

# High Broadband Antenna

65° 0.7 m FET Antenna

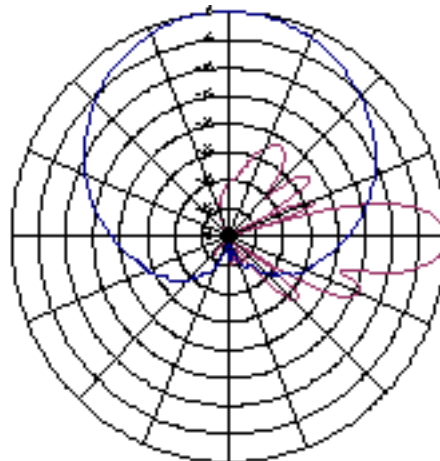
Part Number  
7700.00

Horizontal Beamwidth: 65°  
Gain: 15.5 dBi

Electrical Downtilt: 0°  
Connector Type: 7/16 DIN

1710-2170 MHz

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 tuning flexibility of tilt angles. This design ensures the highest possible cross-polar discrimination value.



Typical Horizontal and Vertical 7700.00 Patterns

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technologies

1710-2170 MHz

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## Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025, 2110-2170
Gain, $\pm 0.5$ (dBi)	15.1	15.6	15.8
Polarization	Dual linear $\pm 45^\circ$		
Nominal Impedance (Ohms)	50		
VSWR	1.3:1		
Isolation between inputs, 824-960MHz (dB)	>30		
Horizontal -3 dB beamwidth	67 $\pm$ 3 $^\circ$	66 $\pm$ 2 $^\circ$	64 $\pm$ 3 $^\circ$
Tracking, Horizontal plane, $\pm 60^\circ$ (dB)	<1.0		
Electrical downtilt	0 $^\circ$		
Vertical - 3dB Beamwidth	14.7 $\pm$ 0.8 $^\circ$	13.8 $\pm$ 0.6 $^\circ$	12.8 $\pm$ 1.1 $^\circ$
Sidelobe suppression, Vertical 1st upper (dB)	>19		
Vertical beam squint	0.6 $^\circ$		
First null-fill (dB)	>-20, typical >-18		
Front-to-back ratio (dB)	>30		
Front-to-back ratio, total power (dB)	>26		
Cross-polar discrimination (XPD) 0 $^\circ$ (dB)	>17	>19	>19
Cross-polar discrimination $\pm 60^\circ$ (dB)	>17	>15	>11
IM3, 2Tx @ 43dBm (dBc)	<-153	<-153	
IM7, 2Tx @ 43dBm (dBc)			<-160
Power Handling, Average per input (W)	250		
Power Handling, Average total (W)	500		

All specifications are subject to change without notice.  
Contact factory for complete performance data.

## Mechanical Specifications

Connector Type	7/16 DIN female
Dimensions, HxWxD	709x167x89.5mm (2'4"x7"x4")
Weight with Brackets	7.3 kg (16 lbs)
Wind Load, Frontal, 100 mph(44,7m/s) Cd=1	35 lbf (156N)
Survival Wind Speed (mph)	70m/s (156 mph)
Lightning Protection	DC Grounded
Radome Material	ASA
Radome Color	Light Gray (RAL 7035 on all visible plastic parts)
Packing Size	880x200x200mm (2'11"x8"x8")
Shipping Weight	8.2kg (18 lbs)

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