Pre-Release Document

GigaLine 800

Instantly enable gigabit fiber-grade services to hard-to-reach residences, MTUs, and businesses over existing wiring



Reach locations not served by fiber today



Instant last mile connectivity



Gigabit over existing twisted pairs



Ultra-secure 256-bit MACsec encryption

All information provided herein is preliminary and is subject to change without notice





Double your number

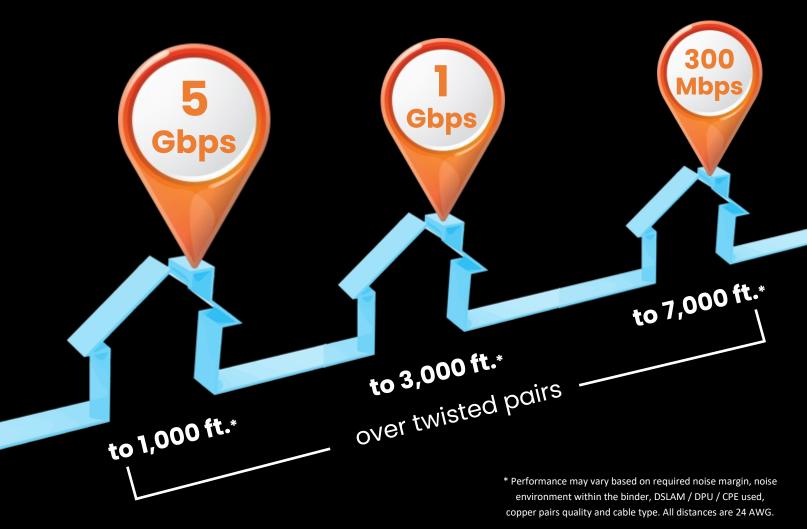
of homes and

businesses passed

overnigh

Increasing Homes Passed

When Gigaline 800 is installed in a neighborhood, fiber-grade service becomes instantly available to all nearby homes, exponentially increasing your number of homes passed!



Solving Your Last Mile Fiber Challenges

GigaLine 800 is your perfect fiber extension solution, providing tremendous cost savings, eliminating right of way issues, and removing environmental obstacles, allowing you to deploy fiber-grade connectivity in just hours.



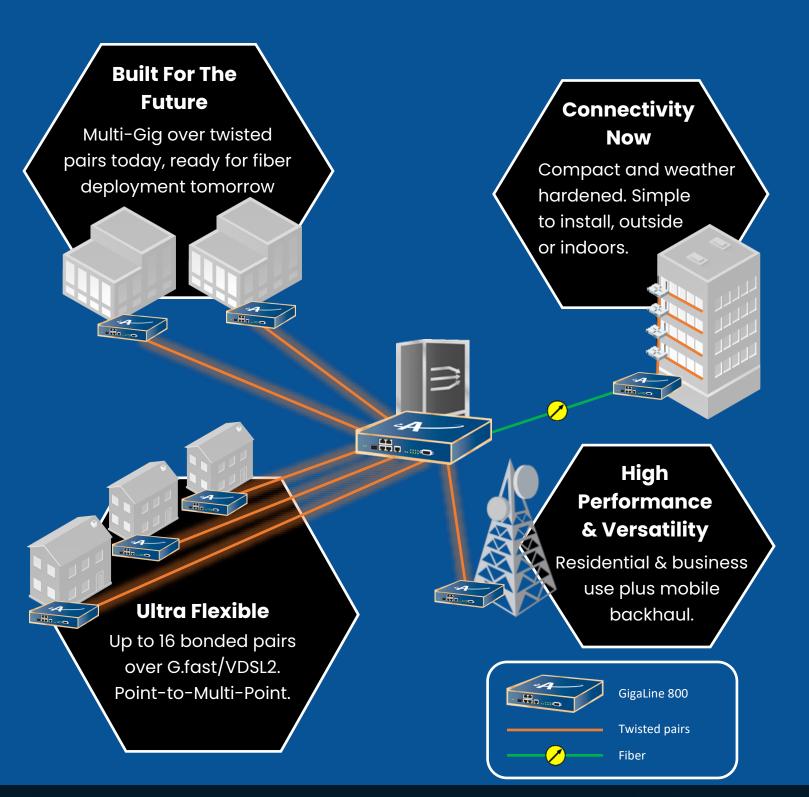
FIBER EXTENSION TO THE CAMPUS/BUILDING

Taking advantage of your existing twisted pairs, GigaLine 800 bridges the last mile gap between the fiber termination point and the out of fiber reach multi-tenant building, instantly enabling multi-gig speeds.

