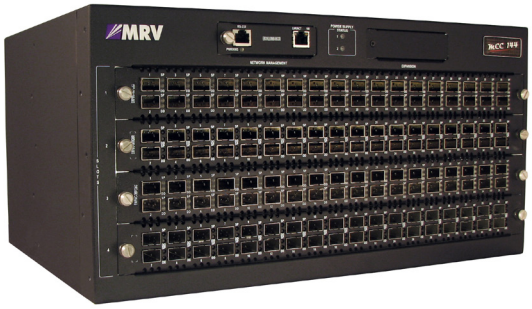
Media Cross Connect™ Chassis and Interface Blades for High-Speed Applications



Highlights

- 36 or 144 10G ports in 1U or 5U rack space
- Supports all prominent 10G protocols
- Supported by existing MCC user interface and management options
- Blade is backward compatible with original SFP protocols down to 1 Gbps
- Backward compatible with existing MCC blades

OVERVIEW

Higher speed equipment and protocols are continually being developed. This inevitable evolution makes it difficult for test labs to keep pace with the appropriate tools for quality assurance and to verify designs. Once physically wired to all lab devices, the Media Cross Connect (MCC) allows test technicians to connect and remotely configure lab equipment and devices to be tested through sofware, providing greater setup flexibility and improved operating efficiency. Often-used topologies can be stored and recalled by any authorized user. Test time and configuration errors are reduced, repeatability of tests like simulation is simplified, and expensive test equipment can be shared. Deploying the MCC in a test lab eliminates manual cabling of test topologies, and it is the cornerstone of lab automation that enables:

- Simplified topology configuration and automated testing
- More corner cases addressed in product design
- Simulated cable breaks or intermittent links in a controlled environment
- Increased test lab productivity
- Decreased time to market for new products
- Increased equipment usage through equipment sharing

NEXT GENERATION MCC PRODUCT FAMILY

MRV's high-speed product family includes a high-speed (HS) MCC chassis that supports up to 10.7 Gbps bidirectional, unidirectional, or multicast mappings. This HS chassis maintains compatibility with existing MCC blades while supporting the next generation of high-speed blades and protocols (see Table 1). The high-speed chassis is available in two sizes; a single blade model that supports of 36 non-blocking ports or four blade model that supports 144 non-blocking ports.

The 10G SFP+ 36-port interface blade supports 10 Gbps Ethernet LAN or WAN PHY, SONET OC-192 and 10 Gbps FCoE. It is backward compatible with SFP transceivers at data rates down to 1 Gbps. As with all MCC interface blades, the 10G SFP+ MR blade is hot-swappable and it supports MSA compliant optics, digital diagnostics, clock and data recovery (CDR), link integrity notification (LIN) and link flapping. This blade requires the high-speed chassis.

Refer to the MCC Chassis datasheet for information on the entire MCC product family. For a complete description and list of all MCC interface blades, refer to the MCC Interface Blade datasheet. Both documents can be found at *www.mrv.com/tap*.

