

**TECHNICAL MANUAL FOR
MICROWAVE HORN ANTENNA**

MWH-2640G

26.0 – 40.0 GHz



Advanced Antennas

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1.0 MWH – 2640G SPECIFICATIONS

The MWH-2640G is a microwave horn antenna. It operates over the frequency band from 26.0 – 40.0 GHz. A mounting adapter to mount the antenna onto a tripod with a ¼” – 20 stud, is optionally available.

1.1 ELECTRICAL SPECIFICATIONS

Electrical

Frequency Range	26.0 – 40.0 GHz
VSWR (Typ.)	2.0 : 1
Gain, dBi (Typ.)	See Table 1.1
Antenna Factor (Typ.)	See Table 1.1
Power Handling	5 Watts CW
Polarization	Linear
Connector	K – Female
Impedance	50 ohms

Calibration curves for each antenna are available when ordered. Antenna patterns from 26.0 GHz to 40.0 GHz are contained herein in Appendix II.

Model MWH - 2640G					
Typical Antenna Factor and Gain			Power Requirement (Watts) at 1 Meter Spacing to Obtain Field Strength		
Frequency (GHz)	Gain dBi	AFE dB m-l	10 V/m	20 V/m	100 V/m
26.28	23.2	35.33	0.016	0.064	1.60
30	23.6	35.57	0.015	0.058	1.46
32	24.1	35.67	0.013	0.052	1.30
34	24.3	36.03	0.012	0.050	1.24
36	24.4	36.46	0.012	0.048	1.21
38	24.7	36.66	0.011	0.045	1.13
40	24.9	36.93	0.011	0.043	1.08
	25.0	37.27	0.011	0.042	1.05

Table 1.1

1.2 MECHANICAL SPECIFICATIONS

Mechanical

Dimensions	See Appendix I
Weight	1.12 lbs (.51 kg)
Mounting	See Appendix I

An outline sketch of the antenna is included herein in Appendix I.

2.0 REPLACEABLE PARTS LIST

When placing orders, please include the model number, description, and part number.

Example: Model Number: MWH – 2640G
 Description: Broadband Horn Antenna
 Part Number: AA-MWH-2640G

All assembly hardware is American Standard for Unified Screw Threads.

<u>REPLACEABLE PARTS LIST FOR MWH - 2640G</u>	
AA PART NUMBER	DESCRIPTION
AA-MWH-2640G	MWH – 2640G Horn Antenna

There are no field replaceable parts for MWH – 2640G. Any damage that may occur to the unit will require returning the unit to Advanced Antennas for servicing.



Figure 1-1 The MWH-2640G (Front)

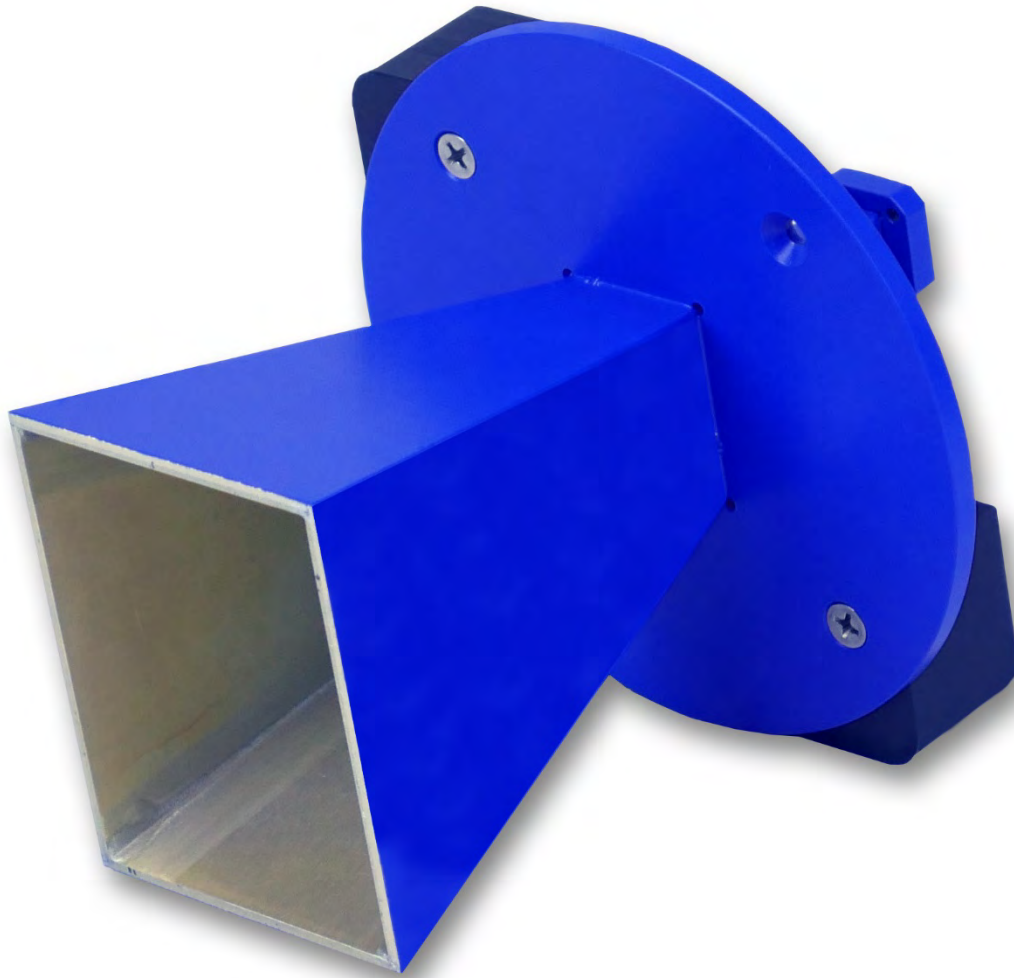


Figure 1-1 The MWH-2640G (3/4 Side)

Appendix I

Figure 1 – Outline Drawing MWH-2640G

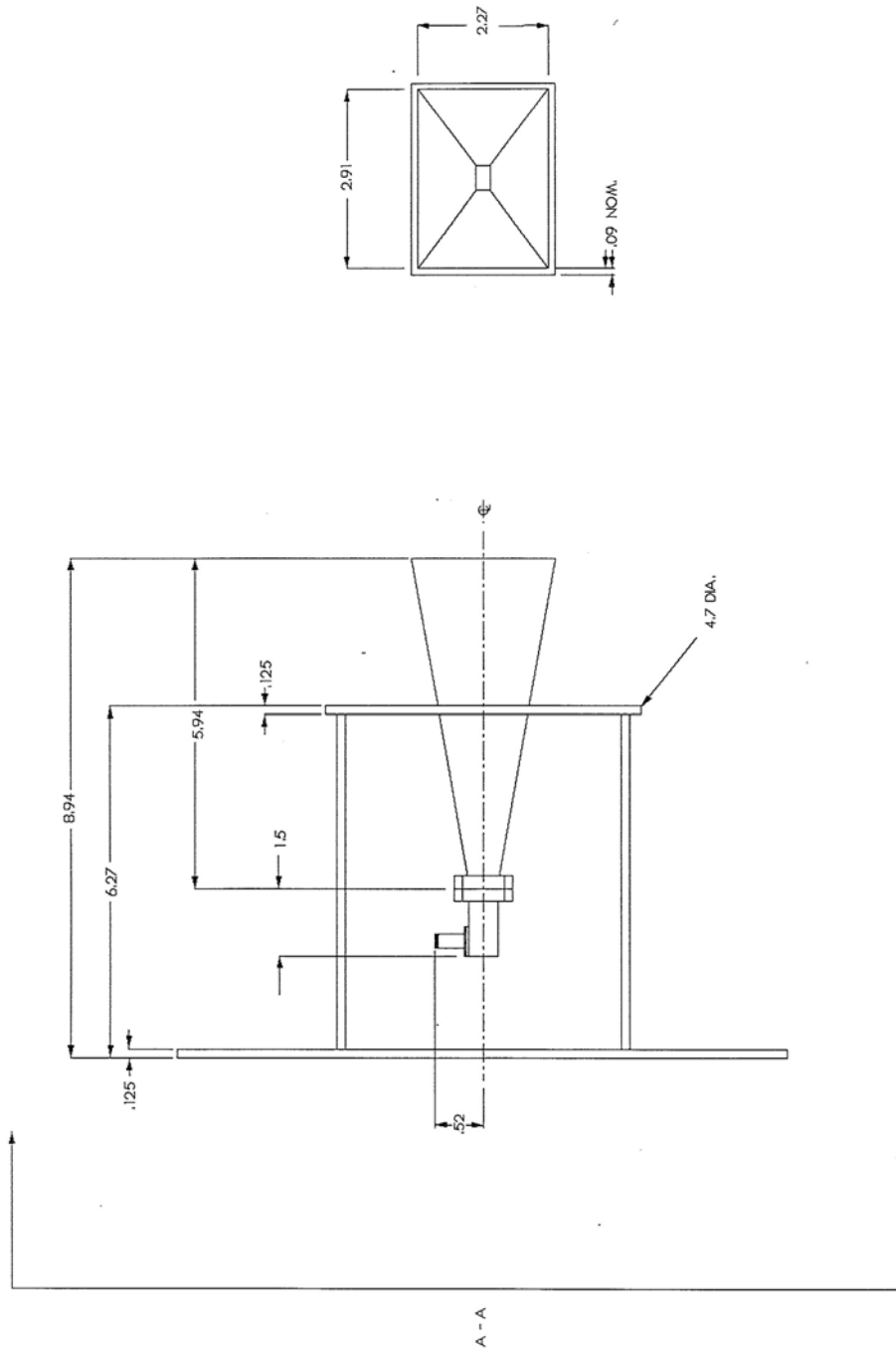
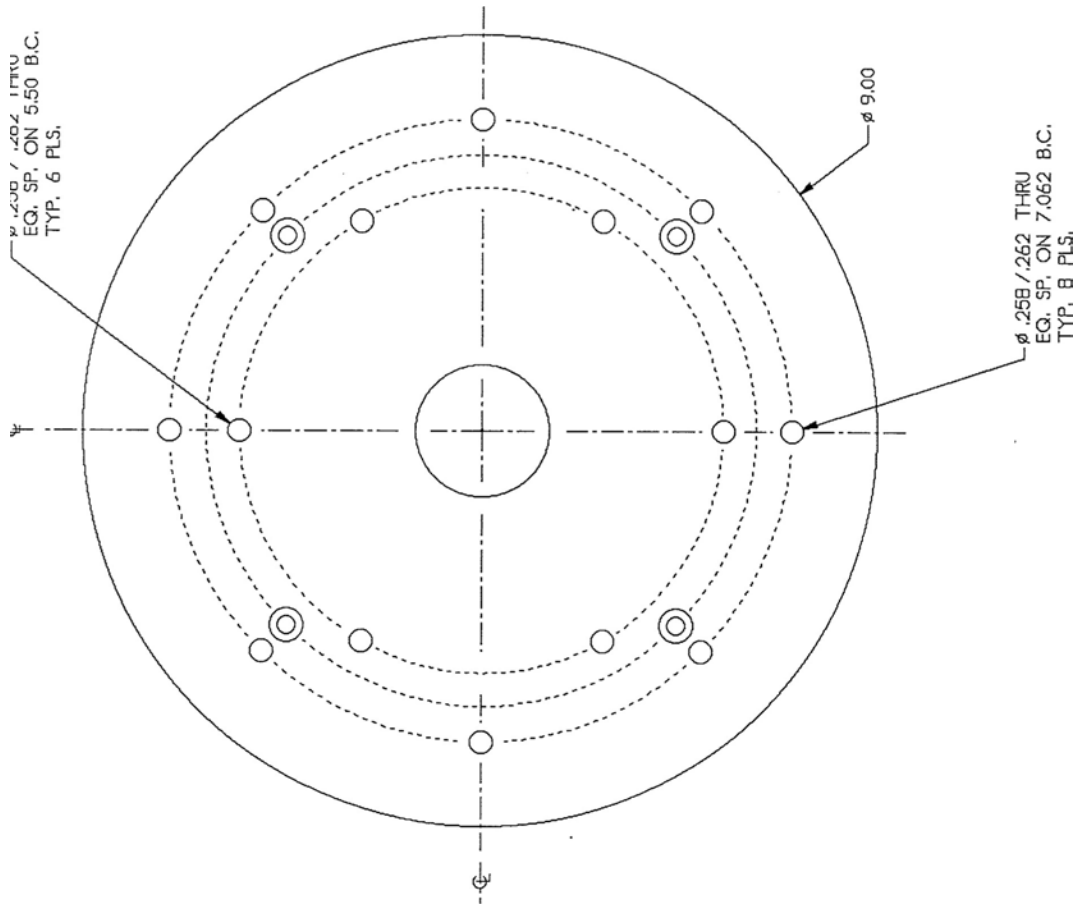


