

INSTRUCTION MANUAL

OMNI-WIDEBAND ANTENNA

MODEL EM-6851

2 GHz - 18 GHz

INSTRUCTION MANUAL

THIS INSTRUCTION MANUAL AND ITS ASSOCIATED INFORMATION IS PROPRIETARY. UNAUTHORIZED REPRODUCTION IS FORBIDDEN.

© 2007 ELECTRO-METRICS CORP.

OMNI-WIDEBAND ANTENNA

2 GHz - 18 GHz

ELECTRO-METRICS

MODEL EM-6851

SERIAL NO: «NUMBER»

ELECTRO-METRICS CORPORATION

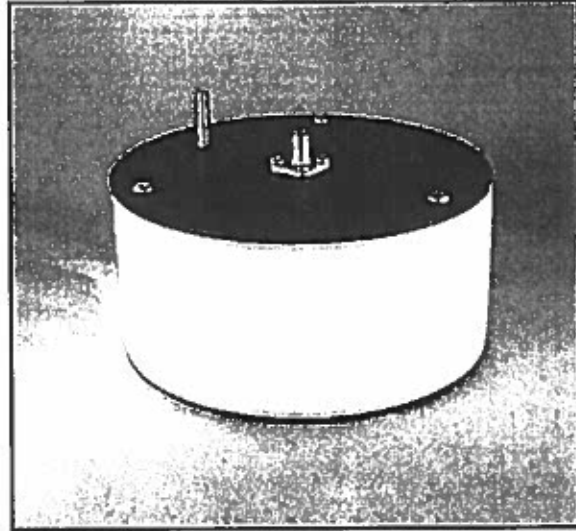
231 Enterprise Road, Johnstown, New York 12095
Phone: (518) 762-2600 Fax: (518) 762-2812

EMAIL: info@emihq.com

WEB: <http://www.electro-metrics.com>

WARRANTY

This Model EM-6851 Omni-Wideband Antenna is warranted for a period of 12 months (USA only) from date of shipment against defective materials and workmanship. This warranty is limited to the repair of or replacement of defective parts and is void if unauthorized repair or modification is attempted. Repairs for damage due to misuse or abnormal operating conditions will be performed at the factory and will be billed at our commercial hourly rates. Our estimate will be provided before the work is started.

**DESCRIPTION AND USE ELECTRO-METRICS
MODEL EM-6851 OMNI WIDEBAND ANTENNA****1.0 Description**

The Model EM-6851 Omni Wideband Antenna is a vertically-polarized broadband antenna operating from 2 to 18 GHz. The antenna is capable of operating as either a transmitting or receiving antenna with a flat frequency response and omnidirectional response over the stated frequency range.

The EM-6851 consists of two biconical elements that form the antenna element. The center conductor of a rigid coaxial cable is connected to the upper cone while the shield is connected to the lower cone. The cable connects to a Type SMA (F) connector fastened the base plate. A plastic shield tube encloses the biconical elements to protect them from damage and the environment.

A 254 mm (10") support rod provides a means for mounting the antenna to a standard tripod. The rod has a 1/4-20 receptacle at one end for mounting to the 1/4-20 stud of the tripod and a 8-32 receptacle at the other for mounting to the 8-32 stud on the bottom of the antenna base plate.

2.0 Specifications

2.1 Electrical

Frequency Range:	2 to 18 GHz.
Polarization:	Vertical.
Output Impedance:	50 Ω , nominal.
VSWR (Avg):	< 2:1.
Gain:	0 to 5 dBi.
Continuous Power:	5 W.
Connector:	Type SMA (F).

