

High Broadband Antenna

90° 2.0 m MET Antenna

1710-2170 MHz

Part Number:
7745.00

Horizontal Beamwidth: 90°
Gain: 17.8 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 flexibility of tilt angles, while ensuring 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
SYSTEMS

BASE STATION
SYSTEMS

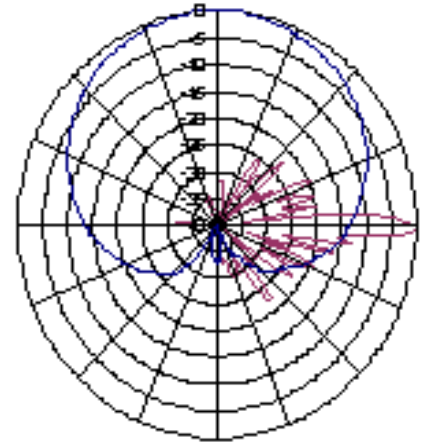
COVERAGE
SYSTEMS

High Broadband Antenna

1710-2170 MHz

Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025, 2110-2170
Gain, ± 0.5 (dBi)	17.5	17.7	17.9
Polarization	Dual linear $\pm 45^\circ$		
Nominal Impedance (Ohm)	50		
VSWR	1.4:1		
Isolation between inputs, 824-960MHz (dB)	>30		
Horizontal -3 dB beamwidth	$86 \pm 3^\circ$		
Tracking, Horizontal plane, $\pm 60^\circ$ (dB)	<1.0		
Electrical downtilt range (adjustable)	0° to 5.5°		
Vertical Beam width -3dB	$4.7 \pm 0.4^\circ$	$4.5 \pm 0.3^\circ$	$4.2 \pm 0.4^\circ$
Sidelobe suppression, Vertical 1 st upper (dB)	>18,18,16,16,14,14 @ 0,1,2,3,4,5° MET		
Vertical beam squint	0.3°		
First null-fill (dB)	>24, typical >-18		
Front-to-back ratio (dB)	>29		
Front-to-back ratio, total power (dB)	>23		
Cross-polar discrimination (XPD) 0° (dB)	>14	>13	>12
Cross-polar discrimination $\pm 60^\circ$ (dB)	>10	>10	>10
IM3, 2Tx@43dBm (dBc)	<-153	<-153	
IM7, 2Tx@43dBm (dBc)			< -160
Power Handling, Average per input (W)	250		
Power Handling, Average total (W)	500		



Typical Horizontal and Vertical 7745.00 Patterns

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

Mechanical Specifications

Connector Type	7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	1934x167x89mm (6'4"x6.6"x3.5")
Wind Load, Frontal, 100 mph Cd=1	412 N (92.6 lbf)
Wind Deflection 78 mph	< 1°
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC grounded
Radome Material	PVC
Radome Color	Light Gray
Packing Size	2105x200x200mm (6'11"x8"x8")
Shipping Weight	15.8 kg (34.8 lbs)

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 Taby
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



©Copyright March 2005, Powerwave Technologies, Inc. All Rights reserved. Powerwave, Powerwave Technologies, The Power in Wireless and the Powerwave logo are registered trademarks of Powerwave Technologies, Inc.

COVERAGE AND CAPACITY

TECHNOLOGY LEADERSHIP

GLOBAL PARTNER

INTEGRATED SOLUTIONS

QUALITY AND RELIABILITY