Figure 1 – OUTLINE DRAWING MWH – 2640G



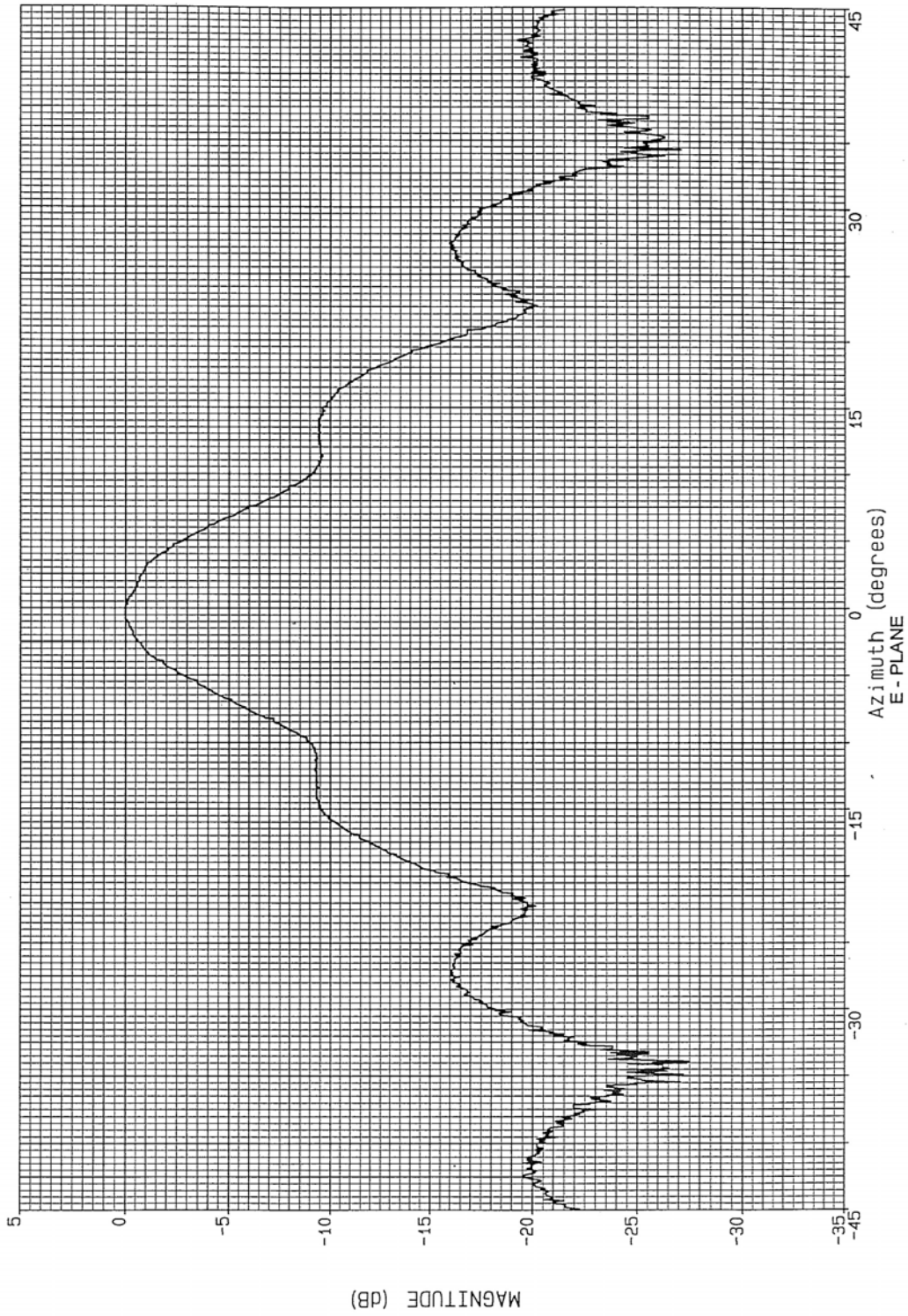
Section A - A
Figure 1 - OUTLINE DRAWING MWH - 2640G

Appendix II

Antenna Patterns 26.0 – 40.0 GHz

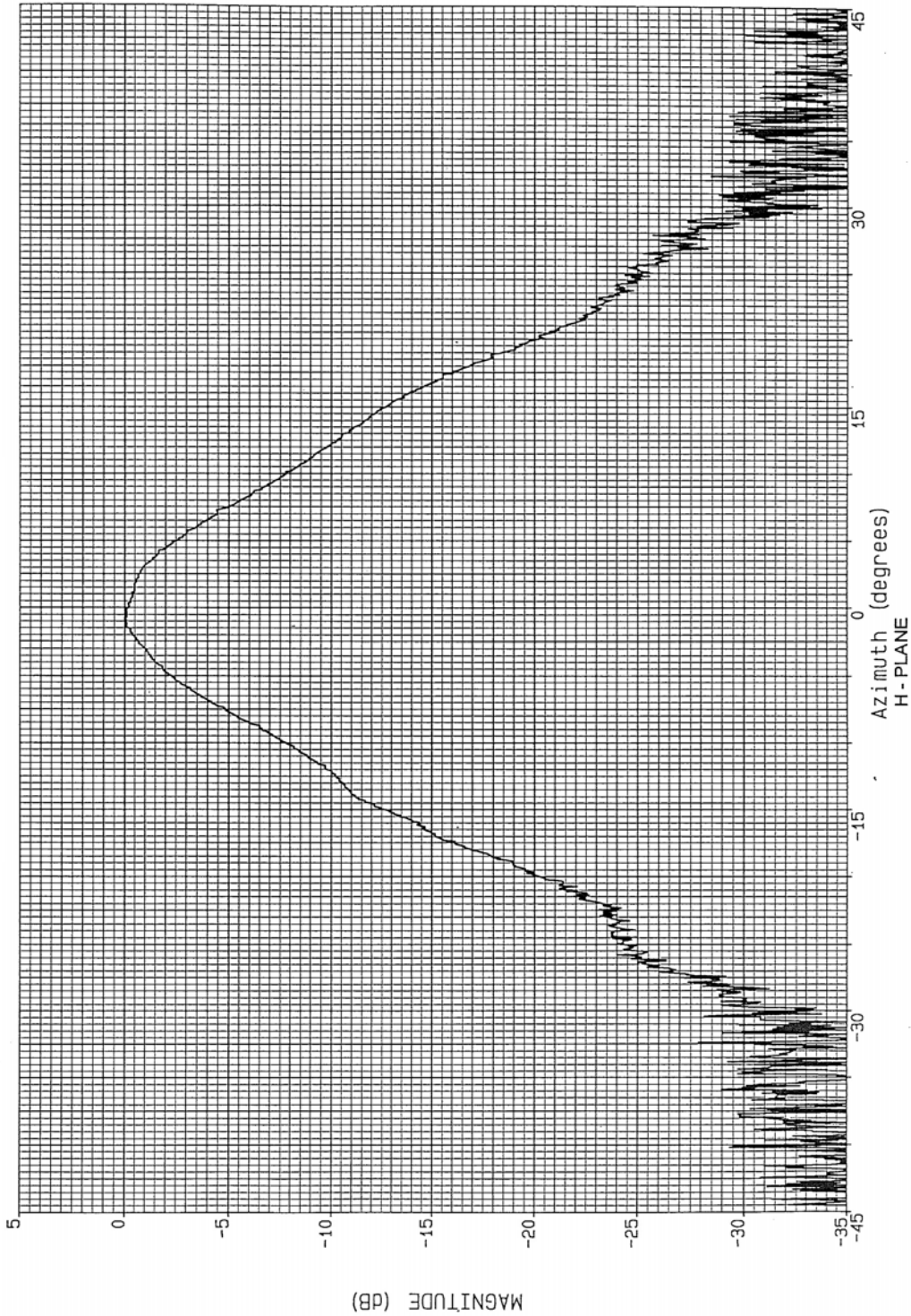
08/09/93 09:22:57
PLOT: Channel 1
Data: _____

