Media Cross Connect Series

True test lab automation

Test lab environments are constantly evolving, continually improving efficiency by utilizing sophisticated software solutions to enable high levels of automation. However, physical connectivity of equipment remains a laborious manual process. Our Media Cross Connect (MCC) Series provides the missing piece for true test lab automation. Connect each lab device to the MCC just once and all topology changes can be made remotely via SW with no need to change the configuration of the physical network connectivity

Our MCC is a physical layer switch (OSI Layer 1) that allows users to connect any port to any other port within the system through software control. Ideal for use in any testing environment, our MCC increases productivity and reduces capital and operational expenses. Equipment inventories needed to support the test workload are minimized by sharing expensive test sets and test bed infrastructure among users. Storing and recalling frequently used topologies, scripting configurations, and automating tests increases lab productivity. Eliminating manual manipulation of optical cables minimizes the effects of cable wear and fiber contamination on test results, which produces more accurate tests and fewer re-tests. Destructive tests such as cable breaks or port failover simulation are easily accomplished using our MCC's flexible mapping configurations.

Your benefits

Wire-once technology
Changes in test topologies or configurations are made simple through software control

Software port mapping
Compatible ports can be mapped using software commands in bi-directional, uni-directional, and multicast configurations

Wide protocol and media support
T1/E1 to 10Gbit/s Ethernet LAN, WAN PHY, Fibre Channel, SyncE, and Jumbo Frame support

Modular system architecture
Scalable solutions built on modular chassis that support any protocol or media combination through interchangeable and hot-swappable blades

Increase lab productivity
Minimize retests due to fiber contamination or breakage, and increase test accuracy and velocity

Decrease capital expenditures
Sharing expensive test equipment and test beds among users minimizes equipment costs without compromising capabilities

High-level technical specifications

General information

- 19" rack mountable, fully non-blocking design
- "4X" and "HS" chassis variants for 4.25Gbit/s or 10Gbit/s resp.
- Interface blades, determine type and quantity of ports

"4X" chassis variants

- 4RU: up to 2 blade slots, up to 72 ports @ 4.25Gbits/s
- 5RU: up to 4 blade slots, up to 144 ports @ 4.25Gbits/s
- 9RU: up to 8 blade slots, up to 288 ports @ 4.25Gbits/s

"HS" chassis variants

- 1RU: 1 blade slot, up to 36 ports @ 10Gbits/s
- 5RU: up to 4 blade slots, up to 144 ports @ 10Gbits/s
- 10RU: up to 8 blade slots, up to 288 ports @ 10Gbits/s

Interface blades

- Wide variety of protocol, data rate and interface options; 36 ports of connectivity per blade
- Any blade combination allowed
- Enable media conversion within the MCC including MMF, SMF, and twisted pair

Management

- CLI
- On-board SNMP agent
- Built-in GUI
- Common scripting languages
- On-board API interface supporting TCL and Python

Environmental information

- Operating temp. 0 to 50°C
- Storage temp. -40 to 70°C
- AC and DC variants
- Max power consumption: 104W (1RU), 196W (2RU), 429W (5RU), 805W (9RU), 1040W (10RU)

Applications in your network

True test lab automation

- Provides flexibility and remote automation control for dynamic testing
- Increase productivity and reduce capital and operational expenses
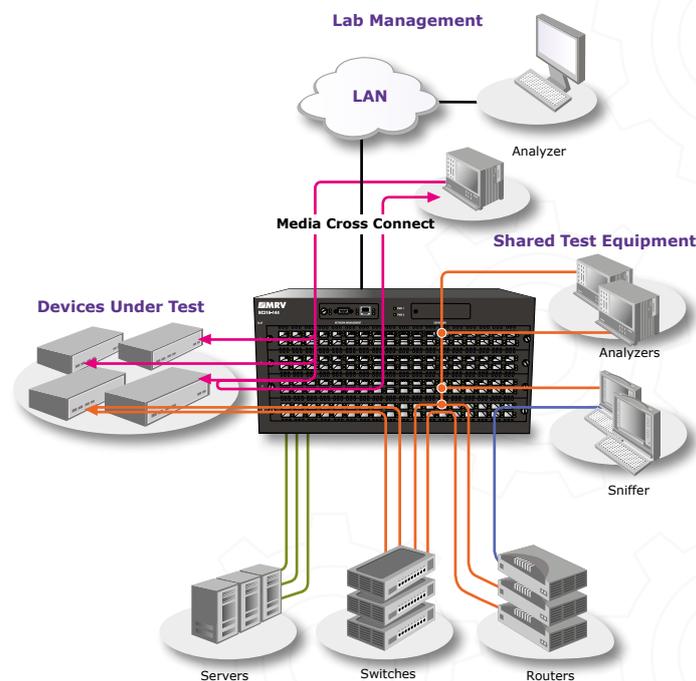
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Chassis overview

