The AW3842-E-F 2.5 / 3.5GHz Dual-Band Antenna – Remote Electrical Tilt (eRET) for Fine-Tuned Performance

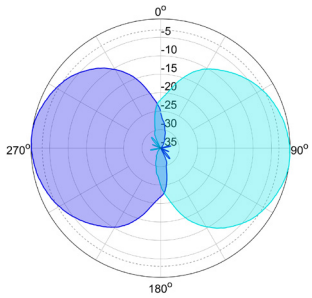
2300-2690 / 3300-3800 MHz, 8 Port, 65-degree sector antenna approved by Tier-1 carriers for durability, optimal performance and low TCO

The AW3842-E-F provides superior coverage in multiple deployment scenarios.

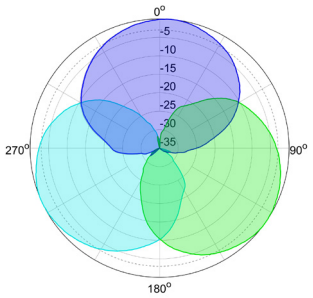
Wireless ISPs, Tribal Nations and school districts deploy these antennas using four sectors.

Traditional wireless carriers typically deploy this antenna using three sectors.

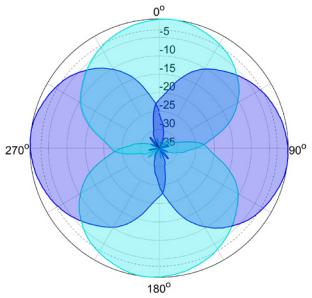
This antenna can be deployed for right-of-way scenarios which require two sectors at 180-degree separation.



