Dual Broadband Antenna

90° 2.0 m MET Antenna

806-960/1710-2170 MHz

Part Number: 7772.00

Horizontal Beamwidth: 90°
Gain: 15/16 dBi

Electrical Downtilt: Adjustable
Connector Type: 7/16 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

Preliminary

ANTENNA SYSTEMS

BASE STATION SYSTEMS

COVERAGE SYSTEMS

806-960/1710-2170 MHz

Dual Broadband Antenna

Electrical Specifications (Preliminary)

Frequency band (MHz)	806-960		1710-2170
Gain, ± 0.5 (dBi)	15.0		16.0
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)		40	
Horizontal -3 dB beamwidth	85 ± 5°		85 ± 5 °
Tracking,Horizontal plane, 824-960MHz, ±60° (dB)	<2.0		
Tracking,Horizontal plane, 1710-2170MHz, ±60° (dB)			<2.0
Electrical downtilt range (adjustable)	0° to 8°		0° to 8°
Vertical -3 dB beamwidth	9.2 ± 1.0°		6.6 ±1.0°
Sidelobe suppression, Vertical 1 st upper (dB)	> 17,16,15 x=0, 4, 8° MET		> 17,16,15 x=0, 4, 8° MET
Vertical beam squint	<0.8°		<0.5°
First null-fill (dB)	< -25		< -25
Front-to-back ratio (dB)	>25		>27
Front-to-back ratio, total power (dB)	>20		>23
IM3, 2Tx@43dBm (dBc)	< -153		
IM3, 2Tx@43dBm (dBc)			< -153
IM7, 2Tx@43dBm (dBc)			< -160
Power Handling, Average per input (W)	400		250
Power Handling, Average total (W)	800		500

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

Mechanical Specifications

Connector Type	4 x 7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	2033mm x 280mm x 125mm (80” x 11”x 5”)
Weight Including Brackets	19,7kg (44lbs)
Wind Load, Frontal, 42m/s Cd=1	628N (141lbf)
Survival Wind Speed (m/s)	70 (156mph)
Lightning Protection	DC grounded
Radome Material	GRP
Radome Color	Light Gray
Mounting	Pre-mounted Standard Brackets
Packing Size	2175mm x 355mm x 255mm (86"x14"x10")

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Powerwave technologies

COVERAGE AND CAPACITY | TECHNOLOGY LEADERSHIP | GLOBAL PARTNER | INTEGRATED SOLUTIONS | QUALITY AND RELIABILITY

D031-08209 Rev A