

August 25, 2014

Less Interference, Happier Customers—CommScope Continues to Develop PIM Solutions for Improving Wireless Network Quality

HICKORY, N.C.--(BUSINESS WIRE)-- After investing billions of dollars in wireless spectrum and network infrastructure, the last thing operators want is a loose or poorly made connection degrading network performance and the user experience.



CommScope's new Andrew Passive Devices are PIM-rated to an industry-leading -160 dBc. (Photo: Business Wire) But that is exactly what can happen in extra sensitive LTE networks.

The evolution of wireless networks to LTE brings about increased scrutiny of the performance-degrading phenomenon called passive intermodulation (PIM). PIM is unwanted radio frequency (RF) interference that can result in degraded voice quality, dropped calls and reduced data throughput. The effects of PIM can be significant—for example, just a one decibel drop in uplink sensitivity due to PIM can reduce wireless coverage by 11 percent.

To help operators limit PIM in their networks—whether inside or outside— <u>CommScope</u> continues to introduce PIM-limiting, performance-assuring infrastructure solutions.

The newest additions to CommScope's PIM-avoiding portfolio are the Andrew® Passive Devices for in-building applications. Every active distributed antenna system (DAS) is supported by a variety of splitters, couplers and other passive devices. CommScope's new Andrew Passive Devices line is a high quality, reliable solution, thoroughly tested for sources of PIM among other factors, and PIM rated to an industry-leading -160 dBc. These RF components enable operators to achieve and maintain effective network performance and support cost-effective business practices in DAS applications. Andrew Passive Devices can be purchased from any of CommScope's U.S. distribution partners: Accu-Tech, Anixter, CSC, Graybar, KGP and Tessco. KGP currently has stock of these devices. For procurement in other countries, contact a local CommScope sales office.

"DAS installations that must support high data rates using large channel counts and MIMO antenna schemes are especially vulnerable to PIM's impact on system performance," said Matt Melester, senior vice president and general manager, Distributed Coverage and Capacity Solutions, CommScope. "The more frequency bands, technologies and operators that a DAS needs to support, the greater the chance for generating PIM. Each component in the network is involved."

CommScope's new line of Andrew Passive Devices is part of a comprehensive CommScope effort to educate the industry on PIM and offer valuable ways to counteract it. Two recently introduced examples of this effort include:

- <u>Andrew® SiteRise</u>[™]—This outdoor tower solution is a new way of building tower tops that use remote radio heads close to the antenna. Key to this solution is reducing craft-related installation errors by doing the most complex tasks at the ground level or in a factory, where it is easier to validate results and improve overall quality.
- <u>HELIAX® SureFlex® Premium Cable Assemblies with SureGuard™Weatherproofing</u>—SureFlex assemblies include premium connectors that are physically bonded to the cable using a patented process, eliminating field termination craftsmanship issues and delivering superior PIM performance. Featuring patent-pending SureGuard weatherproofing boots, SureFlex Premium assemblies further protect against common weatherproofing errors that can lead to environmental PIM generators. SureGuard boots are factory installed, significantly decreasing installation time, and are removable and reusable, simplifying site troubleshooting.

"The message about PIM is spreading across the wireless industry, but its importance is hard to overstate, especially in LTE rollouts," said Philip Sorrells, vice president, Strategic Marketing, CommScope. "LTE is an interference limited system, meaning its performance is only limited by how much interference appears in the network. A leading risk for interference in LTE networks is, of course, PIM."

CommScope offers numerous resources to help network operators avoid PIM-related performance issues. The <u>CommScope</u> <u>Infrastructure Academy</u> provides an online PIM certification class for installers and field engineers to learn proper testing techniques, among other skills. Network designers can access <u>PIM System Calculators</u> that provide useful guidance for designing low-PIM cell sites. CommScope also offers online resources for PIM site audits and avoidance, particularly its comprehensive "PIM Happens: Just Not on Our Watch" program. Most recently, CommScope experts authored two new white papers—<u>PIM Requirements Must Increase to Support Evolving DAS Systems</u> and <u>Technical Keys to Successful Network</u> <u>Modernization: PIM</u>—that review PIM in the context of DAS and macro network upgrades, respectively. CommScope's PIM resources can be found on the <u>CommScope PIM Site Audit and Avoidance</u> webpage.

Related Blog Posts:

Top Tips for Deploying LTE

Preventing PIM

Isolation and Passive Intermodulation

Deploying 4G in India: How to optimize your network?

Andrew, HELIAX and SureFlex are registered trademarks of CommScope, Inc. SiteRise, SureFlex and SureGuard are trademarks of CommScope, Inc.

About CommScope

CommScope (<u>www.commscope.com</u>, NASDAQ: COMM) has played a role in virtually all the world's best communication networks. We create the infrastructure that connects people and technologies through every evolution. Our portfolio of end-toend solutions includes critical infrastructure our customers need to build high-performing wired and wireless networks. As much as technology changes, our goal remains the same: to help our customers create, innovate, design, and build faster and better. We'll never stop connecting and evolving networks for the business of life at home, at work, and on the go.

This press release includes forward-looking statements that are based on information currently available to management, management's beliefs, as well as on a number of assumptions concerning future events. Forward-looking statements are not a guarantee of performance and are subject to a number of uncertainties and other factors, which could cause the actual results to differ materially from those currently expected. In providing forward-looking statements, the company does not intend, and is not undertaking any obligation or duty, to update these statements as a result of new information, future events or otherwise.

Photos/Multimedia Gallery Available: http://www.businesswire.com/multimedia/home/20140825005054/en/

News Media Contact: Bill Walter, CommScope +1 708-236-6634 publicrelations@commscope.com or Financial Contact: Phil Armstrong, CommScope +1 828-323-4848

Source: CommScope

News Provided by Acquire Media