



N500 Series

2BASE-TL EFM Modem

NexComm Systems' N500 series extends the reach of Ethernet services to sites with no access to fiber by using bonded copper pairs. Designed with standard-based EFM technology (2BASE-TL), N500 Series cost-effectively allows service providers and enterprises to deliver Ethernet services with symmetrical bandwidth at rates up to 22.8 Mbps. The delivery of Ethernet services with N500 Series can be made quickly by using existing copper plant.

Key Feature

- 5.7 Mbps per pair
- EFM Bonding (PAF) up to 22.8 Mbps (4 pairs)
- IEEE 802.3ah Compliant
- Flexible configuration – CPE or CO
- EFM OAM support

Application

- Metro Ethernet Extension
- Transparent LAN Service
- Fast Internet Access
- Cost effective replacement for E1/T1, bundle E1/T1

Extending Ethernet Services to Sites With existing copper infrastructure

– Service Providers and enterprises can offer symmetrical, broadband connectivity for transparent Ethernet service, DSLAM backhaul, Wireless backhaul, and the more. By leveraging existing copper infrastructure and unparalleled EFM bonding technology, N500 Series can bond up to 4 pair and deliver 1 to 22 Mbps Ethernet services to all users within their service area.

Increased Flexibility in Deployment – N500 Series operates mainly in Point-to-Point configuration. It can be configured in either COE or CPE mode giving users significant flexibility in installation.

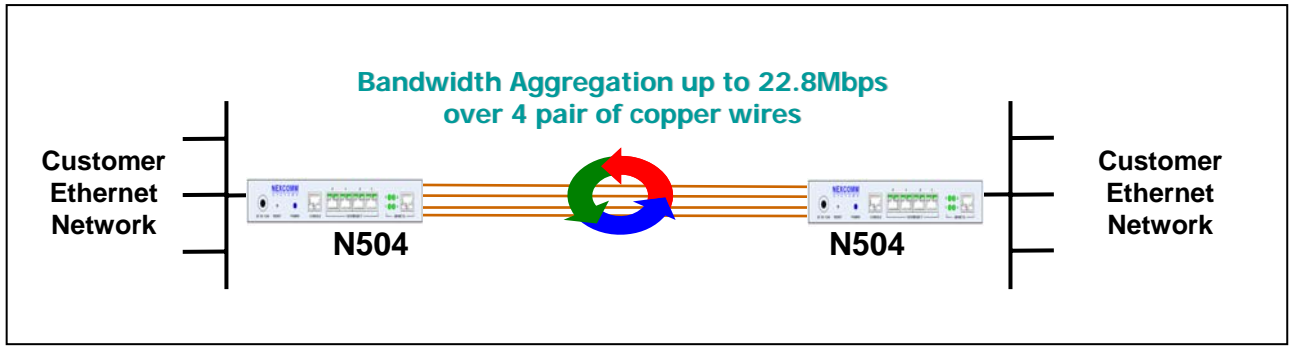
Lower CAPEX and Quick Return on Investment – With a compact form-factor design and optimization for the use over existing copper network, N500 Series reduces the initial investment cost and deployment time in delivering higher speed Ethernet service. It provides minimized risk bearing and quick return on investment to service providers and enterprises.

Comprehensive and easy OAM & P functions in provisioning and managing

– The N500 Series implements IEEE 802.3ah standard and the vendor extended management features based on this standard. It enables users to significantly reduce OPEX by eliminating unnecessary truck roll costs and additional trainings costs as it is based on user-friendly Ethernet technology. N500 Series is interoperable with any standard Fast Ethernet interfaces from switches, routers, and NG-SONET/SDH Equipment. N500's management interfaces include comprehensive command-line interface (CLI), user-friendly GUI-based Web Browser Interface, SNMP and Telnet.

Copper Bonding Scheme Comparison

	EFM(IEEE802.3ah)	IMA	M-pair
Service Optimization	Ethernet	ATM	TDM
Network Interface	Ethernet/IP native interface	ATM networks	Not Defined (system feature)
Service conversion required	No	Yes	Yes
Overhead	~ 5%	~20% in mixed traffic ~40% in short frames	~20% in mixed traffic ~40% in short frames
Operation on pairs with different rates	Yes (Sum of different line rates bonded)	No (uses lowest rate for all pairs bonded)	No (uses lowest rate for all pairs bonded)
Typical bonding delay	2-4ms	25-100ms	2-4ms
Noise immunity	High-Med (depending on vendor implementation)	Low (long recovery time)	Low (single pair-loss drops the link)
Management complexity	Low (Ethernet management)	High (ATM management)	Not defined in standard (System implementation)



- Mechanical & Power Requirement**
- All front Access
 - Dimension (mm) : 196(W) X 156(D) X 35(H)
 - Weight : 1.5 Kg
 - DC 5V 3.0A

- Network Interface**
- LAN
 - 4 X 10/100BASE-T Ports (RJ45)
 - Auto MDI/MDIX
 - WAN
 - ITU-T G.991.2. (2004)
 - 2BASE-TL, 64/65o encoding
 - EFM bonding (IEEE 802.3ah PAF)
 - RJ45 Connector
 - Max 22.8 Mbps (5.7 Mbps / Port)

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

- LAN Protocols**
- 802.1d Transparent Bridging
 - Up to 1K MAC Addresses
 - Port-based VLAN

- Management Interface**
- Console (RS-232, RJ-45)
 - Web Browser (HTTP), SNMP, Telnet
 - EFM (IEEE 802.3ah) OAM
 - RCMP (Remote Control & Management Protocol)

- Production & Regulatory**
- ISO 9001 Quality Management
 - ISO 14001 Environmental Management
 - CE Approval
 - VCCI Approval

- Ordering Information**
- N504: 4-pair 2BASE-TL EFM MODEM
 - N502: 2-pair 2BASE-TL EFM MODEM
 - N501: 1-pair 2BASE-TL EFM MODEM

NEXCOMM
S Y S T E M S

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