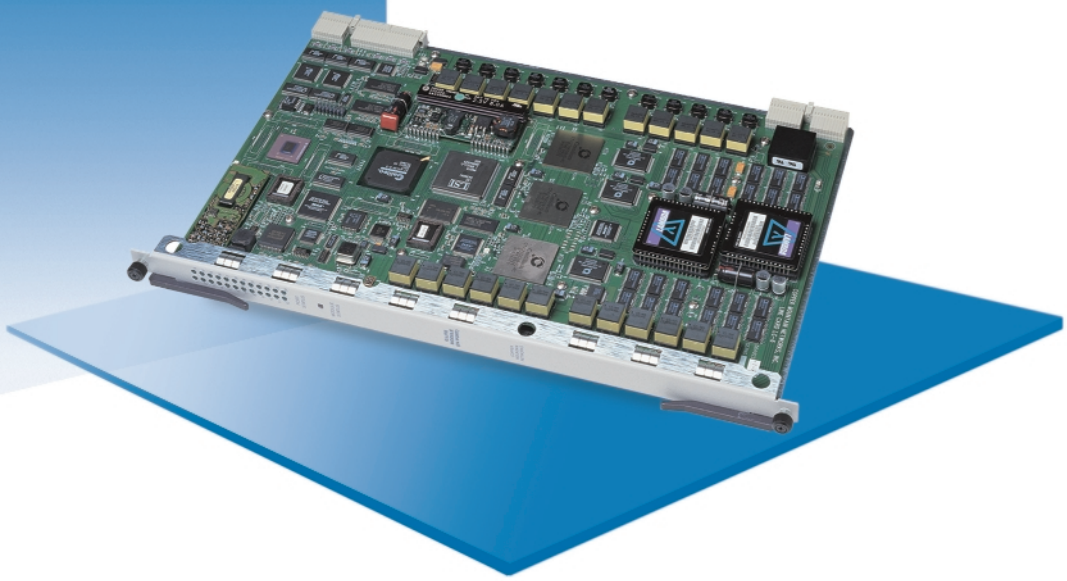
COPPEREDGE®
G.lite

COPPER MOUNTAIN



CopperEdge® G.lite Line Card

Demand for faster Internet access and advanced consumer applications such as multicast video have dramatically increased residential broadband demand. With the CopperEdge G.lite Line Card, providers can offer affordable high-speed data and Plain Old Telephone Service (POTS) simultaneously on a single copper pair using Digital Subscriber Line (DSL) technology. G.lite offers high density, low power dissipation, and simplified end-user installation.

Key Benefits

- **Splitterless, multi-speed Asymmetric DSL (ADSL).** Delivers simultaneous POTS and incrementally provisioned data speeds up to 3.0 Mbps downstream to the user and 512 kbps upstream—without costly splitter installations at the customer premise.
- **IP IQ™.** Concentrator-based intelligence offers providers the tools needed to scale services to millions of users, as well as offer the appropriate service levels for different types of voice and data traffic.
- **Multi-service DSL platform.** The G.lite Line Card operates concurrently with any combination of Symmetric DSL (SDSL), ISDN DSL (IDSL), and multi-mode full-rate line ADSL cards in a single CopperEdge 200 or 150 DSL Concentrator chassis.
- **High density, low power.** Each line card supports up to 24 G.lite ports for maximum subscriber capacity. The G.lite Line Card offers significantly lower power dissipation than multimode full-rate ADSL technologies, reducing operating constraints.
- **Standards-based technology.** Copper Mountain's G.lite Line Card complies with the International Telecommunications Union (ITU) G.992.2 standard, enabling a wide range of manufacturers to develop interoperable customer premise equipment (CPE). Compatibility is assured through Copper Mountain's industry-leading CopperCompatible™ CPE program.

Using industry-leading CopperEdge DSL concentrators, carriers and service providers can use G.lite to extend services to a broader market of DSL and POTS customers. This high-density line card maximizes subscriber capacity, minimizes space and power dissipation, and does not require splitters or new wiring at the customer premise.

Complete Consumer Solution

The CopperEdge G.lite Line Card is part of Copper Mountain's complete solution for delivering consumer broadband services. G.lite enables simultaneous data and voice service over existing copper phone lines without splitters or new inside wiring at the customer premise, eliminating costly installation truck rolls. Instead, some telephones at the customer premise utilize a small, plug-and-play micro-filter behind the phone set. At the central office (CO), the carrier uses a passive splitter to separate voice and data traffic. IP IQ™, or DSL concentrator–based intelligence, gives providers the tools they need to serve millions of customers, easing service provisioning and enabling multiple levels of Quality of Service (QoS).

