MCR1900 Media Converter Chassis

19-module chassis for Media Converters and Ethernet Extender

- High density 19-slot system
- Fits a standard 19" or 23" rack – 2U height
- Hot-swappable Media Converter Modules
- Hot-swappable Managed Media Converter Modules
- Hot-swappable Ethernet Copper Extender Modules
- Redundant hot-swappable AC and 48v DC power supplies

The **Perle MCR1900 Media Converter Chassis** is the most reliable high density modular chassis system available today. It is ideal for enterprise and campus environments where multiple points of copper and/or fiber integration are essential. An end-to-end **copper to copper**, **copper to fiber**, **multimode to single mode** or **multimode to multimode** solution can be achieved by pairing modules in this high density chassis with another Perle MCR1900 chassis standalone media converters, or standalone Ethernet extenders. Management of Media Converter Modules and chassis can be performed with the addition of a chassis management module. For a low to mid density solution, please check out the MCR200 Media Converter Chassis.

For those environments requiring a medium to large-scale deployment of media converters, a centralized platform that simplifies the configuration, administration, monitoring, and troubleshooting of this gear is recommended. PerleVIEW Device Management software is a multi-user, Windows server-based application that delivers this level of Enterprise-grade solution.

MCR1900 Media Converter Chassis related products

- Unmanaged Media Converter Modules
- Managed Media Converter Modules
- Ethernet Copper Extender Modules
- Chassis Management Module
- MCR200 Media Converter Chassis

MCR1900 Media Converter Chassis Features

High Density Media Converter Platform	Insert up to 19 modules into a single 2U chassis. The modules share a common power source.

Rugged Chassis Design	U-channeled card cage provides high torsional rigidity
	Unified design between chassis slot and module faceplates provide additional chassis strength
	Redundant vertical supports ensure that slot alignment remains accurate enabling easy card insertion and removals over time
	Advanced card guide design along with 32 pin DIN 41612 connectors offer better card mating accuracy for reliable module additions and changes
	Made with zinc coated cold-rolled steel offering excellent corrosion resistance
	Extra ventilation slots on module face plates provide cooler operation and longer life
	Multi channel air flow for improve card cooling
	Auto-Thermal Shutdown Protection should internal temperature threshold be exceeded
Hot-Swappable modules	Modules can be inserted and removed with no impact to the rest of the system. Upon insertion the module will automatically be powered up and begin functioning. Modules can be placed in any slot and in any order.
Power Supply Failover	On dual power supply configurations, the load sharing power supplies provide instant failover should a power supply or power source fail. A single power supply can provide more than sufficient power for a fully loaded system.
Intelligent Alarm Relay	A backplane controller provides continuous monitoring of vital chassis resources. The built-in, normally open/closed, dry contact relay will engage on the following fault conditions:
	Power supply failure
	High internal temperature
	Fan speed failure
	Backplane voltage error

Not what you are looking for? View all Perle Fiber Media Converters.

Need help? Contact Perle.

Features	MCR1900-AC	MCR1900-DAC	MCR1900-DC	MCR1900-DDC
Slots	19 slots for insertion of Perle			
	• Unmanaged Media Converter Modules			

- <u>Unmanaged Media Converter Modules</u>
- <u>Unmanaged Ethernet Copper Extender Modules</u>
- <u>Managed Media Converter Modules</u> with <u>Chassis Management Module</u>

Intelligent Alarm Relay	Dry Contact Relay engaged upon monitored chassis error conditions: power failure, high temperature, backplane voltage error, fan speed failure 3 amps @24 vDC, Normally open / normally closed contacts on removable terminal blocks			
Hot-swappable Modules	All modules, management module and power supplies are hot-swappable			

Power

Nominal input voltage	115/230 VAC		24/48v DC	
Input Voltage Range	90 - 264 VAC		18 - 72v DC	
Capacity	120 watts max.	240 watts max. The dual supply provides redundancy for instant fail-over. Power supplies load share	120 watts max.	240 watts max. The dual supply provides redundancy for instant fail-over. Power supplies load share
AC input frequency	47 - 63 Hz		N/A	
International Power Line Cords by Model	USA: IEC320-C13 to NEMA5-15P UK: IEC320-C13 to BS1363 EU: IEC320-C13 to CEE717 Schuko South Africa / India: IEC320-C13 to BS546 Australia: IEC320-C13 to AS3112		Pluggable Terminal block +, - , Gnd with Reverse polarity protection	
LEDs	Power Supply A Status	Power Supply A and B status	Power Supply A Status	Power Supply A and B status
Grounding	Dual ground screws for #10 ring terminals or grounding lug connectors provide a reliable chassis ground connection.			