FILENAME: 2640.010
FREQ: 26.000 GHz
POLARIZATION: Linear



08/09/93 09:10:50
PLOT: Channel 1
Data: _____

FILENAME: 2640.001
FREQ: 26.000 GHz
POLARIZATION: Linear

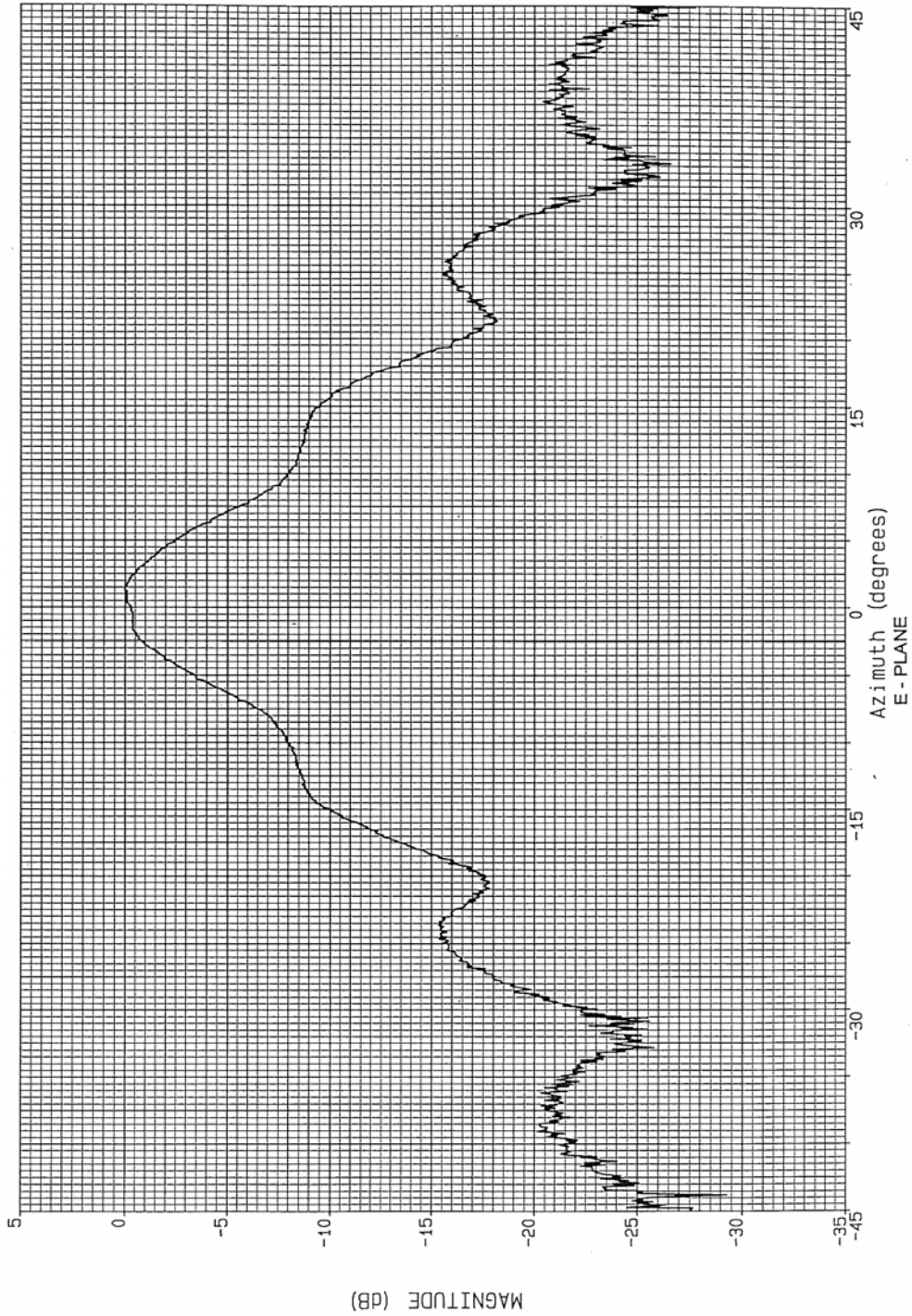


08/09/93 09:23:32

PLOT: Channel 1

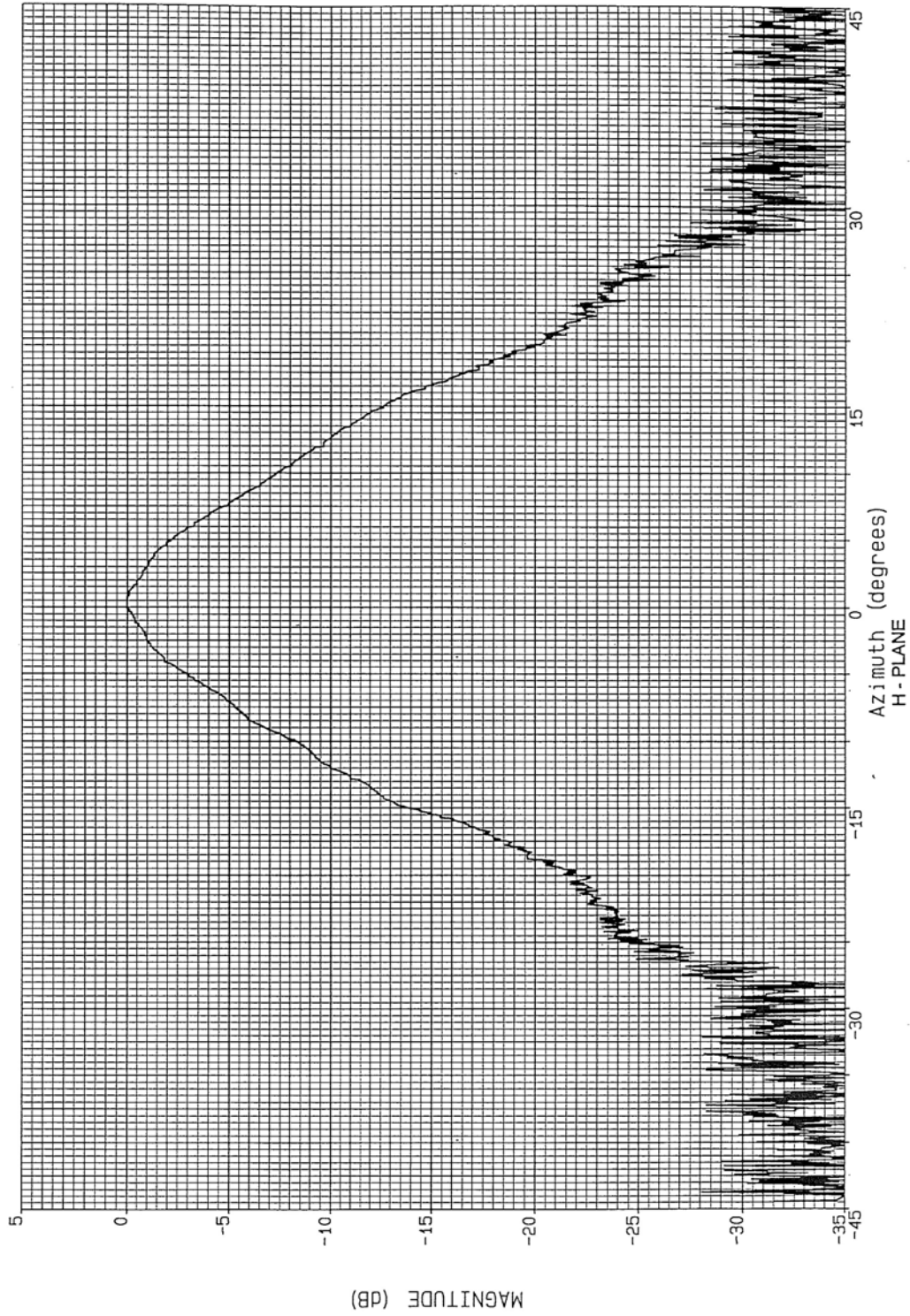
Data: _____

FILENAME: 2640.011
FREQ: 28.000 GHz
POLARIZATION: Linear



