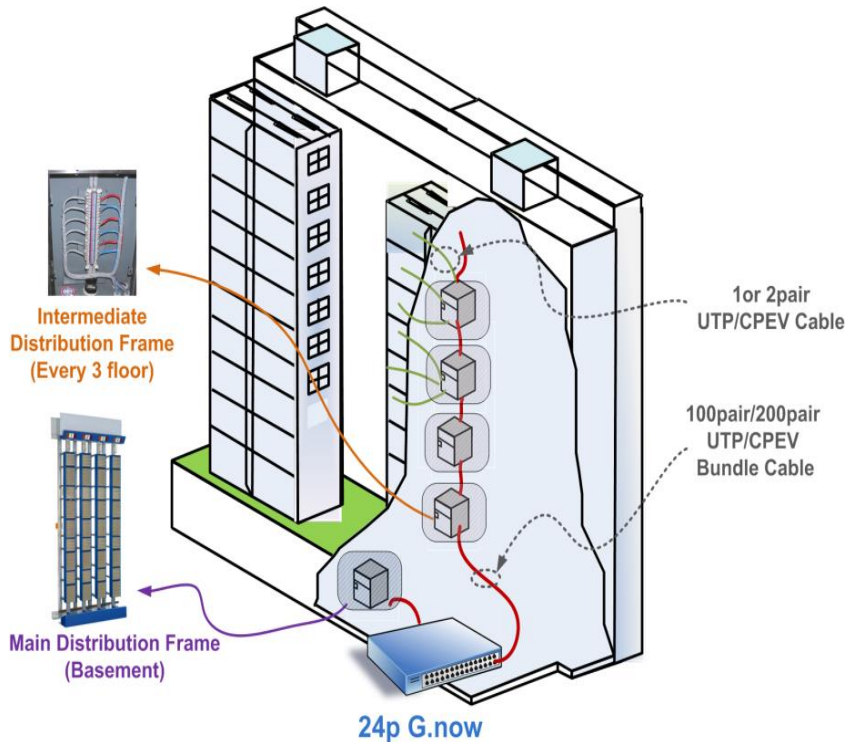


Network Configuration



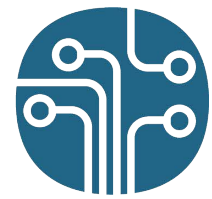
Benefits

- ✓ Provides Point-to-point connection via existing telephone line(1pair or 2pair)
- ✓ Up to 1000Mbps through CAT3 Riser/Bundle Cable
- ✓ Easy VDSL2 replacement for high-speed broadband service
- ✓ Scalable to max. 256 subscriber service
- ✓ Cost-effective and field proven solution

Features

- ITU-T G.9960 and G.9961 compliant
- 12/24Port G.hn Interface
- 1G/10G SFP/SFP+ optical modules
- 2 different uplink modules supported
- Marvell PonCAT3 High Performance Switch
- 88LX5153/2730, G.hn 2.0 Digital/AFE Processor
- Max. 1000Mbps Ethernet throughput
- Dynamic PSD, Power Mask Notching
- Priority Parameter based QoS
- IPv6 supported
- Provides 5-10 times speed than legacy VDSL
 - increased spectrum(up to 200MHz)
 - TDD with configurable uplink/downlink ratio
 - NDIM technology for interference mitigation
- Advanced energy-saving technology





Specifications (MDF-2400)

Hardware Specifications

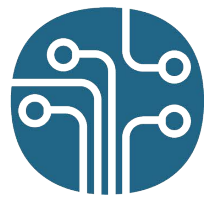
System Architecture & Console	2 x Uplink module slots 1G / 10G Optical Transceiver 12/24port RJ45 Console RJ11, RS232C(Baud Rate 115200)
Main Chipset	Marvell PonCAT3 High Performance Switch & Processor with Network Acceleration Hardware G.hn Chipset : 88LX5153/2730, G.hn Digital & AFE Processor
Memory	1GB, DDR3 SDRAM, 256MB Flash Memory
Physical Dimension(24port)	19" Rack Mount type, 1.5U 13.77"(D) x 17.32"(w) x 2.59"(H)
Switching Fabric	88Gbps
Management	Syslog, SNMPv2, RMON, SSH, TFTP, FTP Security by using password for log-in via Console and Telnet NTP, Port mirroring, TCP DUMP
FAN(12/24port)	3ea FAN Module, Max. 7,500rpm / 4ea FAN Module, Max. 7,500rpm
LED	Power, System Active, Management, G.hn Link

Environmental Specifications

Input power & frequency	110~220V AC and 50/60Hz
Power Consumption	Max 80W
Operating temperature/ humidity	-10 °C ~ 60 °C / 0 ~ 90% non-condensing
Storage temperature	-20 °C ~ 70 °C

