

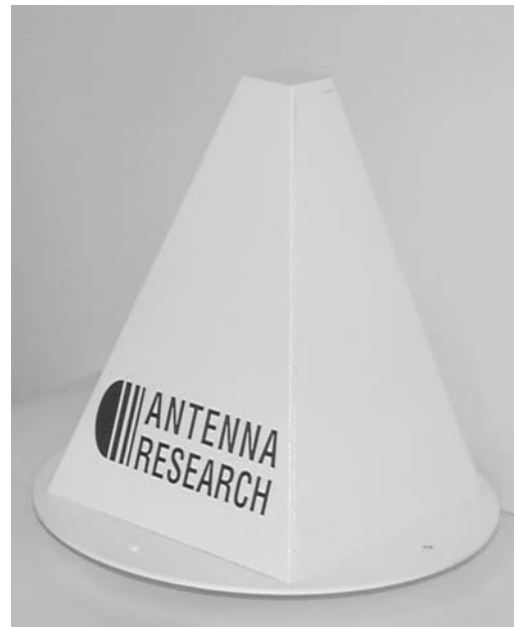
The **BEAMMASTER** has been designed in anticipation of addressing new IEC immunity test standards above 1 GHz. Covering 1 to 10 GHz, the **BEAMMASTER** provides a minimum gain of 8dBi and a virtually constant beamwidth of 65° to 70° in both the E and H-planes. The combination of constant beamwidth in both planes and relatively high gain assures good efficiency and uniform illumination of the unit under test (UUT).

Why the BEAMMASTER when high gain horn antennas are available? The answer is beamwidth! While having higher gain than biconical and log periodic antennas, horn antennas also have significantly narrower beamwidths.

The IEC Standard (EN 61000-4-3) imposes a maximum field variation of 6dB in the defined test area. The test area is generally described as a 1.5²-meter vertical plane, perpendicular to the line of transmission.

Field Variations result from the room due to reflections from all interior surfaces (floor, ceiling and walls), and Variations Due to the Antenna Coverage. Unlike the random vector summations from multiple room reflections, variations due solely to the antenna beamwidth are fixed and in one direction (0 to - XdB).

In a typical test set-up, the contributions due to the beamwidth of the antenna are potentially more serious than those due to the anechoic room performance. Horn antennas can easily have 6dB or more of gain slope inside the defined test area. The **BEAMMASTER** is designed for beamwidth variation of less than 0.5dB over the test area. The balanced performance of the **BEAMMASTER** makes it the ideal choice for immunity testing above 1 GHz.



MODEL	BMA -110
FREQUENCY	1 – 10 GHz
INPUT IMPEDANCE	50 ohm
BEAMWIDTH:	
E-PLANE	65° – 70°
H-PLANE	65° – 70°
POLARIZATION	Linear
GAIN	8 dBi
VSWR	1.5:1
POWER	50 W
CONNECTOR	Type N – F
SIZE	10" (H) x 10.5" (dia)
WEIGHT	3 lbs

FREQUENCY	GAIN	AFE
1	7.5	22.7
2	7.75	28.5
3	8.0	31.8
4	8.25	34.0
5	8.5	35.7
6	9.0	36.8
7	8.25	39.9
8	7.75	40.5
9	7.3	42.0
10	7.0	43.2