Chassis (NC316-)	Blade slots	Mapping speed	Max. number of ports (speed)	Power supplies	Size
72PMC4X	2	4.25Gbit/s	72 (4Gbit/s)	2 AC	4 RU
144PMC4X	4	4.25Gbit/s	144 (4Gbit/s)	2 AC or 2 DC	5 RU
288PMC4X	8	4.25Gbit/s	288 (4Gbit/s)	2 AC or 2 DC	9 RU
36PMCHS	1	10Gbit/s	36 (10Gbit/s)	2 AC	1 RU
144PMCHS	4	10Gbit/s	144 (10Gbit/s)	2 AC or 2 DC	5 RU
288PMCHS	8	10Gbit/s	288 (10Gbit/s)	4 AC	10 RU

Interface blades overview

	EMPMC-36SFP	EMPMC-36FC8G	EMPMC-3610GMR	EMPMC-36RJ-C	EMPMC-36T1E1	EMPMC-36ICB
Any protocol up to 3.0 Gbps - 2R	✔	✔	✔	–	–	✔
10/100/1000 Base Fiber Ethernet - 2R	✔	✔	✔	–	–	✔
10/100/1000 Base Fiber Ethernet w/ CDR	–	–	–	–	–	–
10/100/1000 Base TX Ethernet	–	–	–	✔	–	✔
1G/2G Fibre Channel - 2R	✔	✔	✔	–	–	✔
1G/2G/4G Fibre Channel - 2R	–	✔	–	–	–	✔
8G Fibre Channel w/ CDR	–	✔	–	–	–	✔
SONET OC-3, OC-12, OC-48 -2R	✔	✔	✔	–	–	✔
10G Ethernet LAN PHY	–	–	✔	–	–	✔
10G Fibre Channel	–	–	✔	–	–	✔
10G Ethernet WAN PHY or SONET OC-192	–	–	✔	–	–	✔
T1/E1	–	–	–	–	✔	✔
Chassis support	All	8X HS	HS	All	All	All

Physical dimensions (WxHxD):

- 1RU chassis:
  - 438mm x 43mm x 381mm (17.24" x 1.7" x 15")
- 4RU chassis:
  - 438mm x 156mm x 286mm (17.24" x 6.14" x 11.26")
- 5RU chassis:
  - 438mm x 221mm x 305mm (17.24" x 8.7" x 12")
- 9RU chassis:
  - 438mm x 400mm x 305mm (17.24" x 15.75"x 12")
- 10RU chassis:
  - 438mm x 443mm x 305mm (17.24" x 17.44"x 12")

Maximum chassis weight (loaded chassis)

- 1RU chassis:
  - Shipping: 3.5kg (7.5lb)
  - Max: 4.7kg (10.3lb)
- 4RU chassis:
  - Shipping: 5.9kg (12.8lb)
  - Max: 9.7kg (21.4lb)
- 5RU chassis:
  - Shipping: 8.1kg (17.8lb)
  - Max: 15.0kg (33.1lb)
- 9RU chassis:
  - Shipping: 14.8Kg (32.6lb)
  - Max: 28.6kg (63.1lb)
- 10RU chassis:
  - Shipping: 17kg (37.5lb)
  - Max: 30.8kg (69.0lb)

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Maximum power usage:

- 1RU chassis: 104W (355BTU/hr)
- 4RU chassis: 196W (669BTU/hr)
- 5RU chassis: 429W (1464BTU/hr)
- 9RU chassis: 805W (2747BTU/hr)
- 10RU chassis: 1040W (3548BTU/hr)

Environmental

- Operating temperature: 0 to 50˚C (32 to 122˚F)
- Storage temperature: -40 to 70˚C (-40 to 158˚F)
- Humidity: 85% maximum, non-condensing

Power supplies

Part number	Weight	Voltages	Chassis
NC316-72RPSAC	1.6 kg (3.5 lbs)	90 VAC - 240 VAC	2- slot
NC316-144RPSAC*	2.5 kg (5.5 lbs)	90 VAC - 240 VAC	4-slot or 8-slot
NC316-144RPSDC*	1.9 kg (4.2 lbs)	40 VAC - 58 VAC	4-slot or 8-slot

NC316-144RPSxx power supplies are used in both the NC316-144 and NC316-288 chassis

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