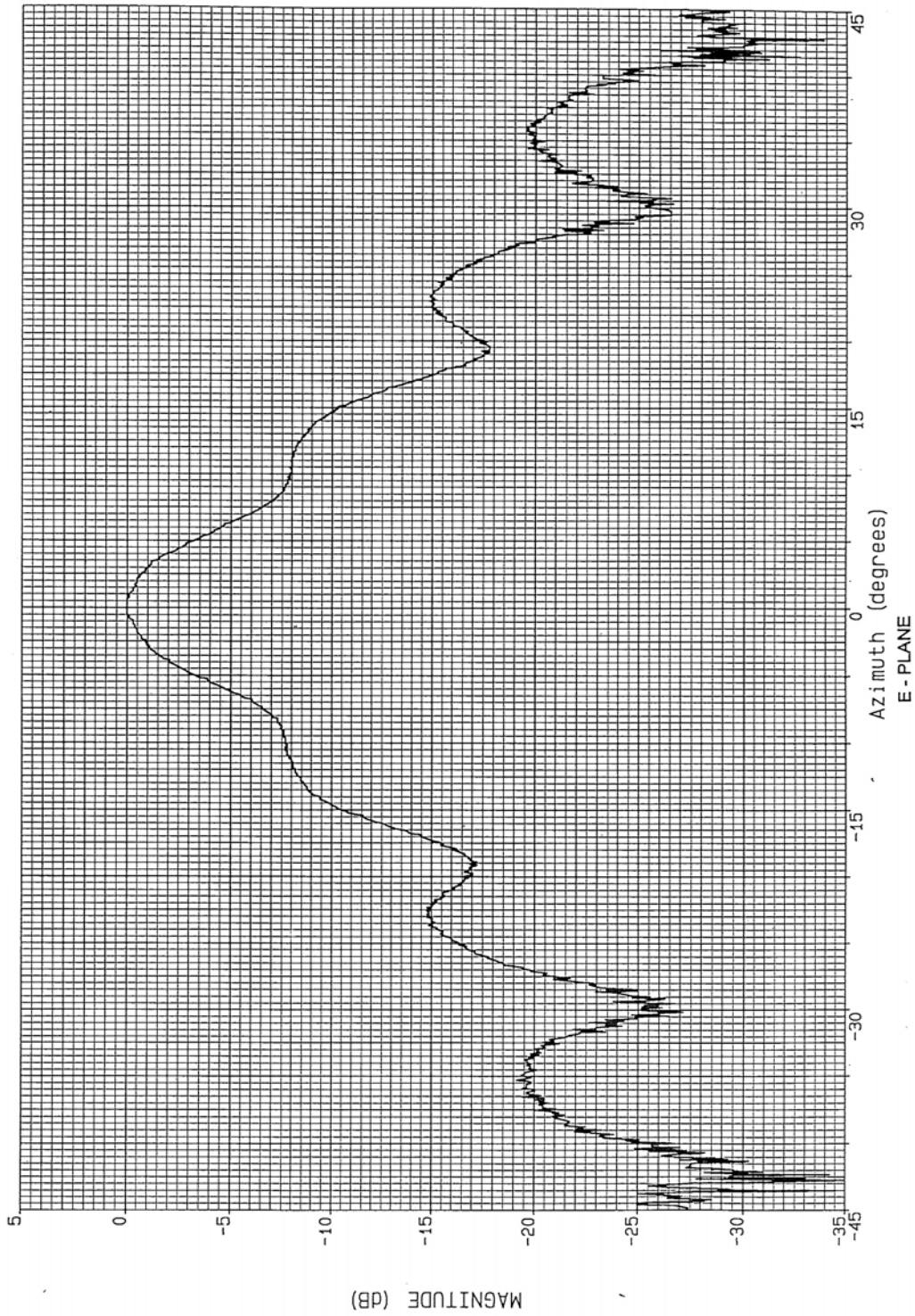
08/09/93 09:11:17
PLOT: Channel 1
Data: _____

FILENAME: 2640.002
FREQ: 28.000 GHz
POLARIZATION: Linear



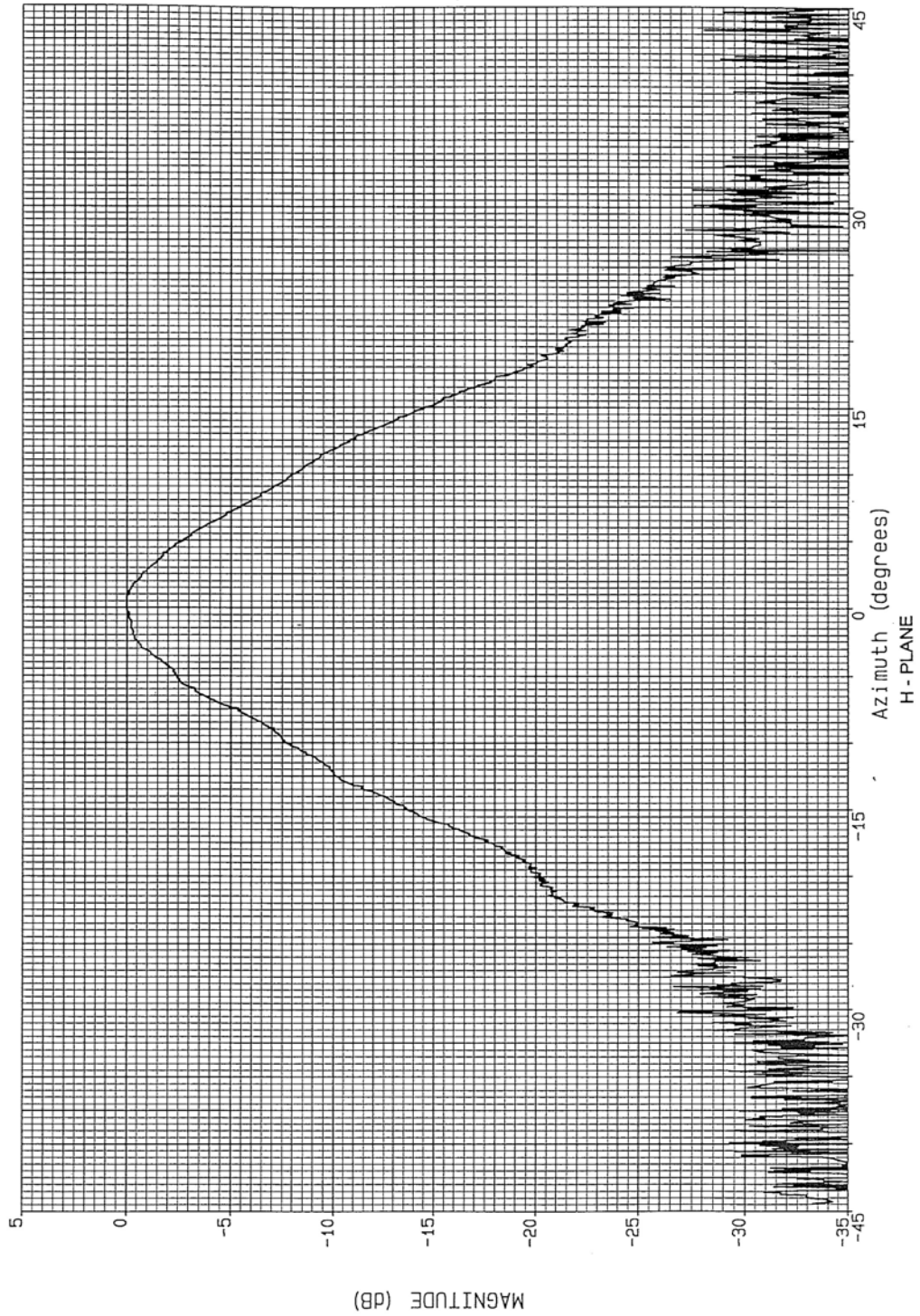
08/09/93 09:24:07
PLOT: Channel 1
Data: _____

FILENAME: 2640.012
FREQ: 30.000 GHz
POLARIZATION: Linear



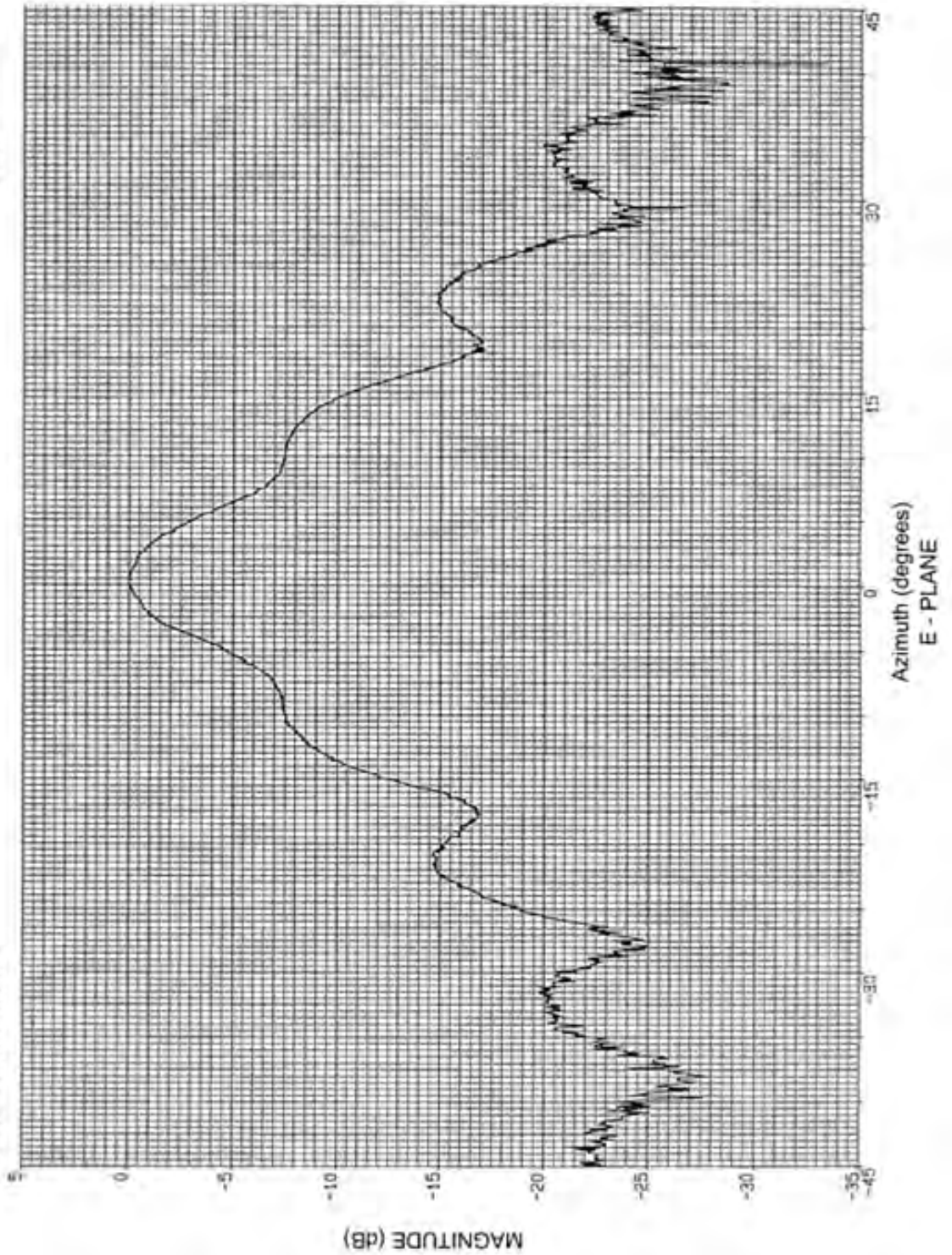
08/09/93 09:11:50
PLOT: Channel 1
Data: _____

