

N560 series



N560 series SHDSL EFM

N560 series SHDSL EFM modem/CPE extends the reach of Ethernet services to remote sites by using bonded copper pairs or optical fibers. Designed with standard-based Ethernet in the First Mile (EFM) and Ethernet over Copper (EoC) technologies, N560 series cost-effectively enables service providers and enterprises to deliver Ethernet services with symmetrical bandwidth at rate up to 60Mbps (Copper) or up to 100Mbps (Fiber). The delivery of Ethernet services with N560 series can be made quickly by using existing telephone copper wire infrastructures.

Key Features

- 15 Mbps per pair
- EFM Bonding (PAF) up to 60 Mbps (4 pairs)
- Fiber Options (N560F series)
- Daisy Chain configuration supporting Add-Drop function
- Flexible configuration – CPE or COE
- Low delay, jitter and packet loss for delay sensitive applications
- EFM OAM support - IEEE802.3ah
- QoS features for SLA

Applications

- Metro Ethernet services (E-Line, E-LAN)
- Ethernet Demarcation Device (EDD) applications
- Transparent LAN service
- Fast internet access
- MDU/MTU backhaul
- Remote DSLAM backhaul
- Wireless backhaul (Mobile / Wi-Fi)
- Cost effective replacement for E1/T1

Extending Ethernet Services to sites with existing copper infrastructure –

Service Providers and enterprises can offer symmetrical, broadband connectivity for transparent Ethernet services, DSLAM backhaul, wireless backhaul, and the more. By leveraging existing copper infrastructure and unparalleled EFM bonding technology, N560 series can bond up to 4 pairs and can deliver up to 60 Mbps ethernet services to the customers within carrier service area.

Increased Flexibility in Deployment – N560 series operates mainly in point to point configuration. It can be configured in either COE or CPE mode giving users significant flexibility in installation.

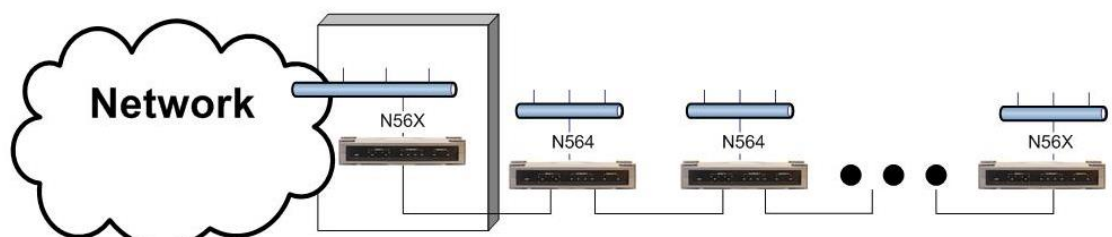
Lower CAPEX and Quick Return on Investment – With a compact form-factor design and optimization for the use over existing copper network, N560 series reduces the initial investment cost and deployment time in delivering higher speed ethernet services. It provides minimized risk and quick return on investment to service providers and enterprises.

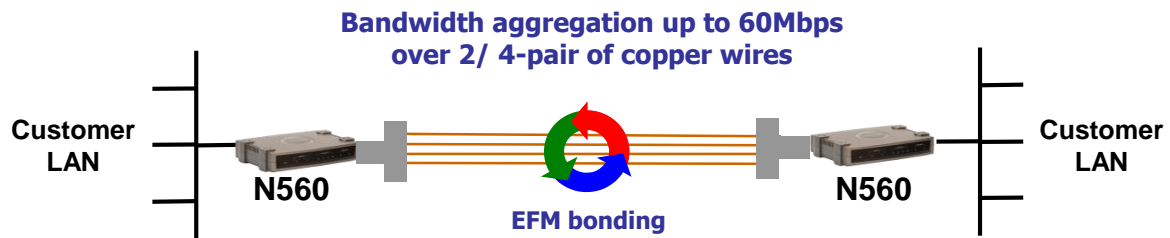
Comprehensive and easy OAM & P functions in provisioning and managing –

The N560 series implements IEEE 802.3ah standard and the vendor extended management features. It enables users to significantly reduce OPEX by eliminating unnecessary truck roll costs and additional training costs as it is based on user-friendly ethernet technologies. N560 series is interoperable with any standard Fast Ethernet interfaces from switches, routers, and NG-SONET/SDH equipments. And the Fast Ethernet interface enable N560 series to work as a smart Ethernet Demarcation Device as well. Ethernet demarcation is necessary at user network interface(UNI) to provide separation between carrier's WAN and subscriber's LAN by monitoring network status. N560's management interfaces include comprehensive command-line interface (CLI), user-friendly GUI-based web browser interface, SNMP and Telnet.

Future-proof Ethernet traffic management and QoS features – The N560 series provides future-proof features meeting Ethernet Quality of Service (QoS) and Class of Service (CoS) requirements by utilizing 802.1q VLAN and DSCP capabilities, stacked VLANs (Q-in-Q), four levels of priorities, traffic flow control and rate control. Those traffic management and QoS features enable service providers to offer highly profitable and value-added services to a vast majority of business customers.

Daisy Chain & Add Drop Configuration – Easily extend Ethernet over Copper or fiber connectivity in linear way **up to 30 hops** without causing delay in data transmission. This configuration is quite popular in Railway industry.





Specifications

Mechanical/ Power Requirements

- Dimension(mm) : 235(W) X 177(D) X 46(H)
- Net Weight : 0.5 Kg
- Power: DC 5V 3.0A

Network Interfaces

- LAN Interface
 - 4 x 10/100BASE-T Ports (RJ45 connectors)
 - Auto MDI/MDIX
- Optical Interface (N560F series only)
 - 2 X SFP(LC type) cages for 100BASE-FX SFP modules
 - SFP MSA & SFF-8472 specification
- DSL interface
 - G.SHDSL (ITU-T G.991.2)
 - 2BASE-TL, 64/65o encoding
 - EFM bonding (IEEE 802.3ah PAF)
Max 15Mbps per pair (TC-PAM 128)
 - 1 x RJ45 connector

Management Interfaces

- Console (RJ-45)
- Web browser (HTTP), SNMPv1, Telnet
- RCMP (Remote Control & Management Protocol)

LAN Protocols

- 802.1d Transparent Bridging
- up to 8K MAC Addresses

VLAN Support

- Port-based & Tag-based (802.1Q)
- up to 256 VLANs
- Double Tagging (Q-in-Q)
- VLAN Trunk mode

QoS Support

- Ingress rate control
- Egress traffic shaping
- Classification based on Port/802.1p/DSCP
- 4 Priority Queues
- Strict Priority
- Simple WFQ

Production & Regulatory Approval

- ISO 9001 Quality Management
- ISO 14001 Environmental Management
- CE approved
- VCCI approved
- RoHS compliant

Environment

- Operating Temperature : 0° ~ +50°C
- Storage Temperature : -40° ~ +85°C
- Relative Humidity : 95%, non-condensing

Ordering Information

- N562 : 2-pair SHDSL EDD
- N564 : 4-pair SHDSL EDD
- N562F* : 2-pair SHDSL / Fiber EDD
- N564F* : 4-pair SHDSL / Fiber EDD

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* Specifications are subject to change without prior notice. N562/N564 country of origin is Korea.