AD-A131 547 DTAGS (DEEP TOWED ARRAY GEOPHYSICAL SYSTEM) TELEMETRY SYSTEM(U) ELECTROSPACE SYSTEMS INC RICHARDSON TEX 24 JUN 83 N00014-82-C-0764 1/1

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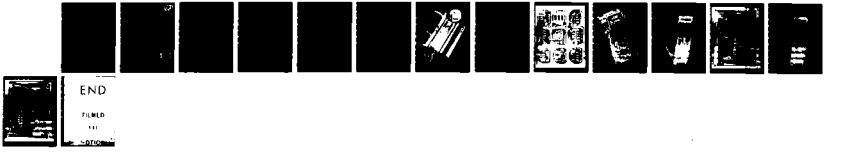

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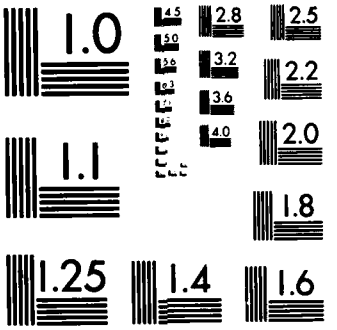

ELECTROSPACE SYSTEMS, INC.

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Scientific Officer
Ocean Technology Division
Instrumentation Division
Naval Ocean Research and Development Activity
NSTL Station, Mississippi 39529

Attention: Mr. Stephen E. Spychalski (Code 350B)

Subject: Contract No. N00014-82-C-0764/A007

Enclosure: DTAGS Telemetry System Final Report,
24 June 1983 (1 copy)

Dear Sir:

Electrospace Systems, Inc. is pleased to submit the Final Summary Report for the DTAGS Telemetry System as required in the subject contract.

If you have any questions please contact the undersigned or Dr. Steve K. Jones at 214/231-9303.

Very truly yours,

ELECTROSPACE SYSTEMS, INC.

E. Delbert Horton
DTAGS Program Manager

EDH/cln

cc: Cliff Davis (letter only)
Scientific Officer/N68462
ACO/S4403A
Director, Naval Research/N00173
Defense Technical Information Center

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DTAGS

TELEMETRY SYSTEM

FINAL REPORT

Prepared by

ELECTROSPACE SYSTEMS, INC.

June 24, 1983

DTAGS TELEMETRY SYSTEM - FINAL REPORT

This report summarizes and reviews the development of the telemetry system for the Deep Towed Array Geophysical System (DTAGS).

The DTAGS telemetry system consists of the following assemblies:

PCM Uplink Encoder,

FSK Downlink Control

Cable Interface.

The PCM Uplink Encoder included the following towfish printed circuit boards:

Analog Interface	(9)
Analog Mux	(2)
Floating Point Amplifier	(1)
PCM Mux & Control	(1)
PCM Submux	(1)
Shield Board	(1)
Motherboard	(1)

The motherboard included space for 8 GFE printed circuit boards. Also a part of the PCM Uplink assembly was the towfish encoder chassis and a single channel digital to analog converter to be located topside.

The FSK Downlink Control assembly included the FSK Encoder, located topside, and the following printed circuit boards located in the towfish:

FSK Decoder - 1	(1)
FSK Decoder - 2	(1)

The Cable Interface included the following towfish printed circuit boards:

PCM Driver	(1)
Power Isolator	(1)

Also included is a topside cable interface and equalizer which provides power isolation, separates uplink and downlink signals on the cable, and equalizes the attenuation characteristics of the cable. Pictures of the DTAGS Telemetry System equipment are included in Appendix A.