GIGABIT SPEEDS THROUGHOUT THE BUILDING

GigaLine 800 enables business and residential ethernet services utilizing existing twisted pairs, connecting to any residential gateway using VDSL – G.Fast, 35b/17a, and also supports multi-pair bonding.





Key GigaLine 800 Features

- High density & high quality of service switch
- Symmetrical & Asymmetrical transmission
- Remote powering over copper

- Ruggedized for indoor or outdoor
 installation
- Integrated with 3rd party CPEs & DSLAMs
- Intuitive management system with user-friendly GUI

Summary of Specifications GigaLine 800 (GL800)

Interfaces

Ethernet (Network/User)

- 6x 10/100/1000 Base-T: RJ45
- 2x 100/1000Base-FX: SFP
- 2x 1000/2500Base-FX: SFP

High Speed Link (Bonded Copper)

- **Protocol:** IEEE 802.3ah, ITU-T G.998.2 G.bond, G.993.5 Vectoring
- **G.fast profile**: ITU-T G.9700 / 01 Up to 212 MHz, fallback to VDSL2
- DMT Multimode: G.993.2 (VDSL2) 35B/30A/17A
- Impulse Noise Protection: G.INP (ITU-T G.998.4)
- Bandwidth: Up to 2.5Gbps per HSL (2x2.5Gbps + 6x 1Gbps)
- Number of Copper Pairs: 8 or 16

Synchronization

- Clock Source: Synchronous Ethernet, G.8261, G.8262 (6 ports)
- Clock Quality: EEC-option1 or 2
- Clock APS: Automatic Protection Switch per GR-1244-CORE

Management (Out-of-Band)

- RJ45 port
- Craft EIA RS-232 (DCE): DB9

Ethernet Bridge Features

- Bridging: IEEE 802.1q
- Forwarding Database size: 16K MAC addresses
- MTU: 1518 2048K Bytes
- **TPID:** up to 4 settable per inner/outer tag
- Aging: Configurable
- MAC Limiting and Filtering
- Multicast/Broadcast Control
- Port based VLAN Stacking (Q-in-Q) Conditional VLAN Stacking
- VLANs: 4K, VLAN translations
- RSTP, STP: IEEE 802.1d
- Link Aggregation: IEEE 802.3
- Provider Bridges: IEEE 802.1ad

- LLDP: IEEE 802.1ab
- IGMP Snooping: RFC 4541, V1/V2
- RFC 1112/2236
- ERPS: ITU-T G.8032
- EFM OAM: IEEE 802.3ah, Dying Gasp
- CFM/MEF OAM: IEEE 802.1ag , ITU Y.1731

Quality of Service Features

- Classes of Service (que/port): 8
- Two Levels Hierarchical Scheduler (H-QOS), up to 64 que/port, WFQ, SP, Hybrid
- Bandwidth Control: 32 profiles, 2 rate, 3 color (CIR, CBS, EIR, EBS)
- EVCs: 32 Services
- Classification: 128 rules (Port/ VLAN/L2/L3/L4)
- Shaping: per queue/port
- Color Mode Awareness by COS or DEI
- CoS Marking: by COS or DEI, per Service

Management

Applications

- EMS: MetaASSIST EMS
- Craft GUI: MetaASSIST View

Protocols

- IPV4 and IPV6
- DHCP Client: RFC 2132
- ACS Client, CWMP: TR-069
- Command Line Interface: TL1, CLI
- **Remote Access:** Telnet
- **SNMP:** V3, V2C, V1
- Radius Authentication: RFC 2865
- Secure Access (option): SSH v2
- Time Synchronization: SNTP v3
- Web Access: HTTP
- File transfer: FTP, TFTP
- Syslog: RFC 3164

Front Panel

Indicators (LEDs)

- Power, Status, Alarm
- MLP per modem
- Ethernet port : ACT, LNK
- Alarm Contacts
- Terminal Block: 2 Input, 1 Output

Physical

- Dimensions (HxDxW) 1.6x11x8.4 inch, 40x280x213 mm
- Mounting: Rack: 2 units in 19", 23" or ETSI racks, Desktop, Wall Mount

<u>Power</u>

- DC: 24/48 Vdc nominal
- AC: 90-264 VAC, 47-63 Hz, up to 40W

Environmental

- Operating Temp: -40° to +65°C
- Storage Temp: -40° to +74°C
- Relative humidity: Up to 95%, non-cond.

Regulatory / Compliance

- CE 2.0
- UL 60950, CSA C22.2 60950
- EN 60950-1, IEC 60950-1
- FCC Part 15 Class
- ICES-003 Class B
- ETSI EN 300 386 Class B
- ETSI ETS 300 132-2
- ITU-T K.20, K.21
- EMC and Safety
- GR-63-CORE
- ETSI ETS 300 019
- FIPS 140-2



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