

Signal Intelligence

A technique that was pioneered in the 1960s and 1970s called Signals Intelligence (SIGINT) uses high-power radio monitors, remote surveillance, satellite imagery, and radar systems to monitor and detect hostile and illegal activities before and while they unfold. Systems are deployed remotely and backhauled to central monitoring and coordination sites.

Today's high-performance Signals Intelligence (SIGINT) systems require massive processing power to detect, identify, and classify an enormous number of highly complex signals. SIGINT systems typically consist of a variety of functional elements – signal processors (themselves often consisting of multiple processing elements), snapshot memory buffers, high-speed data recorders, and bulk storage – all residing in multiple physical units, connected through high-speed data pipes. In many application data flows, the processing elements within and between the distinct units need to be interconnected using switched fabrics.

New Wave DV Introduces a More Efficient Solution

New Wave Design and Verification provides the exceptional performance and flexibility you need for your different SIGINT mission profiles. New Wave DV solves your connectivity challenges with rugged modules and programmable logic devices capable of:

High-speed point-to-point data pipes to transfer data between distinct units or chassis.

High-speed networking of multiple units that need to share data.

Optimized bridging of 10 Gigabit Ethernet to other switched fabrics, to enable seamless socket-based API connections between processing elements (PE) located remotely across 10 Gigabit Ethernet on separate switched fabrics.



This diagram shows how our FPGA cards turn radio frequencies into network data.

Programmable Logic Devices for Signal Intelligence

New Wave DV's industry-leading data streaming solutions are designed specifically for realtime applications where it is imperative to sustain low latency and high-bandwidth communication. This is a key requirement in network-centric next-generation radar, signal intelligence (SIGINT), and other mission-critical sensor systems. New Wave DV's COTS solutions provide 10 Gigabit Ethernet communication while reducing the size and power footprint of systems. Our advanced architectures and built-in Ethernet offload capabilities provide data transfer at sustained rates.

V1153 12-Port Rugged 10 Gigabit XMC FPGA Card

New Wave DV's V1153 FPGA XMC provides 10 Gigabit Ethernet communication and is designed to work with next-generation signal intelligence systems. This FPGA-based solution provides best-of-class rugged ultra-high performance on a network interface and is available multiple form factors. Our team's expertise is honed from years of providing programmable logic devices and other solutions for the defense, telecom, and financial markets. Contact us today if you'd like to discuss solutions for your signal intelligence applications.

Additional NewWaveDV products

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