APPENDIX A

Photographs of the DTAGS Telemetry System

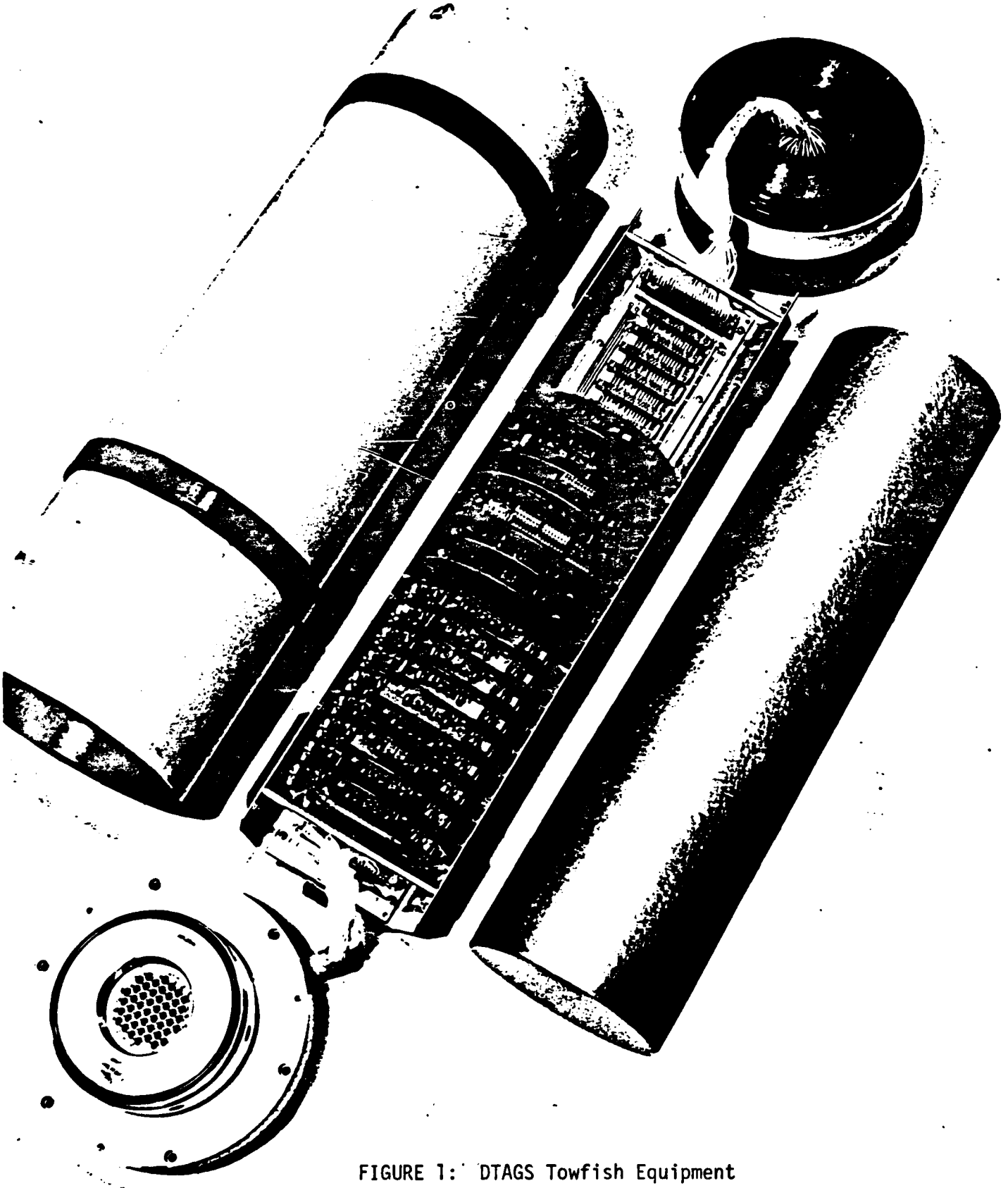

FIGURE 1: DTAGS Towfish Equipment

FIGURE 2: DTAGS Towfish Boards - from left to right:
Top Row - PCM Mux & Control, FSK Decoder #2, FSK Decoder #1;
Second Row - PCM Driver/Cable Interface, Floating Point
Amplifier, Analog Interface; Third Row - Analog Mux #2,
PCM Submux, Analog Mux #1.

