Dual Broadband Antenna

65° 2.6 m MET Antenna

824-960/1710-2170 MHz

Part Number: 7755.00

Horizontal Beamwidth: 65°
Gain: 17.5/ 17.5dBi

Electrical Downtilt: Adjustable
Connector Type: 7/16 DIN female

The Powerwave dual band dual polarized broadband antenna has individual adjustable electrical downtilt per band. Four connector ports allow separate tilts on each frequency band and ensure the use of diversity concepts. The phase shifter technology, based on a patented sliding dielectric, minimizes intermodulation distortion and maximizes efficiency. The slant +/- 45° dual polarization system provides the independent fading signals needed for achieving top-quality coverage via diversity concepts. 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 which provides a very small variation of the –3dB horizontal beam width over the frequency band as well as a high front-to-back ratio.

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

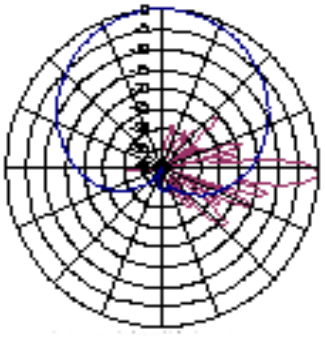
824-960 / 1710-2170 MHz

Dual Broadband Antenna

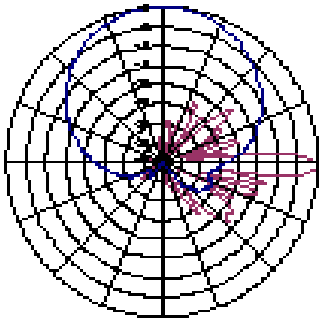
Electrical Specifications

Frequency band (MHz)	824-960		1710-2170
Gain, ± 0.5 (dBi)	17.5		17.5
Polarization		Dual linear ±45°	
Nominal Impedance (Ohm)		50	
VSWR, 824-960MHz	1.5:1		
VSWR, 1710-2170MHz			1.5:1
Isolation between inputs, 824-960MHz (dB)	30		
Isolation between inputs, 1710-2170MHz (dB)			30
Inter band isolation, MHz (dB)		38	
Horizontal -3 dB beamwidth	65°		65°
Tracking,Horizontal plane, 824-960MHz, ±60°	<2.0dB		
Tracking,Horizontal plane, 1710-2170MHz, ±60°			<1.5dB
Electrical downtilt range (adjustable)	2° to 8°		0° to 8°
Vertical -3 dB beamwidth	6°		6°
Sidelobe suppression, Vertical 1 st upper (dB)	> 17 @2° MET		> 17 @2° MET
Vertical beam squint	0.8°		0.8°
First null-fill (dB)	< -25		< -25
Front-to-back ratio (dB)	> 28		>30
Front-to-back ratio, total power (dB)	>25		>25
Cross-polar discrimination (XPD) ±60° (dB)	>11		>11
Average IM3, 2Tx@43dBm (dB)	-150		
Average IM3, 2Tx@43dBm (dB)			-153
Average IM7, 2Tx@43dBm (dB)			-160
Power Handling, Average per input (W)	300		250
Power Handling, Average total (W)	600		500

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



Typical Horizontal and Vertical 7755.00
850 MHz Band Patterns



Typical Horizontal and Vertical 7755.00
1900 MHz Band Patterns

Mechanical Specifications

Connector Type	7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	2630x280x125mm (8‘8"x11“x5”)
Wind Load, Frontal, 100 mph Cd=1 (N)	868N (195 lbf)
Weight With Brackets	19.6 kg (43 lbs)
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC grounded
Radome Material	PVC
Radome Color	Light Gray
Packing Size	2830x355x255mm (9‘4"x1’2"x10")
Shipping Weight	23.3 kg (52 lbs)

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