

TELINDUS 1030 ROUTER SERIES



> THE TELINDUS 1030 ROUTER SERIES IS A SET OF IP ACCESS ROUTERS DESIGNED FOR HIGH-SPEED WAN ACCESS. THEY OFFER HIGH-PERFORMANCE IP ROUTING AND BRIDGING FOR LESS MONEY THAN OTHER PROFESSIONAL ACCESS ROUTERS.

The versions with 2Mbps E1 interfaces are extremely well suited to transport LAN traffic over a PDH or SDH backbone network. These G703 interfaces (1 or 2, depending on the model) can be used as channelised E1 interfaces, offering multiple logical interfaces on one physical port. The versions with serial interface (X.21, V.35, V.36, RS530 or RS530A) allow speeds up to 10Mbps.

The Telindus 1030 Router series can directly encapsulate the LAN traffic for transmission over ATM and frame relay WAN networks. ATM encapsulation includes RFC2684 (formerly RFC 1483), PPP over ATM, PPP over Ethernet and RBE (Routed Bridge Encapsulation)*. For point to point set-ups and connections over PDH or SDH networks, PPP can also be used as the WAN protocol.

Available from Q3 2002

Additionally, the Telindus 1030 Router series is equipped with an AUX V.24 WAN interface for low-speed asynchronous PPP connections and a control V.24 management interface.

The unit supports differentiated services based on VPNs (Virtual Private Networks). Therefore it integrates features like L2TP (Layer 2 Tunnelling Protocol), IPSEC*, 802.1Q (VLAN

LAN INTERFACE

- > Applicable standards: IEEE 802.3 (10Mbps Ethernet), IEEE 802.3u (100Mbps Ethernet)
- > 10/100Mbps auto-sense
- > Connector: RJ45 Unshielded Twisted Pair (UTP)

WAN INTERFACES

- > Telindus 1031 Router: 1x 2Mbps G703 interface
- > Telindus 1032 Router: 2x 2Mbps G703 interfaces
- > Telindus 1033 Router: 1x RS530 interface

G703 INTERFACE CHARACTERISTICS

- > Applicable standards: ITU-T G.703, G.704, G.823, G.826
- > Line data rate (nominal): 2048 kbps
- > Line code: HDB3
- > Line connection: RJ45 DTE
- > Line Impedance: 120 ohm balanced
- > Clocking: slave receive, internal
- > Unframed 2Mbps and fractional framed E1 interface for PPP, frame relay and ATM encapsulation
- > Channelised E1 interface for PPP and frame relay WAN encapsulation

RS530 INTERFACE CHARACTERISTICS

- > Applicable standards: ITU-T V.10, V.11
- > DTE signals: RXD, TXD, SGND, RTS, CTS, DTR, RXCLK, TXCLK, EXTCLK
- > Connector: female DB25 (ISO 2110), directly compliant with RS530, RS530A
- > Through adapter cable: V.35, V.36 (RS449), X.21
- > Clocking: internal, internal transmit, slave receive, external
- > PPP, frame relay and ATM WAN encapsulations

AUX INTERFACE CHARACTERISTICS

- > Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
- > DTE signals: RXD, TXD, SGND, RTS, CTS, DSR, DTR, DCD, RI

- > Connector: female DB9
- > Asynchronous PPP WAN encapsulation

CONTROL INTERFACE

- > Applicable standards: ITU-T V.24, V.28, EIA/TIA 574
- > DCE signals: RXD, TXD, SGND
- > Connector: female DB9

FRONT PANEL INDICATORS

- > PWR: Power
- > G703 1 / LNK: first G703 interface status (1031, 1032 versions only)
- > G703 1 / ACT: first G703 interface's WAN protocol status (1031, 1032 version only)
- > G703 2 / LNK: second G703 interface status (1032 versions only)
- > G703 2 / ACT: second G703 interface's WAN protocol status (1032 version only)
- > RS530 : LNK: RS530 interface status (1033 version only)
- > RS530 / ACT: RS530 interface's WAN protocol status (1033 version only)
- > LAN / ACT: LAN status
- > LAN / COL: LAN collision detect

ATM AAL5 ENCAPSULATIONS

- IP ROUTED TRAFFIC
- RFCs 1483, 2684
- RBE (Routed Bridge Encapsulation)*
- PPPoA (RFC 2364)
- PPPoE (RFC 2516)

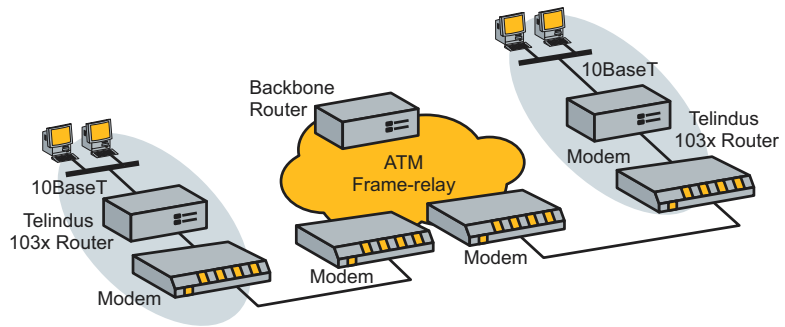
- IP BRIDGED TRAFFIC
- RFCs 1483, 2684

ATM

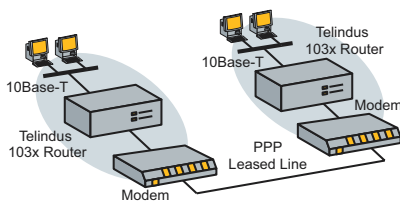
- > ATM cell format ITU-T I.361
- > ATM forum UNI 3.1/4.0 PVCs
- > ATM forum ILM1 3.1/4.0