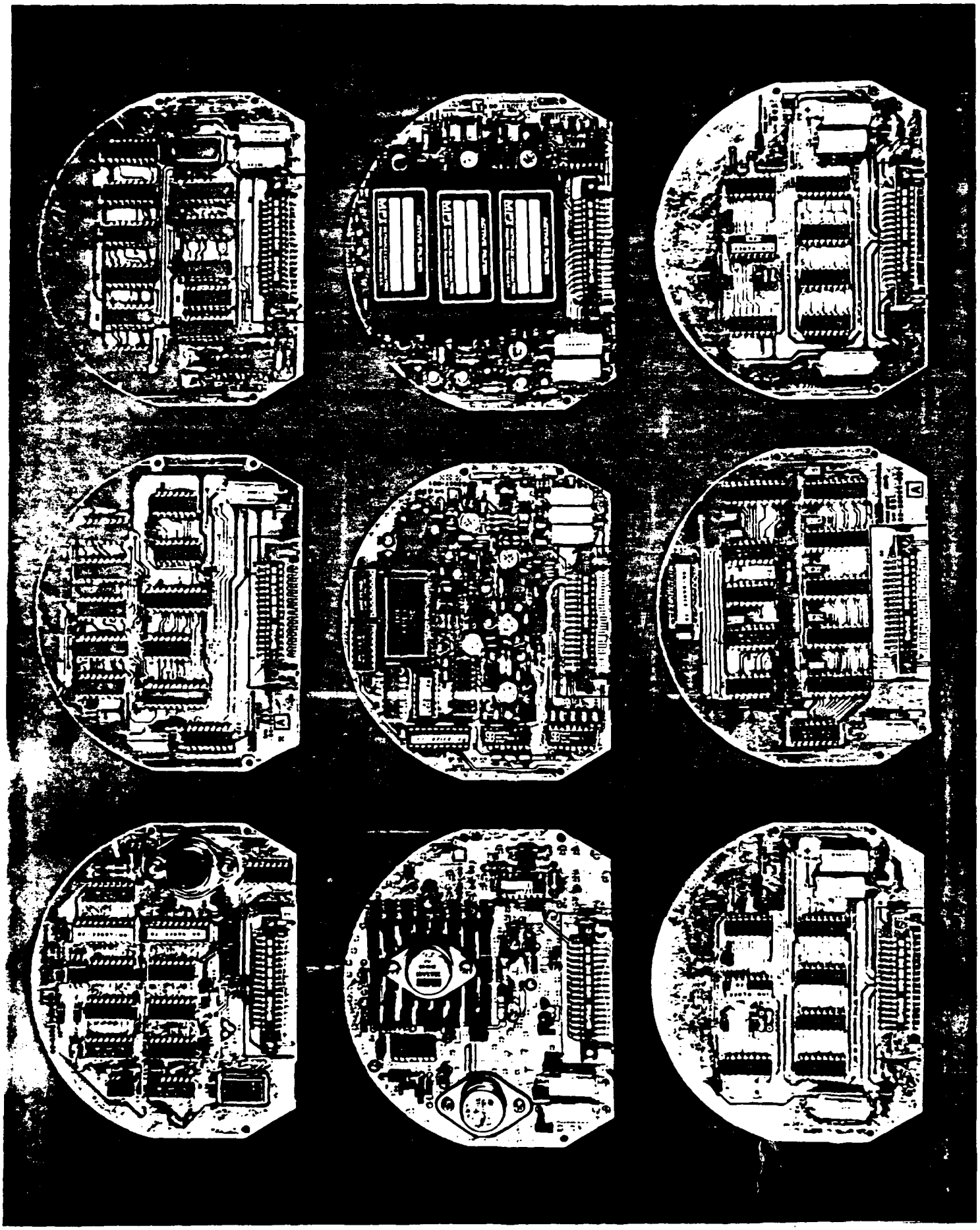

FIGURE 2: DTAGS Towfish Boards

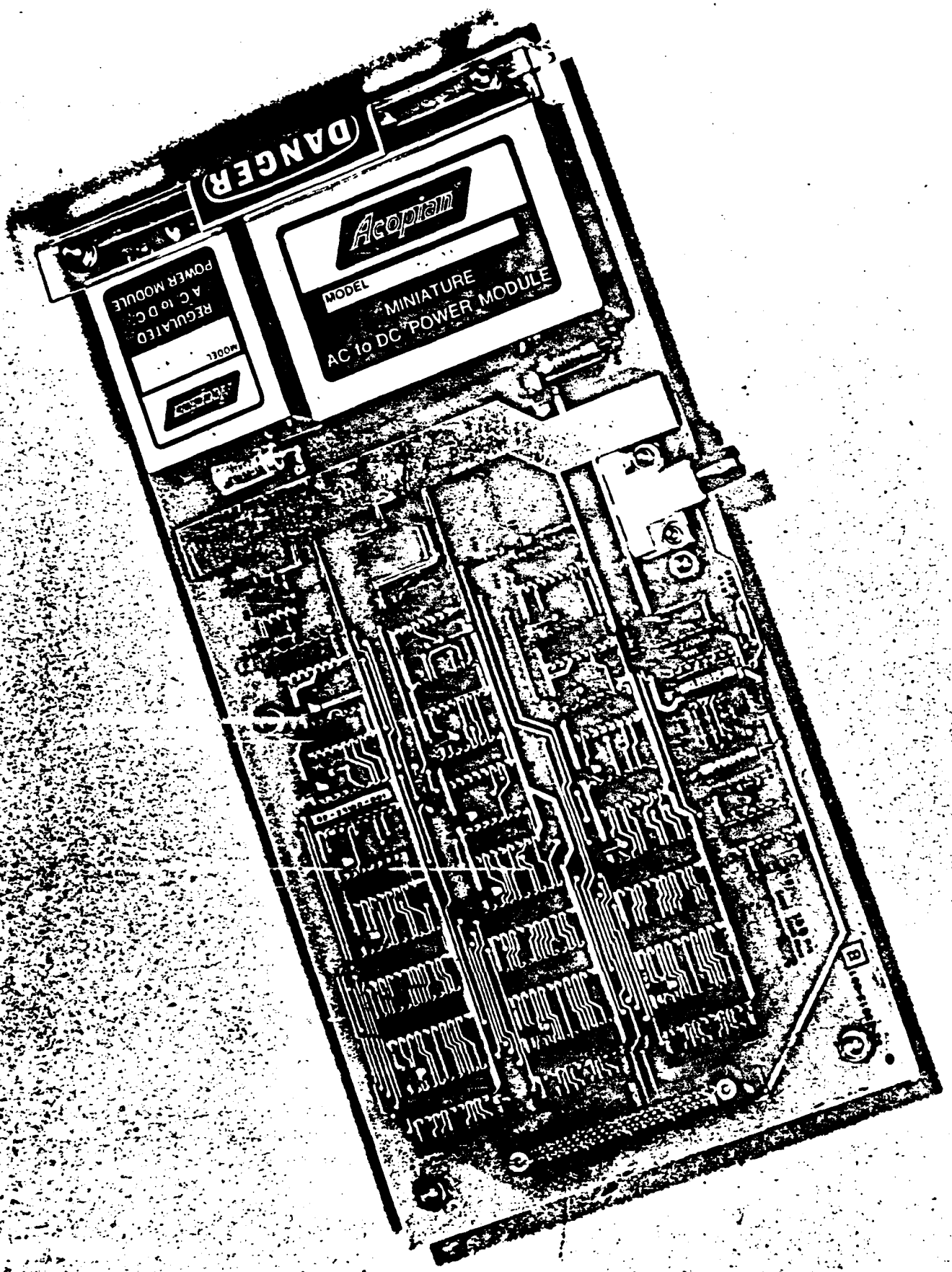