Environmental Specifications

Heat Output (BTU/HR)	17	29	19 at 24vdc, 25 at 48vdc	34 at 24vdc, 49 at 48vdc
MTBF (Hours)*	31,716	255,530	32,051	255,531
Operating Temperature	0C to 50C, 32F to 122F			
Storage Temperature	-25C to 70C, -13F to 150F			
Humidity	5 to 95% (non-condensing) for both storage and operation.			
Case	SECC Zinc plated sheet metal (1 mm)			
Ingress Protection Rating	IP30 with all slots occupied			
Altitude	up to 3,038 meters (10,000 ft)			
Mounting	2U - 19" rack mounting hardware is included 2U - 23" Telcom / ETSI rack mounting hardware is optional			

Product Weight and Dimensions

Weight	6.32 kg, 14 lbs	7.0 kg, 15.4 lbs	6.39 Kg, 14.1 lbs	7.14 kg, 15.74 lbs
Dimensions	356 x 435 x 89 mm, 14 x 17.2 x 3.5 in			

Packaging

| Shipping Weight	7.76 kg, 17 lbs	9.0 kg, 19.8 lbs	7.76 kg, 17.11 lbs	9.0 kg, 19.8 lbs
Shipping Dimensions	559 x 482 x 178 mm, 22 x 19 x 7 in			

Regulatory Approvals

| Emissions	FCC Part 15 Class A, EN55022 Class A
	CISPR 32:2015/EN 55032:2015 (Class A) CISPR 24:2010/EN 55024:2010
	CFR47:2003, Chapter 1, Part 15 Subpart B,(USA) Class A
	ICES-003, Issue 4, February 2004 (Canada)
	EN55022:1998 + A1:2000 + A2:2003 Class A
	EN61000-3-2 : 1995, Limits for Harmonic Current Emissions

	EN61000-3-3 : 1995, Limits of Voltage Fluctuations and Flicker
Immunity	EN55024:1998 + A1:2001 + A2:2003
	EN61000-4-2: Electrostatic Discharge
	EN61000-4-3: RF Electromagnetic Field Modulated
	EN61000-4-4: Fast Transients
	EN61000-4-5: Surge
	EN61000-4-6: RF Continuous Conducted
	EN61000-4-8: Power-Frequency Magnetic Field
	EN61000-4-11: Voltage Dips and Voltage Interruptions
Safety	IEC 60950-1(ed 2); am1, am2 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
	CAN/CSA-C22.2 No. 60950-1-03 and ANSI/UL 60950-1, First Edition April 1st 2003 (Recognized Component)
Environmental	Reach, RoHS and WEEE Compliant
Other	ECCN: 5A991
	HTSUS Number: 8517.62.0050
	Perle Limited Lifetime Warranty

*Calculation model based on MIL-HDBK-217-FN2 @ 30 °C

Ethernet to Fiber in a Campus Network

The use of chassis-based media converters is a cost effective means in providing fiber connectivity in a campus network. By consolidating Ethernet to fiber conversion in a rack mount media converter chassis, various types of fiber links can be brought into a single wiring closet platform. This simplifies deployment and maintenance and also provides a scalable means to grow your network as needed.

