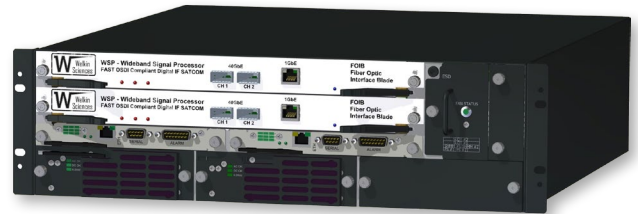


Wideband Signal Processor (WSP)

Real-time Processor for Digital IF SATCOM Applications

The Digital IF Wideband Signal Processor (WSP) is compliant with the Future Advanced SATCOM Technologies (FAST) Open Standard Digital IF Interface (OSDI) and processes quadrature baseband signal samples for compatibility with Digital Modems (DMs) and/or Legacy Modem Data Converters (LMDCs).



On transmit, the WSP aggregates signals from a large collection of input baseband carrier signals. Up to 1 GHz of aggregate bandwidth is supported via several high speed Ethernet fiber connections to the Digital Conversion Subsystem (DCS) and DMs.

Features & Benefits

- Compliant with the FAST Open Standard Digital IF Interface (OSDI)
- Scalable architecture accommodates multiple WSPs to support hundreds of modems
- Multi-GbE interfaces for compatibility with a FAST-compliant DCS and numerous DMs
- 1 GbE SNMP interface for remote monitor and control
- 10 MHz, 1 Pulse Per Second (PPS), and Precision Time Protocol (PTP) interfaces for timing and synchronization
- Improved signal switching and routing to multiple antennas/feeds
- Distribute traffic over multiple terminals, local and remote
- Enables spatial diversity for jamming and fading mitigation
- Industry standard 19" rackmount Advanced TCA chassis provides high availability with redundant, hot-swappable power supply modules



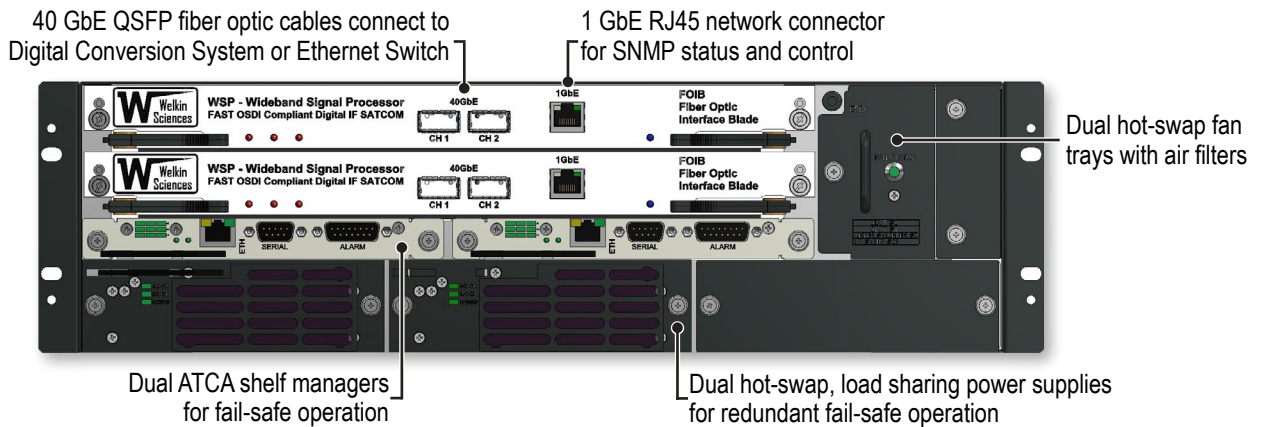
OID	Syntax	Value
UCD-SNMP-MIB::snmperrIndex.o	Integer	0
UCD-SNMP-MIB::snmperrNames.o	String	snmp
UCD-SNMP-MIB::snmperrErrorFlag.o	Integer	0
UCD-SNMP-MIB::snmperrErrorMessage.o	String	

WSP Capabilities*

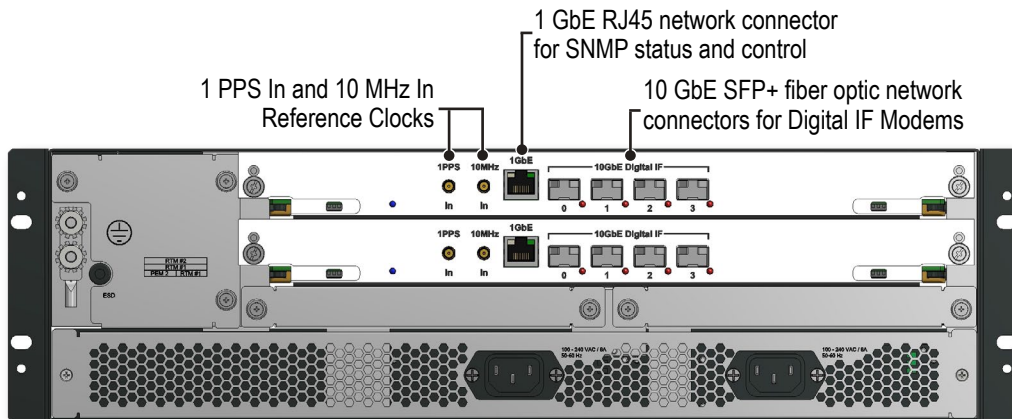
Tx/Rx Digital IF Carrier Streams	48 (typical) with 16-bit I and 16-bit Q sampling	Digital IF Composite Interface	Dual 40 GbE QSFP (fiber)
Composite Signal Support	Up to 8 composite signals occupying 125 MHz	Digital IF Signal Data Transport Layer (Both Carrier and Composite)	FAST OSDI compliant interface using IEEE 802.3/802.1Q, IP/UDP, RTP, and VITA-49 radio transport
Carrier Sampling/Symbol Rate	Max: 150 Msps / 100 Msymbols/sec Min: 12 kHz / 8 ksymbols/sec	Frequency & Timing Interfaces	10 MHz, 1 PPS, PTP (optional)
Digital IF Carrier Physical Interface	Four 10 GbE SFP+ (fiber)	Monitor & Control Interface	1 GbE, 100 MbE, or 10 MbE SNMPv3

*Capabilities listed are per blade. With two blades installed in the chassis, capabilities are doubled.

WSP Front Interfaces and Features



WSP Rear Interfaces



For further information on our products, email request to info@welkinsciences.com.



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