

# High Broadband Antenna

65° 1.3 m FET Antenna

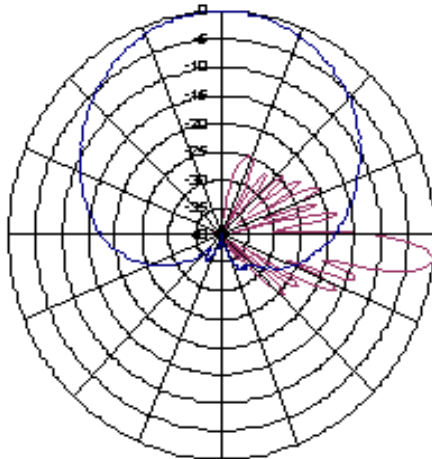
1710-2170 MHz

Part Number  
7701.06

Horizontal Beamwidth: 65°  
Gain: 18dBi

Electrical Downtilt: 6°  
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 tuning flexibility of tilt angles. This design ensures the highest possible cross-polar discrimination value.



Typical Horizontal and Vertical 7701.06 Patterns

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# High Broadband Antenna

1710-2170 MHz

## Electrical Specifications

Frequency band (MHz)	1710-1880	1850-1990	1900-2025,2110-2170
Gain, $\pm 0.5$ (dBi)	17.5	18	18.3
Polarization		Dual linear $\pm 45^\circ$	
Nominal Impedance (Ohms)		50	
VSWR		1.3:1	
Isolation between inputs (dB)		>30	
Horizontal -3 dB beamwidth	$67\pm 3^\circ$	$65\pm 3^\circ$	$64\pm 3^\circ$
Tracking, Horizontal plane, $\pm 60^\circ$ (dB)		<1.0	
Electrical downtilt		$6^\circ$	
Vertical -3dB Beam width	$7.2\pm 0.4^\circ$	$6.7\pm 0.3^\circ$	$6.4\pm 0.5^\circ$
Sidelobe suppression, Vertical 1 st upper (dB)		>18	
Vertical beam squint		$0.5^\circ$	
First null-fill (dB)		>-26 , typical >-20	
Front-to-back ratio (dB)		>29	
Front-to-back ratio, total power (dB)		>25	
Cross-polar discrimination (XPD) $0^\circ$ (dB)	>17	>19	>20
Cross-polar discrimination $\pm 60^\circ$ (dB)	>17	>14	>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	1309x167x89.5mm (4'4"x7"x4" )
Weight With Brackets	10.1 kg (22 lbs)
Wind Load, Frontal, 100 mph(44.7m/s) Cd=1	310N (70 lbf)
Survival Wind Speed	70m/s (156 mph)
Lightning Protection	DC Grounded
Radome Material	ASA
Radome Color	Light gray RAL 7035 on all visible plastic parts
Packing Size	1480x200x200mm (4'10"x8"x8" )
Shipping Weight	11kg (24.2 lbs)

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