



# AW3874

896-960 MHz and 3300-3800 MHz

## 900 MHz-CBRS Dual-Band Panel Antenna

Ultra-Compact, high-efficiency dual-band 8-port 900 MHz and 3.5 GHz sector antenna. Expertly designed using patent-pending frequency transparent dipole technology™ (FTDT), this antenna solution offers a reduced footprint without sacrificing performance.

### APPLICATION

- Anterix (896-901/935-940 MHz) band
- 3.5 GHz Citizens Broadband Radio Service (CBRS)
- Ideal for utilities using AMR/AMI systems and remote monitoring
- Point to multi point (PtMP) and Non line of site (NLoS)
- Fixed wireless broadband access
- 900 MHz ISM and cellular bands
- LPWAN, LoRA, IoT, M2M, GSM, SCADA applications
- Wireless LAN systems & IEEE 802.16e applications

### FEATURES AND BENEFITS

- Two bands, one antenna; reduced rent, install costs, and wind loading
- Independent remote electrical tilt with one controller on 900 MHz and one controller on CBRS
- Stable pattern and gain performance across all 900 MHz and 3.5 GHz ports
- Null fill with high gain provide consistent near and far field RF coverage while minimizing dead zones
- Compact and lightweight – 40”H x 19”W, net weight of antenna 11.1kg (25.5lb)

### ADDITIONAL FEATURES

- Four 896-960 MHz ports and four 3300-3800 MHz CBRS ports
- Enhanced MIMO performance with full 4x4 operation
- Heavy-duty UV-resistant radome and rugged galvanized brackets designed and tested for all-weather operation

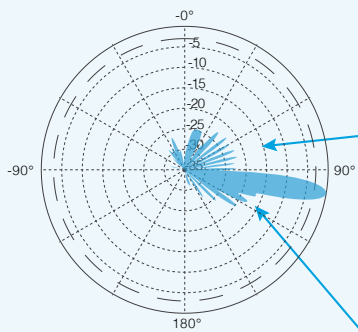
4X4 MIMO FOR MAXIMUM THROUGHPUT

COVERS 900 MHz AND 3.5 GHz BANDS

PATENT-PENDING DIPOLE TECHNOLOGY

REMOTE ELECTRICAL TILT CAPABILITY

### ALPHA WIRELESS' INNOVATIVE DESIGN

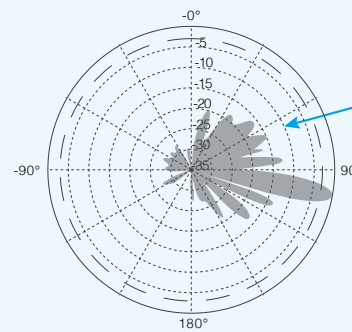


3.5 GHz Pattern

#### Alpha Wireless' 1:10 Phase Shifter – phase shifting each element in the array.

- Innovative design components minimize side lobe impact.
- Upper side lobes <20dB across the full tilt range and dual bandwidths
- Avoids beam spill in unwanted directions to minimize site interference
- Highly focused radiation and high antenna gain provides stronger signal levels to improve network throughput and reliability.
- Stable null fill applied for coverage close to the tower
- Frequency-agile pattern control

### STANDARD PANEL ANTENNA WITH SIDE LOBES



3.5 GHz Pattern

#### Typical Competitors 1:5 Phase Shifter – Phase Shifting in pairs of elements in the array.

- Increases side lobes and radiation at off angles outside the main beam which degrades signal to interference
- All upper side lobes are inconsistent across the tilt range; normally optimized for mid-tilt
- Inconsistent and/or non-existent null fill across the band causing gaps in coverage near the tower.