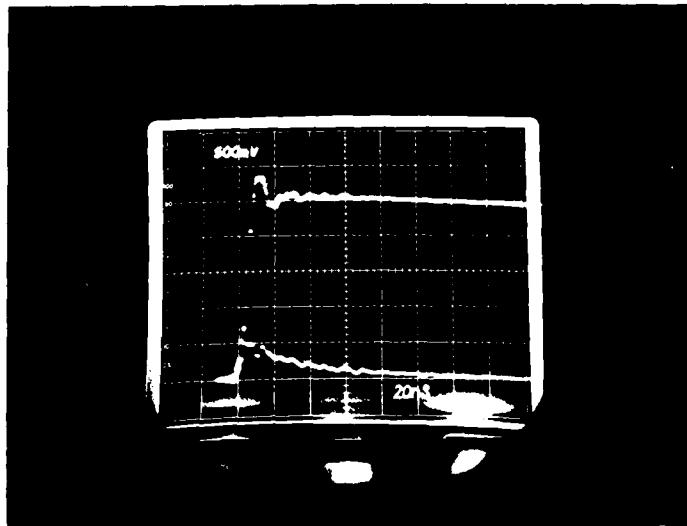
301

Date 5-28-85  
 Test Point 106R-BL-1/10-C  
 Amplification 0dB  
 Attenuation 0dB  
 Horizontal 20 ns/div 1  
 Vertical .5V (120V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link  
 Comments: 302



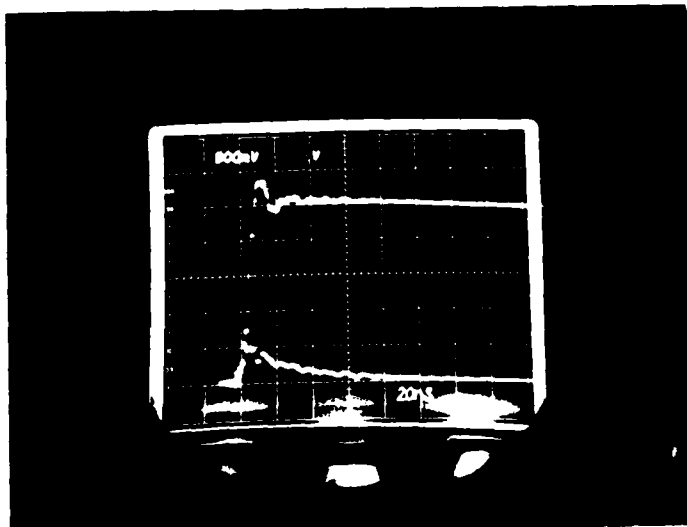
302

Date	5-28-85
Test Point	106-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	303



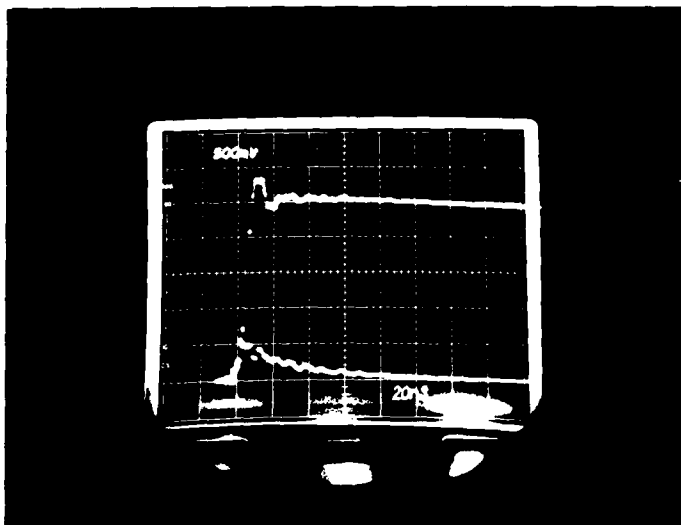
303

Date	5-28-85
Test Point	106R-BL-1/10-D
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V (120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	304



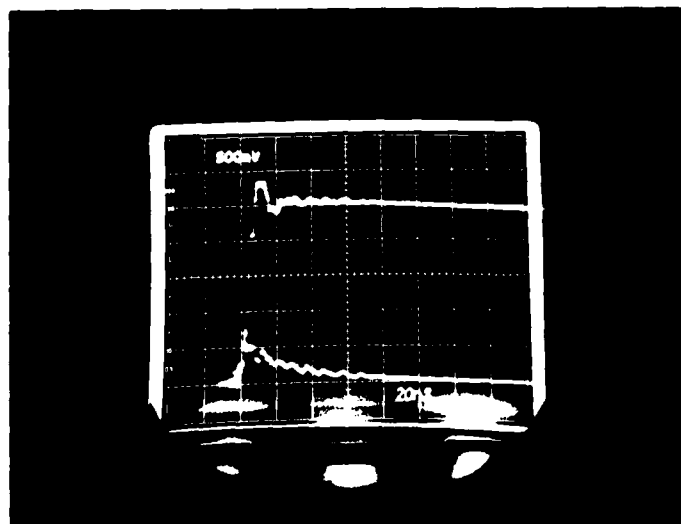
304

Date	5-28-85
Test Point	106-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	305



305

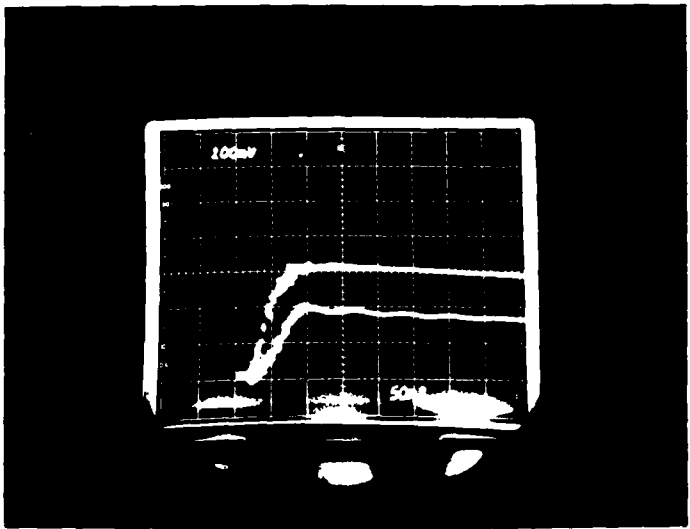
Date	5-28-85
Test Point	106R-BL-1/10-E
Amplification	0 dB
Attenuation	0 dB
Horizontal	20 ns/div 1
Vertical	.5V(120V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	600V
Data Link	
Comments:	306