FILENAME: 2640.003
FREQ: 30.000 GHz
POLARIZATION: Linear



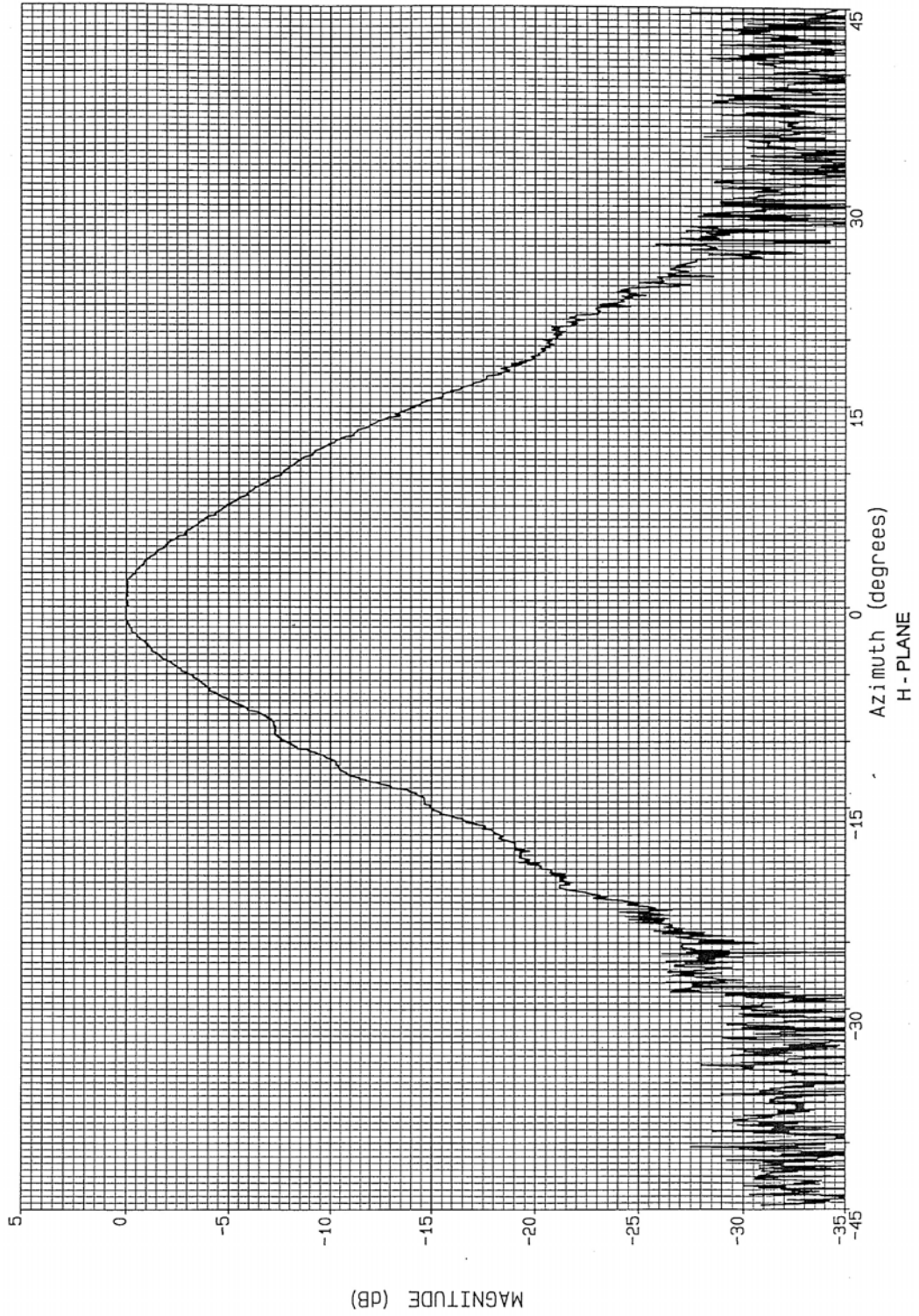
08/09/93 09:24:42
PLOT: Channel 1
Date: _____

FILENAME: 2640.013
FREQ: 32.000 GHz
POLARIZATION: LINEAR



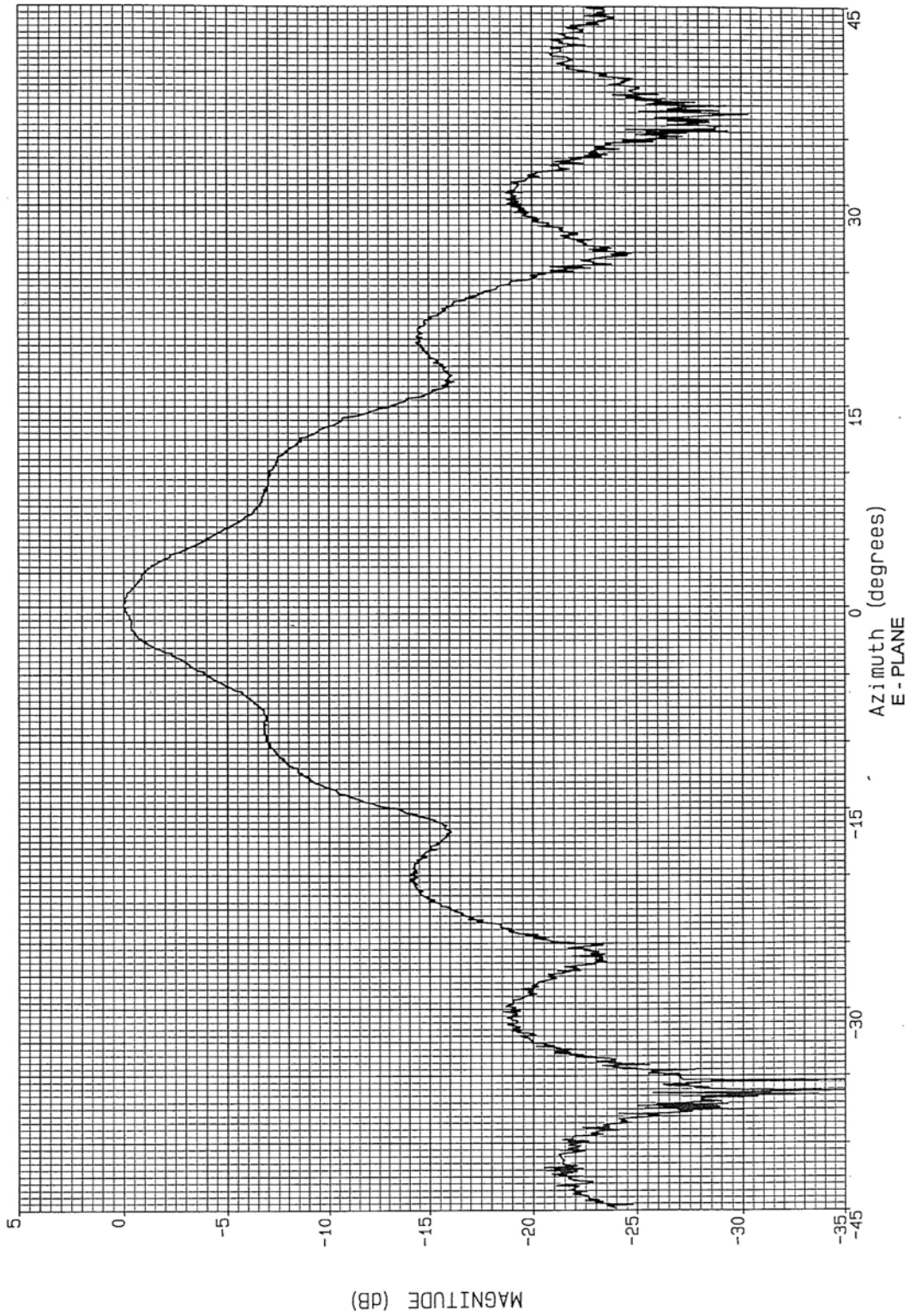
08/09/93 09:12:23
PLOT: Channel 1
Data: _____

