

Triple Broadband Antenna

65° 2.6 m MET Antenna

824-960/2x1710-2170 MHz

Part Number:
7785.00

Horizontal Beamwidth: 65°
Gain: 17.4 / 17.5 dBi

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

The triple band solution from Powerwave offers a flexible antenna option for operators seeking excellent RF-performance as well as fast and successful roll-out of their next-generation networks. Designed to overcome UMTS deployment challenges, such as space and installation issues as well as those of co-siting in demanding radio environments, these antennas include the Powerwave patented Manually-adjustable Electrical Tilt (MET) function, which offers operators flexibility in tuning antenna systems as well as logistical advantages. The Powerwave Triband antenna design is based on a patented stacked aperture-coupled patch technology for cellular 800, GSM 900-, GSM1800, PCS 1900 and UMTS 2100 MHz-bands. Finally, the advanced reflector and element structure in combination with a superior feeding network minimizes the weight and maximizes the overall performance of the antenna.

ANTENNA
SYSTEMS

BASE STATION
SYSTEMS

COVERAGE
SYSTEMS



Mechanical Specifications

Connector Type (6 Pcs)	7/16 DIN female
Connector Position	Bottom
Dimensions, HxWxD	2650 x 280 x 125mm (8' 8"x 11"x 5")
Weight, Excluding Brackets	24kg (53lbs)
Brackets	3.5kg
Wind Load, Frontal, 150 km/h, Cd=1, (N)	27,5kg (60.5 lbs with brackets)
Operating Wind Speed	820
Survival Wind Speed	55m/s (123 mph)
Lightning Protection	70m/s (156 mph)
Weatherproofing	DC-grounded
Radome Material	According to T1102
Radome Color	GRP
Packing Size Hxwx d (Mm)	RAL 7035 on all visible plastic parts
Shipping Weight Including Bracket Kit	2790 x 355 x 200mm (9' 2"x1' 2"x 8")
Mounting	29kg (64lbs)
	Pre-mounted standard brackets

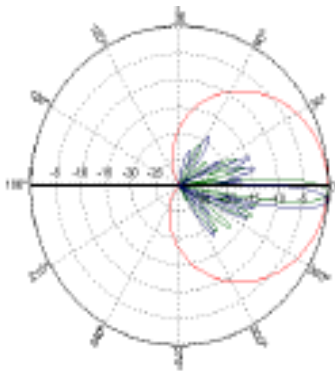
Triple Broadband Antenna

Electrical Specifications

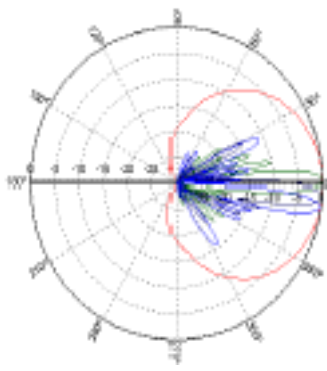
Frequency Band, MHz	824-960	1710-1880;1850-1990	1990-2170
Gain \pm 0.5dBi	17.4	17.2	17.5
Polarization	dual linear $\pm 45^\circ$	dual linear $\pm 45^\circ$	dual linear $\pm 45^\circ$
Nominal impedance (Ohms)	50	50	50
VSWR, 824-960 MHz	1.5:1		
VSWR, 1710-1880 MHz		1.5:1	
VSWR, 1900-2025MHz			1.5:1
VSWR, 2110-2170MHz			1.5:1
Isolation between inputs (dB), 824-960 MHz	30		
Isolation between inputs (dB), 1710-1880 MHz		30	
Isolation between inputs (dB), 1900-2025 MHz			>30
Isolation between inputs (dB), 2110-2170 MHz			>30
Inter band isolation, all bands (dB)		38	
Horizontal -3dB beam width	65°	65°	62°
Tracking, Horizontal plane, 824-896 MHz, $\pm 60^\circ$	<2.0dB		
Tracking, Horizontal plane, 880-960 MHz, $\pm 60^\circ$	<2.0dB		
Tracking, Horizontal plane, 1710-1880 MHz, $\pm 60^\circ$		<1.5dB	
Tracking, Horizontal plane, 1900-2025 MHz, $\pm 60^\circ$			<1.5dB
Tracking, Horizontal plane, 2110-2170 MHz, $\pm 60^\circ$			<1.5dB
Electrical down tilt range (adjustable)	2° to 8°	0° to 8°	0° to 8°
Vertical Beam width -3dB MHz	7°	7°	6°
Side lobe suppression, Vertical 1 st upper (dB)	>17 @ 2° MET	>17 @ 0° MET	>17 @ 0° MET
Side lobe suppression, Vertical Upper (dB)	>10	>10	>10
Vertical beam squint	0.5	0.5	0.5
Front-to-back Ratio (dB)	>25	>30	>30
Front-to-back Ratio, Total Power (dB)	>20	>25	>25
Cross-polar discrimination (XPD) $\pm 60^\circ$ (dB)	>11	>11	>10
IM3, 2Tx@43dBm (dBm) (dBc)	-153		
IM3, 2Tx@43dBm (dBm) (dBc)		-153	
IM7, 2Tx@43dBm (dBm) (dBc)			-160
Power Handling, Average per input (W)	300	250	250
Power Handling, Average total (W)	600	500	500

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

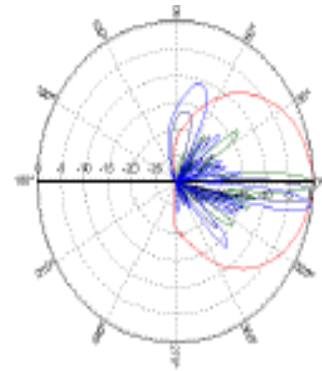
850MHz & 900MHz



1800MHz & 1900MHz



2100MHz



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



©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