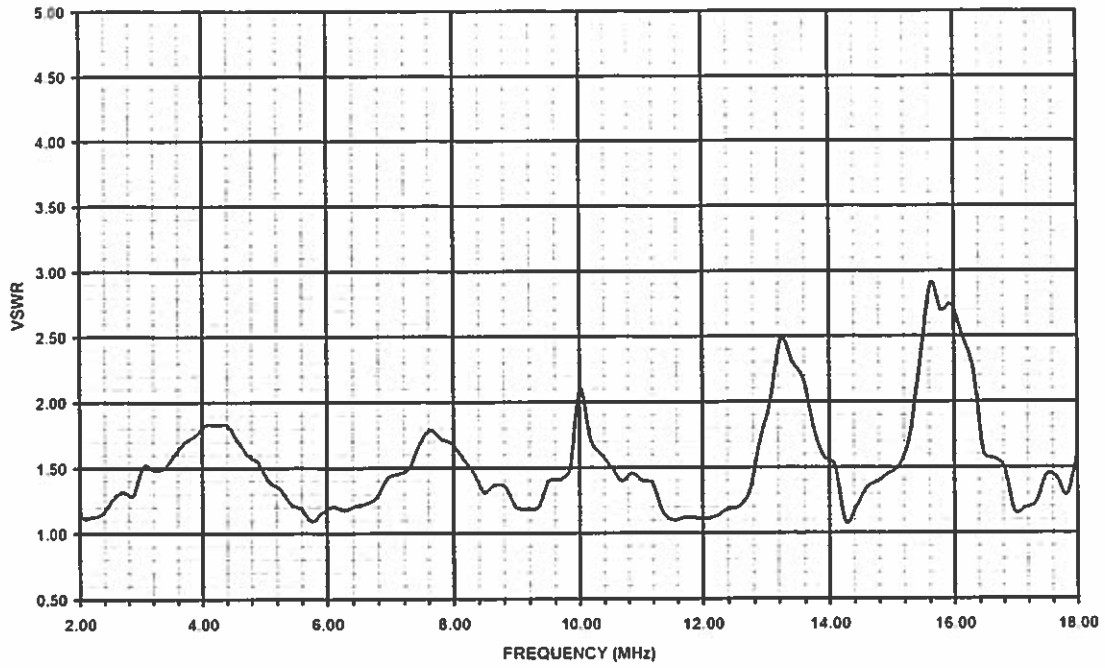
2.2 Mechanical

Diameter:	102 mm (4").
Height, Shield Tube:	49 mm (1.94").
Length, Support Rod:	254 mm (10").
Overall Height: (Antenna + Support Rod)	305 mm (12").
Weight:	454 g (1 lbs).

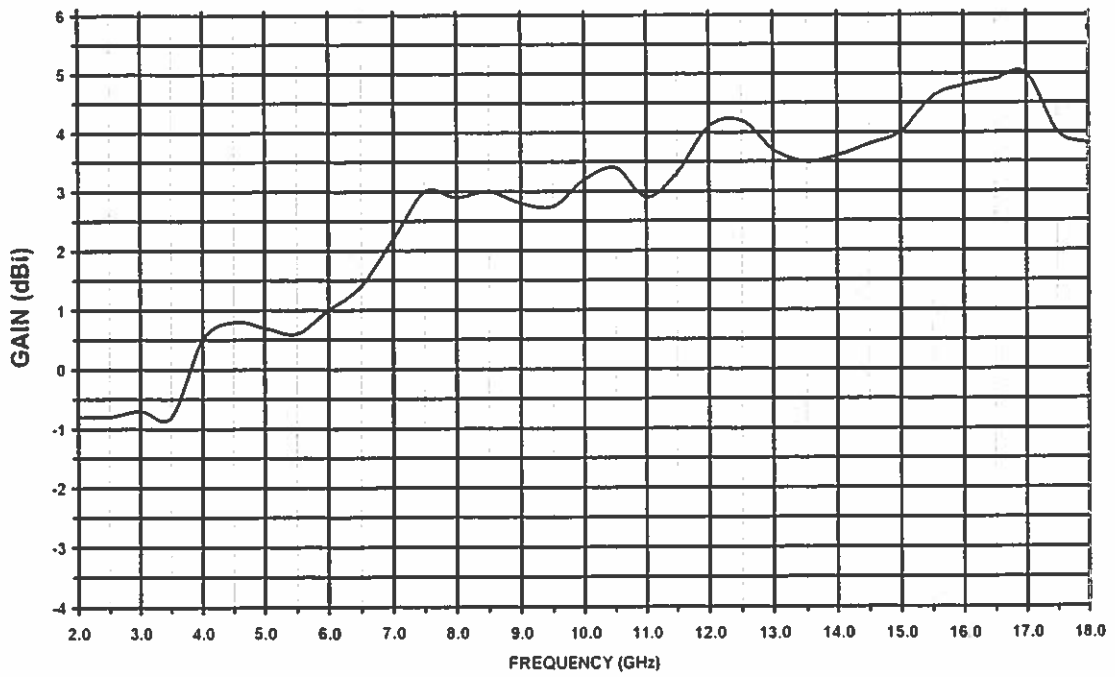
3.0 Typical Data

Typical gain, vswr, and antenna factors for the EM-6851 is presented in graphic form on the following pages (3-4).

EM-6851 (TYPICAL)



EM-6851 (TYPICAL)



EM-6851 Antenna Factor (Typical)