FILENAME: 2640.004
FREQ: 32.000 GHz
POLARIZATION: Linear



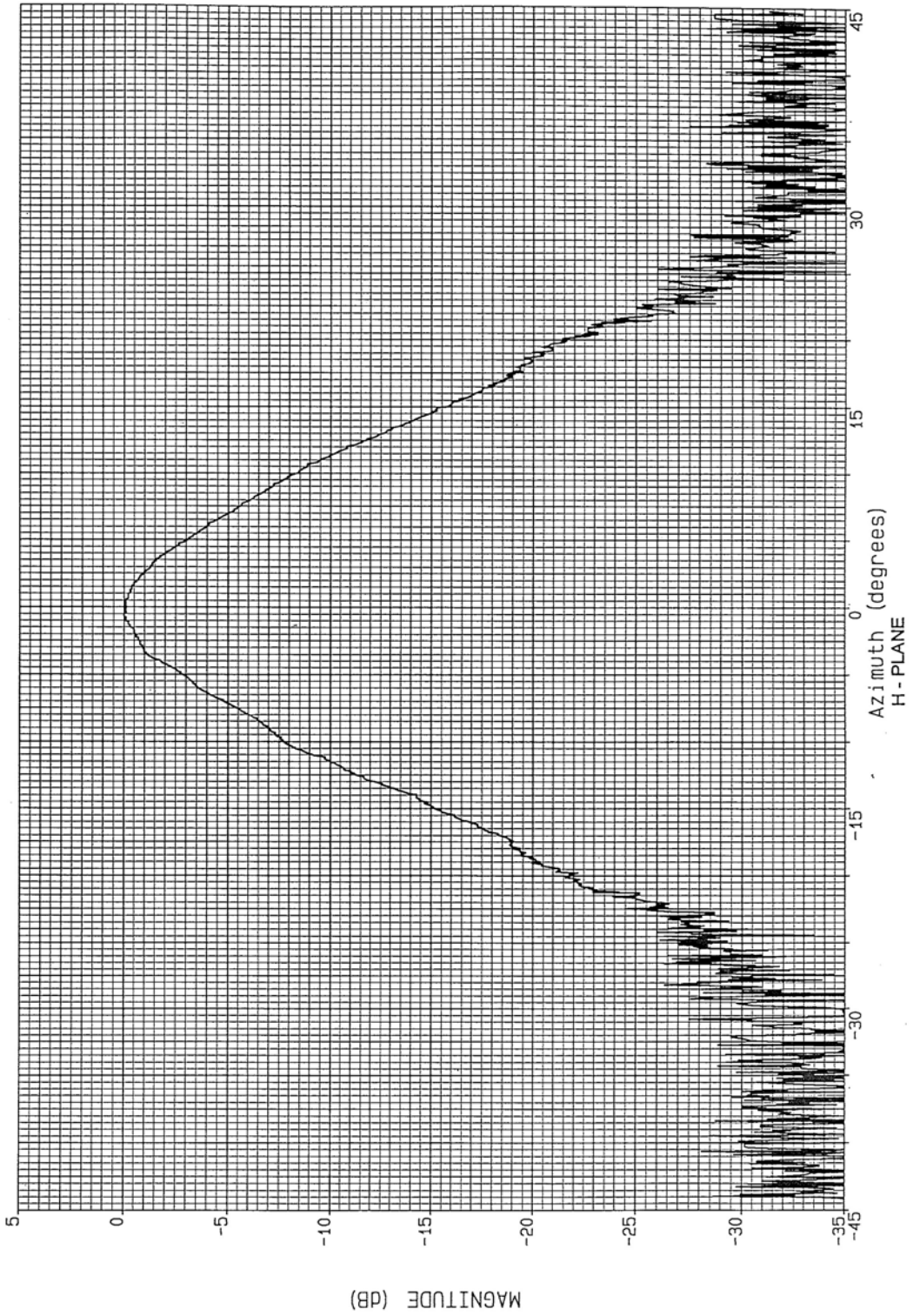
08/09/93 09:25:16
PLOT: Channel 1
Data: _____

FILENAME: 2640.014
FREQ: 34.000 GHz
POLARIZATION: Linear



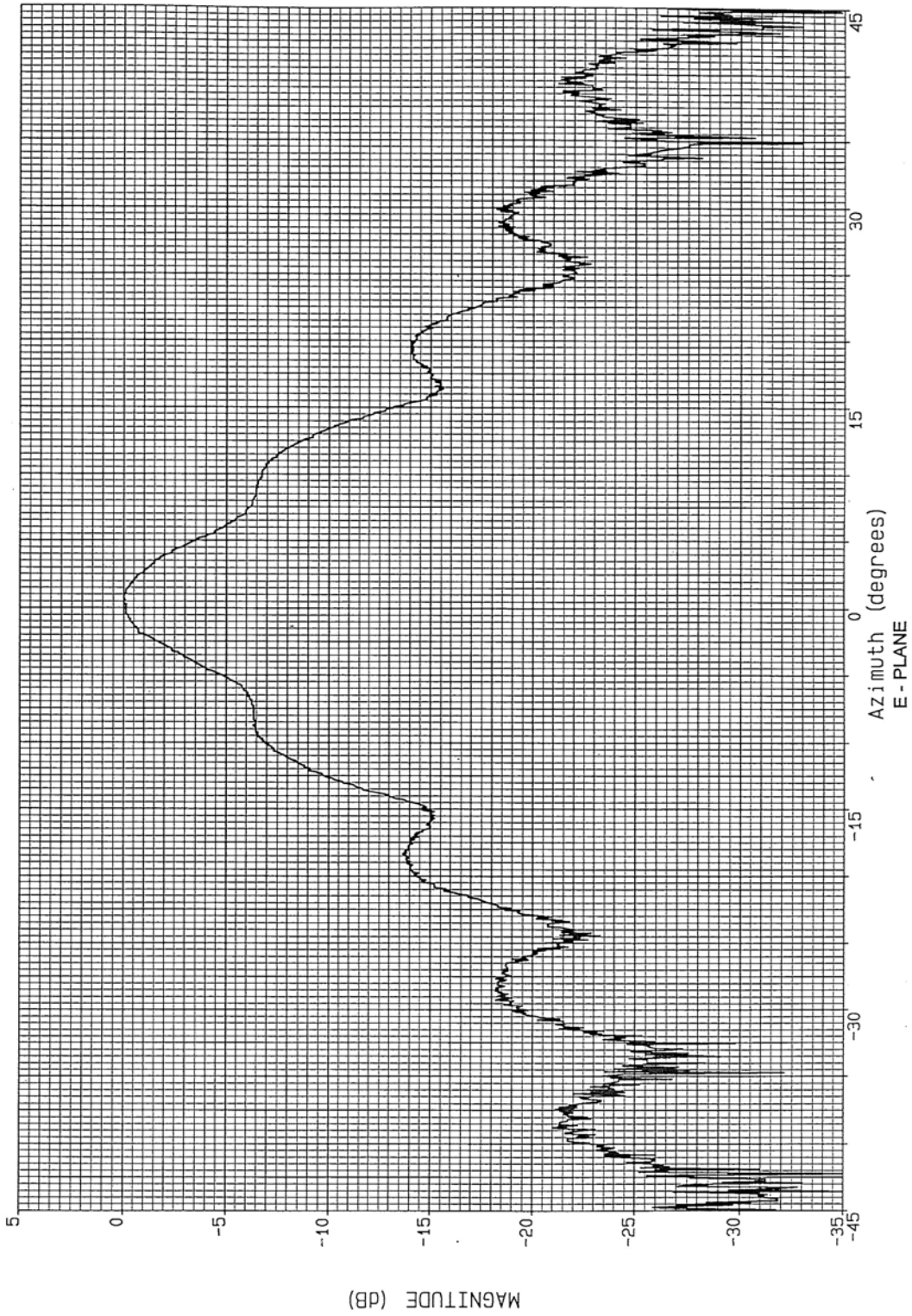
08/09/93 09:12:55
PLOT: Channel 1
Data: _____

