RF INDUSTRIES
NASDAQ: RFIL
Connecting a Wireless World

Inside RF Industries

A Letter of News and New Products — Issue 2, 2013

For demanding applications in Wireless Infrastructure

Low PIM products make the crucial difference

Today's wireless communication providers are pushing the limits of data transfer rates, areas covered and overall system tolerances. With overlapping systems, transmission bands can raise the noise floor, thereby interfering with adjacent receiving bands. Low PIM products can make the crucial difference in the performance and reliability of the wireless system. To address this need, RF Industries is now providing a variety of low PIM products.

Power Splitters
Termination Loads
Hybrid Couplers

For more on Wireless Infrastructure Products

Low PIM Coax Jumpers

Low PIM Coax Adapters

Shown at left is our *Connector Saver* adapter. Below are a few of our wide variety of 7-16 DIN adapters.
Our 7-16 DIN adapters are available in white bronze (tri-metal) or silver plating, and are sold separately or in convenient kits.

858-549-6340 800-233-1728 fax: 858-549-6345 rfi@rfindustries.com www.rfindustries.com

Learn more about Passive Intermodulation

Two white papers available from RF Industries

PIM and RF connectors

Intermod and connectors: Silver plate beats nickel

Article as ran in Mobile Radio Technology in March 1992
By Manny Gutsche, Vice President, Sales & Marketing, RF Industries

When connectors made entirely of non-ferromagnetic materials are used, they do not have to become the weak link in a communications system, causing harmful and hard-to-find intermod interference.

The simple mention of the word is dreadful to most two-way radio communications technicians. Intermod refers to intermodulation interference, a mixture of two or more signals that results in one or more unwanted signals disrupting reception. The cause usually is found in transmitters, receivers, transmitting combiners, receiver multicouplers, antenna systems and dissimilar metal junctions near transmitters. Few technicians think to examine coaxial connectors... *(Read more)*

Intermodulation Distortion in RF Connectors

Ronnie Rice, Former RF Technical Support Manager, RF Industries

Intermodulation distortion or IMD has always existed in RF transmission paths. Until about the early 1990s, cellular communications had relatively low power carrier levels. Intermodulation distortion in passive devices was not necessarily a problem because the distortion levels were significantly below the noise floor of the broadcast system. The mobile communication industry grew rapidly and the need for greater channel capacity meant higher broadcast powers at base stations. Typical RF connectors such as the "N" connector satisfied the earlier demands but as the sensitivity of the receivers increased, a condition withint RF... *(Read more)*

PIM testing available at RF Industries

Trivia

In wireless communications, to what does "the Rusty bolt effect" refer?

The rusty bolt effect describes radio interference due to interactions with dirty connections or corroded parts. It is more properly known as passive intermodulation and can result from a variety of different causes such as ferromagnetic conduction metals, or nonlinear microwave absorbers and loads.

from www.wikipedia.org

INSIDE RF INDUSTRIES

August 2013
Published Quarterly — Linda Heida, Editor

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Division of RF Industries

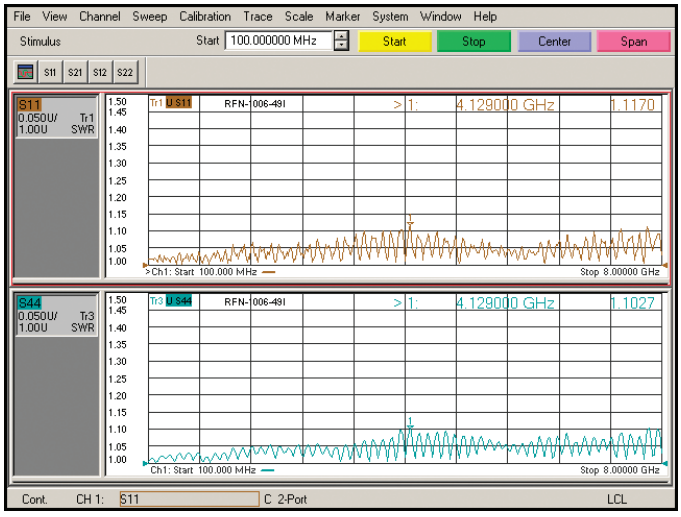
New N connectors simplify installation on high performance coax cables

Proper installation of RF connectors onto coax cable is critical in wireless system performance. Two new N male connectors simplify the installation process by eliminating the need to trim the braid during cable preparation.

The RFN-1006-49I features a solderless captive pin and the RFN-1006-4I features a crimp pin. Both connectors are compatible for high performance cables such as Times Microwave LMR®-400, CommScope CNT®-400, Belden 9913, and RF Industries CBL-CU400™. Combination hex/knurl coupling nuts allow for tightening by hand or wrench. White Bronze (tri-metal) plating eliminates tarnishing while providing improved electrical performance and reduced PIM (passive intermodulation). Exceptional VSWR of less than 1.10 to 1 up to 3Ghz and less than 1.20 to 1 up to 8Ghz is achieved through an enhanced impedance matching design. Industry standard tooling can be used for cable preparation and crimp termination. Heat shrink and assembly instructions are included with each connector. VSWR charts are available.

RFN-1006-4I features a crimp pin

RFN-1006-49I features a solderless captive pin



VSWR chart for RFN-1006-4I

Fire district replaces expensive laptops

In these times of financial cutbacks, municipalities are looking for ways to economize, yet not compromise on service to their community. Such was the case when the Bonita-Sunnyside Fire Protection District turned to RadioMobile. “We were near the end of the life cycle of our Panasonic Toughbooks and we needed a better alternative to the expensive laptops and charging docks”, explained Bonita.

RadioMobile’s IQ MCT 8500 provides Bonita an easy platform to transition into their current system and build it up as needed. Bonita also liked that there were vast mounting options. The large 12.1” touchscreen and easy function keys were a hit with the crew.

“We have recommended this product and company to many others that are in need of such a solution. The quality of this product is only surpassed by RadioMobile’s customer service,” says Bonita. *(Read more)*

RadioMobile
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RF Industries provides wireless infrastructure fiber optic trunk cables—standard or built to your specifications

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Division of RF Industries

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