A2416NJ-DS-A Sector Antenna End of Life

TECH NOTE

10/14/24

A2416NJ-DS-A Sector Antenna End of Life

This document provides an overview of the A2416NJ-DS-A Sector Antenna End of Life and its replacement product. The A2416NJ-DS-A Sector Antenna has been discontinued by the manufacturer. As a result, the antenna is End of Life for Belden, effective immediately. There is no existing inventory and there will not be a last time buy. The replacement part for the A2416NJ-DS-A Sector Antenna is the A2416NJ-DP-B Sector Antenna. Any new or existing orders should use the replacement antenna.

1. Replacement Product Comparison

The A2416NJ-DP-B Sector Antenna has comparable specifications. However, it provides additional flexibility. It provides a selectable horizontal beamwidth with three options, and it supports dual linear (vertical and horizontal) polarization. The table below provides a high-level comparison of the two antennas.

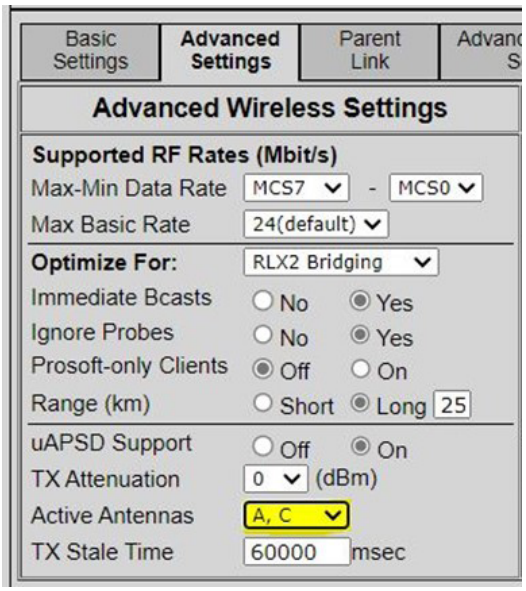
Specification	A2416NJ-DS-A (EoL)	A2416NJ-DP-B (Replacement)
Frequency Range	2.4 – 2.5 GHz	2.4 – 2.5 GHz
Horizontal Beamwidth	120°	Selectable (with gain): 60° 90° 120°
Gain	16 dBi	18 dBi 17 dBi 16 dBi
Vertical Beamwidth	6.5°	8.0°
Polarization	Vertical	Dual Linear – Vertical and Horizontal
Connector	N Female (1)	N Female (2) vertical, horizontal
Connector Position	Bottom	Middle

2. Replacement Antenna Application

The A2416NJ-DP-B Sector Antenna can be installed as a polarization diversity antenna when the signals from the horizontal and vertical polarization ports are combined by the receiver to improve signal quality in multipath environments. The antenna may also be installed with vertical or horizontal polarization by connecting only one of the antenna ports. The orientation of the antenna must match the selected antenna polarization (vertical or horizontal).

3. Replacement Antenna Installation

To select the A2416NJ-DP-B horizontal antenna beamwidth, remove the locking pin from the black rear tube on the back of the antenna. Then select one of the three available positions by aligning holes in the rear tube. The settings are 120 degrees with the rear tube pressed all the way in, 90 degrees with the rear tube set to the middle hole position, and 60 degrees with the rear tube pulled all the way out. Please see the manufacturer's instructions for more detail. To connect the A2416NJ-DP-B antenna with polarization diversity (recommended), connect the two antenna connectors (vertical and horizontal) to two separate radio ports using separate transmission lines, allowing the receiver to combine the signals from both polarizations. Then configure the receiver settings to (polarization) diversity mode to allow it to combine the two signals optimally. For example, to select diversity mode for the RLX2-IHNF and ELXM receivers, set the active antennas to A and C:



Diversity settings may be different for other products.

To connect the A2416NJ-DP-B antenna with vertical or horizontal polarization, connect the appropriate connector (vertical or horizontal) to the receiver. Make sure the orientation of the antenna matches the polarization. If the orientation does not match, the antenna performance will be significantly degraded.

Note: The vertical and horizontal polarization ports are not labeled on the back of the antenna. The port on the left is horizontally polarized and the port on the right is vertically polarized. A test transmission is recommended to be sure that the antenna orientation matches the desired polarization.

Appendix

- Link to product replacement page
- Data sheet for new antenna
- Link to product listing for new antenna