

# High Broadband Antenna

## 90° 0.7 m MET Antenna

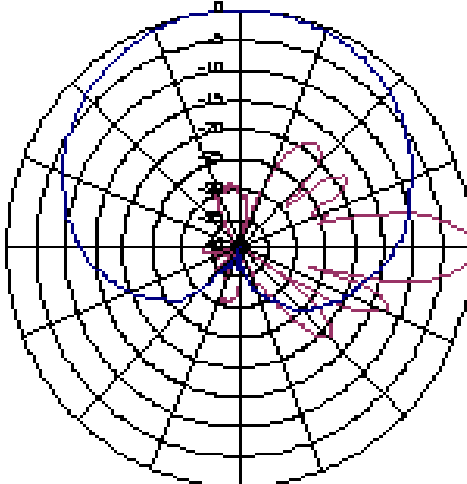
Part Number  
7735.00

Horizontal Beamwidth: 90°  
Gain: 13.5 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 7735.00 Patterns

ANTENNA  
SYSTEMS

BASE STATION  
SYSTEMS

COVERAGE  
SYSTEMS

1710-2170 MHz

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## Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025,2110-2170
Gain, ± 0.5 (dBi)	13.5	13.5	13.7
Polarization		Dual linear ±45°	
Nominal Impedance (Ohms)		50	
VSWR		1.4:1	
Isolation between inputs (dB)		>30	
Horizontal -3 dB beamwidth	86±3°	86±3°	87±4°
Tracking, Horizontal plane, ±60° (dB)		<1.0	
Electrical downtilt range (adjustable)		0° to 16°	
Vertical -3dB Beamwidth	14.7°±1°	13.4°±1°	12.2°±1°
Sidelobe suppression, 1st upper (dB)		>18,17,16,15,14@ 0, 4, 8, 12, 16° MET	
Vertical beam squint		0.8°	
First null-fill (dB)		>24, typical >18	
Front-to-back ratio (dB)		>25	
Front-to-back ratio, total power (dB)		>23	
Cross-polar discrimination (XPD) 0°(dB)	>13	>13	>12
Cross-polar discrimination ±60° (dB)	>10	>10	>10
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
Connector Position	Bottom
Dimensions, Hxwx d	709x167x89mm (2'4"x7"x4" )
Wind Load, Frontal, 100 mph Cd=1	35 lbf (156 N)
Weight With Brackets	8.2 kg (18 lbs)
Survival Wind Speed	70 m/s (156 mph)
Lightning Protection	DC grounded
Radome Material	PVC
Radome Color	Light Gray
Packing Size	880x200x200mm (2'11"x8"x8" )
Shipping Weight	9.1 kg (20 lbs)

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