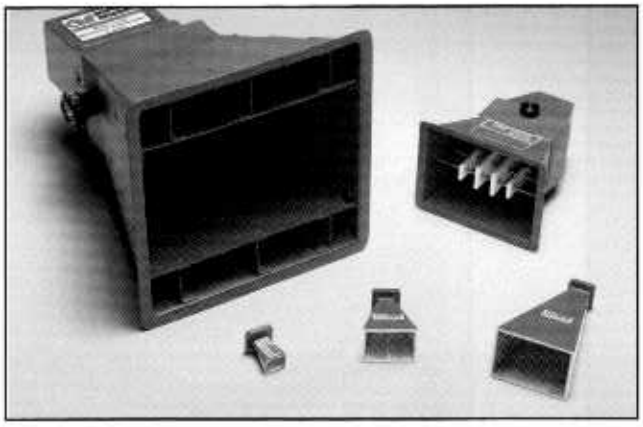
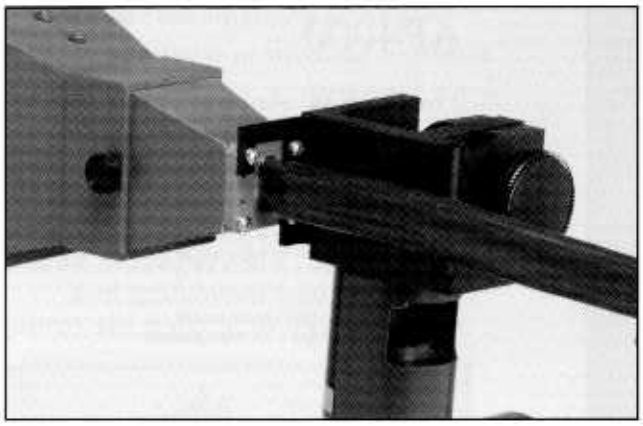
Microwave Horns.

Now To 40 GHz.



AR Microwave horns take microwave coverage to a new level. Our broadband RF and microwave horn antennas are specially designed to compensate for the losses that typically occur in test systems as frequency increases. They exhibit increasing gain with increasing frequency, up to 40 GHz. AR microwave horn antennas can be used in shielded rooms or in free space.



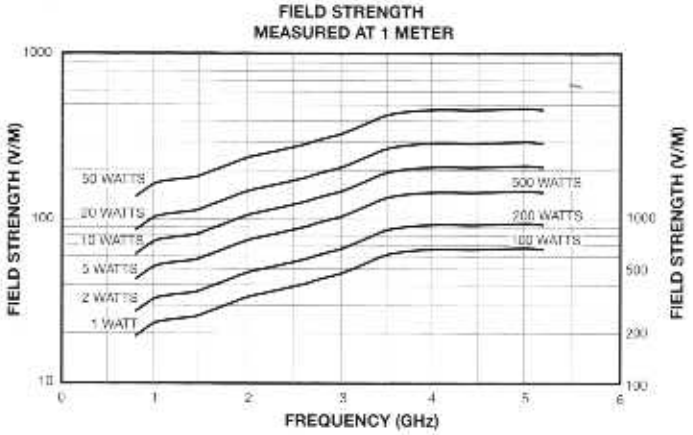
The TM Series antenna adapters.

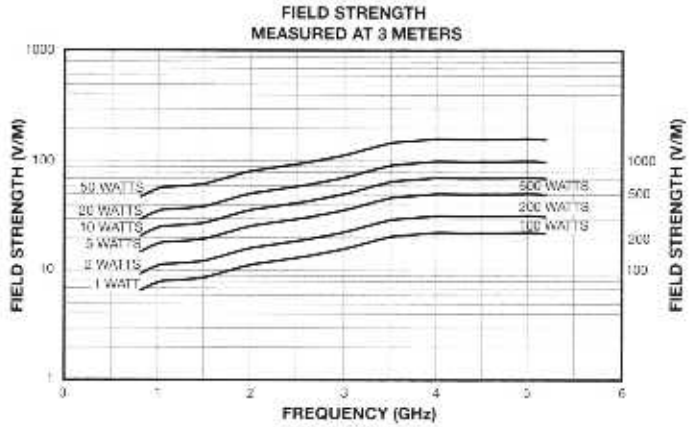
The TM Series is a microwave horn tripod mounting system which includes a swivel head, antenna bracket and mounting cylinder. The swivel head is an adapter assembly which allows 90° rotation of the microwave horn antenna for horizontal and vertical electric field testing. Contact factory for details.