FIGURE 3: Topsides FSK Encoder & Modulator

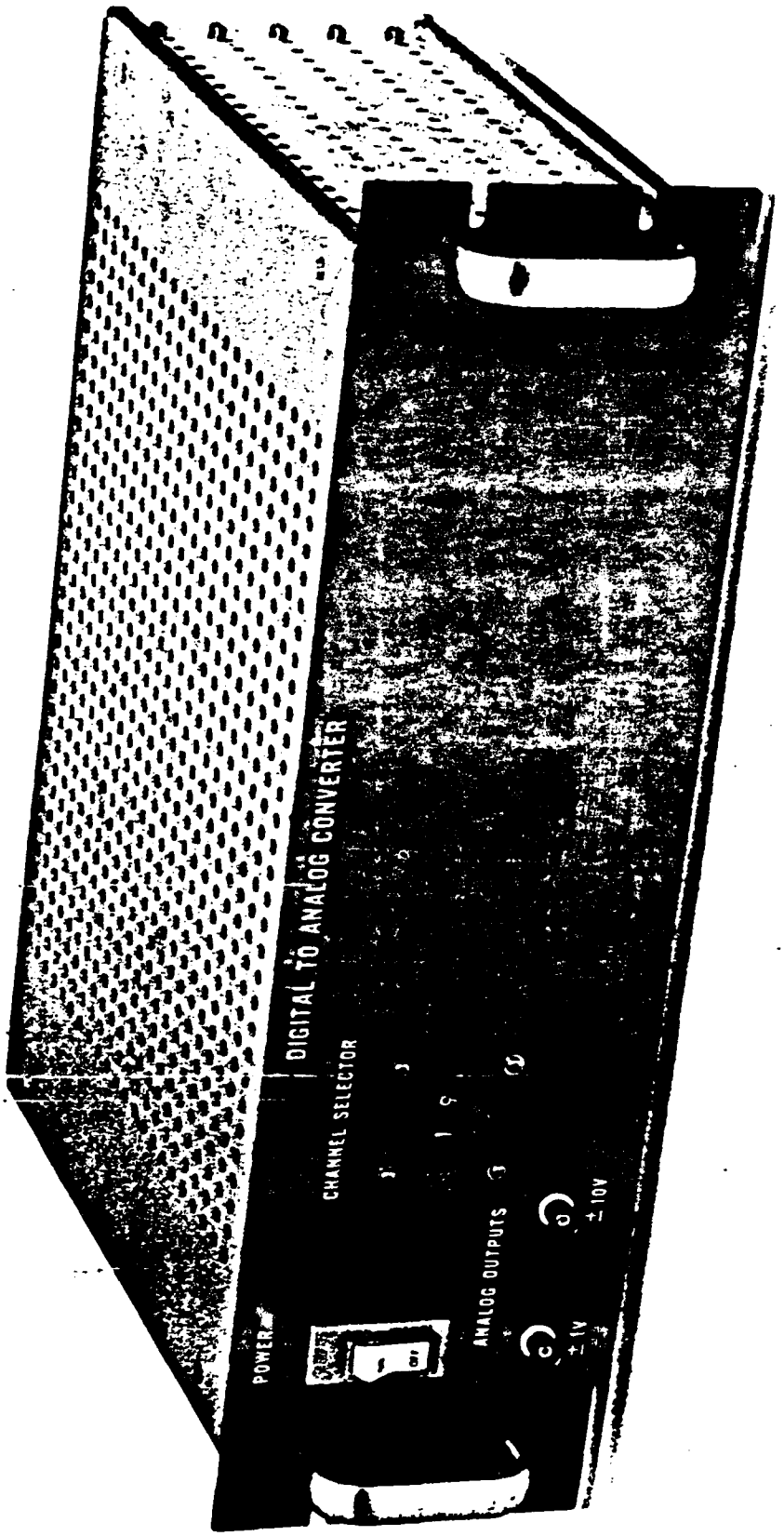

