



INTERFERENCE: **ONE BIG PROBLEM, FOUR SIMPLE SOLUTIONS**

Interference is an expensive problem. Lost SINR dB means lost revenue—and that's one big problem for an LTE network trying to make a healthy margin, deliver top-notch QoS and stay ahead of the competition. The battle with interference takes place on many fronts, and no single solution can solve it on its own.

Fortunately, CommScope offers a range of interference-busting solutions for most of the places it can cause you trouble. Let's look at four ways CommScope solutions can help your network put interference in its place.

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1. THE ANTENNA

This is where most external interference shows up, and usually it's due to poor design that results in less-than-optimal radiation patterns. CommScope's base station antennas are designed to provide precise radiation patterns that minimize cross-sector and adjacent-site interference, even in co-sited locations.

Some support MIMO and dynamic beam forming, and most offer remote electrical tilt for precise positioning of coverage envelopes. Less interference and less power use mean lower TCO.



2. INTERFERENCE MITIGATION FILTERS

In cases where external interference persists, the only way to clear out the noise is with interference mitigation filters (IMFs). CommScope's full line of IMF solutions can be installed as standalone components or integrated into amplifiers and combiners to ensure that only your desired frequencies make it in or out of the RF path.



3. ALL THE PLACES **PIM** CAN EMERGE

Passive intermodulation (PIM) has been around as long as the RF path itself. Its internal interference effects—caused by poor connections, moisture infiltration or other discontinuities in the path—can be devastating to LTE signal quality. CommScope engineers every solution to avoid these PIM-producing problems, such as

our SureFlex® D-CLASS RF jumpers solution, which factory-tests for dynamic PIM and our complete ecosystem of 4.3-10 connector-equipped solutions.

Like all CommScope products, they are built to avoid PIM even as networks become denser and new frequency bands become available.



4. CLASS 4 MICROWAVE BACKHAUL ANTENNAS

An efficient, high-performing microwave backhaul network is essential for overall network performance. Poorly performing or low-quality antennas often have patterns with high side lobes, representing lost energy and increased interference potential. CommScope's Sentinel® ETSI Class 4 antennas are

engineered to offer tight patterns with low side lobes—minimizing the risk of interference from external sources, increasing efficiency, reducing power use and offering up to 40 percent spectrum re-use.



Interference is an old problem that can no longer be ignored in an LTE world—and even less so in the coming age of 5G. With CommScope and our complete line of solutions in your corner, however, you can always have the upper hand on interference.

[Contact us to Learn more.](#)

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