

CopperNode



Highly Integrated Multi-Protocol Framer Capable of Mapping Both Telecom and Datacom Traffic

The CopperNode multi-protocol framer is designed to enable rapid development of next-generation Metro Ethernet and PDH transport solutions for existing, widespread copper based PDH infrastructures. The combination of Gigabit and 10/100 Mb/s Ethernet client ports and a packet co-processor interface along with DS1/E1 client ports supports delivery of current and future revenue generating services. Integrated DS1/E1 and DS3/E3 network ports also allow for transport over a variety of leased or owned facility types.

Using standardized Virtual Concatenation, individual transport links can be bonded together into higher capacity virtual links. The integrated Link Capacity Adjustment Scheme (LCAS) protects against member link failures and also provides a mechanism for increasing or decreasing the bandwidth of any virtual link by changing the number of members. CopperNode supports both Frame Mapped GFP and HDLC based packet encapsulation to provide compatibility with existing and emerging network equipment from multiple vendors. CopperNode also allows for onboard Layer 2 aggregation of multiple Ethernet client flows into a single transport container.

As with all Exar IC technology, CopperNode is fully integrated in Exar's industry leading and field proven configuration and management framework. This framework provides advanced capabilities such as warm start, interrupt management and a wide variety of troubleshooting tools, and is accompanied by extensive hyperlinked documentation and customer system support.

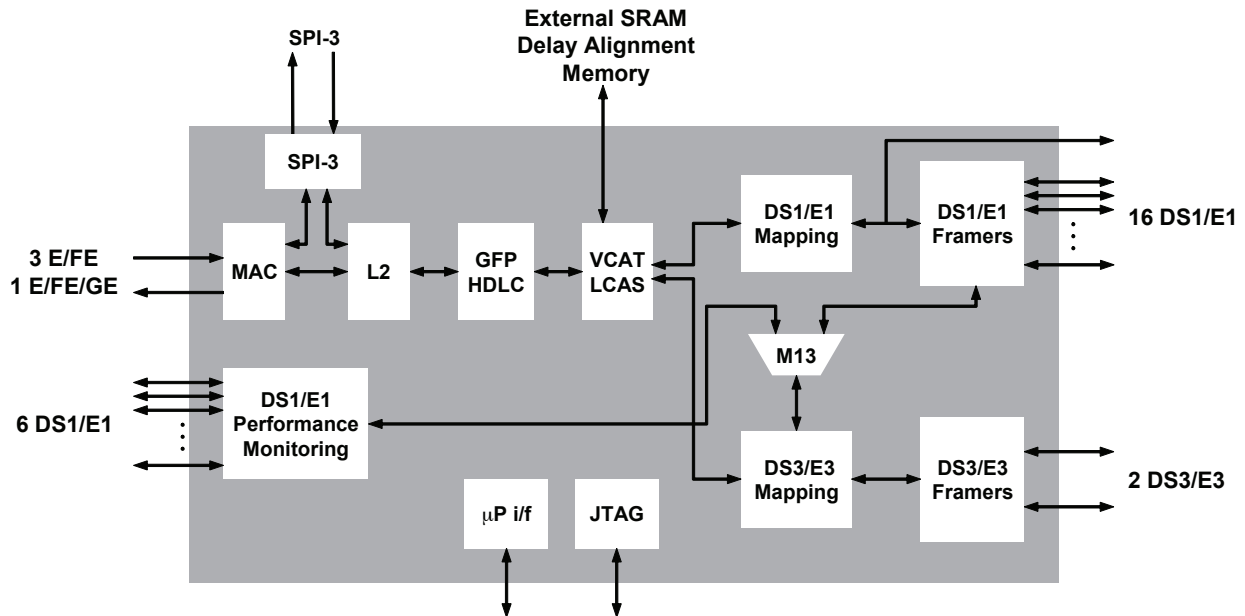


FEATURES

- Supported by Exar's comprehensive line of robust, integrated software solutions
- 2 x DS3/E3 network interfaces
 - M23 or C-bit parity for DS3/G.751 and G.832 for E3
 - 1+1 protected or fully independent
- 16 x DS1/E1 network interfaces
 - Direct connection to external LIU or Framer/LIU combination
- 6 x DS1/E1 client interfaces
 - M13 Multiplexing of VCAT mapped DS1/E1s and client DS1/E1s into DS3/E3
- 3 E/FE + 1 E/FE/GE client interfaces
 - 802.3x flow control with internal buffering
 - 1 to 1 or n to 1 mapping of client ports to virtual concatenation group
 - 802.1Q VLAN and 802.ad Q-in-Q
 - 802.3ah EFM OAM packets
- SPI-3 packet co-processor interface
 - 8 bit, 12 channel interface
 - Individual flow control
- Multi-format Packet or Ethernet Frame encapsulation using G.7041 GFP, ITU X.85/X.86 LAPS or RFC 1662 HDLC
 - Support for Multi-Link PPP
- Virtual Concatenation and LCAS
 - 4 simultaneous VCGs
 - N x DS3/E3 using G.7043 and G.8040
 - N x DS1/E1 using G.7043 and G.8040
 - Support for up to 384 ms of differential delay compensation via external SRAM interface
- Generic 16-bit microprocessor interface

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BLOCK DIAGRAM



INTERFACES

- Equipment / client side:
 - 4 x Ethernet /Fast Ethernet via SMII
 - 1 x Gigabit Ethernet via GMII
 - 6 x DS1/E1
 - SPI-3 Packet Interface
- Line / trunk side:
 - 2 x DS3/E3
 - 16 x DS1/E1

APPLICATIONS

- Network Access Equipment
- BTS/NODE B Backhaul Equipment
- Wireless Radio Equipment
- Test Equipment

ORDERING INFORMATION

Part Number	Operating Temperature Range
GLZ1200-02-HSAI (RoHS6)	-40°C to +85°C
GLZ1200-02-HSBI (RoHS5)	-40°C to +85°C

For additional information please visit our **Communications** section of our website.