FIGURE 4: Topside Digital to Analog Converter Assembly

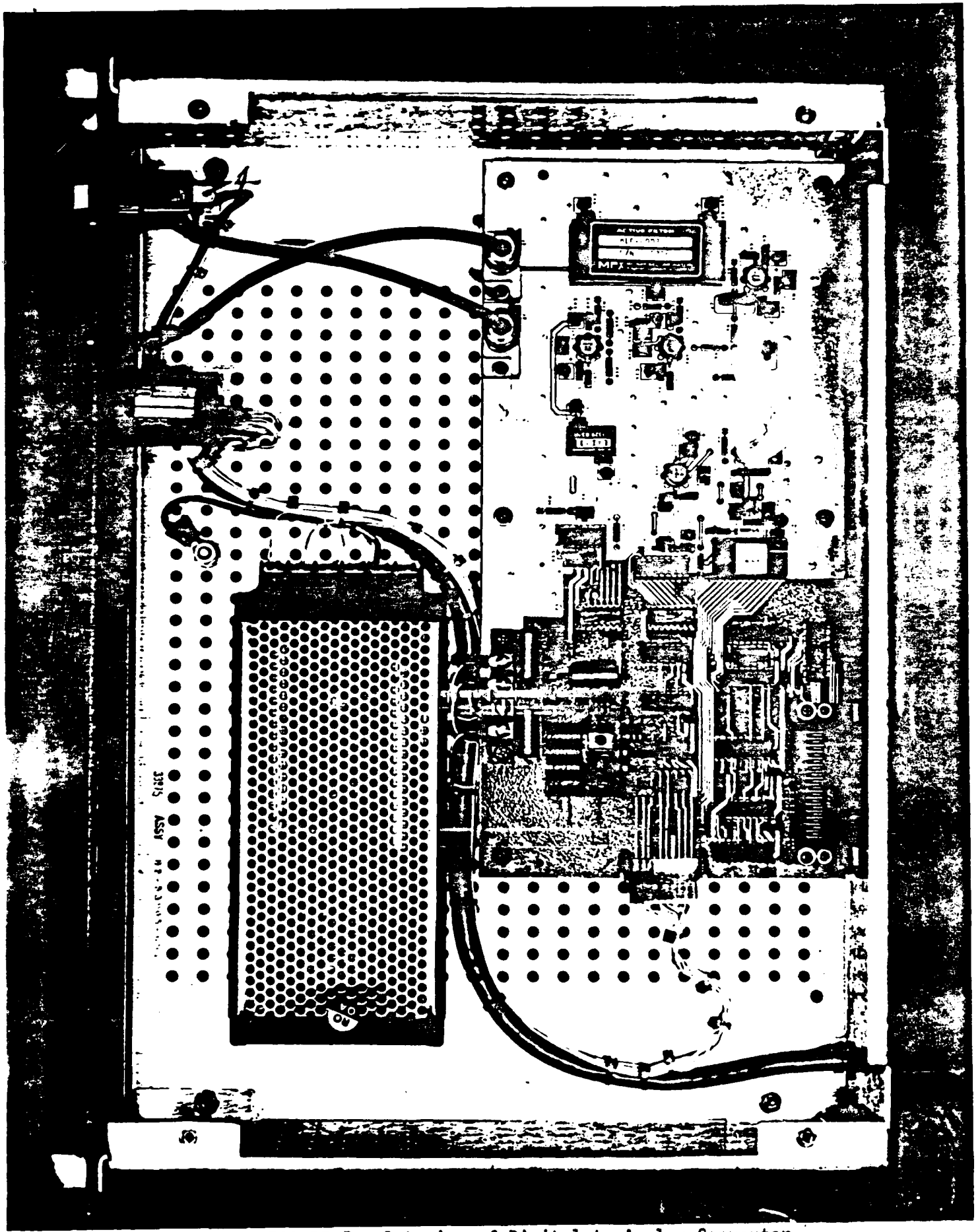

