

# AVASURE™ SELECTS TINY VENDEV ANTENNA TO ENSURE RELIABLE PATIENT MONITORING AND SAFETY

## EXECUTIVE SUMMARY

### CLIENT

AvaSure, a leading developer of technology and services to improve patient safety.

### CLIENT CHALLENGE

Ensure seamless Wi-Fi for patient observation and communication mobile carts.

### PRODUCT SOLUTION

#### Mini MIMO Omnidirectional Antenna

Tessco SKU 546030

- 2.4/5 GHz 3/4 dBi omni antenna
- Low-profile, 2.9" x 5.4" x 1.0" antenna sits almost flush with the surface of the cart to minimize damage.
- Provides connection from the cart to multiple access points simultaneously.
- Enables seamless Wi-Fi as the cart moves or when access points become overloaded.

AVASURE IS THE LARGEST PROVIDER OF REMOTE VIDEO MONITORING SOLUTIONS TO HEALTHCARE ORGANIZATIONS IN THE WORLD.

AvaSure's AvaSys® TeleSitter® Solution is an advanced patient observation and communications platform that dramatically improves patient safety by allowing continuous visual and audio monitoring. It enables a single caregiver to monitor as many as 16 patients from a central observation station.

The AvaSys TeleSitter consists of a high-resolution camera capable of night vision, a microphone, speaker, and a Wi-Fi module on a mobile cart. The monitor cart is placed in the patient's room, and a continuous wireless video link is sent back to the monitor station where trained observers can watch patients and respond as needed. The AvaSys TeleSitter Solution is in use in hundreds of hospitals. These organizations use AvaSys TeleSitter to prevent patient harm, protect staff from violent patients and visitors, stop elopements, make the best use of nursing resources, improve patient care, and reduce costs.

## CHALLENGE

When AvaSure's engineers were searching for a reliable MIMO Wi-Fi antenna to replace the outdated dipole antenna they were using on the AvaSys TeleSitter, they turned to Ventev. The dipole antennas were simple and low-cost, however they could not support the 2x2 MIMO configuration that the new Wi-Fi chipset had. In addition, the old antenna continuously broke off the unit when the cart moved or underwent cleaning or maintenance. A more permanent, low profile solution was required to prevent the antennas from being damaged or removed.



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## SOLUTION

Initially, AvaSure chose a Ventev antenna that fit the required technical specifications, which was available with a short lead time. However, after Ventev learned more about the installation, their engineers customized an antenna solution to better fit AvaSure's needs. "Working with Ventev, we were able to customize the antenna design to remove a cable adaptor, lower the overall product cost, and make the unit easier to assemble," said an AvaSure engineer.

The solution, the Mini MIMO Omnidirectional Antenna, mounts on the mobile cart and ensures the AvaSys TeleSitter has a permanent 2x2 MIMO connection to multiple access points simultaneously. The connection redundancy provides seamless Wi-Fi as the unit is moved or when access points become overloaded. The Mini MIMO Omni Antenna measures less than 3 inches wide by 5.4 inches long and, at just an inch high, sits almost flush with the surface of the cart, ensuring it is protected from damage.

AvaSure is very pleased with the new antenna solution and is using it in hospitals across the U.S. "It's robust, easy for most operators, and requires no maintenance," said an AvaSure engineer. "We were able to completely eliminate a major fail mode for products in the field, as well as increase wireless performance and lower assembly costs. In addition, the Mini MIMO Antenna's configuration enables seamless changeover in Wi-Fi connections, allowing for continuous patient monitoring with fewer interruptions due to network issues, enhancing device efficacy and increasing patient safety."



**Mini MIMO  
Omnidirectional Antenna**  
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