FILENAME: 2640.005
FREQ: 34.000 GHz
POLARIZATION: Linear



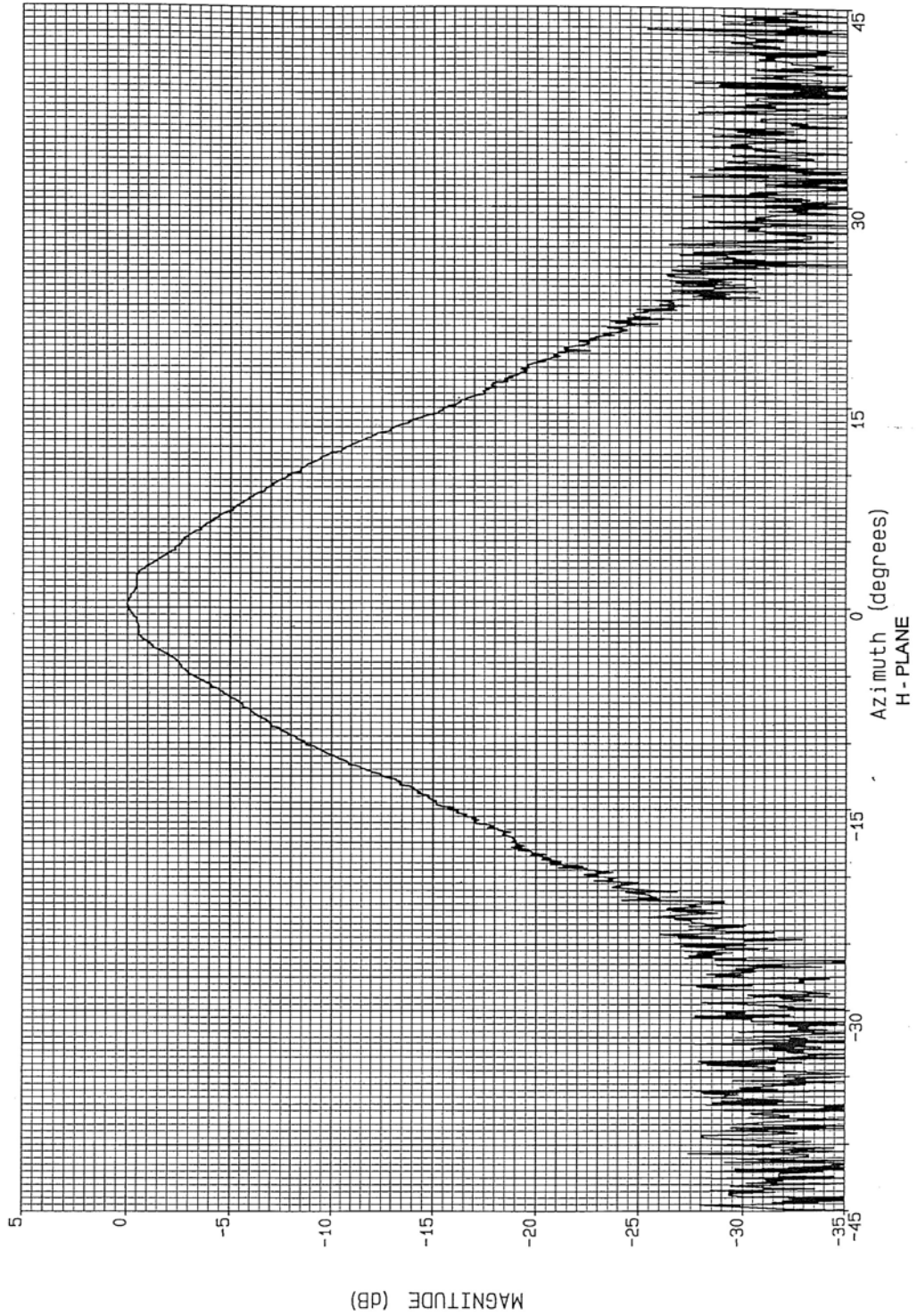
08/09/93 09:25:48
PLOT: Channel 1
Data: _____

FILENAME: 2640.015
FREQ: 36.000 GHz
POLARIZATION: Linear



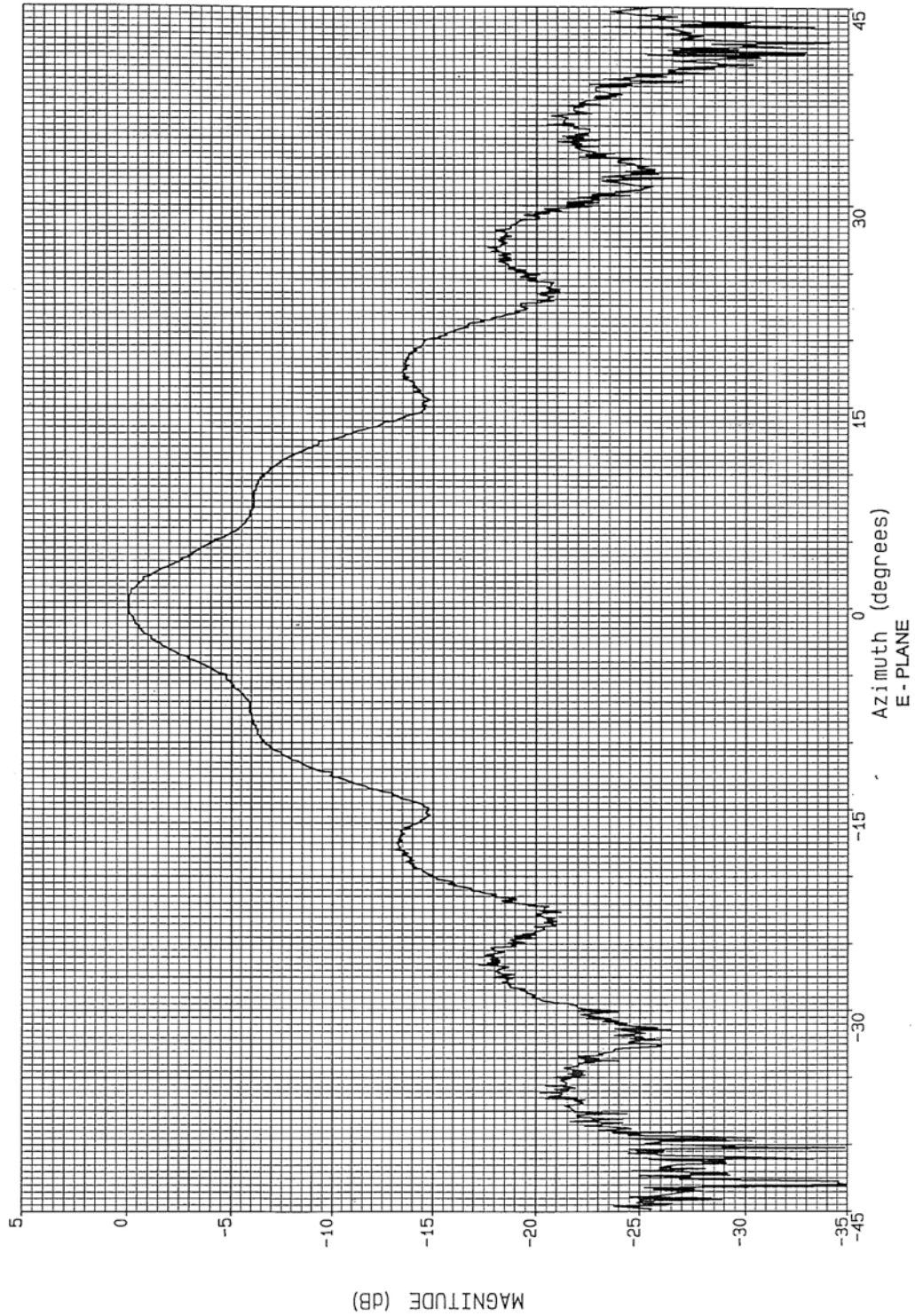
08/09/93 09:13:27
PLOT: Channel 1
Data: _____

FILENAME: 2640.006
FREQ: 36.000 GHz
POLARIZATION: Linear



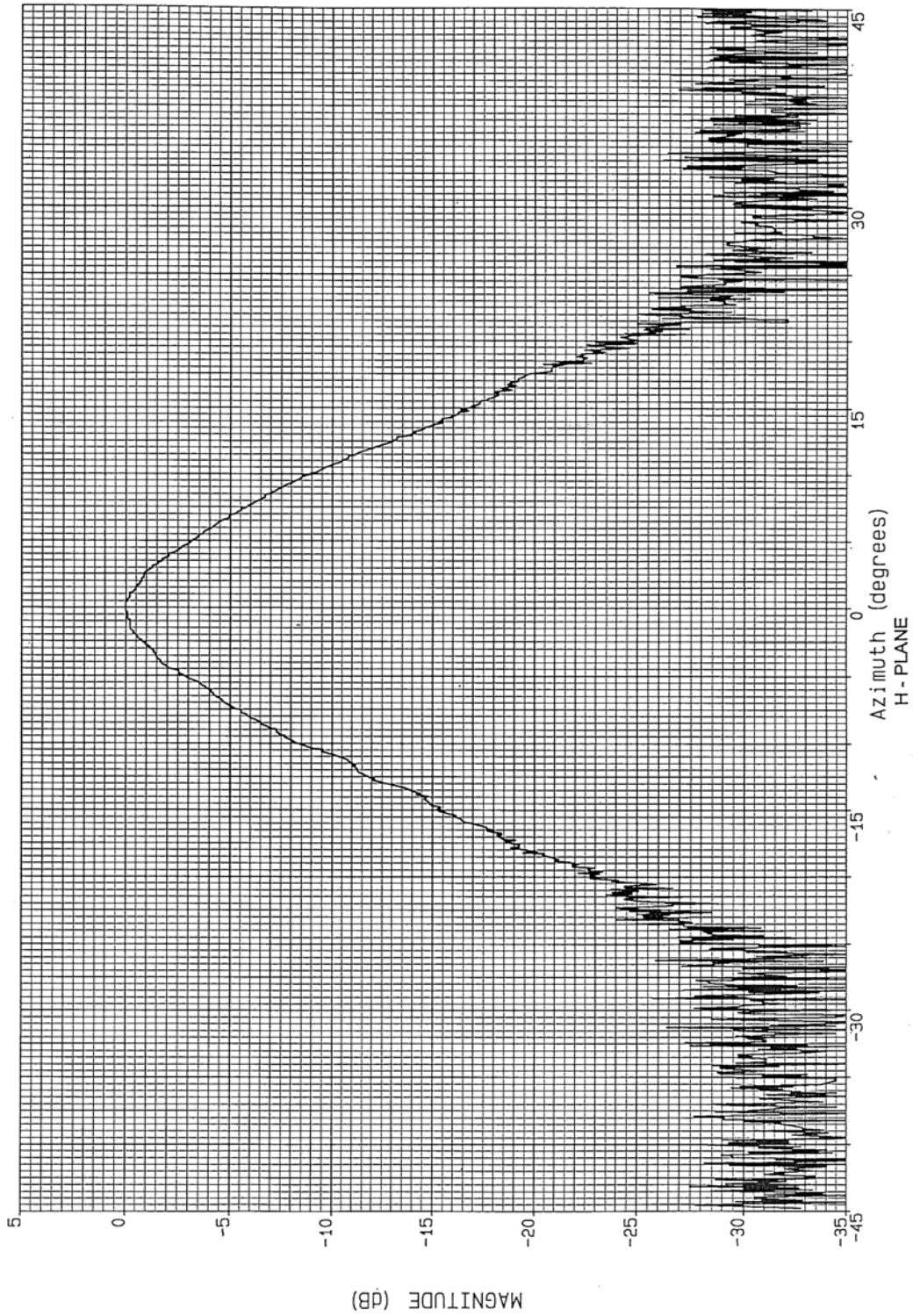
08/09/93 09:26:21
PLOT: Channel 1
Data: _____

