

## 2Mbps 3 interfaces Modem

### TECHNICAL SPECIFICATIONS

#### G.SHDSL LINE INTERFACE

- Line type : 2Wire (single pair operation)
- Line Code : TCPAM as per the ITU-T G991.2
- Line Impedance : 135 Ohms
- Connector : RJ45
- Transmit Signal Power : 3.5dBm +/- 0.5dBm
- Operating Range : 6Km on 0.5mm dia copper cable @ 2.048Mbps in 2 wire operation, 7.5Km on 0.5mm dia copper cable @ 2.048Mbps in 4 wire operation and 11Km on 0.5mm dia copper cable @ 64Kbps in 2 wire operation
- Line protection : As per ITU-T K20 and K21
- Transmit Level : Upto 14dBm
- Line Code transmission
- Specification : ANSI T1.601
- Connector : RJ 45 and 3 Pin terminal Block.

#### PLUGGABLE DIGITAL USER INTERFACES

- G703 E1
- V35 / RS530 / X.21
- 10/100Mbps Ethernet
- G703 Co-dir
- Interchangeable digital interface cards in given modem
- The same V35 modem should work with G703E1 or G703 Co-Dir modem
- The same Ethernet modem should work with G703E1 or G703 Co-Dir modem

#### G703 E1 INTERFACE SPECIFICATIONS

- Line Rate : 2048 Kbps
- Line Code : HDB3
- Interface : E1 Interface as per ITU-T G.703, G.704
- Impedance : 120 Ohms (Balanced), Optional : 75 Ohms (Unbalanced)
- Connector : RJ45 for Balanced and BNC for Unbalanced
- Clock Mode : Internal clock or G.703 Recovered clock
- Framed and Unframed Operation
- User selectable CRC-4 Generation and Detection

#### ETHERNET INTERFACE SPECIFICATIONS

- Interface Compliance : IEEE802.3 Compliant
- 10Base-T and 100Base-TX support
- 2 K MAC address level filtering
- Transparent Ethernet Bridge, Auto learning and aging
- Auto Speed Sensing
- Auto polarity detection

#### V35 INTERFACE SPECIFICATIONS

- Interface Type : V35
- Connector : V34 Pin Female Connector
- Data Rates : 2.304 Mbps (nX64 Kbps, n=1 to 36)
- Clock Modes : Internal clock, Line Recovered clock or External clock
- Connector : RJ45 for Balanced and BNC for Unbalanced
- Clock Mode : Internal clock or G.703 Recovered clock
- Framed and Unframed Operation
- User selectable CRC-4 Generation and Detection



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### G703 CO-DIR INTERFACE SPECIFICATIONS

- ITU-T 703 4 wire Co-Directional interface
- Speed : 64Kbps
- Line Code : AMI
- Connector : RJ 45 or Terminal block
- Clock Mode : Internal clock or G.703 Recovered clock

### DIAGNOSTIC TESTS

- Local Loopback, Digital Loopback and Remote Loopback as per the V.54
- Built in test 511 pattern generation and checking.
- Diagnostics & Monitoring through EOC Channel without interfering data transmission.
- Loop backs, test pattern generation and checking using front panel switches.

- **MANAGEMENT:** Management using Telnet, Command Line, SNMP.
- **LED INDICATIONS :** PWR, MR, COT, DSL LINK, E1 SYN, DTR, ETH LINK ACT, AIS, RTS, SPD, PAT, ERR, TST.
- **BUILT-IN POWER :** DUAL MODE AC/DC, 230VAC +/- 10% & -48VDC +/-10%
- **TEMPERATURE :** -5 To 50°C
- **HUMIDITY :** Upto 95% non condensing at 35°C

TEC Approval : As per IR/DCA-18/04. Oct 2005

## FEATURES

- Interfaces : E1, V.35 and Ethernet
- All Interfaces can be configured to work simultaneously
- In unframed mode any one of the interface can be operable.
- Time slot allocation for each interface in framed mode
- Menu Driven time slot assignment
- Provides multi stage line protection as per K.20 and K.21.
- External Secondary optional Line Protection Device.
- Long reach up to 11Km for standard 64Kbps speed.
- Interchangeable user interface cards in the same modem and field upgradeability.
- Support for Balanced and Unbalanced operation for G703 E1.
- The same V35/Ethernet RT modem should work with G703E1 or G703 Co-Dir COT modem.
- User interface cards can be ordered optionally depending on the field requirement.
- Noise Margin Indication for sensing line quality.
- AC and DC built-in power supply.

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## MODEM CONFIGURATION

- Menu Driven Console RJ-45.
- Baud Rate Selection from nx64 Kbps up to 2048 Kbps.
- Remote Configuration of slave modem from master modem.
- Remote status & Alarms from master to slave as well as slave to master.

## APPLICATION DIAGRAM

