**Military Communications**

**Rugged modem solutions for demanding deployments**

**Compete and complete.** We deliver modem solutions to help you compete in programs and delivery on time, on schedule, and on budget.

Jump start your MILCOM programs with Spectrum's range of comprehensive solutions. Spectrum offers solutions ranging from COTS to custom for a diverse range of peer-to-peer and commander-to-warfighter applications such as:

* Data Links
* Tactical Military Communications (MILCOM) including shipborne, airborne and vehicular deployments
* Military Communications Gateways
* Military Satellite Communications (MILSATCOM)

Spectrum's comprehensive solutions include [rugged wireless modems](http://www.spectrumsignal.com/products/rugged.asp), [embedded radio modules](http://www.spectrumsignal.com/products/soc/sdr_4800.asp), signal processing engines, integrated development systems, I/O and software development tools. Spectrum works with its customers to optimize the systems for **size, weight, power and cost** targets for deployment and can ruggedize to accommodate benign and harsh environments.

**Proven Support for JTRS Waveforms**

Spectrum's SDR platforms are compliant with the SCA 2.2 released for the [Joint Tactical Radio System (JTRS)](http://jpeojtrs.mil/) program. Spectrum's platforms have supported JTRS waveforms such as:

* Wideband Networking Waveform (WNW) OFDM mode
* Soldier Radio Waveform (SRW) EW mode
* Single Channel Ground and Airborne Radio System (SINCGARS)
* Future Multiband Multi-waveform Modular Tactical Radio (FM3TR)

**The Spectrum Advantage for MILCOM Applications**

* Software Communications Architecture (SCA)-enabled
* Ruggedization for deployments in harsh environments
* Software reconfigurable solutions enable multi-mode and multi-band operation
* Modular architecture enables scalability and upgradeability for your systems

Read about Spectrum's proven performance from a wide list of [previous customers](http://www.spectrumsignal.com/company/customers.asp).

**Articles to read**

[**3U CompactPCI for Quick Response C4ISR Systems**](http://www.compactpci-systems.com/PDFs/Spectrum.Apr07.pdf) (pdf)  
The evolving nature of military operations often requires that the government rapidly develop and deploy special-purpose wireless systems supporting mission-specific applications. This article looks at the requirements for the technologies needed to enable a quick response capability, suggest a solution for addressing these requirements, and highlight a real world example.   
  
[**Can the Military use Commercial Wireless Signal Processing Technologies to Reduce Size, Weight and Power in Radio Devices?**](http://www.spectrumsignal.com/publications/Military_use_of_Commercial_Technologies_to_Reduce_Size_Weight_Power.pdf) (pdf)  
As a continuing column in the IEEE Communciations Magazine Quarterly Radio Supplement, Spectrum's Chief Technology Officer Lee Pucker explores this question in the March 2007 issue.   
  
[**Mapping waveforms to systems: What would a wideband networking waveform system require?**](http://www.spectrumsignal.com/publications/Mapping_Waveforms_to_Systems-WNW_Requirements.pdf) (pdf)  
When building a Joint Tactical Radio System (JTRS) modem that must support a wide variety of disparate waveforms, it can be very challenging to assess the overall system requirements. A pragmatic process exists that can be employed to evaluate the requirements of a wideband waveform and to map these requirements to a hardware platform.  
  
[**Extending the SCA Core Framework Inside the Modem Architecture of a Software Defined Radio**](http://www.spectrumsignal.com/publications/Extending_SCA_Inside_SDR_Modem_Architecture.pdf) (pdf)  
Illustrates the application of the SCA core framework for SDR modem architectures, including aggregating devices in support of direct hardware interconnects between components and the incorporation of a switched fabric communications infrastructure within the overall modem architecture.