306

Date	5-30-85
Test Point	109-AL-1/10-Ø
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	+600V
Data Link	

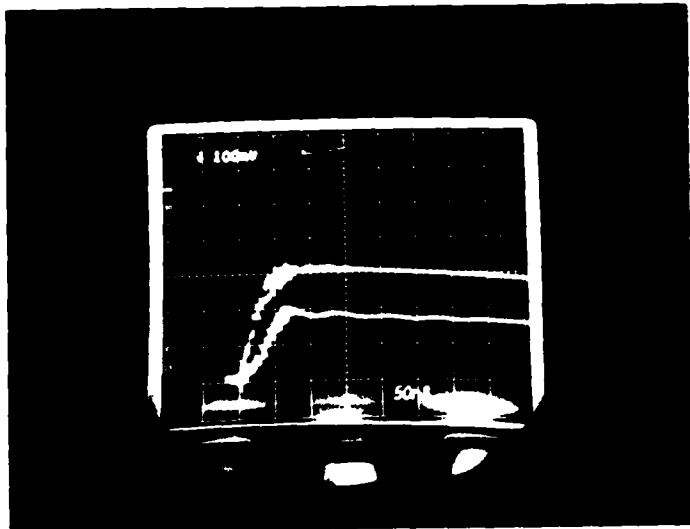
Comments: 470  
 LEMON  
 "PULSE ON 'NEUT.'"



470

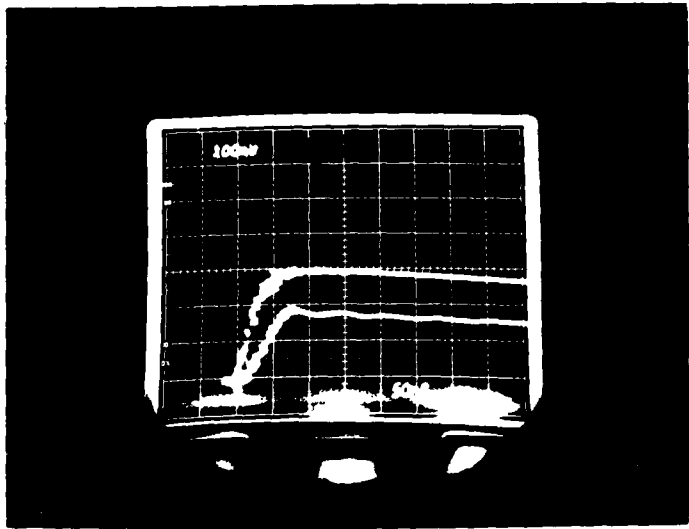
Date	5-30-85
Test Point	109R-AL-1/10-Ø
Amplification	dB
Attenuation	dB
Horizontal	ns/div 1
Vertical	mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulser Level	-600V
Data Link	

Comments: 471  
 "PULSE ON 'NEUT.'"



471

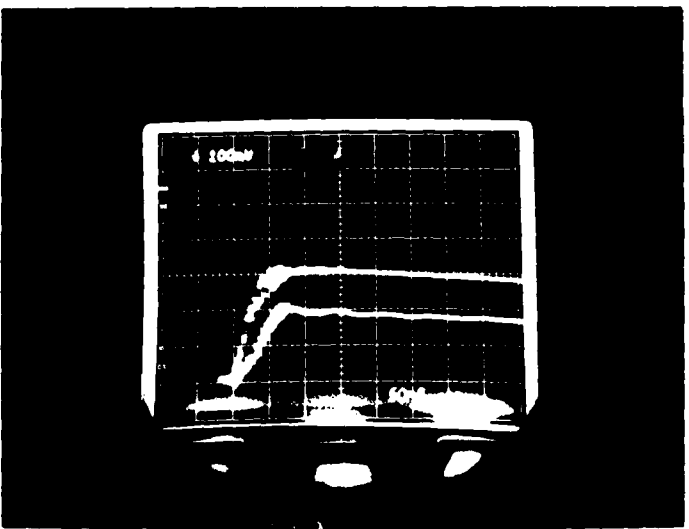
Date 5-30-85  
 Test Point 109-AL-1/10-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .1V (190V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link  
 Comments: LEMON - 472



472

PULSE ON HOT

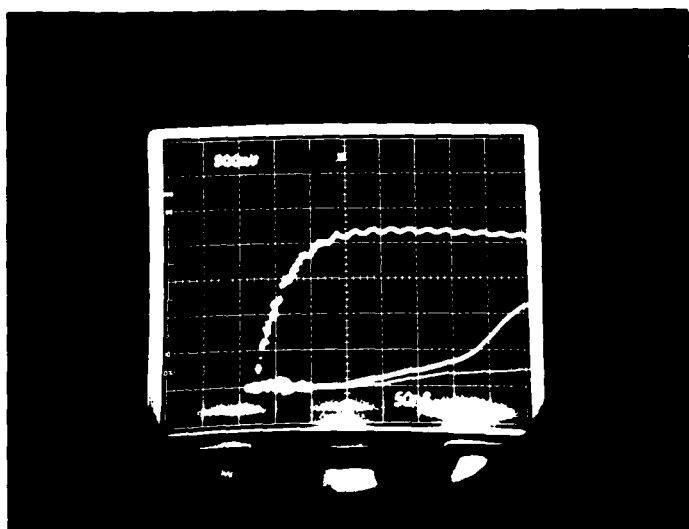
Date 5-30-85  
 Test Point 109R-AL-1/10-φ  
 Amplification 0 dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical .1V (190V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link  
 Comments: 473



