

# High Broadband Antenna

65° 2.0 m MET Antenna

ANTENNA  
SYSTEMS

BASE STATION  
SYSTEMS

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1710-2170 MHz

Part Number:  
7722.00

Horizontal Beamwidth: 65°  
Gain: 19.5 dBi

Electrical Downtilt: Adjustable  
Connector Type: 7/16 DIN

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.



### Key Benefits

- Excellent broad- and multi-band capabilities
- Polarization purity makes good diversity gain
- Excellent pattern performance and high gain over frequency
- High passive intermodulation performance
- Light, slim and robust design

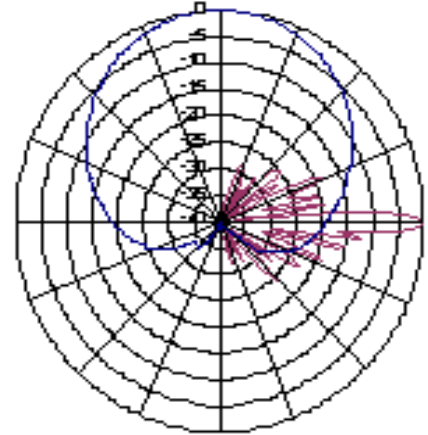
# High Broadband Antenna

1710-2170 MHz

## Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025, 2110-2170
Gain, $\pm 0.5$ (dBi)	19	19.2	19.7
Polarization	Dual slant $\pm 45^\circ$		
Nominal Impedance (Ohm)	50		
VSWR	1.4:1		
Isolation between inputs (dB)	>30		
Horizontal -3 dB beamwidth	$67 \pm 3^\circ$	$66 \pm 2^\circ$	$65 \pm 3^\circ$
Tracking, Horizontal plane, $\pm 60^\circ$ (dB)	<1.0		
Electrical downtilt range (adjustable)	0° to 5.5°		
Vertical -3 dB Beam width	$4.7 \pm 0.3^\circ$	$4.4 \pm 0.2^\circ$	$4.2 \pm 0.3^\circ$
Sidelobe suppression, 1st upper (dB)	>18,18,18,16,16,14 @ 0,1,2,3,4,5°		
Vertical beam squint	0.4°		
First null-fill (dB)	>-20 , typical >-16		
Front-to-back ratio (dB)	>30		
Front-to-back ratio, total power (dB)	>27		
Cross-polar discrimination (XPD) 0° (dB)	>18	>20	>21
Cross-polar discrimination $\pm 60^\circ$ (dB)	>20	>17	>12
Power Handling, Average per input (W)	250		
Power Handling, Average total (W)	500		
IM3, 2Tx@43dBm	<-153	<-153	
IM7, 2Tx@43dBm	< -160		

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



Typical Horizontal and Vertical 7722.00 Patterns

## Mechanical Specifications

Connector Type	7/16 DIN female
Dimensions, HxWxD	1934x167x89.5mm (6'4"x6.6"x3.5")
Weight Including Brackets	12.6 kg (27.7 lbs )
Wind Load, Frontal, 100 mph Cd=1	412 N (92.6 lbf)
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC Grounded
Radome Material	ASA
Radome Color	Grey (RAL 7035 on all visible plastic part)
Packing Size	2105x200x200mm (6'11"x8"x8")
Mounting	Pole Clamps, Panning Mechanism

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COVERAGE AND CAPACITY

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