Campus Network
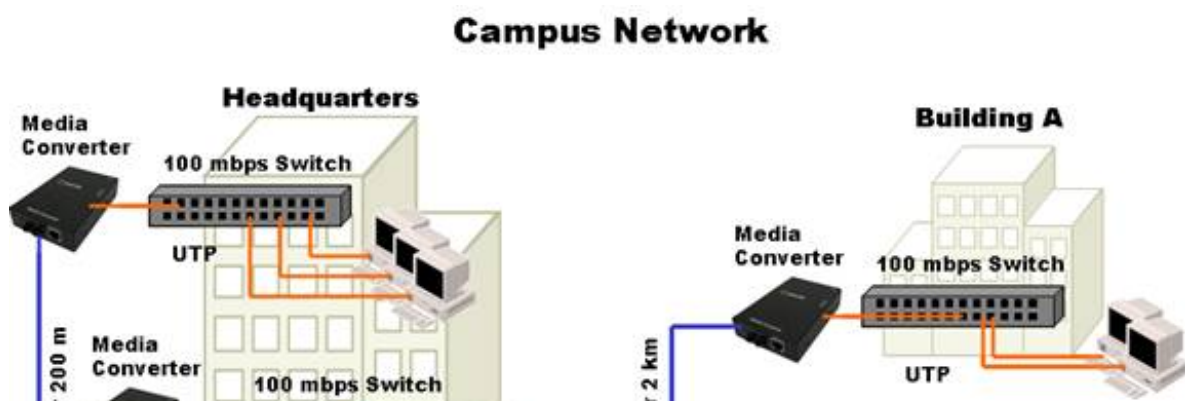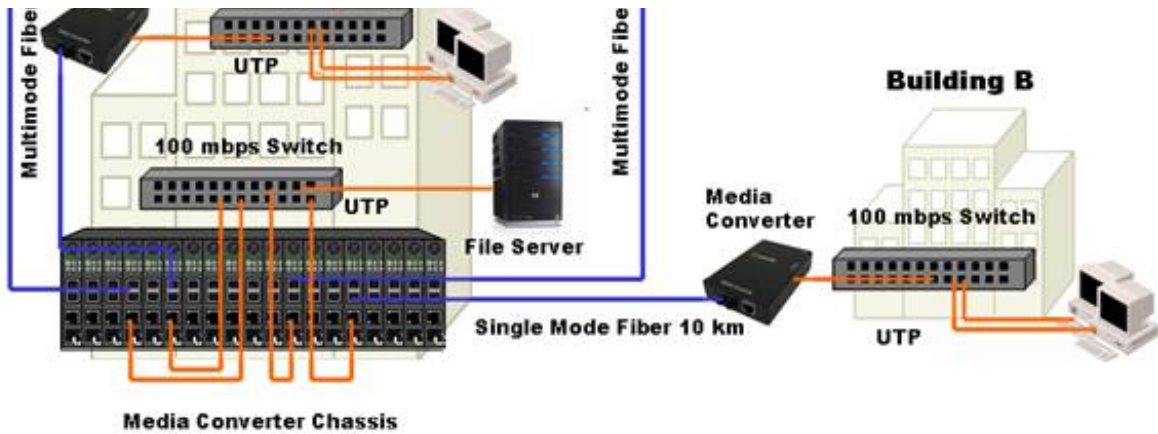
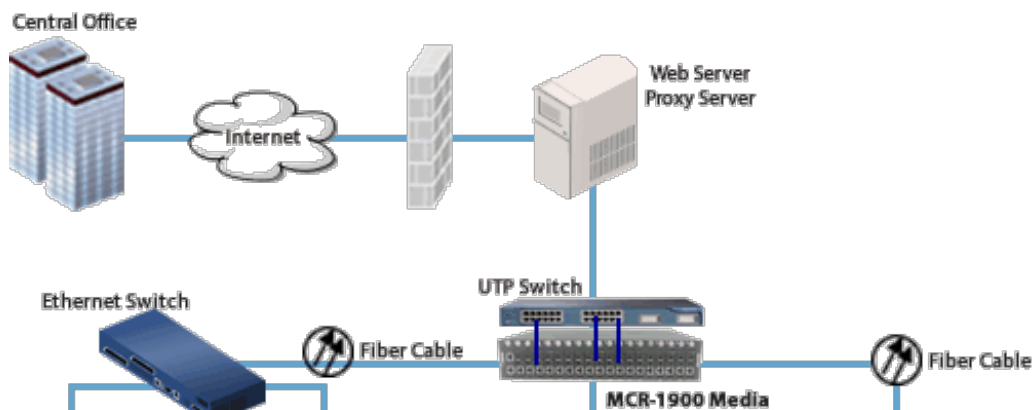## High Density Fiber Distribution from UTP Switch Equipment at Corporate Headquarters