SPECIFICATIONS

	AT4002A	AT4003	AT4004	AT4218	AT4510	AT4520	AT4530
Frequency range	0.8 - 5 GHz	4 - 8 GHz	8 - 18 GHz	4 - 18 GHz	1 - 4.2 GHz	2.5 - 7.5 GHz	7.5 - 18 GHz
Power input (max.)	250 watts	250 watts	250 watts	50 watts	1500 watts to 2.5 GHz. 800 watts to 4.2 GHz.	1400 watts	1400 watts
Power gain (over isotropic)	11 dBi min increasing to 22 dBi at 5 GHz	11.5 dBi min., increasing to 15.9 dBi at 8 GHz 17.8 dBi min., increasing to 21.2 dBi at 8 GHz with gain enhancer	11.2 dBi min., increasing to 14.7 dBi at 18 GHz 17.4 dBi min., increasing to 20.2 dBi at 18 GHz with gain enhancer	6 dBi min., increasing to 12 dBi at 18 GHz	13 dBi min. increasing to 18 dBi at 4.2 GHz	9.5 dBi min. increasing to 18 dBi at 7.5 GHz.	15 dBi min. increasing to 21 dBi at 18 GHz.
Impedance	50 ohms nominal	50 ohms nominal	waveguide	50 ohms nominal	50 ohms nominal	waveguide	waveguide
VSWR							
Maximum	2.5:1	1.5:1	1.2:1	3:1	2.0:1	1.5:1	1.5:1
Average	1.6:1	1.3:1	1.1:1	2:1	1.5:1	1.3:1	1.3:1
Beamwidth (average) at 3dB down from peak							
E Plane	27.5°	30°	30°	60°	25°	30°	18°
H Plane	25°	38°	35°	45°	26°	30°	18°
Connector	Universal Block with Type N(f) supplied	Universal Block with Type N(f) supplied	WRD-750 D24 waveguide	SMA supplied	Universal Block with 7-16 DIN Female and N Quick Change supplied	WRD 250-D30 waveguide	WRD-750-D24 waveguide
Weight	7.26 kg (16lb)	2.27 kg (5 lb)	0.6 kg (1.25 lb)	283.5 g (10 oz)	5.9 kg (13 lb)	0.6 kg (1.3 lb)	0.3 kg (0.7 lb)
Size (WxDxH)	46.3 x 46.3 x 69.2 cm 18.25 x 18.25 x 27.25 in	21.6 x 21.6 x 30.5 cm (8.5 x 8.5 x 12 in.)	8.9 x 11.4 x 13.3 cm (3.5 x 4.5 x 5.25 in.)	12.32 x 8.23 x 9.85 cm 4.85 x 3.24 x 3.88 in.	45.7 x 45.7 x 64 cm 18 x 18 x 25.2 in.	14.0 x 10.4 x 13.2 cm 5.5 x 4.1 x 5.2 in.	9.7 x 7.1 x 15.0 cm 3.85 x 2.8 x 5.9 in.