473

PULSE ON HOT

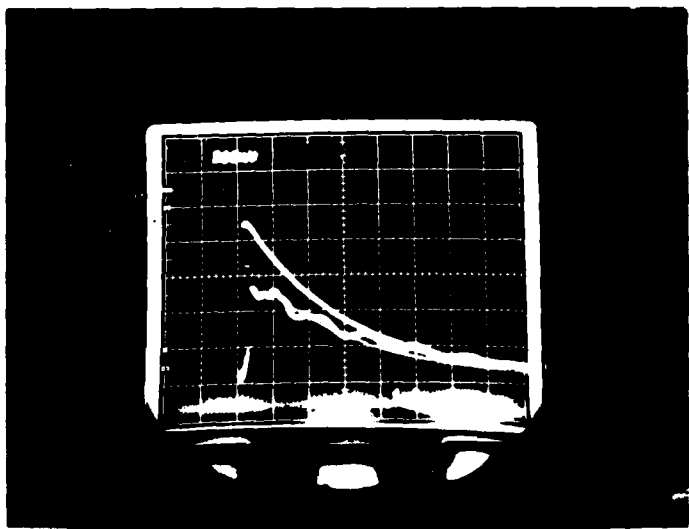
Date 5-31-85  
 Test Point 110-AL-1/10-φ  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical 5V(140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link



Comments: 478  
 "COMMON LEAD"

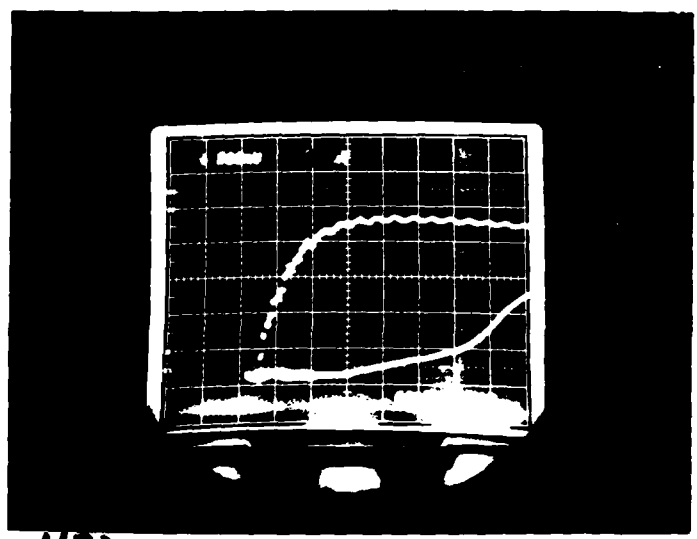
REPEAT SHOT (479) AT 1μsec/div

Date 5-31-85  
 Test Point 110-AL-1/10-φ  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 1μ ns/div 1  
 Vertical 5V(140) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link

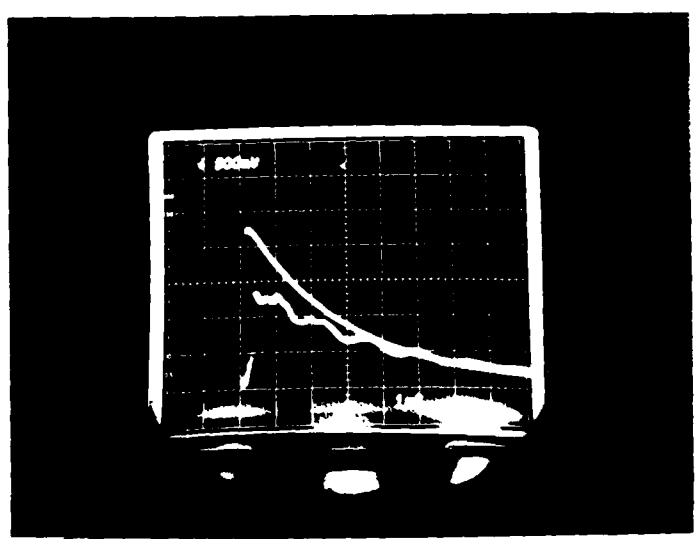


Comments:  
 "COMMON LEAD"  
 "REPEAT ABOVE TEST"

Date 5-31-85  
 Test Point 110R-AL-1/10-0  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(140) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level - 600V  
 Data Link  
 Comments: 480  
 "COMMON LEAD"



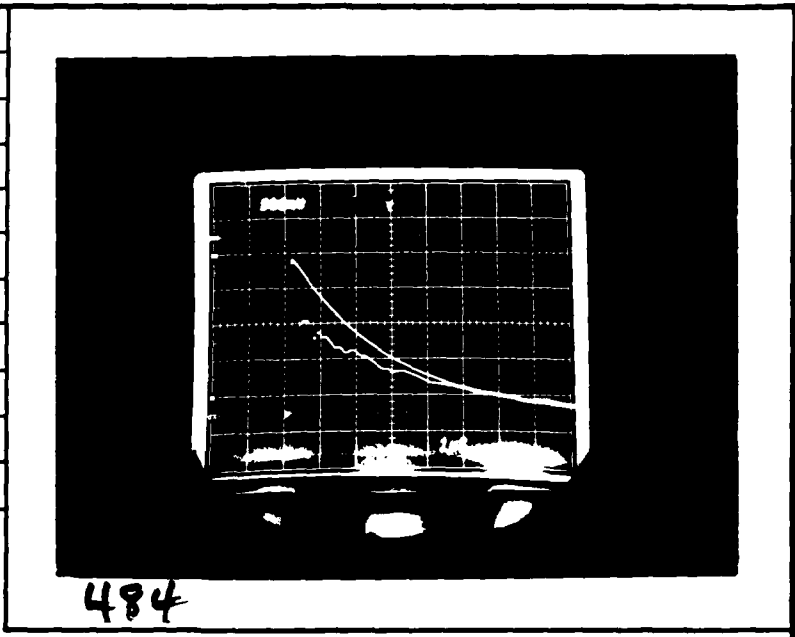
Date 5-31-85  
 Test Point 110R-AL-1/10-0  
 Amplification dB  
 Attenuation dB  
 Horizontal 1000 ns/div 1  
 Vertical .5 (140) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level - 600V  
 Data Link  
 Comments: 481  
 "COMMON LEAD"





