



CASE STUDY

# MOBIUS 700-2700MHZ ANTENNA

PATENTED ANTENNA TECHNOLOGY ADDRESSES  
LONGSTANDING CONNECTIVITY CONCERNS

MODEL NO:

**08-ANT-0885**

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In Columbus, Ohio, a large, fortified building houses both the Office of Homeland Security and the Franklin County Courthouse. It was built like many other robust buildings of its era—using thick concrete walls and steel-reinforced floors—both of which served a function in the past, but in present-day terminology, can make extended cell coverage inside the building virtually impossible.

Use of a sophisticated, state-of-the-art, bidirectional amplifier (BDA) network left many “dead” spots throughout the building. Even with six antennas on the 24th floor, cell coverage was still less than 100 percent, and was even worse on the 23rd floor where some of the outer offices had zero coverage.

While at a State of Ohio Communications Seminar, the radio communications coordinator for the Franklin County Office of Homeland Security was introduced to MP Antenna. Coinciding with the coordinator’s search for a solution beyond

the installation of additional BDAs in the building, he reviewed his problem with MP Antenna and subsequently decided to test the Mobius Antenna featuring the latest in MultiPolarized antenna technology.

Baseline RSSI data was taken using the system as designed with standard name-brand antennas, and once existing coverage areas were identified, MP Antenna replaced three of the six standard antennas on the 24th floor, with three Mobius antennas. RSSI readings were then compared with the baseline data. With the Mobius, signal strength increased so dramatically that not only did the offices now have 100 percent cell coverage on the floors in consideration, but cell coverage extended all the way down to the cafeteria on the 16th floor. Why did the Mobius antenna work so well? Was it really just a matter of switching from a standard antenna to one utilizing MultiPolarized antenna technology? The answer is simple—yes.

MP Antenna utilizes a patented MultiPolarized element design that captures radio waves multi-dimensionally. In addition, the three-dimensional geometry provides built-in spatial diversity; for example, it acts like multiple antennas connected together, which significantly reduces the chance for multipath cancellation. The technology outperforms standard antennas and provides better signal penetration and greater wireless coverage in obstructed areas. In fact, the more the building is obstructed, as seen with the thick, steel-reinforced concrete floors, the greater the difference between MP Antenna’s MultiPolarized antennas and standard designs. In most cases, if obstructions are the problem, just switching the antenna can solve limited or poor connectivity issues.

In today’s business environment, cell coverage is no longer a luxury but a necessity. Now, even in this fortress that houses Homeland Security and the Franklin County Courthouse, improved cell phone coverage is possible with the help of MP Antenna’s MultiPolarized Mobius antenna. Just ask the formerly skeptical employees on the upper floors of the Franklin County Courthouse building. MP Antenna’s answer to “Can you hear me now? Yes, I can,” is made possible with MultiPolarized antenna technology.

rethink the antenna™

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