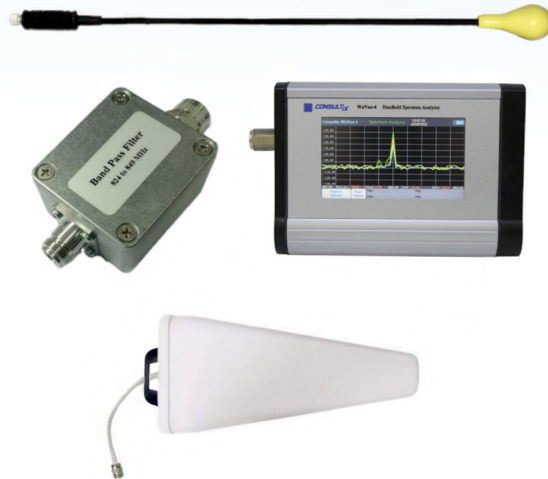




PIM Explorer™

Conveniently locate Irritating PIM Sources from 600 to 2700 MHz



Cell Sites are naturally rich with joints of different metals, and at some conditions these passive junctions behave as non-linear devices, hence generating what's called InterModulation. Any 2 signals can hit such elements and generate IM products which interfere with another co-existing channel at the same site or nearby. Hence, passive intermodulation is a critical issue in cellular networks and despite its relatively small level, it has serious effects if not mitigated.

In general, sources of PIM can be loose cables, corroded connectors, poor performance duplexers, aged/damaged antennas or can be rusty metals that exist beyond the Antenna. The later which is known as "Rusty Bolts" can be caused by elements in the near field of the antenna (few centimeters behind, above, below or beside the antenna) or metal objects several meters away but still significantly illuminated by the antenna.

There are some methods to detect Passive Inter Modulation (PIM) sources, however in most of the cases rusty bolt PIM sources can be stimulated then easily located using a simple handheld setup that comprises a spectrum analyzer, special filter and low PIM probe/antenna.

Consultix PIM Explorer kit is engineered to work with any of the company's mini spectrum analyzers such as MTM-427s or WaVue which are intrinsically equipped with interference hunting gadgets. And with sensitivity level down to -120 dBm, multi-trace, markers and beep function, this compact system is uniquely swift and convenient to locate all PIM sources in the surroundings of site antennas.

Performance

- -120 dBm DANL (with MTM-427s)
- Variety of High-grade Filters
- Interference Hunting Gadgets
- Isotropic Probe & Directional Antenna

Convenience

- Ultra-compact Setup
- Built-in 4.3" Touch Screen
- Heavy Duty with Shock Absorbers
- 3-hour Battery Operation (MTM-427s)

| Specifications | | |
|------------------------------|---|--------------------------------------|
| Spectrum Analyzer | WaVue Spectrum Analyzer | MTM-427s Spectrum Analyzer |
| Frequency Range | 400 to 4000 MHz | 400 to 2700 MHz |
| RBW | 100 KHz, 250 KHz or 500 KHz | |
| DANL (@100 KHz RBW) | -115 dBm | -120 dBm |
| Max. measured level | -25 dBm | -30 dBm |
| Amplitude Accuracy | ±2 dB | |
| Battery | >2.5 Hours | >3 Hours |
| Screen | 4.3" touch Screen | |
| Weight | 765 gm. Including Battery (1.7 lbs) | <700 gm. Including battery (1.5 lbs) |
| Interference gadgets | Spectrum Logger, beeper, multi-trace and multi-marker | |
| Connector | N-female | |
| AC Charger | Input: 100-240 VAC, 50-60 Hz / Output: 12 VDC, 2A | |
| Isotropic Probe | | |
| Frequency range | 600 to 2700 MHz | |
| Near field signal variation | < 5 dB variation in signal level @ 90° rotation relative to PIM source | |
| PIM performance | < -90 dBm (according to proposed IEC 62037-8, near field, 2x 20W tones) | |
| Overall Length | 35-inch (89 cm) | |
| Connector | N-female | |
| Directional Antenna | | |
| Frequency range | 698-960/1710-2700MHz | |
| Gain | 11 dBi | |
| PIM performance | <-140 dBc; 3rd Order (2x33dBm 2W) | |
| Polarization | Vertical | |
| Connector | N-female | |
| Bandpass Filter (BPF) | | |
| Insertion Loss | 1.5 to 1.8 dB (typ. Depending on band) | |
| Attenuation (TX Freq.) | 35 dB (typ.) | |

| Ordering Information | |
|-----------------------------|---|
| PIM Explorer-xx | Directional Antenna + BP Filter (select from the list below) + RF Cable |
| PIM Explorer-Pro-xx | Isotropic Probe + Directional Antenna + BP Filter + RF Cable |
| BPF-06 | Bandpass filter 699.0-716.0MHz (700ATT/TMO) |
| BPF-07 | Bandpass filter 776.0-787.0MHz (700VZW) |
| BPF-08 | Bandpass filter 787.0-801.0MHz (B14) |
| BPF-85 | Bandpass filter 824.0-849.0MHz (850) |
| BPF-19 | Bandpass filter 1850-1910MHz (1900) |
| BPF-21 | Bandpass filter 1705-1785MHz (2100AWS) |
| BPF-67 | Bandpass filter 663-698MHz (600) |
| BPF-75 | Bandpass filter 703-748MHz (700APT) |
| BPF-09 | Bandpass filter 890-915MHz (900) |
| BPF-19 | Bandpass filter 1920-1980MHz (2100WCDMA) |

-PIM Explorer kits require one of Consultix Spectrum analyzers WaVue or MTM-427s.

-Ask for Consultix Multi-band 20-Watt PIM stimulators or the compact 10-Watt indoor models.