FILENAME: 2640.016
FREQ: 38.000 GHz
POLARIZATION: Linear



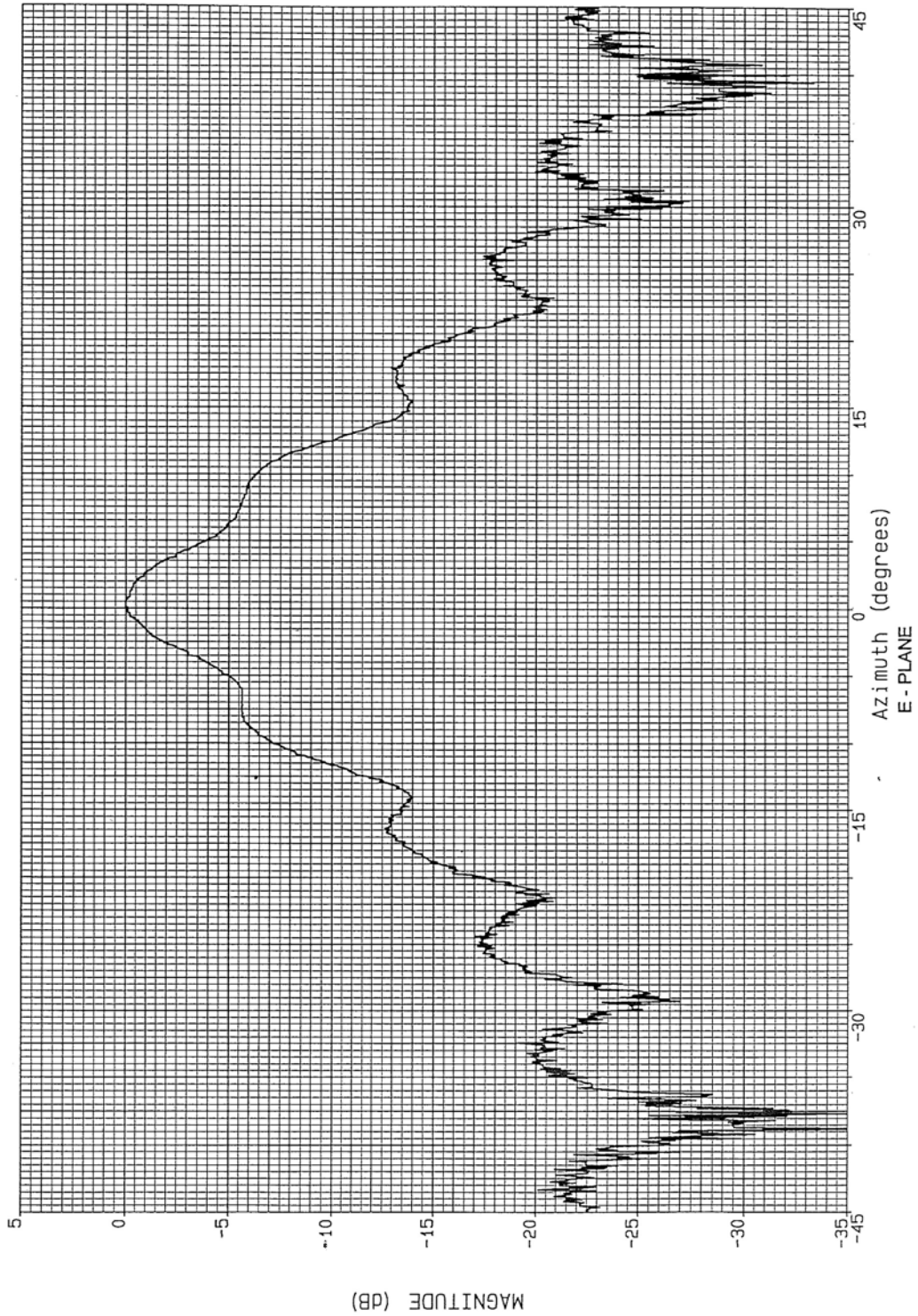
08/09/93 09:13:59
PLOT: Channel 1
Data: _____

FILENAME: 2640.007
FREQ: 38.000 GHz
POLARIZATION: Linear



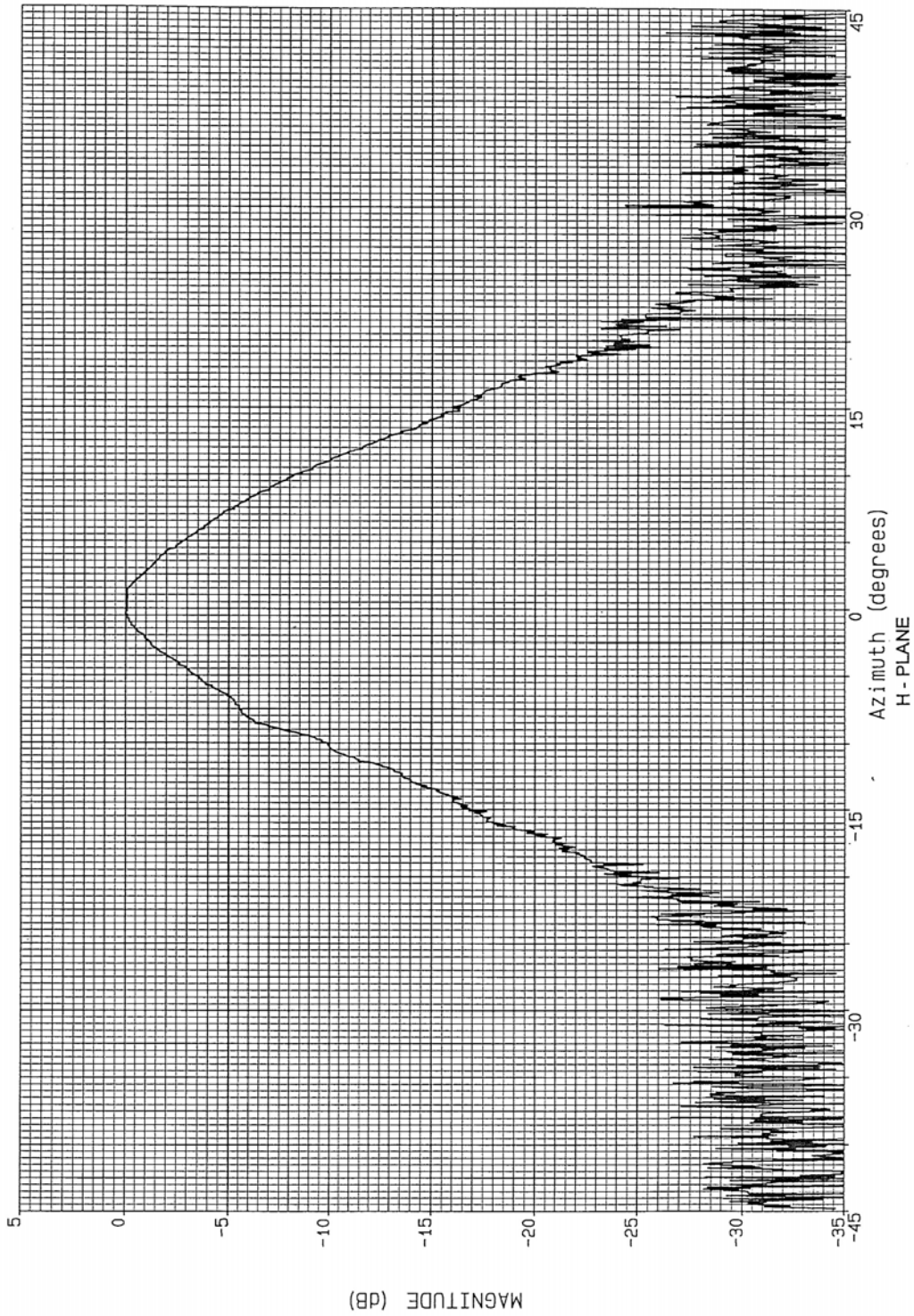
08/09/93 09:26:54
PLOT: Channel 1
Data: _____

FILENAME: 2640.017
FREQ: 40.000 GHz
POLARIZATION: Linear



08/09/93 09:14:33
PLOT: Channel 1
Data: _____

FILENAME: 2640.008
FREQ: 40.000 GHZ
POLARIZATION: Linear



WARRANTY

All equipment manufactured by **Advanced Antennas** is warranted against defects in materials and workmanship for a period of one year from the date of shipment. **Advanced Antennas** will repair or replace any defective item or material if notified within the warranty period.

You will not be charged for warranty services performed at our factory. You must, however, prepay inbound shipping costs. This warranty does not apply to:

- a) Products damaged during shipment EX-WORKS our plant
- b) Products which have been improperly installed
- c) Products which have been improperly used (operated outside the specification)
- d) Products which have been improperly maintained
- e) Consumable items such as batteries, lamps, fuses, customer replaceable solid-state components, etc.
- f) Products which have been modified
- g) Normal wear of materials
- h) Calibration of products

Any warranties or guarantees, whether expressed or implied, that are not specifically set forth herein, will not be considered applicable to any equipment sold or otherwise furnished by **Advanced Antennas**. Under no circumstances does **Advanced Antennas** recognize or assume any liability for any loss, damage or expense arising either directly or indirectly from the use or handling of products manufactured by **Advanced Antennas**, or any inability to use them separately or in combination with other equipment or materials.

The warranty is void if items are shipped outside the U.S.A. without prior knowledge of **Advanced Antennas**.

A return authorization is required for repairs under warranty. Please contact **Advanced Antennas** for additional information.

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