

PPM Systems designs and manufactures custom RF systems. Designed to address customer-specific SIGINT requirements, we can integrate:

- Antennas
- Sensors and filters
- Optical signal transmission
- Software configurable radio receivers
- Spectrum monitoring.

Complete systems can be provided for mounted or dismounted applications in land or maritime environments.

Applications include:

- HF/VHF/UHF
- Cellular/ISM bands
- Commercial and Military Satcom
- Direction Finding
- GNSS
- EMP/EMC.



> Remote antennas and field deployable fibre optic links

Fibre optically linked remote antenna platforms, such as Rodent 4, remote several antennas operating in different bands over very long distances without any signal loss or degradation. Tactical radio antennas can be remoted with optical fibre away from a temporary HQ or on to high altitude UAS platforms for radio range extensions and SIGINT applications.

> Software Defined Radio Systems

The Crossbow multi-role software defined radio scanning/decoding system is designed to provide special operations users with actionable, real-time, mission-critical data on the electromagnetic environment, allowing the user to operate safely while delivering a strategic advantage. Combined with the Rodent 4 remote antenna platform it provides a rapid, deployable and tactical system solution.

> Antennas

We provide antennas for communications, jamming, spoofing and threat-emissions applications. Antenna bandwidths range from 20 MHz to 40 GHz in static, vehicle and man-pack configurations. Stacked antennas provide multiple band capability in a single antenna structure. Complex antenna solutions for radar simulation applications can provide high power RF handling with multiple bands, in extremely demanding environmental conditions.

> Filtering, switching and diplexing

Systems can include custom lumped element and resonant cavity RF filters, plus RF switching/duplexing and innovative lightweight plastic cavity filters.

> Long range RF signal distribution

ViaLite RF over fibre allows long distance RF signal transmission of up to 600 km, or 100 km in a single hop. Wave division multiplexing techniques, such as DWDM, allow multiplexing of up to 96 wideband RF signals on a single optical fibre, while maintaining signal quality and isolation. Advanced signal techniques allow manipulation of the RF signals in the optical domain.

> Board level RF spectrum monitoring and processing

For board level integration of signal processing, we can provide software configurable radio receivers, down converters and DSP platforms, such as the Monitor range.

> RF spectrum analysis and recording

Our receiver range provides fixed/mobile spectrum analysis and recording for COMINT and ELINT systems, wideband satellite surveillance and continuous broadband signal recording (up to 18 GHz). Portable versions of the system are available with up to 12 hours of recording capacity and GPS for location data tagging.

> RF signal generation

Our signal generator platform enables the user to consolidate up to 31 RF generators into a single RF test source. Users can create versatile RF environments for rapid testing and validation of radio systems.

> Channel simulators

Channel simulators combine receiver and signal source technology to create powerful radio-channel simulators, which can quickly and dynamically change parameters such as delay, fading, phase noise and filter effects.

Electronic counter measures Signals intelligence Spectrum analysis



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