

# High Broadband Antenna

65° 0.7 m MET Antenna

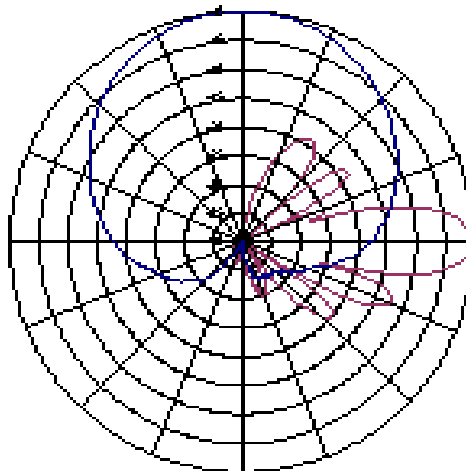
Part Number  
7720.00

Horizontal Beamwidth: 65°  
Gain: 15.5 dBi

Electrical Downtilt: Adjustable  
Connector Type: 7/16 DIN

1710-2170 MHz

The Powerwave broadband antenna design is based on a patented stacked aperture-coupled patch technology, which provides high isolation performance and a wide VSWR bandwidth. The antennas have superior radiation patterns due to a unique reflector design that provides a very small variation of the -3dB horizontal beam width over the frequency band as well as a high front-to-back ratio. Powerwave broadband antennas come with manually adjustable electrical tilt (MET) for tuning flexibility of tilt angles. This design ensures the highest possible cross-polar discrimination value.



Typical Horizontal and Vertical 7720.00 Patterns

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# High Broadband Antenna

1710-2170 MHz

## Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025,2110-2170
Gain, $\pm 0.5$ (dBd)	15	15.3	15.6
Polarization	Dual linear $\pm 45^\circ$		
Nominal Impedance (Ohm)	50		
VSWR	1.4:1		
Isolation between inputs (dB)	>30		
Horizontal -3 dB beam width	$67 \pm 4^\circ$	$65 \pm 3^\circ$	$64 \pm 3^\circ$
Tracking, Horizontal plane, $\pm 60^\circ$ (dB)	<1.5		
Electrical down tilt range (adjustable)	0° to 16°		
Vertical -3dB Beam width	$14.1^\circ \pm 0.8^\circ$	$13.5^\circ \pm 0.5^\circ$	$12.5^\circ \pm 0.9^\circ$
Sidelobe suppression, Vertical 1st upper (dB)	>17,16,16,15,15 @ 0,4,8,12,16° MET		
Vertical beam squint	0.5°		
First null-fill (dB)	>-29, typical >-25		
Front-to-back ratio (dB)	>30		
Front-to-back ratio, total power (dB)	>25		
Cross-polar discrimination (XPD) 0° (dB)	>15	>18	>18
Cross-polar discrimination $\pm 60^\circ$ (dB)	>15	>15	>13
IM3, 2Tx @ 43dBm (dBc)	<-153	<-153	
IM7, 2Tx @ 43dBm (dBc)			<-160
Power Handling, Average per input (W)	250		
Power Handling, Average total (W)	500		

All specifications are subject to change without notice.  
Contact your Powerwave representative for complete performance data.

## Mechanical Specifications

Connector Type	7/16 DIN female
Dimensions, HxWxD	709x167x89.5mm (2'4"x7"x4")
Weight with Brackets	7.3 kg (16 lbs)
Wind Load, Frontal, @100 mph(44,7m/s)	35 lbf (156 N)
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC Grounded
Radome Material	ASA
Radome Color	Light gray RAL 7035 on all visible plastic parts
Packing Size	2'11"x8"x8" (880x200x200mm)
Shipping Weight	8.2kg (18 lbs)

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