

High Broadband Antenna

65° 0.7 m FET Antenna

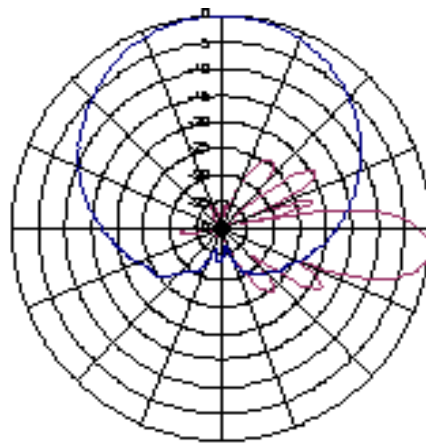
Part Number
7700.06

Horizontal Beamwidth: 65°
Gain: 15.5 dBi

Electrical Downtilt: 6°
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 7700.06 Patterns

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technologies

High Broadband Antenna

1710-2170 MHz

Electrical Specifications

Electrical Specifications

| Frequency band (MHz) | 1710-1880 | 1850-1990 | 1900-2025, 2110-2170 |
|---|----------------------------|-----------------|----------------------|
| Gain, ± 0.5 (dBi) | 15.1 | 15.6 | 15.8 |
| Polarization | Dual linear $\pm 45^\circ$ | | |
| Nominal Impedance (Ohm) | 50 | | |
| VSWR | 1.3:1 | | |
| Isolation between inputs (dB) | >30 | | |
| Horizontal -3 dB beamwidth | 67 \pm 3° | 65 \pm 3° | 64 \pm 3° |
| Tracking, Horizontal plane, $\pm 60^\circ$ (dB) | <1.0 | | |
| Electrical downtilt | 6° | | |
| Vertical -3dB Beamwidth | 14.7 \pm 0.8° | 13.8 \pm 0.8° | 12.8 \pm 1.1° |
| Sidelobe suppression, Vertical 1st upper (dB) | >17 | | |
| Vertical beam squint | 0.6 | | |
| First null-fill (dB) | >-26, typical >-20 | | |
| Front-to-back ratio (dB) | >30 | | |
| Front-to-back ratio, total power (dB) | >26 | | |
| Cross-polar discrimination (XPD) 0° (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 your Powerwave representative 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 | 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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