In this enterprise campus application, up to 19 Perle Ethernet to Fiber Media Converters are installed in the MCR1900 Media Converter Chassis. A remote fiber enabled Ethernet switch is connected directly to the central MCR1900 Chassis. A standalone Media Converter converts the fiber to Ethernet in a fiber-to-desktop application. Another standalone Fiber Media Converter is connected to a remote office Ethernet switch. In all cases, multimode or single-mode fiber can be used. Fiber links can be extended up to 120km using single-mode fiber.
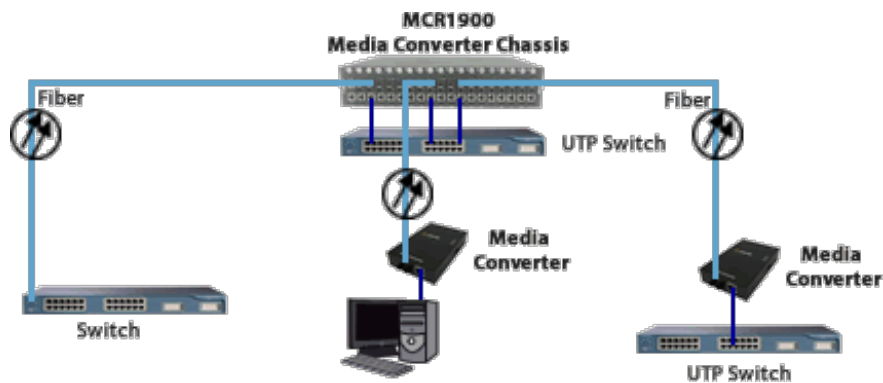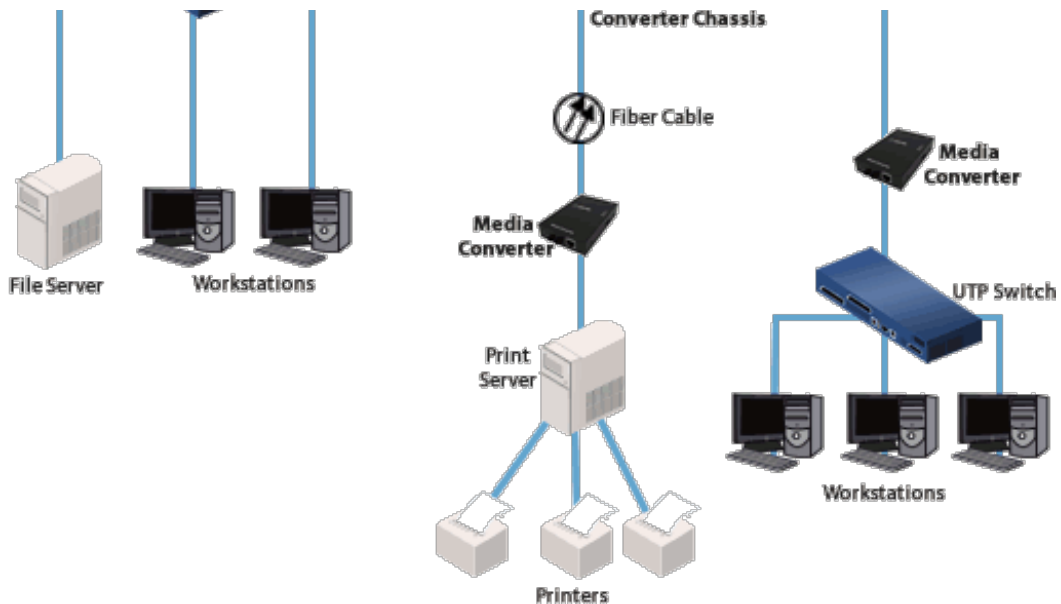

Enterprise Infrastructure

### Enterprise Infrastructure using Fiber Optics
Create a fiber infrastructure for your enterprise network without any wholesale replacement of existing copper-based equipment.

High Density Fiber Distribution from Fiber Switch Equipment at Corporate Headquarters

In this enterprise campus application, up to 19 Perle Fiber to Fiber Media Converters (Multimode to Single mode) are installed in the MCR1900 Media Converter Chassis. A remote single mode fiber enabled Ethernet switch is connected directly to the central MCR1900 Chassis. Another standalone Fiber Media Converter is connected to a remote office Fiber switch. In all cases, multimode or single-mode fiber can be used. Fiber links can be extended up to 160km using single-mode fiber.
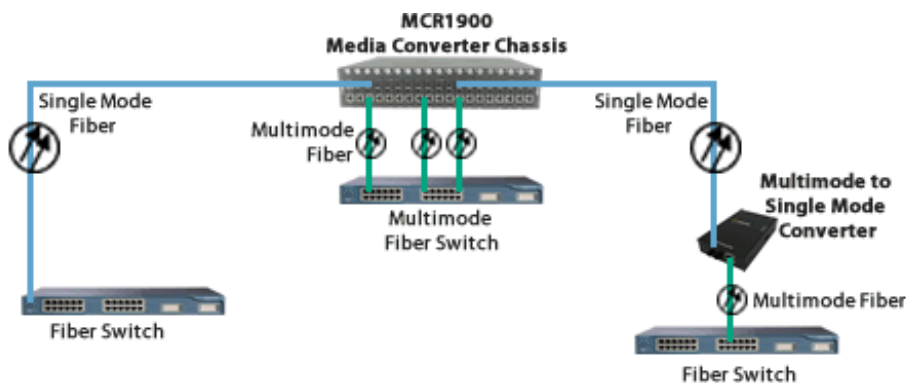
Extend 10/100/1000 Ethernet across Twisted Pair or Coaxial Wire

Extend an Ethernet link beyond the 100 meter (328 feet) limit using Ethernet Extenders. Distances of up to 3 km (10,000 feet) can be achieved over twisted pair Cat 5,6 or 7 cable. You can also install along with Ethernet to Fiber Media Converter Modules and extend the Ethernet connection over fiber for greater distance.

Switch

Media Converter
Chassis with Ethernet
Extender Modules

Twisted Pair or COAX
Up to 3Km

Ethernet
Extender

Ethernet

Ethernet
Extender

Ethernet