



rf/microwave instrumentation

**ATH800M5GA,
 M1, M3, M4, M5
 Antenna
 0.8GHz–5.0GHz**

The Model ATH800M5GA is a wide band, high gain, microwave horn antenna that provides high field intensities. With a minimum gain of 13.0 dB over isotropic, the Model ATH800M5GA supplies the constant high intensity fields necessary for RFI/EMI field testing within and beyond the confines of a shielded room. Specially designed septums are installed to focus the beamwidth ensuring the intensity of the field for 3 meter testing. The Model ATH800M5GA is compact and lightweight for ready mobility, yet is built tough enough for the extra demands of outdoor use and easily mounts on a tripod or back plate. Part of a family of microwave frequency antennas the Model ATH800M5GA provides the lower frequency microwave response required for many often used test specifications.

The ATH800M5GA is ideally suited for radar pulse testing for both the 1.2–1.4 GHz and 2.7–3.1 GHz bands. FORD ES-XW7T-1A278-AC standard with revision dated on March 19, 2006 recommends the use of this antenna to meet the requirement for radar pulse testing in the above two bands.

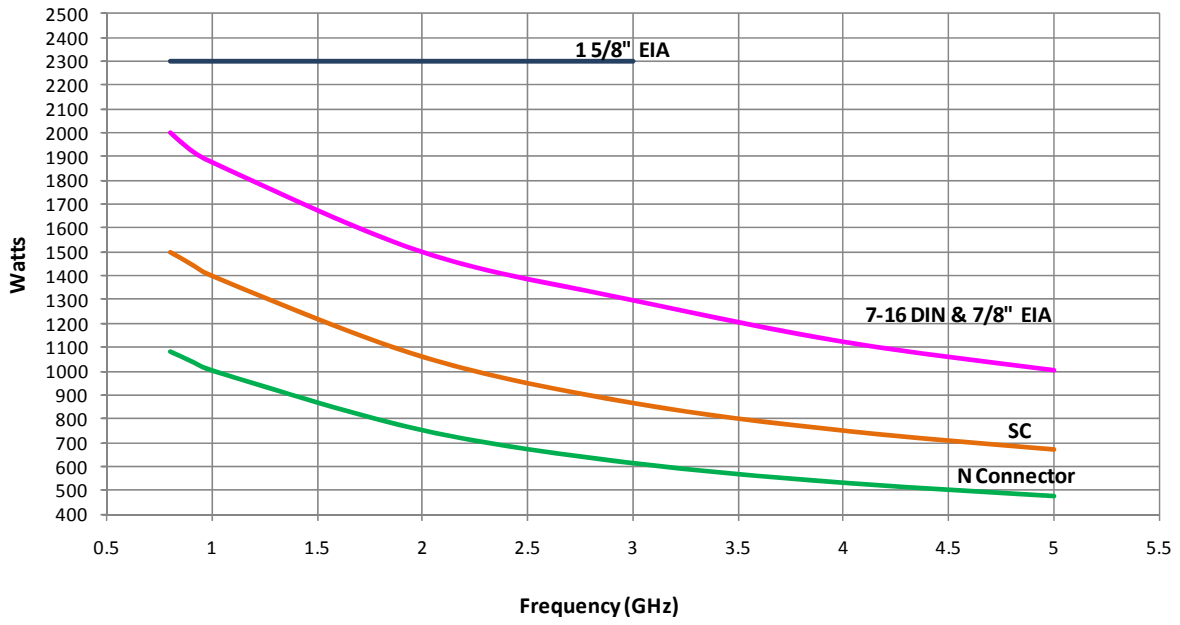
SPECIFICATIONS

- FREQUENCY RANGE 0.8–5.0 GHz (M5 range is 1–3.1GHz)
- POWER INPUT (maximum) See Model Configuration for CW rating
- PEAK INPUT POWER (maximum)..... 15kW peak pulse maximum (1% duty cycle 6μs pulse width)
- POWER GAIN (over isotropic) 11 dB minimum, typically increasing to 21 dB at 5.0 GHz
- IMPEDANCE 50 ohms nominal
- VSWR
 - Maximum 2.5:1
 - Average..... 1.6:1
- BEAM WIDTH (average)
 - E Plane See Curve
 - H Plane See Curve
- FRONT TO BACK RATIO (minimum) 20 dB
- CONNECTOR See Model Configurations. All models come with Type N(F) quick-change.
- MOUNTING PROVISIONS..... Mounting pads on two adjacent sides for tripod and back plate. May also be tripod mounted in two perpendicular planes using optional tripod.
- WEIGHT 7.26 kg (16 lbs)
- SIZE (W x H x D)..... 46.3 x 46.3 x 69.2 cm (18.25 x 18.25 x 27.25 in)