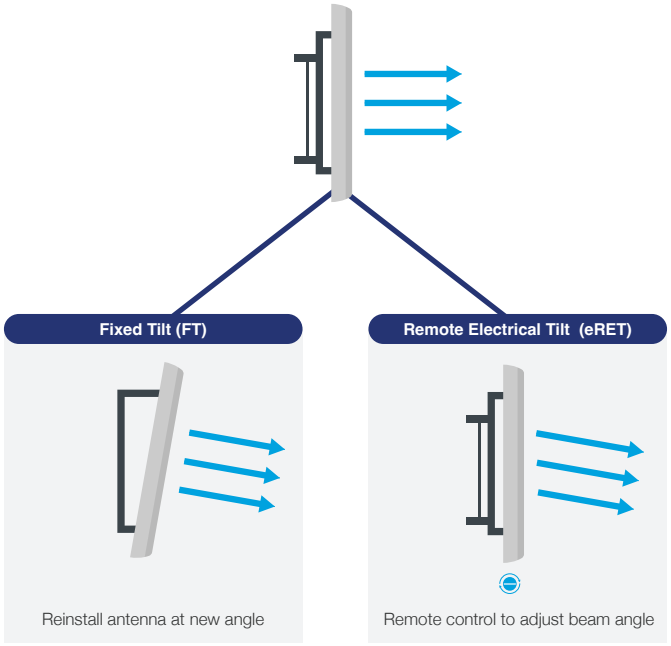
Rights of Way
Frequency Reuse 1



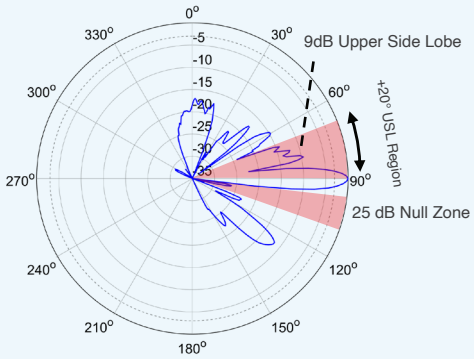
Three-Sector
Frequency Reuse 1



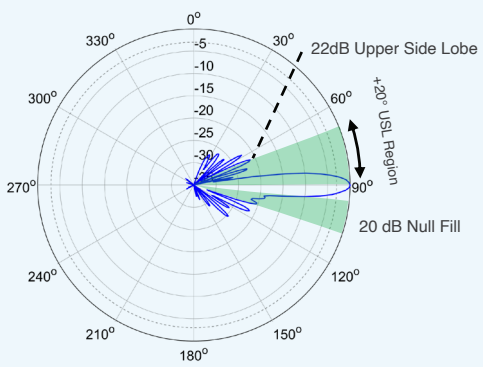
Four-Sector
Frequency Reuse 2



Non-optimized Antenna



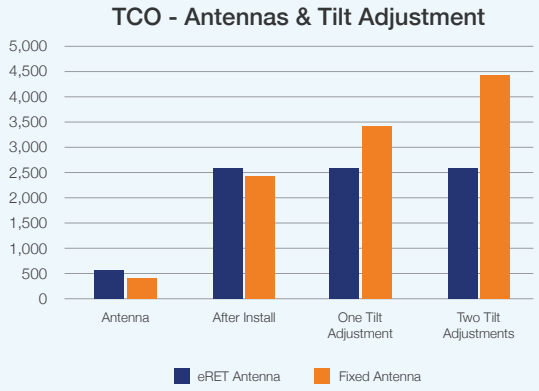
Alpha Wireless Antenna



Downtilt Financials

Many sites need post-deployment tilt adjustments to optimize the network or fix coverage issues only detectable after install.

Fixed-tilt antenna adjustments require expensive tower climbs while eRET tilt adjustments require no truck roll.



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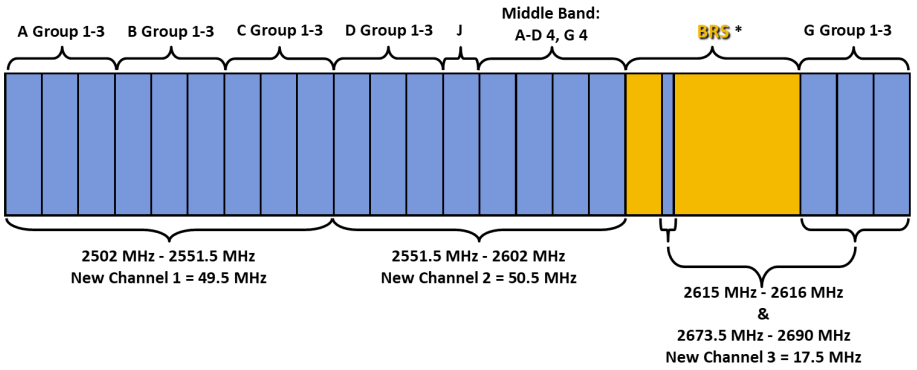
What Is the 2.5 GHz Spectrum?

Spectrum in the 2.5 GHz range (2496-2690 MHz) is an emerging option for establishing or expanding wireless networks. With the right antennas, it offers exceptional network expansion opportunities for operators, utilities, public safety organizations and government organizations.

The FCC originally designated this spectrum for educational purposes with little success, so it was unused for 20 years. In 2019 the FCC opened it for Tribal Priority filing, and in 2020 removed all educational and tribal restrictions. Today commercial operators are the primary users of the spectrum.

Alpha Wireless can provide the ideal solution to take full advantage of this spectrum. The AW3842-E-F gives you lower costs, easy eRET tilt adjustments for fine-tuning after installation, high performance, and most importantly, greater customer satisfaction.



* BRS is the Broadband Radio Service; spectrum shown in yellow is not available as part of this window.

Source: Federal Communications Commission

Downsides of Fixed Tilt Antennas

- Longer time to ROI
- Long cycle time to on-air services
- Higher cost and more time required for realignment due to inaccuracy
- Pattern distortion with tilt adjustment
- Customer churn from low service performance levels

Benefits of the AW3842-E-F with eRET

- Delivers better RSRP and SINR with twice the DL quality and throughput and three times the UL quality and throughput with eRET vs. with FT
- Maintains a uniform radiation pattern and reduces interference across a 0-10-degree azimuth tilt range
- Fine-tunes antenna performance with eRET from a desktop or at the base of the tower instead of the costly, time-consuming and high-risk mechanical bracket adjustment that FT antennas require
- Alpha Wireless offers cables for all radios to connect to the AW3842-E-F

Value of AW3842-E-F

- Decreases overall total cost of ownership, decreasing site count due to reduced interference
- Reduces operational expenditures with lower installation costs, lower technician maintenance costs and faster time to market
- Decreases customer churn by improving overall network performance for higher service levels and greater customer satisfaction
- Provides easy fine-tuning with eRET adjustments. Avoids lengthy re-alignment times and the additional safety hazards of FT antenna removal and reinstallation for tilt adjustment
- Delivers an attractive price point and proven performance

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