FIGURE 5: Interior of Digital to Analog Converter

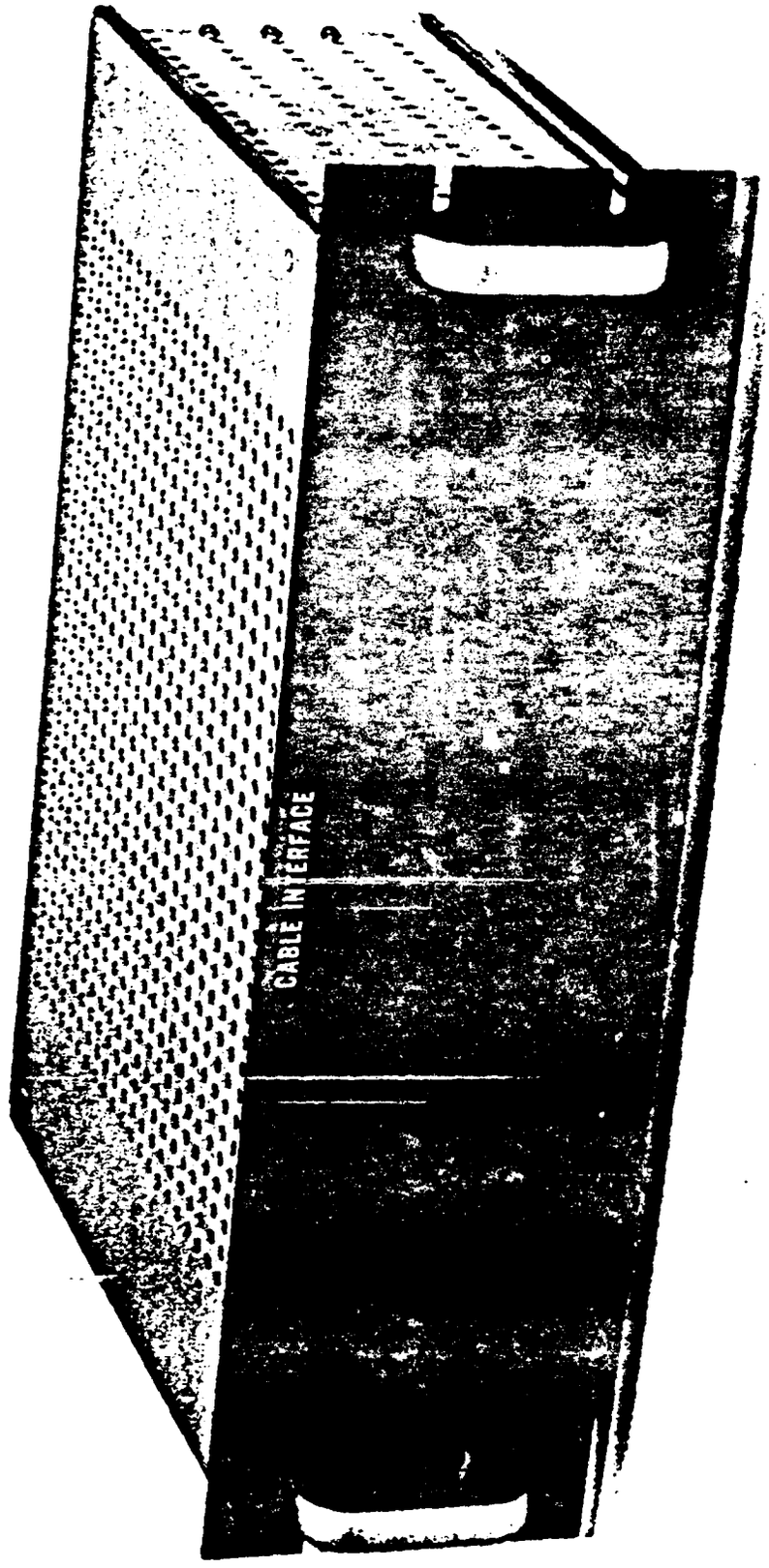