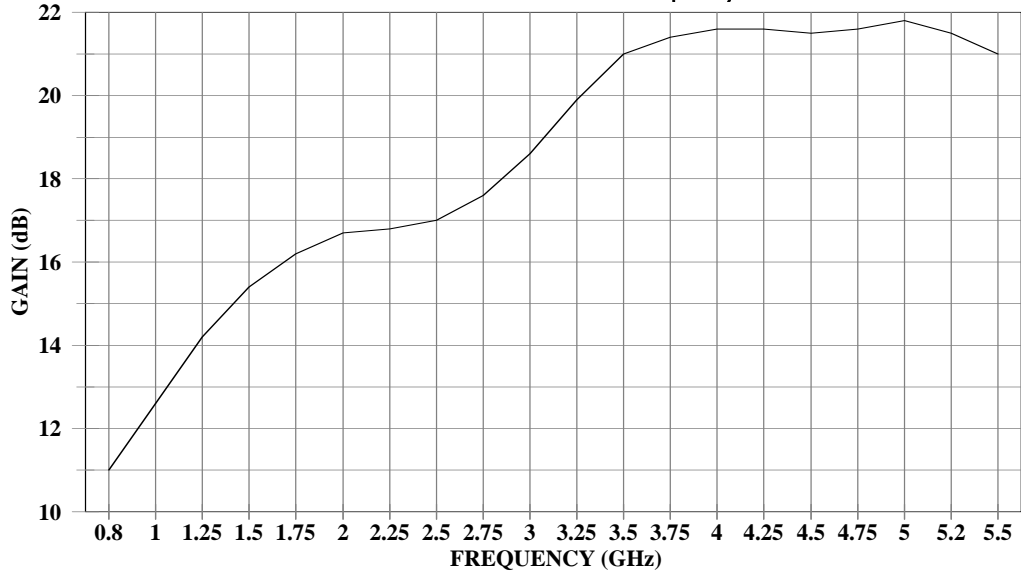
Model Number	Connector	CW Power Input
ATH800M5GA	7-16 DIN Female	See Derating Curve
ATH800M5GAM1	SC Female	See Derating Curve
ATH800M5GAM3*	7-16 DIN Female	See Derating Curve
ATH800M5GAM4	7/8" EIA	See Derating Curve
ATH800M5GAM5	1-5/8" EIA	See Derating Curve

*M3 option includes A2LA Calibration: 1 meter horizontal and vertical polarizations.

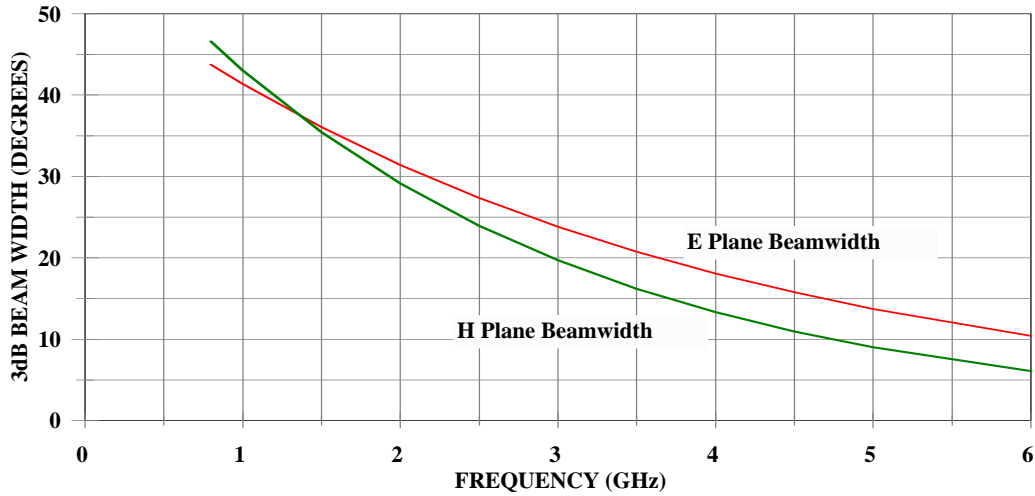
ATH800M5GA Input Power



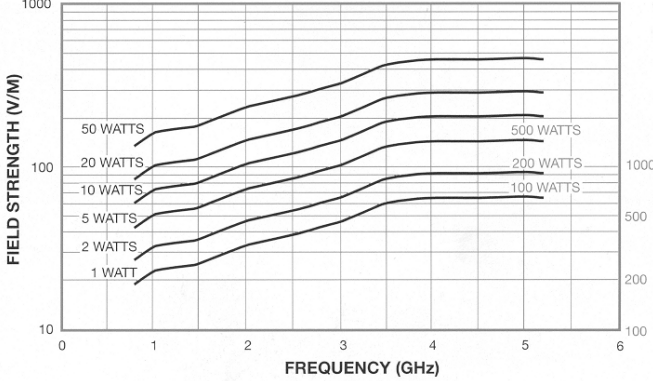
Model ATH800M5GA Gain vs Frequency



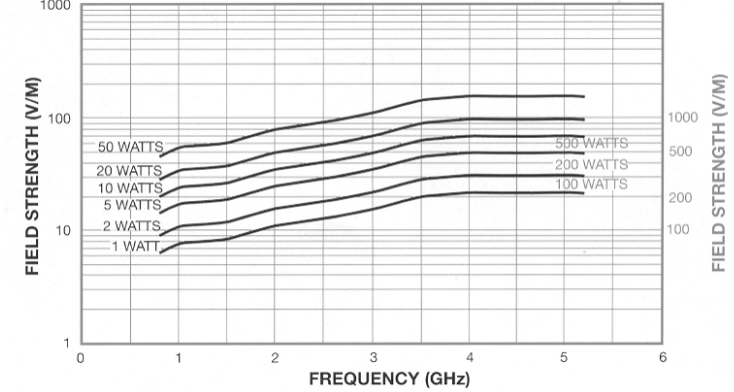
Model ATH800M5GA Beamwidth vs Frequency



FIELD STRENGTH MEASURED AT 1 METER



FIELD STRENGTH MEASURED AT 3 METERS



Field strengths have been measured in free-space conditions. Individual shielded rooms, amplifiers, and test-system conditions will influence performance. Field strength also varies with frequency and position of antenna and EUT in non-anechoic testing environment.