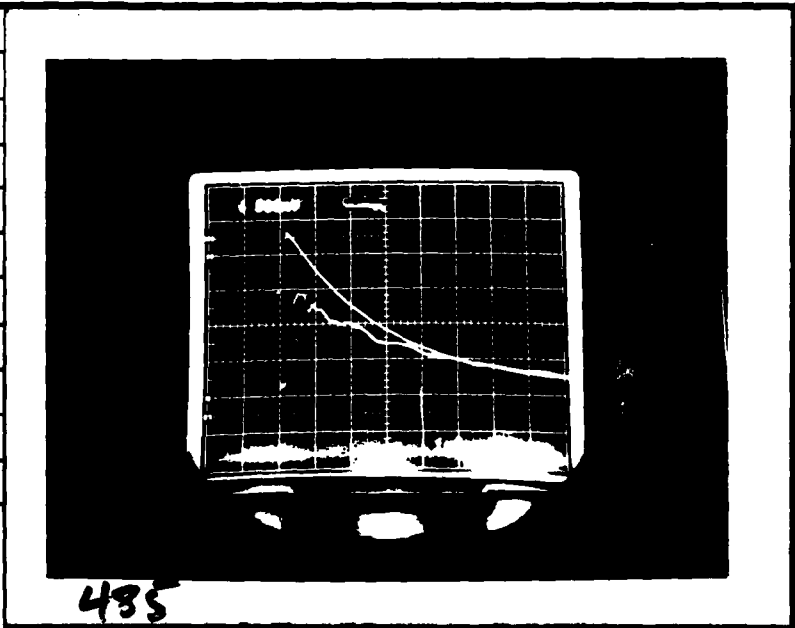
Date 5-31-85  
 Test Point 110-AL-1/10  $\phi$   
 Amplification dB  
 Attenuation dB  
 Horizontal 1000 ns/div 1  
 Vertical .5V (140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600 V  
 Data Link

Comments: 484  
PEACH  
"HOT LEAD"

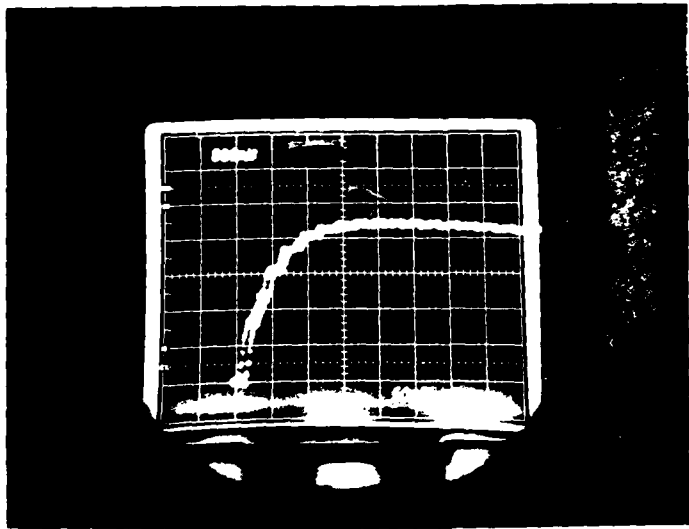


Date 5-31-85  
 Test Point 110R-AL-1/10-0  
 Amplification dB  
 Attenuation dB  
 Horizontal 1000 ns/div 1  
 Vertical .5V (140) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600 V  
 Data Link

Comments: 485  
"PEACH"  
"HOT LEAD"



Date 5-31-85  
 Test Point 111-AL-1/10-φ  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical 5V (140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link



490

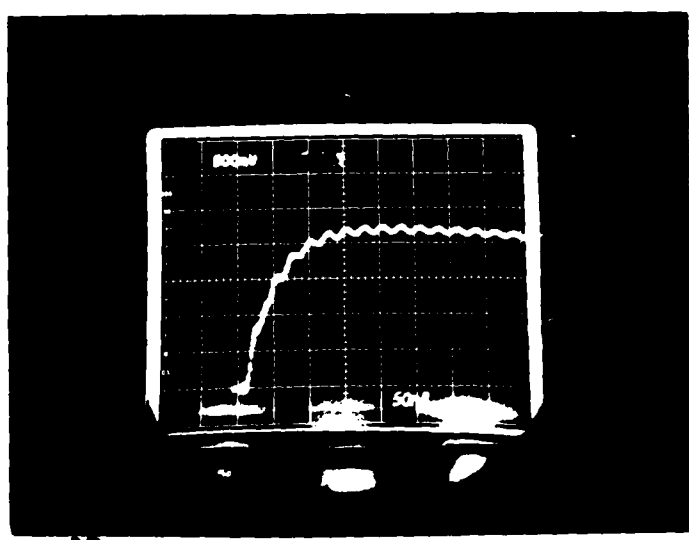
Comments:

WABER

HOT TO COMMON  
 WITH REFERENCE PULSE

SCOPE DID NOT TRIGGER

Date 5-31-85  
 Test Point 111-AL-1/10-φ  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical 5V (140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link



491

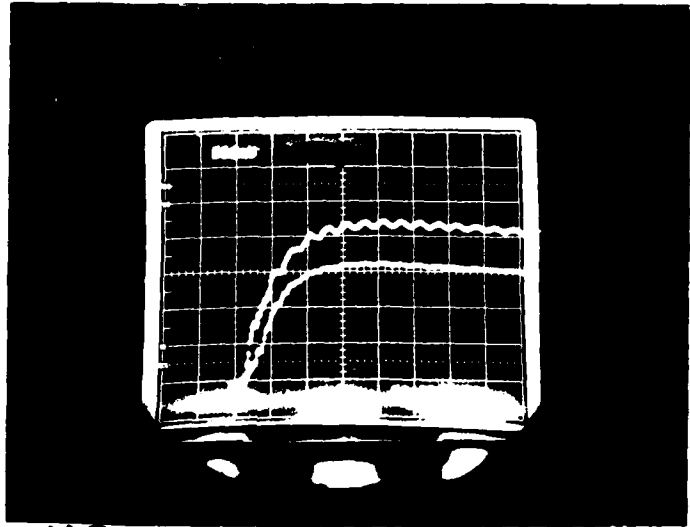
Comments:

- WABER - 491

COMMON TO GROUND  
 WITH REFERENCE -

- NOT WORKING -  
SCOPE DID NOT TRIGGER

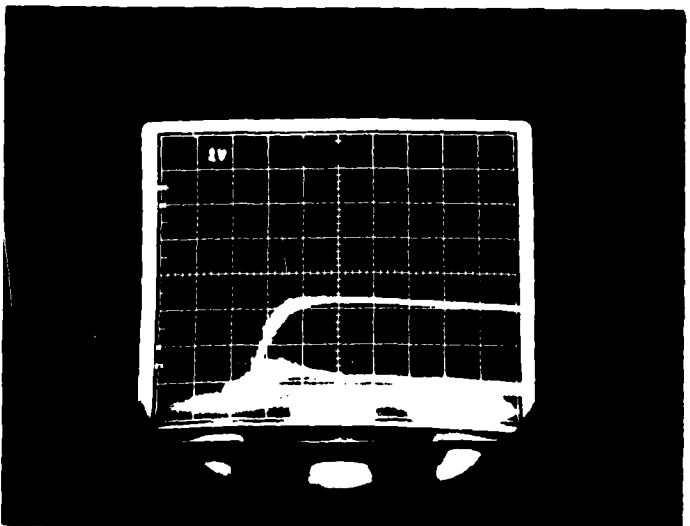
Date 5-31-85  
 Test Point III-AL-1/10-Ø  
 Amplification dB  
 Attenuation — dB  
 Horizontal 50 ns/div 1  
 Vertical 5V(140) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level + 600 V  
 Data Link



Comments: 495  
 WABER

HOT TO COMMON TIED TO GND

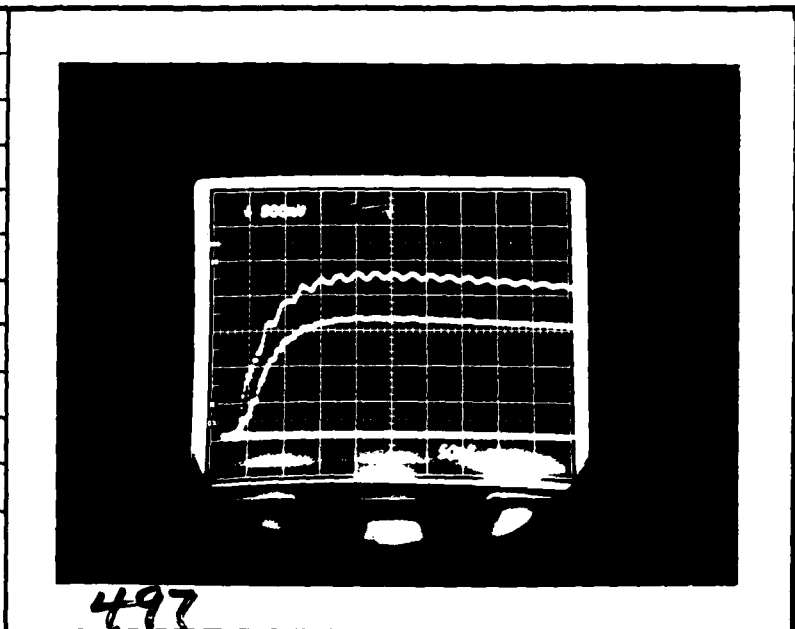
Date 5-31-85  
 Test Point III-CL-1/10-Ø  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical 1V(1900V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level + 4500 V  
 Data Link



Comments: 496  
 WABER

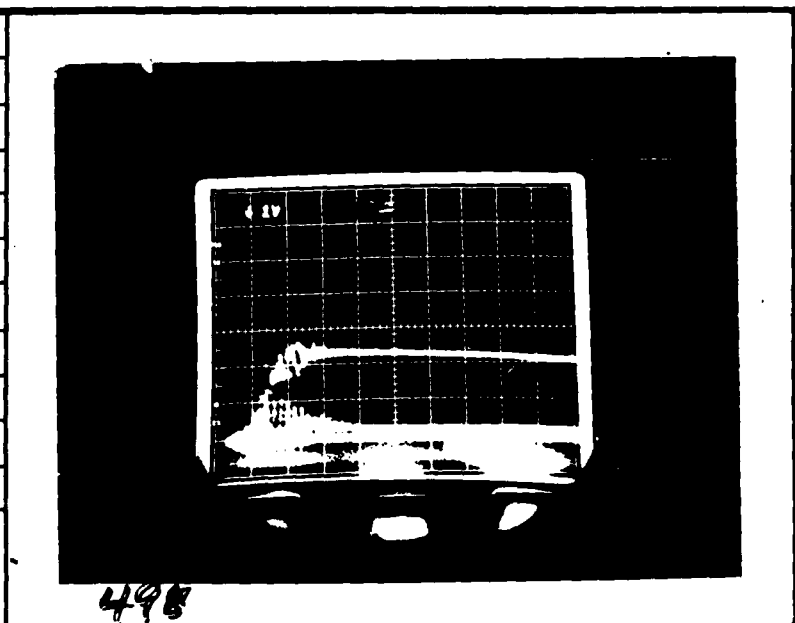
HOT TO COMMON TIED TO GND

Date 5-31-85  
 Test Point 11R-AL-1/10-B  
 Amplification dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical .5V(140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link  
 Comments: WABER 497



HOT TO COMMON TIED TO  $\perp$

Date 5-31-85  
 Test Point 11R-CL-1/10-B  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical 1V(1900V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -4500V  
 Data Link  
 Comments: WABER 498