- PPPoA (RFC 2364)
- PPPoE (RFC 2516)

V CONNECTION THROUGH X.25 OR FRAME RELAY BACKBONE



V POINT-TO-POINT ROUTER CONNECTION



tagging) and COS (Class Of Service) based on DiffServ priority tagging and queuing. A specific model supporting DES and 3DES encryption is also available.

The unit is designed for integration into demanding network environments and can be controlled by the complete set of network maintenance and management tools as they are described in section 2 of this catalogue. The Telindus 1030 Router series supports auto-install features over the WAN network. This makes it ideally suited for plug-and-play installation at customer premises while the configuration is prepared at a central site.

FEATURES & BENEFITS

- > PROFESSIONAL 10 MBPS WAN ROUTERS
- > AVAILABLE WITH SERIAL (X.21, V.35, V.36, RS530, RS530A) OR CHANNELISED E1 INTERFACES
- > 10/100 AUTO SENSE ETHERNET INTERFACE
- > IP ROUTING AND BRIDGING
- > CLASS OF SERVICE ROUTING
- > VLAN INTERCONNECT
- > ATM, FRAME RELAY AND PPP WAN ENCAPSULATION
- > BUILT-IN L2TP AND IPSEC* SECURITY
- > FULLY MANAGEABLE WITH A VARIETY OF TOOLS

- > OAM F5 loopback support (ITU-T I.610)
- > Supports up to 8 ATM PVCs
- > Supports ATM Forum Traffic Management 4.0 service types CBR and UBR

FRAME-RELAY

- > Encapsulation compliant with RFCs 1490, 2427
- > Support of multiple DLCI's (PVC)
- > CIR (Committed Information Rate) configurable per DLCI
- > EIR (Excess Information Rate) configurable per DLCI
- > Support of Inverse ARP over Frame-Relay for automatic gateway configuration
- > Support of LMI (revision 1 LMI, ANSI T1.617 and ITU-T)

PPP

- > Encapsulation compliant with RFCs 1661, 1662
- > IPCP (RFC 1332)
- > BCP (RFC 2878)
- > Support of CHAP authentication with MD5 hashing (RFC 1994)

IP ROUTING

- > IP (RFC 791)
- > ARP (RFC 826)
- > Static routing, RIP1 (RFC 1058), RIP2 with MD5 hashing and authentication (RFC 2453)
- > Router requirements (RFC 1812)
- > Standard and extended access filtering on LAN and WAN interfaces
- > NAT (Network Address Translation) with dynamic or static IP address conversion and PAT (Port Address Translation) (RFC 3022)
- > BOOTP/DHCP server, relay agent (RFC 2131, RFC 2132)
- > BOOTP client (RFC 951)
- > Numbered/unnumbered WAN Interface
- > DiffServ priority tagging and queuing (RFC 2474, RFC 2475)

- > L2TP tunneling (RFC 2661) on WAN and LAN interfaces
- > IPSec security (RFCs 2401-2411)*

BRIDGING

- > Bridging with spanning tree protocol (IEEE 802.1D)
- > VLAN interconnect (IEEE 802.1Q)
- > VLAN priority queuing (IEEE 802.1P)*
- > Integrated Routing and Bridging (IRB)

ROUTING AND BRIDGING PERFORMANCE

- > Full forwarding performance of 64byte packets at maximum line speed (2.3 or 4.6 Mbps)
- > Buffering: up to 4800 packets (64 bytes/packet)

MAINTENANCE AND MANAGEMENT SUPPORT

- > Local console (command line interface or interactive interface)
- > TELNET (command line interface or interactive interface) (RFC 854)
- > TMA (Telindus Maintenance Application)
- > HTTP web interface (RFC 2616)
- > TFTP configuration download (RFC1350)
- > PING (RFC 792)
- > SNMP MIB2 (RFC 1213), private MIB
- > Software flash download
- > TMA CLI stand-alone command line console software**
- > TMA for HP OV management integration in HP Openview**

* Not available in the first release
** Optional

MECHANICAL DATA (H X W X D)

- > 45 x 220 x 235 mm Weight: 800 g

POWER REQUIREMENTS

- > Input: Available with 230Vac EUR adapter and without adapter
- > Output: 9 Vdc, 500mA
- > External power adapters available for 48Vdc and 230 Vac
- > Max power dissipation for 230Vac adapter: 9W

SALES CODES

- > 177460 Telindus 1031 Router 230VAC (1x G.703)
- > 177463 Telindus 1032 Router 230VAC (2x G.703)
- > 177465 Telindus 1033 Router 230VAC (1x RS-530)

Units without power module and separate power adapters can be found in the sales codes quick reference section

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