FIGURE 6: Topside Cable Interface Assembly

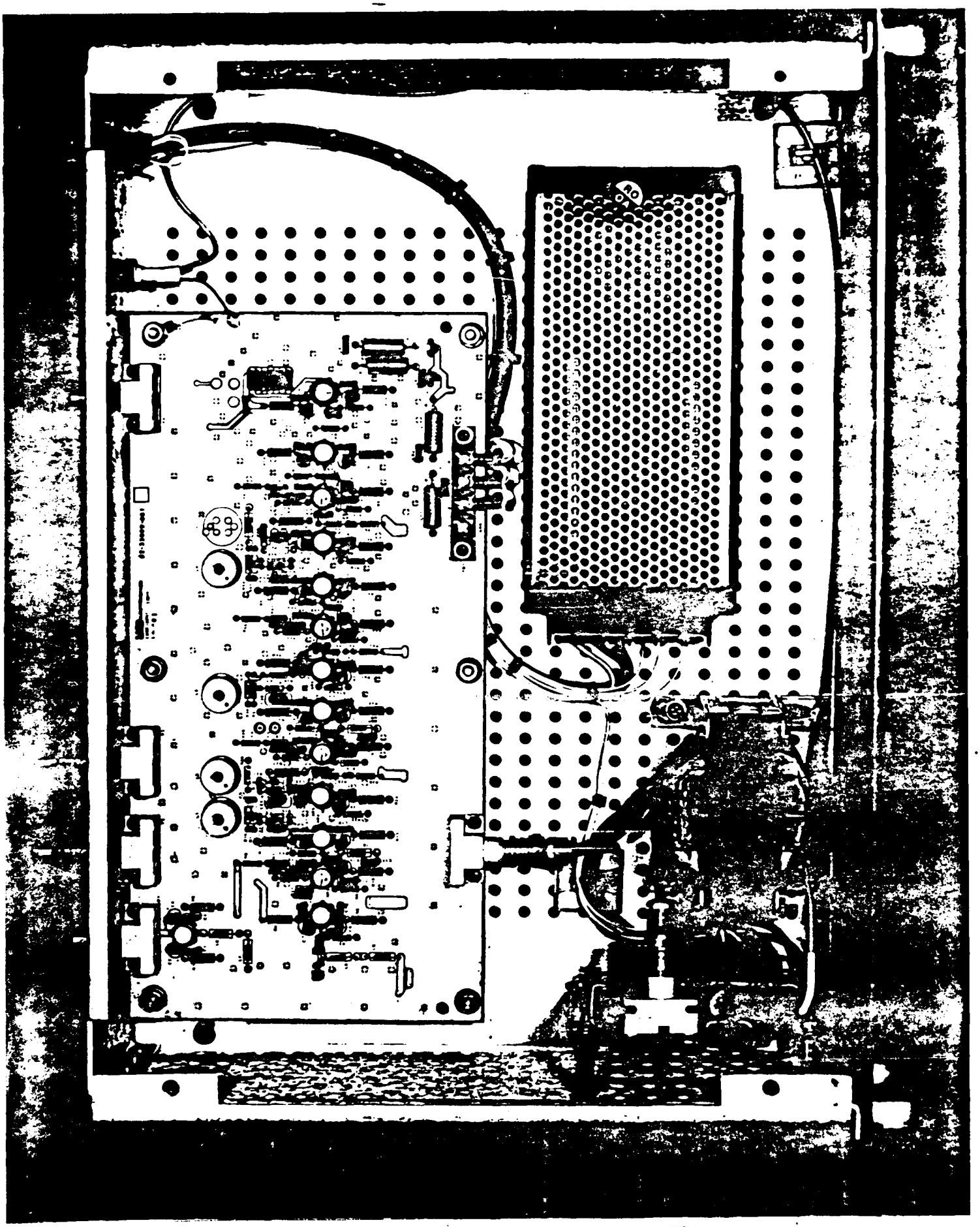

FIGURE 7: INTERIOR OF CABLE INTERFACE

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