

DSL-2048 SDSL modem



INTRODUCTION

The MuLogic DSL-2048 SDSL modem can transport data over one pair of copper wire at data rates up to 2.048 Mbps. The DSL-2048 combines the benefits of cost saving and longer transmission distance with regard to common HDSL modems.

The data rate is manually selectable or automatic rate-adaptive and can range from 64 Kbps to 2.048 Mbps in steps of 64 Kbps.

The maximum loop length is up to 10 Km when using 0.5mm copper wire (AWG-24).

The DSL-2048 supports a variety of network interfaces including V.35, RS-530, X.21, Ethernet, and E1. Therefore it can satisfy different applications such as LAN extension, Internet access, videoconference, SOHO connections and E1-G.703 transmission.

FEATURES

- Data rates up to 2 Mbps over a single pair of copper wire.
- Multi-rate Symmetric Digital Subscriber Loop system
- CAP (Carrierless AM/PM) modulation
- Transmission distance up to 10 Km (0.5 mm copper wire)
- Interfaces: V.35, RS-530, X.21, G.703 and 10baseT Ethernet
- Menu driven configuration via VT-100 terminal
- Remote configuration and monitoring
- Line diagnostics and status reporting
- Real time performance monitoring

APPLICATIONS

Far Reach Single Pair E1

The DSL-2048 with G.703 interface can replace a four-wire transmission system, effectively doubling the utilization of the copper loop while extending the reach to beyond 4 km. The E1/FE1 (G.703) interface provides standard data rate wherever E1 or Fractional E1 service is deployed or planned.

High Speed Synchronous Interfaces

The DSL-2048 with V.35, RS-530 or X.21 interfaces facilitates applications such as Internet access, video transport or any other bandwidth demanding application. The synchronous interface can be mixed with E1 or Fractional E1 interfaces for end-to-end transmission. The V.35 interface allows software selectable data rates at selected Fractional E1 rates (n x 64 kbps).

Appropriate applications include programmable frame relay, channelised E1 service to a PBX, and Internet access.

Ethernet connection

Ethernet access is provided as a remote Ethernet bridge (standard 802.3). A single workstation can directly connect to the DSL-2048 Ethernet port which can also be set to connect to an Ethernet Hub and be used as a multiple-user remote Ethernet bridge. Applications for remote Ethernet connectivity are as numerous as the use of business systems and as ubiquitous as the prevalence of Ethernet LAN environments. Examples include Internet Service Providers, corporate campus networks, remote computing, and video services.

TECHNICAL SPECIFICATIONS		
DSL Loop Interface	Line type Line modulation Line rate Symbol rate Line impedance Bandwidth Transmit power Loop length Connector	2-wire copper CAP 144 ~ 2064 kbps 72 ~ 344 kbaud 135 ohms 4K ~ 400 kHz +7.4 ~ +13 dBm 3.3 ~ 10 km (@0.5mm) RJ-45
E1 Interface	Line interface Line code Frame format Line rate Fraction Line impedance Connector	ITU-T G.703 HDB3 Framed or Transparent 2.048Mbps +/- 50 ppm N*64K, 1<=N<=32 120 or 75 ohms DB-15/RJ-45 or BNC
V.35 Interface	Data rate Connector	N*64kbps, 1<=N<=32 M/34 female
RS-530 Interface	Data rate Connector	N*64kbps, 1<=N<=32 DB-25 female
X.21 Interface	Data rate Connector	N*64kbps, 1<=N<=32 DB-15 fem. (conversion cable to RS-530)
Ethernet Interface	Type Ethernet Buffer Capacity Filtering Rate Forwarding rate Address Filter Address table size Compression type Connection type 10baseT polarity	Remote Bridge IEEE 802.3 Compatible 256 frames buffer 15000 pps 15000 pps Automatic LAN Table learning and ageing 10000 addresses Enhanced Tinygram compression UTP LAN (10baseT) RJ-45 connector Automatic TP polarity reversal
Transmission distance <i>(0.5 mm copper, no noise)</i>	128 kbps 256 kbps 512 kbps 1024 kbps 2048 kbps	9.8 km 9.5 km 8.5 km 6.9 km 5.9 km
Power Requirement	100~240 Vac, 47-63Hz, 400mA	
System Management	VT-100 type ASCII terminal or terminal emulator. SNMP and WebBased management (option)	
Environment	Temperature Humidity	0°C~50°C (-20°C~60°C optional) 5%~95%
Dimensions	190x205x42 mm (LxWxH)	