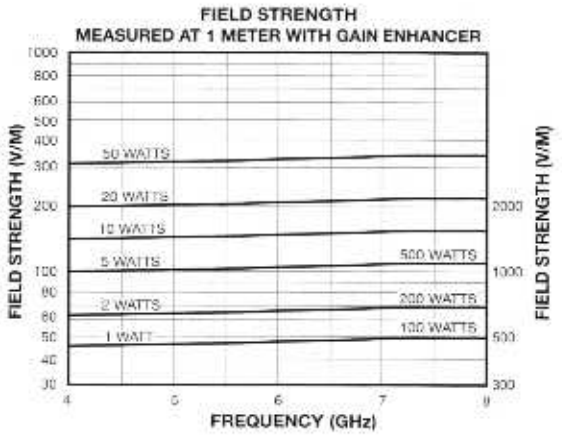
AT4002A

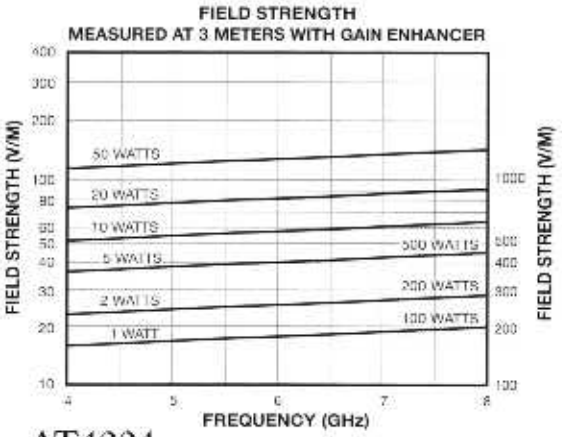




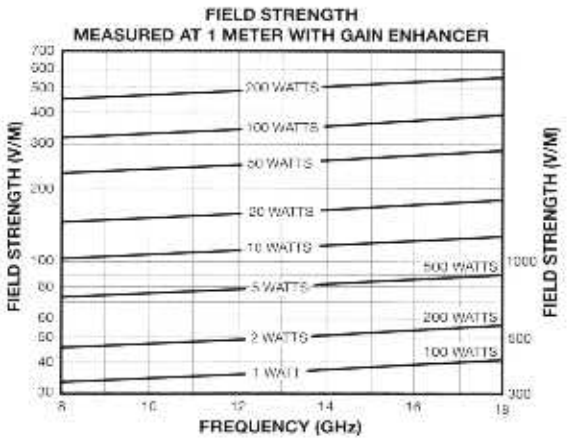
Field strengths have been measured in free-space conditions. Individual shielded rooms, amplifiers, and test-system conditions will influence performance. Field strength also varies with frequency and position of antenna and EUT in non-anechoic testing environments.

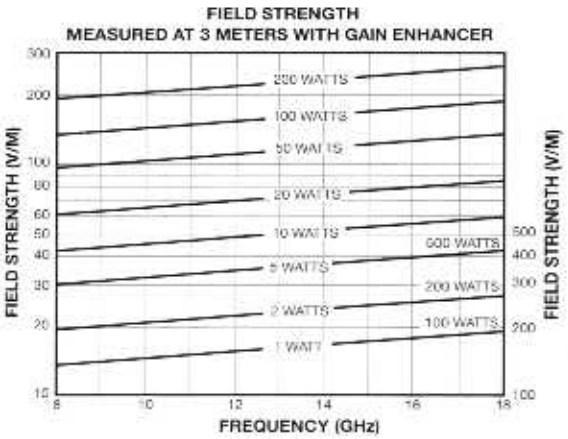
AT4003





AT4004





AT4540	AT4550	AT4640	AT4650
18.0 - 26.5 GHz	26.5 - 40 GHz	18.0 - 26.5 GHz	26.5 - 40 GHz
350 watts CW	240 watts CW	350 watts CW	240 watts CW
18.8 dBi min. increasing to 21.7 dBi at 26.5 GHz	18.9 dBi min. increasing to 21.8 dBi at 40 GHz.	8.8 dBi min. increasing to 12 dBi at 26.5 GHz	8.6 dBi min. increasing to 12.1 dBi at 40 GHz.
waveguide	waveguide	waveguide	waveguide
1.5:1	1.5:1	1.5:1	1.5:1
1.3:1	1.3:1	1.3:1	1.3:1
15°	15°	68° at 18 GHz, 54° at 22.5 GHz, 44° at 26.5 GHz	70° at 26.5 GHz, 55° at 33.25 GHz, 44° at 40.0 GHz
15°	15°	68° at 18 GHz, 54° at 22.5 GHz, 45° at 26.5 GHz	66° at 26.5 GHz, 54° at 33.25 GHz, 43° at 40.0 GHz
WR-42 waveguide	WR-28 waveguide	WR-42 waveguide	WR-28 waveguide
56.7g (2 oz)	56.7g (2 oz)	57 g (2 oz)	56.7 g (2 oz)
5.74 x 4.09 x 11.4 cm 2.26 x 1.61 x 4.49 in.	4.06 x 3.07 x 5.08 cm 1.6 x 1.21 x 3.02 in	1.63 x 1.32 x 3.16 cm 0.64 x 0.52 x 1.24 in	1.09 x 0.89 x 2.16 cm 0.43 x 0.35 x 0.85 in.