Application for 10G HS Chassis and Blades: **SHARED LAB RESOUCES**

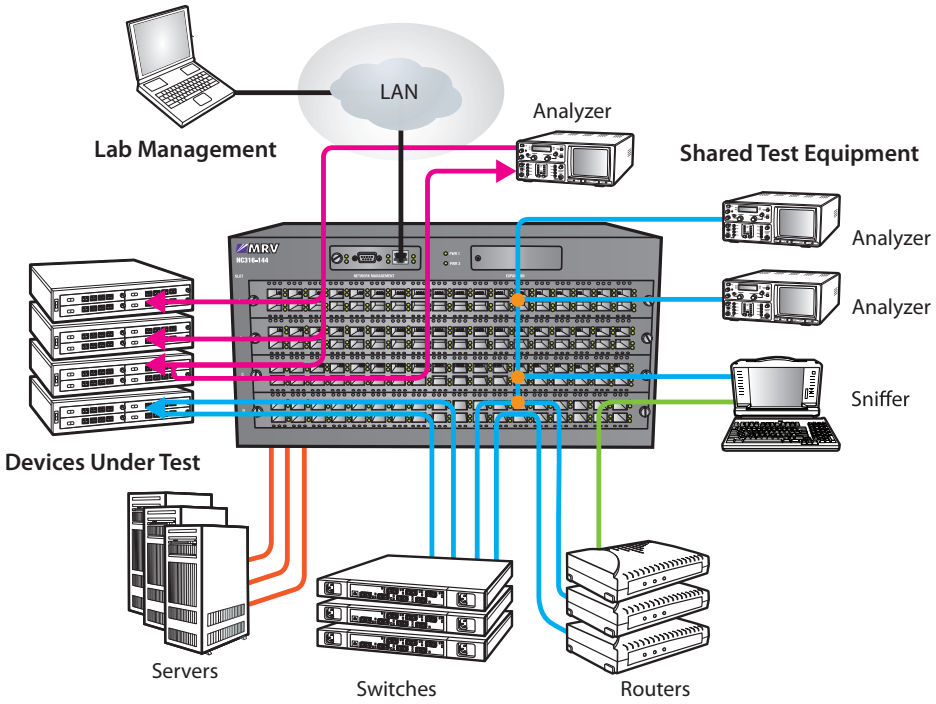


Table 1: **MCC BLADE/CHASSIS COMPATABILITY**

Blade Type	# of Ports	Interfaces/Protocols	Chassis Compatibility
T1/E1	36	T1/E1	Any
DS3/E3/STS-1	18	DS3/E3/STS-1	4X or 1-Slot HS
RJ-45	36	10/100/1000 Base TX Copper Ethernet	Any
RJ-45-C	36	10/100/1000 Base TX Copper Ethernet, 100/1000 Copper/Fiber media conversion, uni-directional traffic	Any
SFP	36	Any 2R protocol up to 3.0 Gbps, 10/100/1000 Base Fiber Ethernet, 1 Gbps/2 Gbps Fibre Channel, Sonet OC-3, OC-12, OC-48	Any
SFP FC CDR	36	Any 2R protocol up to 3.0 Gbps, 1 Gbps/2 Gbps/4 Gbps Fibre Channel with CDR	Any
SFP MR CDR	36	Any 2R protocol up to 3.0 Gbps, 10/100/1000 Base Fiber Ethernet with CDR, 1 Gbps/2 Gbps/4 Gbps Fibre Channel with CDR, Sonet OC-3, OC-12, OC-48 with CDR	Any
8G SFP+ FC	36	Any 2R protocol up to 3.0 Gbps, 1 Gbps/2 Gbps/4 Gbps/8 Gbps Fibre Channel with CDR	8X, HS or 1-Slot HS
6G SAS	36 (using 9 connectors)	SAS/SATA 3.0/6.0 Gbps	8X or 1-Slot HS
10G XFP	9	10 Gbps Ethernet LAN Phy , Fibre Channel	Any
10G XFP MR	8 (1)	Multi-rate up to 10.7 Gbps including Ethernet LAN, WAN PHY or Sonet OC-192 with or without FEC (2), Fibre Channel, Infiniband	Any
10G SFP+ MR	36	Multi-rate 1G to 10.7 Gbps support including Ethernet LAN, WAN PHY or SONET OC-192 (does not support 8GFC)	HS or 1-Slot HS

(1) Intra-blade port mapping only
(2) Use only XFPs that do not require a reference clock

Datasheet

MCC HIGH-SPEED EQUIPMENT

Chassis	Blade Slots	Mapping Speed	Max # Ports (@ Max Speed)	Power Supplies	Size
36 HS	1	10.3125 Gbps	36 (10G)	2 AC, Fixed	1 RU*
144 HS	4	10.7 Gbps	144 (10G)	2 AC or 2 DC	5 RU*

* 1U = 1.75 inches (44.45 mm)

Physical Specifications:	
Dimensions: 36 HS Chassis	43 mm (H) x 438 mm (W) x 381 mm (D) (1.7"x 17.25"x 15")
144 HS Chassis	221 mm (H) x 438 mm (W) x 305 mm (D) (8.7" x 17.25" x 12")
Power Usage: Chassis/Manager	34 Watts
Power (Max.): Loaded 36 HS Chassis	85 Watts
Loaded 144 HS Chassis	353 Watts
HS Blade	66 Watts
Weight: 36 HS Chassis (As Shipped)	3.5 kg (7.5 lb)
144 HS Chassis (As Shipped)	8.1 kg (17.8 lbs)
HS Blade	1.1 kg (2.4 lbs)
Operating Temperature Range	0°C to 50°C (32°F to 122°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Relative Humidity	85% maximum, non-condensing
Cooling Airflow	1 inch (2.54 centimeters) clearance from external vents
Regulatory Compliances	Media Cross Connect Chassis: FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; LVD Directive: Electrical Safety; RoHS Directive, REACH SVHC Directive, WEEE Directive: Wheelie Bin Mark

REDUNDANT POWER SUPPLIES

HS Chassis Redundant Power Supplies	Weight	Voltages
NC316-144RPSAC (AC Version)	2.5 kg (5.5 lbs)	90 VAC - 240 VAC
NC316-144RPSDC (DC Version)	1.9 kg (4.2 lbs)	40 VDC - 58 VDC

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