

High Broadband Antenna

65° 1.3 m MET Antenna

1710-2170 MHz

Part Number:
7721.10

Horizontal Beamwidth: 65°
Gain: 18 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 beamwidth over the frequency band, as well as a high front-to-back ratio. Powerwave broadband antennas come with Manually adjustable Electrical Tilt (MET) which offers operators flexibility in turning of tilt angles, as well as logistical advantages, and is Remote Electrical Tilt (RET) upgradeable. 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

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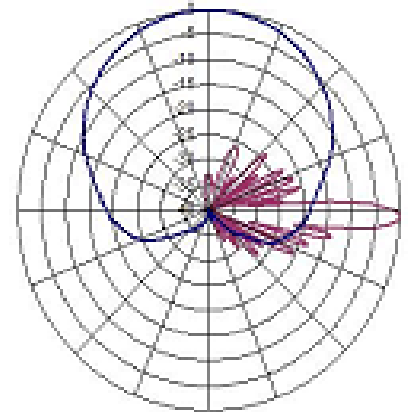
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Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025, 2110-2170
Gain, ± 0.5 (dBi)	17.5	18	18.3
Polarization	Dual linear ±45°		
Nominal Impedance (Ohm)	50		
VSWR	1.4:1		
Isolation between inputs (dB)	30		
Horizontal -3 dB Beam width	67 ± 3°	66 ± 2°	64 ± 3°
Tracking, horizontal plane, ±60° (dB)	<1.0		
Electrical downtilt range (adjustable)	2° to 10°		
Vertical -3dB Beam width	7 ± 0.4°	6.6 ± 0.4°	6.3 ± 0.6°
Sidelobe suppression, vertical 1st upper (dB)	>18,16,16,14,13 @ 2,4,6,8,10° MET		
Vertical beam squint	0.5°		
First null-fill (dB)	>-24 , typical >-18		
Front-to-back ratio (dB)	>30		
Front-to-back ratio, total power (dB)	>27		
Cross-polar discrimination (XPD) 0° (dB)	>17	>19	>20
Cross-polar discrimination ±60° (dB)	>18	>14	>12
Power Handling, Average Per Input (W)	250		
Power Handling, Average Total (W)	500		
IM3, 2Tx@43dBm (dBc)	<-153		
IM7, 2Tx@43dBm (dBc)	<-160		

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



Typical Horizontal and Vertical 7721.10 Patterns

Mechanical Specifications

Connector Type	7/16 DIN female
Dimensions, HxWxD	1309x167x89.5mm (4'4"x7"x4")
Weight with Brackets	10.1 kg (22 lbs)
Wind Load, Frontal, 100 mph(44.7m/s) Cd=1	310N (70 lbf)
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	1480x200x200mm (4'10"x8"x8")
Shipping Weight	11kg (24.2 lbs)

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