

Dual Broadband Antenna

65° 2.0 m MET Antenna

824-960/1710-2170 MHz

Part Number:
7752.00

Horizontal Beamwidth: 65°
Gain: 15.9/17.5 dBi

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

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BASE STATION
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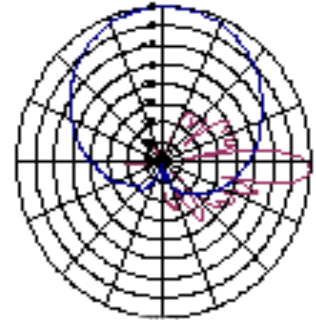
COVERAGE
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Dual Broadband Antenna

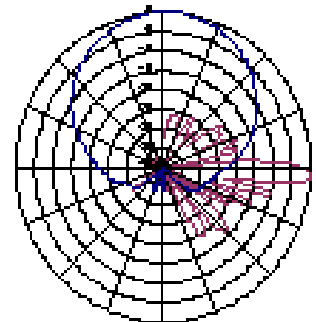
Electrical Specifications

Frequency band (MHz)	824-960	1710-2170
Gain, ± 0.5 (dBi)	15.9	17.5
Polarization	Dual linear $\pm 45^\circ$	
Nominal Impedance (OHM)	50	
VSWR, 824-960MHz	1.5:1	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	$69 \pm 6^\circ$	$63 \pm 7^\circ$
Tracking, Horizontal plane, 824-960MHz, $\pm 60^\circ$ (dB)	<1.0	
Tracking, Horizontal plane, 1710-2170MHz, $\pm 60^\circ$ (dB)		<2.0
Electrical downtilt range (adjustable)	2° to 9°	0° to 8°
Vertical -3 dB beamwidth	$9.2 \pm 1.0^\circ$	$6.6 \pm 1.0^\circ$
Sidelobe suppression, Vertical 1 st upper (dB)	> 17,16,15,14 x=2, 4, 6, 8° MET	> 17,16,15,14,13 dB x=0, 2, 4, 6, 8° MET
Vertical beam squint	0.8°	
First null-fill (dB)	< -25	< -25
Front-to-back ratio (dB)	>27	>27
Front-to-back ratio, total power (dB)	>24	>24
Average IM3, 2Tx@43dBm (dBc)	< -153	
Average IM3, 2Tx@43dBm (dBc)		< -153
Average IM7, 2Tx@43dBm (dBc)		< -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 800 MHz Horizontal and Vertical
7752.00 Patterns



Typical 1900 MHz Horizontal and Vertical
7752.00 Patterns

Mechanical Specifications

Connector Type	7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	2033mm x 280mm x 125mm (6'7" x 11" x 5")
Weight Including Brackets	19.7kg (44lbs)
Weight Excluding Brackets	16kg (35lbs)
Wind Load, Frontal, 42m/s Cd=1	628N (141lbf)
Survival Wind Speed	70m/s (156mph)
Lightning Protection	DC grounded
Radome Material	GRP
Radome Color	Light Gray
Packing Size	2175mm x 355mm x 255mm (7'4"x14"x10")

Corporate Headquarters
Powerwave Technologies, Inc.
1801 East St. Andrew Place
Santa Ana, CA 92705 USA
Tel: 714-466-1000
Fax: 714-466-5800
www.powerwave.com

Main European Office
Antennvägen 6
SE-187 80 Täby
Sweden
Tel: +46 8 540 822 00
Fax: +46 8 540 823 40

Main Asia Pacific Office
23 F Tai Yau Building
181 Johnston Road
Wanchai, Hong Kong
Tel: +852 2512 6123
Fax: +852 2575 4860



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COVERAGE AND CAPACITY

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