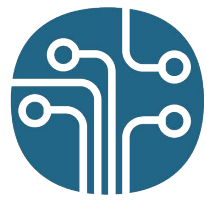
G.hn Standards and Certifications

Modulation	OFDM(Orthogonal Frequency Division Multiplexing)
G.hn Framing	IUT-T Standard-based G.hn G.9960/61
Standard/ Certifications	ITU-T G.9960 Support(G.hn PHY) ITU-T G.9961 Support(G.hn MAC) ITU-T G.9962 Support(Management Plane) ITU-T G.9954 Support(Phoneline networking transceivers) ITU-T G.9980 (TR-069 Remote management) IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control IEEE 802.1p for CoS (Class of Service) IEEE 802.1Q for VLAN Tagging Certifications: Complies with UL, CE, CUL, FCC Part 15 Class B, EMC 89/336/E EC, ICES-003



Features and Services

Mac Address numbers	16K
VLAN Number	4K VLAN
Layer 2	802.1W STP, RSTP, PVSTP 802.1D Spanning Tree Protocol 802.1Q VLAN(4K) and VLAN Trunking 802.3ad Link Aggregation(MAX 32 Groups & 8members for each group) Jumbo Frame up to 9K
Management	Syslog, SNMPv2, RMON, TFTP FTP, NTP, TCP DUMP, Port Mirroring Security by using password for log-in via Console and Telnet
Remote Reset	Remote H/W Reset Dying Gasp Watch dog
Multicast	IGMPv1/V2/V3 IGMP Snooping IGMP Snooping Proxy Reporting Multicast Group up to 4K Multicast Traffic Block / Filtering Protection of malicious multicast traffic from subscriber port
DHCP	DHCP Relay DHCP Sever DHCP message Filtering DHCP Request Flooding protection(DHCP Snooping rate-limiting) DHCP Option 82
Security	DLF, Broadcast, TCP-SYN, IGMP Attack protection DHCP Filtering, Mac Filtering, NetBEUI, NetBIOS Filtering, NBT Packet filtering based on IP address and TCP, UDP port Packet control to well-known port no MAC Spoofing, flooding protection(static MAC, MAC count) Multicast/Broadcast flooding protection Service classifying for the Control Packet(Ping, Telnet, SNMP, FTP, TFTP etc.) 8 CPU queue, Rate-limit to CPU traffic
QoS / ACL	Layer 2(Source/Destination MAC Address, VLAN ID, COS Field) Layer 3(Source/Destination IP Address, DSCP Field) Priority/Parameter based QoS 8 queue per port SPQ, WRR, SPQ + SDWRR Egress Rate-shaping : port , queue DSCP marking/remarking Ingress ACL : 128



Specifications (CPE-1100)

1Port/4Port Specifications

System Architecture	G.hn Modem G.hn Line 1PORT(RJ45 connector), GE LAN 1 / 4 PORT(RJ45 connector)
Memory	64MB, DDR2 SDRAM
Physical Dimension	4 port: 5.7" X 3.93" x 1.1" 1 port: 3.58" X 2.32 X 1.1" (W x D x H)
Max. Transfer Rate	Up to 1000Mbps
Modulation	OFDM(Orthogonal Frequency Division Multiplexing)
Management	HTTP Web-based; Firmware upgrade via TFTP
Networking Protocols	802.1D Ethernet Bridge, 802.1Q VLAN, QoS, IGMP Snooping

Environmental Specifications

Power Consumption	Max. 6W
Operating Temperature/ Humidity	0 °C ~ 50 °C / 10 ~ 90%
EMC	EMI Class B

Media Interface Specifications

Interface Type	RJ11, 1Port G.hn Interface RJ11, 1 Port Phone Interface RJ45, 1 Port / 4 Port Ethernet Interface
Power Switch / Input	On/Off Switch / DC5V/2A

G.hn 2.0 Specifications

Standard/Certification	ITU-T G.9960 Support(G.hn PHY) ITU-T G.9961 Support(G.hn MAC) ITU-T G.9962 Support(Management Plane) ITU-T G.9954 Support(Phoneline networking transceivers) ITU-T G.9980 (TR-069 Remote management) IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control IEEE 802.1p for CoS (Class of Service) IEEE 802.1Q for VLAN Tagging Certifications: Complies with UL, CE, CUL, FCC Part 15 Class B, EMC 89/336 / EEC, ICES-003
------------------------	--

3020 Old Ranch Parkway, Suite 300, Seal Beach, California

90740 Phone: 888-235-9590

www.opticonnav.com

email: sales@opticonnav.com