HOT TO COMMON TIED TO  $\perp$

AD-A164 435

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

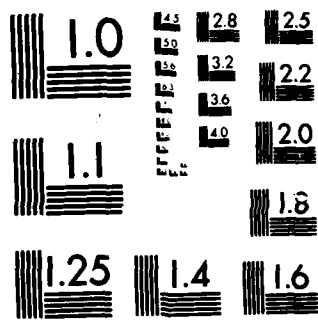
3/3

UNCLASSIFIED

NCS-TIB-85-18-VOL-3-SEC-4 DCA100-85-C-0010 F/G 20/14

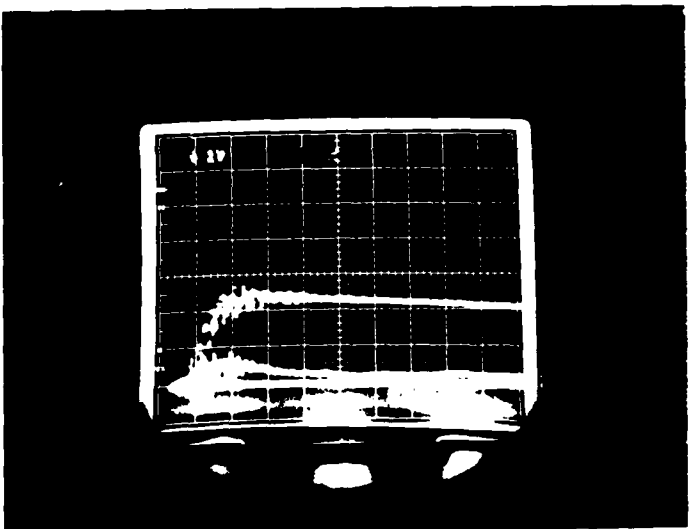
NL





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

Date 5-31-85  
 Test Point 111R-CL-1/10-A  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical 1V (1900V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -4500V  
 Data Link

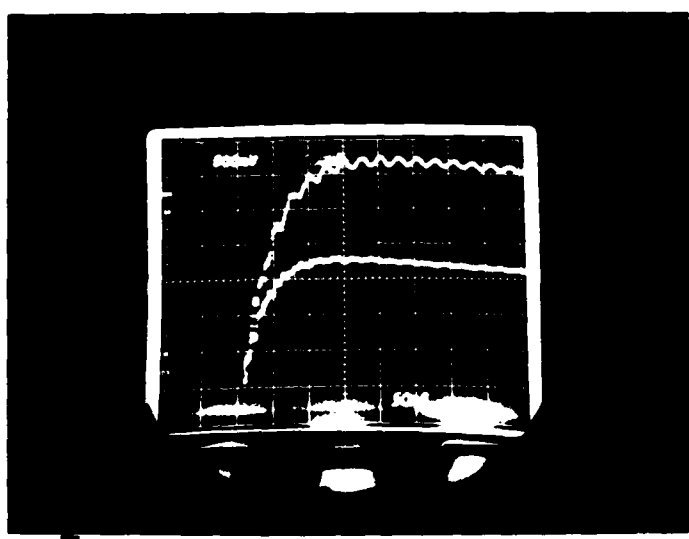


499

Comments: WABER 499

HOT TO COMMON TIED TO GND.

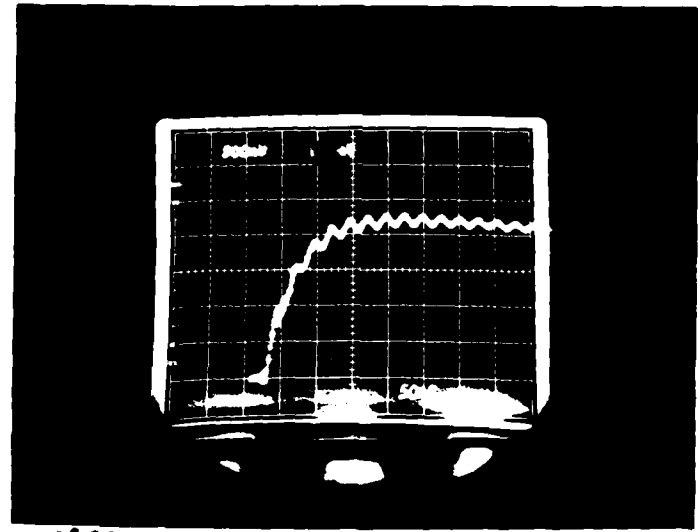
Date 5-31-85  
 Test Point 111-AL-1/10-A  
 Amplification dB  
 Attenuation - dB  
 Horizontal 50 ns/div 1  
 Vertical 5V (95V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link



500

Comments: 500

Date 5-31-85  
 Test Point 112-AL-1/10-Ø  
 Amplification - dB  
 Attenuation - dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level +600V  
 Data Link



488

Comments: ARCHER 488  
 COMMON TO GND

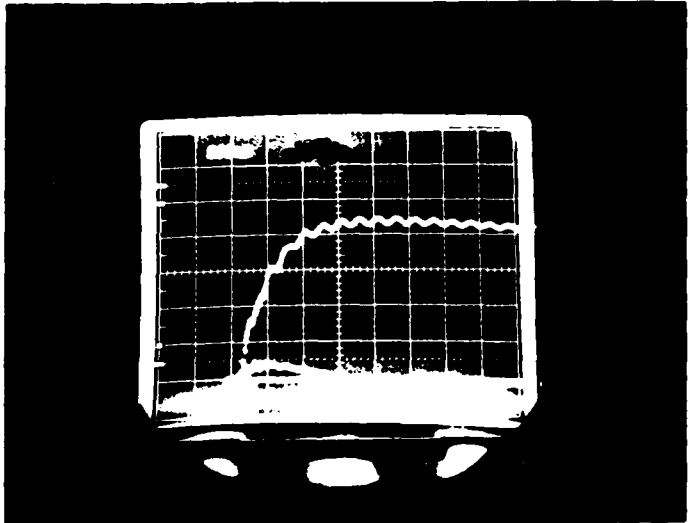
SCOPE DIN NOT TRIGGER ON TEST PULSE

Date 5-31-85  
 Test Point 112R-AL-1/10-Ø  
 Amplification dB  
 Attenuation dB  
 Horizontal 20 ns/div 1  
 Vertical .5V(140V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link

Comments:



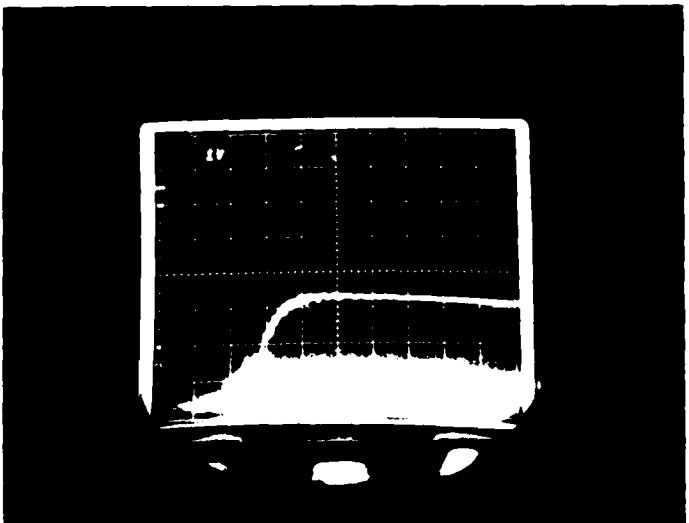
Date	5-31-85
Test Point	112-AL-1/10-φ
Amplification	dB
Attenuation	dB
Horizontal	50 ns/div 1
Vertical	.5 (140V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	+600V
Data Link	
Comments:	493



493

ARCHER  
"HOT TO COMMON"

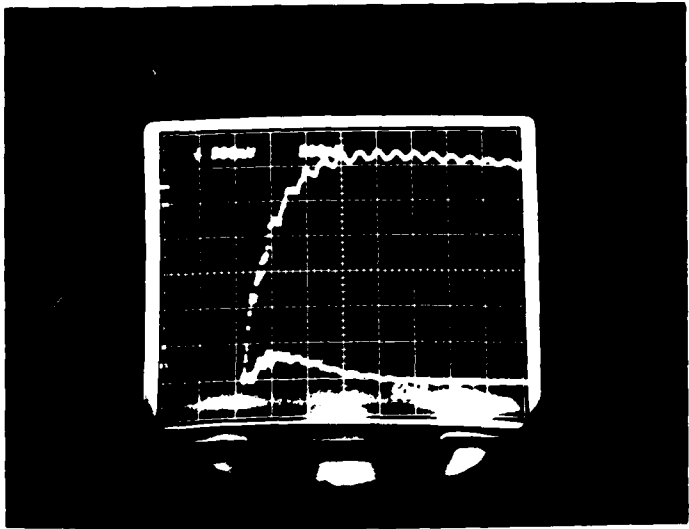
Date	5-31-85
Test Point	
Amplification	dB
Attenuation	20 dB
Horizontal	50 ns/div 1
Vertical	1V (1900V) mV/div 1
Horizontal	ns/div 2
Vertical	ns/div 2
Configuration	
Pulse Level	+4500
Data Link	
Comments:	494



494

ARCHER  
"HOT TO COMMON"

Date 5-31-85  
 Test Point 112R-AL-1/10-φ  
 Amplification dB  
 Attenuation — dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (95V) ~~mV~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600V  
 Data Link

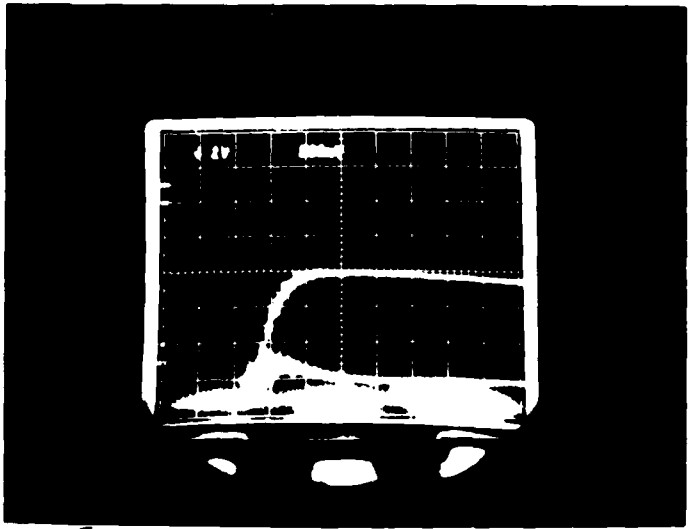


502

Comments: ARCHER 502

HOT TO COMMON

Date 5-31-85  
 Test Point 112R-CL-1/10-φ  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 50 ns/div 1  
 Vertical 1V (110V) ~~mV~~/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -4500V  
 Data Link



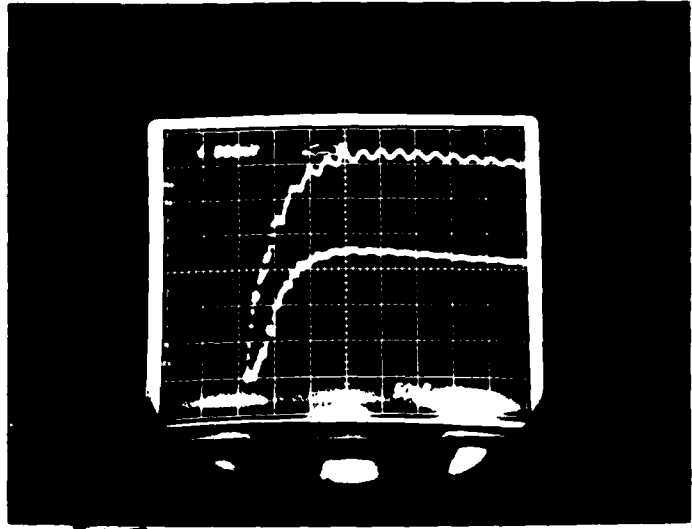
502

Comments: 503

"HOT TO COMMON"

Date 5-31-85  
 Test Point 112R-AL-1/10-Ø  
 Amplification dB  
 Attenuation dB  
 Horizontal 50 ns/div 1  
 Vertical .5V (8V) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level -600 V  
 Data Link  
 Comments:

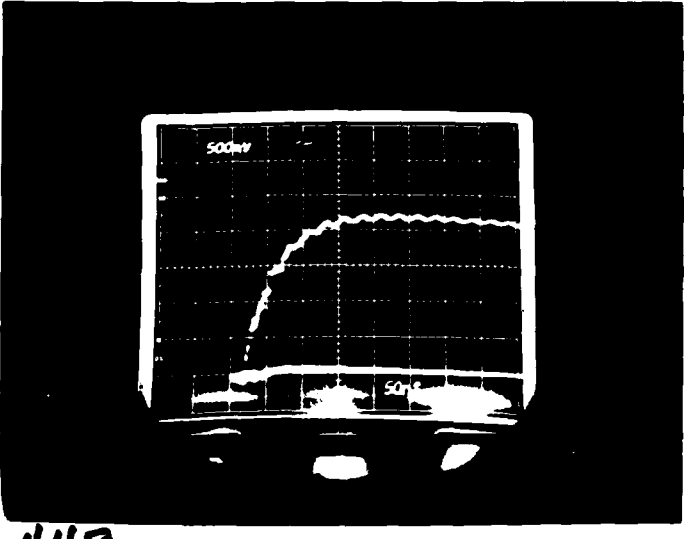
502  
 ARCHER  
 HOT TO COMMAND



502

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 **5-30-85**  
 Test Point **113 -BL-1/10-A**  
 Amplification **-** dB  
 Attenuation **-** dB  
 Horizontal **50** ns/div 1  
 Vertical **.5V (120)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments: **448**



**448**

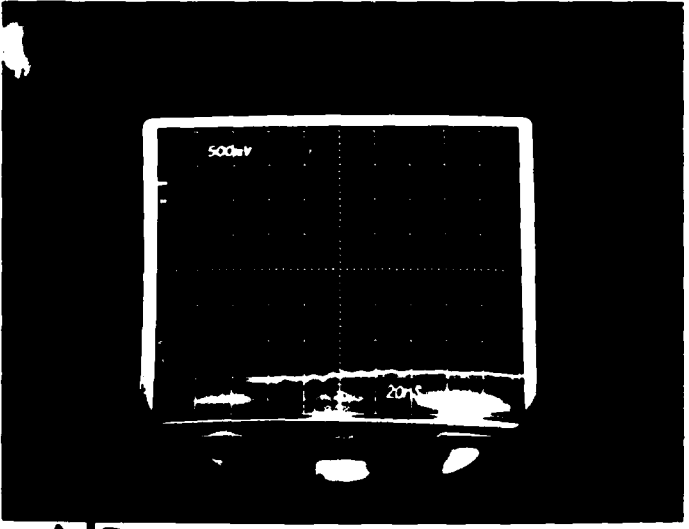


TEST # 113

SG = SIEMENS B1-C145

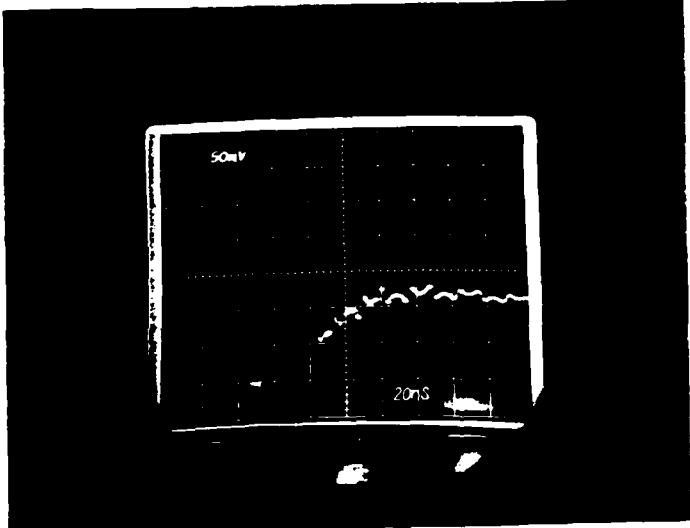
MOV = GE V82A2

Date **5-30-85**  
 Test Point **113 -BL: 1/10-A**  
 Amplification **-** dB  
 Attenuation **-** dB  
 Horizontal **20** ns/div 1  
 Vertical **.5V (120)** mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulser Level **600V**  
 Data Link  
 Comments: **449**



**449**

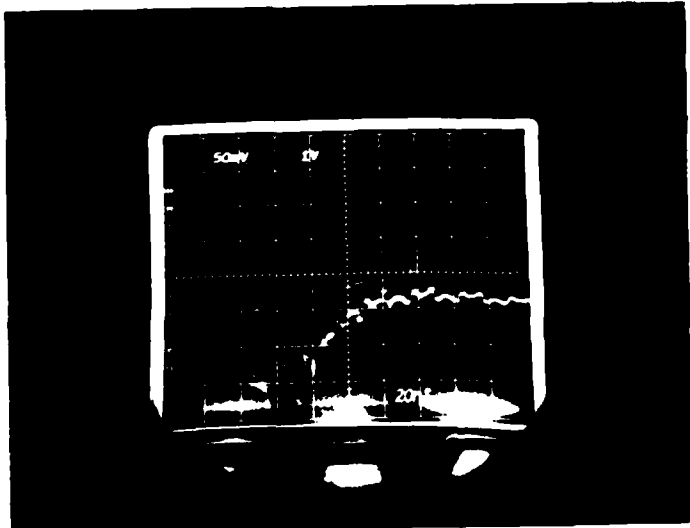
Date 5-30-85  
 Test Point 113-BL-1/10-A  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 20 ns/div 1  
 Vertical .05V(12) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600 V  
 Data Link



450

Comments: 450

Date 5-30-85  
 Test Point 113-BL-1/10-A  
 Amplification dB  
 Attenuation 20 dB  
 Horizontal 20 ns/div 1  
 Vertical .05V(12) mV/div 1  
 Horizontal ns/div 2  
 Vertical ns/div 2  
 Configuration  
 Pulsar Level 600V  
 Data Link



451

Comments: 451

**END**

**FILMED**

**386**

**DTIC**