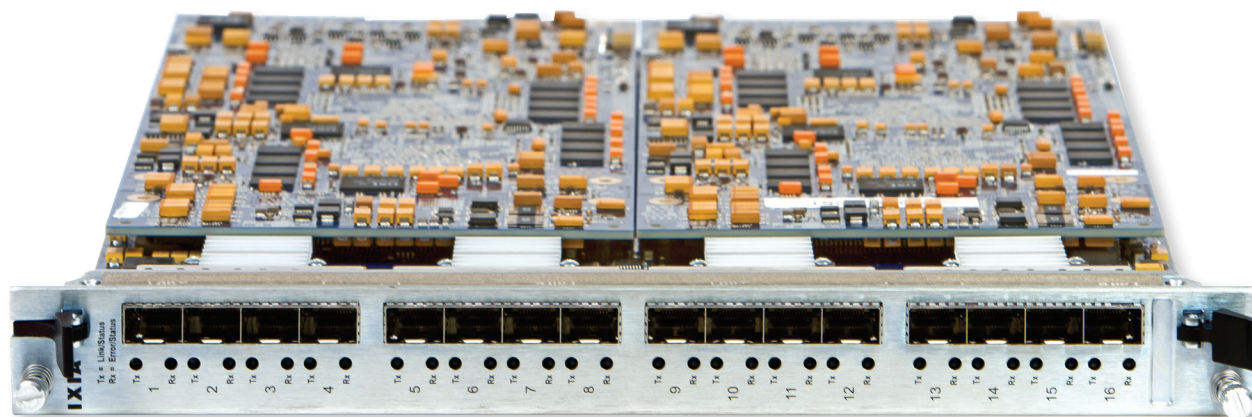




Xcellon-Flex™ 10GbE Load Modules



Xcellon-Flex™ is Ixia's highest performance, highest density family of 10 Gigabit Ethernet load modules. Two versions of Xcellon-Flex are available:

- Accelerated Performance – ideal for layer 2-7 performance testing, providing ultra-high-scale session and protocol emulation per port.
- Full Emulation – designed for layer 2-3 mid-range protocol emulation and performance testing.

Key Features:

- Highest protocol scalability in the industry
- 16 ports of 10GbE per load module
- Compatible with XM12 or XM2 chassis
- Data center ready – with Data Center Bridging that supports LLDP/DCBX, FCoE and Priority-based Flow Control (PFC, IEEE802.1Qbb)
- “Accelerated Performance” version offers flexible CPU and memory aggregation for ultra-high-scale protocol emulation:
- “Accelerated Performance” version supports L4-7 application traffic testing with IxLoad in addition to L2-3 routing and switch testing.

Feature	L2-7 Accelerated Performance	L2-3 Full Emulation
Load module models	FlexAP10G16S	FlexFE10G16S
Number of ports per module	16	16
Maximum ports per chassis: - XM12 High Performance - XM2Desktop	128 16	128 16
10GbE Interface protocols	10GbE LAN	10GbE LAN
Data center protocols (optional upgrade)	FCoE, Priority-based Flow Control (IEEE 802.1Qbb) and LLDP/DCBX support	FCoE, Priority-based Flow Control (IEEE 802.1Qbb) and LLDP/DCBX support
Multi-core processors	Yes	Yes
Aggregation capability	Yes	No
Per-port capture buffer	256 MB	64 MB
SFP+ optical transceivers (See ordering information)	10GBASE-SR/SW 10GBASE/LR/LW	10GBASE-SR/SW 10GBASE/LR/LW
Layer 2-3 routing protocol emulation	Yes	Yes
Layer 4-7 application traffic testing	Yes	No
Number of transmit flows per port (sequential values)	Billions	Billions
Number of transmit flows per port (arbitrary values)	1 million	32 K
Trackable receive flows	1 million	64 K
Number of stream definitions per port	512	256
	In packet stream (sequential) or advanced stream (interleaved) mode, each stream definition can generate millions of unique traffic flows.	
Statistics and rates (counter size: 64 bits)	Link state, line speed, frames sent, valid frames received, bytes sent/received, fragments, undersize, oversize, CRC errors, VLAN tagged frames, 6 user-defined stats (UDS), capture trigger (UDS 3), capture filter (UDS 4), 8 QoS counters, data integrity frames, data integrity errors, sequence checking frames, sequence checking errors, ARP, and ping requests and replies	
Error generation	CRC (good/bad/none), undersize, oversize	
Link Fault Signaling	Link state indicator for: No Fault, Local Fault, and Remote Fault. For negative tests the port can be set so Remote Faults will not be sent as a response to Local Faults and idles will not be forced as a response to Remote Faults.	
Latency measurements	20 ns resolution in packet timestamp	
Latency self-calibration	Ability to calibrate and remove inherent latency from any MSA-compliant 10GbE XFP transceivers, including unsupported transceivers	
Transmit line clock adjustment	Ability to adjust the parts per million (ppm) line frequency over a range of: LAN mode: -105 to +105 ppm	
IPv4, IPv6, UDP, TCP	Hardware checksum generation and verification	
Frame length controls	Fixed, random, weighted random, or increment by user-defined step	

For more information see

http://www.ixiacom.com/products/xcellon/xcellon_flex_high_density_10ge_load_modules/index.php.