Full-Coverage DSL

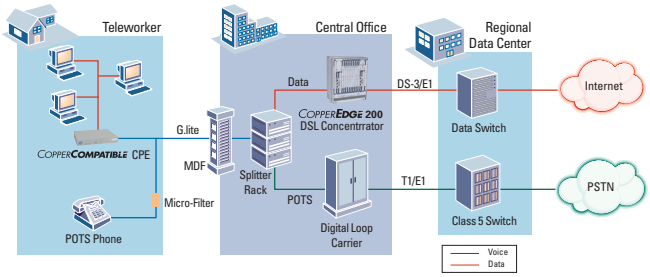
The CopperEdge G.lite Line Card delivers speeds up to 3.0 Mbps downstream to the end user and 512 kbps upstream, and a reach of up to 26,200 feet from the CO over 24 AWG (0.5mm) wire. It is available for both the CopperEdge 200 and CopperEdge 150 DSL Concentrators and can be used concurrently alongside any combination of Copper Mountain multimode full-rate ADSL, IDSL, and SDSL line cards in a single chassis, protecting investment in the CopperEdge platform.

High Density, Low Power

Copper Mountain's CopperEdge Line Cards offer high port densities. CopperEdge G.lite line cards also dissipate significantly less power than full-rate ADSL technologies, reducing ongoing operating constraints.

Standards-Based Technology

The CopperEdge G.lite Line Card conforms to the ITU G.992.2 standard, ensuring that a wide range of CPE interoperates seamlessly with CopperEdge equipment in the CO. It also means that a variety of affordable G.lite CPE—modems, network interface cards, universal serial bus products, and PC cards—will broaden consumer choices.



Specifications

G.lite Turbo Performance Rates and Reaches

Loop Length		Data Rates (kbps) 26 AWG Wire (0.4mm)	
Feet*	Meters*	Upstream	Downstream
0 - 12,500	0 - 3,810	512	2,336
13,500	4,115	512	2,208
14,500	4,420	512	1,824
15,500	4,724	416	1,056
16,500	5,029	352	640
17,500	5,334	352	384
18,700	5,700	160	96

* Distance from CO or MTU CopperEdge DSL concentrator, with no disturbers

Standards Support

- ITU-T G.992.2: G.lite transceiver features:
  - Fast retrain and power back-off enable simultaneous, non-disruptive data and POTS integration on a single pair
  - Optional micro-filter behind telephone set optimizes data and POTS interoperability
  - Power management (full on, full off, and low rate/power)
  - Annex A: ADSL Operating Above POTS
  - Annex D: Required and Extended Reach Cases
  - ITU-T G.994.1 (G.hs or "Handshake")
  - ITU-T G.997.1 (Physical Layer Management)
- ATM standards
  - RFC 2364 (PPP over ATM)
  - RFC 1483 (Multi-Protocol over ATM)
  - Support for end-to-end ATM PVC
- IETF standards
  - RFC 2662 (Managed Objects for ADSL Lines)
  - Supplemental ADSL Line MIB
  - RFC 2515 (Objects for ATM Management)
- CO POTS splitter interoperability
  - ITU-T G.992.1, Annex E
  - ANSI T1.413, Annex E

Ports

- 24 G.lite ports
- 24 port-status LEDs
- 1 module-status LED

Regulatory

- Telecom
  - Certified to Canadian CS-03 requirements for Part 8
  - ITU G.992.2 verified in accordance with R&TTE Directive
- Product Safety
  - Tested to UL/cUL 1950 3rd Edition
  - EN60950 with a CB Scheme Certificate
- Electromagnetic Compatibility
  - FCC Part 15 Class A
  - Canadian ICES-003 Class A
  - EN55022 and EN55024
- NEBS
  - Meets NEBS Level 1-3 requirements of GR-63 and GR-1089 as defined in Telcordia special report SR-3580, Issue 1, Nov. 1995 when used in the CopperEdge200 chassis

Physical Dimensions

- Size (inches): 15.5 H x 0.875 W x 9.25 D (centimeters: 39.4 H x 2.2 W x 23.5 D)
- Weight: 3.75 pounds (1.7 kilograms)

Operating Environment

- Temperature: 32° to 122°F (0° to 50° C) (short-term GR-63-CORE 23° to 131° F, -5° to 55° C)
- Altitude: to 13,125 feet (4,000 meters)
- Humidity: 5 to 95%, non-condensing

Tested to comply with FCC Standards

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High Performance DSL Networking

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Copper Mountain is ISO 9001 certified by:

TÜV ESSEN TGA-ZQ-37-95-00-0

To learn more about Copper Mountain (Nasdaq: CMTN) products and services, visit our World Wide Web site at http://www.coppermountain.com, call your regional headquarters office, or send an email to sales@coppermountain.com. For investor relations information, call +1.858.410.7100 or send an email to IR@coppermountain.com.

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