



TerraWave 802.11 Deployment Case Story

TerraWave Quad Antenna Adds Value for School District's Budget

As with nearly every other vertical market, education has fully adopted the use of wireless networking. From college campuses to kindergarten classrooms, districts are integrating 802.11 networks into their schools, and more importantly, into their budgets. As funding for public school programs continues to get tighter and tighter, finding economical means to provide students with technologies that will enhance their learning experience AND not usurp too much funding is paramount.

One school district from the Midwest found out that it can balance state-of-the-art technology with prudent spending – and benefit all.

The Problem

One award winning and fastest growing school district in the Midwest, serving more than 15,000 students in grades K-12, identifies the need to improve its technology infrastructure. In addition to other improvements, this includes providing 12 elementary schools, four middle schools, two ninth grade freshmen centers and three high schools with 802.11, wireless networking capabilities. Funding for the integration was made possible by a bond issue. While purchasing quality products is important, cost is just as critical.

Part of the integration includes the purchase of thousands of 2.4 and 5 GHz Wi-Fi antennas, a costly proposition for any public school. The key is finding the best antennas at the best price.

The Solution

Working with a local value added reseller (VAR) the district identified TerraWave Solutions' Quad Antenna, a dual band diversity omnidirectional with RPTNC plug connectors. This innovative product offers a four-in-one solution: two diversity antennas in a single unit. The antenna features two integrated 2.4 GHz 2 dBi elements and two 5 GHz 4.5 dBi elements arranged in one enclosure. Because of its dual capacity, this antenna enabled the school district to simplify the deployment by using only one antenna for dual band access points – completely eliminating the need for additional antennas and saving time and money.

Ultimately, instead of purchasing approximately 900 2.4 GHz and 900 5 GHz antennas—1,800 antennas in total, the school district acquired about 900 of TerraWave's quad antennas. Additionally, TerraWave's quad antenna is housed in an aesthetically pleasing form factor. It mounts flush to the ceiling, an added benefit in any school environment where tampering can be an issue. This antenna sale saved the school district thousands of dollars, while providing better margin to the reseller than other competitors.

Product Specifications

- Frequency Range: 2400-2483 / 5150-5850 MHz
- Bandwidth: 83 / 700 MHz
- Gain: 2.0 / 4.5 dBi
- Vertical Beamwidth: 90 / 55°
- Horizontal Beamwidth: 360°
- VSWR: ≤ 1.5 / 2.0
- Nominal Impedance: 50 Ohms
- Polarization: Vertical
- Max Power: 100 Watts
- Connector: RPTNC Plug with 36" Pigtail
- Dimensions: 6.3" x 5.4" x 1.2"
- Weight: 0.77 lbs
- Operating Temperature Range: -22°F to +158°F
- Mounting Method: Ceiling Tile Clips

Featured Product



TerraWave Part Number:
M6020045O23602

**TerraWave 2.4 / 5 GHz 2 / 4.5 dBi Dual
Band Diversity Omnidirectional
Antenna with RPTNC Plug Connectors**
List Price: \$185.89

[View Detailed Specs](#)