

Dual High Broadband Antenna

90° 2.0 m MET Antenna

1710-2170 MHz

Part Number:
7766.00

Horizontal Beamwidth: 90°
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 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

ANTENNA
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BASE STATION
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COVERAGE
SYSTEMS

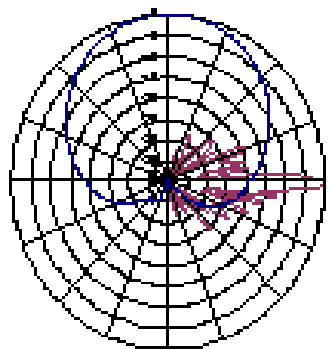
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Electrical Specifications

Frequency Range	2 x 1710 - 2170		
Frequency Band (MHz)	1710 – 1880	1850 – 1990	1900 – 2025 2110 – 2170
Gain, ± 0.5 (dBi)	17.4	17.6	17.8
Polarization	Dual linear ±45°		
Nominal impedance (Ohm)	50		
VSWR, RX	< 1.4:1		
Isolation between inputs (dB)	> 30		
Horizontal -3 dB beamwidth	89° ± 9°	93° ± 5°	90° ± 7°
Horizontal tracking (dB)	< 2.0		
Cross-polar discrimination (XPD) 0° (dB)	> 16	> 16	> 16
Cross-polar discrimination ± 60° (dB)	> 8	> 8	> 8
Vertical -3 dB beamwidth	4.7 ± 0.5°	4.4 ± 0.5°	4.2 ± 0.9°
Electrical downtilt	0° to 5.5°		
Vertical beam squint	< 0.5°		
Front-to-back ratio, co-polar (dB)	> 27 dB		
Front-to-back ratio, total power (dB)	> 23 dB		
First upper sidelobe suppression (dB)	> 22, 20, 18, 16, 15, 14 @ 0, 1, 2, 3, 4, 5° EDT		
First null below horizon (dB)	> -25 (typical >-18)		
Power Handling, Average Per Input (W)	250		
Power Handling, Average Total (W)	1000		
IM, 3rd order, 2Txa@43 dBc	< -153		
IM, 7th order, 2Txa@43 dBc	< -160		

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



Typical Horizontal and Vertical
7766.00 Patterns

Mechanical Specifications

Connector Type	4 X 7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	1934x343x100mm (6'4"x1'2"x4")
Wind Load, Frontal, 42m/s Cd=1	868N (195 lbf)
Wind Deflection 78 mph	< 1°
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC grounded
Radome Material	ASA
Radome Color	Light Gray
Packing Size	2105x400x200mm (6'11"x1'4"x8")
Shipping Weight	26 kg (57 lbs)

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