PATTON ELECTRONICS COMPANY

PRODUCT QUICK REFERENCE

GoCard

Product Model	**2701 and 2701RC**		
Product Name	**E1/FE1 NTU and Converter**		
Product Manager	**Jose Ventura**	**Contact**	**jose@patton.com**

Who is the customer for this product?

The Patton NetLink 2701 Series terminates G.703/G.704 services located up to 1.6km from a Central Office, and converts from G.703/G.704 to V.35, X.21, and 10Base-T Ethernet interfaces. The Model 2701 is a solution targeted to any user or provider of E1 network services. These organizations include carriers, network service providers, and PTTs delivering voice and data services. In certain countries this NTU is provided as part of PTTs service package.

In countries where regulations permit, Enterprise Customers can purchase and install the NTU on their own from distributors and integrators who focus on wide area network and telecom connectivity.

Typical applications include:

Access for Point-to-Point Digital Leased Lines. Enabling the enterprise customer to cost effectively connect their routers, multiplexers, or PBXs to central or remote sites using G.703/G.704 services.

Dedicated Internet Access. An ISP uses E1 to deliver high speed Internet traffic from a Point-of-Presence (POP) to a customer premise. An NTU is used at each end of the link and converts the E1 to a serial interface format for use by a router or multiplexer.

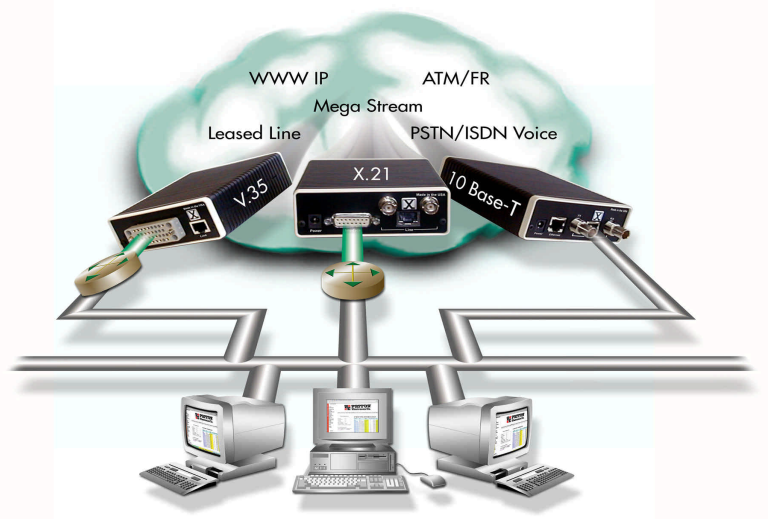
LAN-to-LAN Bridging - The Model 2701 Series Ethernet version, connects remote LANs using standardized E1 services. A 2701/I is placed at the remote location and another 2701/I, or a router, at a central location. MAC and PPP bridging in the 2701/I provide seamless LAN-to-LAN connection over the E1 network.

Model 2701 Series Features and Benefits

V.35, X.21/V.11, EIA-530, or 10Base-T	DTE Interfaces are presented in standard electrical and mechanical form... No adapter cables required.
AMI and HDB3 Coding; Network, Internal, and External clocking options	Flexible Network Features and ease of configuration.
Dual RJ-48C (120-Ohm) or BNC (75-Ohm) network connectors (X.21 and 10Base-T Versions)	Deploy anywhere in your network with confidence that you will have the right interface at the right time.
Built-in V.54 and V.52 compliant diagnostics	Ensure network reliability and troubleshoot installation problems on the spot.
Rack cards equipped with SNMP management	Complete control and configuration of your network
Choose from UI (100-240VAC), or 48VDC power options	Power supply options for any network installation.

Application – Multi-Service E1/FE1 Network Access

Customer lease E1 telco lines to connect central and remote sites in a Point-to-Point configuration, the 2701 connects to routers, multiplexers and PBXs to deliver voice and data using G.703/G.704 circuits.

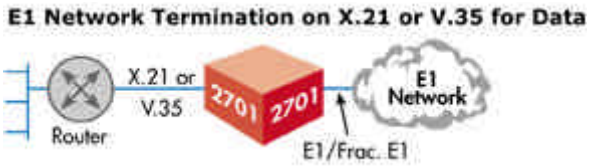


ISPs deliver high-speed Internet traffic to corporate customers using last mile E1 lines. At the customer premise the 2701 typically connects to a router's V.35 or X.21 interface.

In a LAN-to-LAN Bridging application, the 10Base-T port of a 2701/I (E1-EtherRocket) connects directly to a LAN switch at the remote office. At the main office, a router or another 2701/I provides PPP and MAC bridging for seamless LAN-to-LAN connections over the E1 network.

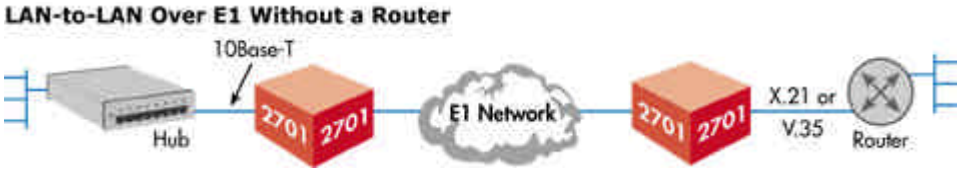
Enterprise

Customers lease E1 Telco lines to connect central and remote sites in Point-to-Point configuration, Internet, or switched packet (FR/ATM) applications. The 2701 easily connects to routers, multiplexers and PBXs to deliver voice and data using G.703/G.704 circuits. The Model 2701 is protocol transparent and will deliver ATM, FR, or PPP traffic over framed or unframed E1 lines.



Last Mile

Using Patton's Remote Router Porting ISPs deliver high-speed Internet traffic to corporate customers using last mile E1 lines. At the customer premise the 2701 typically connects to a router's V.35, X.21, or EIA-530 interface.



Wide Area Campus

Ethernet Extension over E1. In LAN-to-LAN Bridging applications, the 10Base-T port of a 2701/I (E1-EtherRocket) connects directly to a LAN switch at the remote office.

At a main office, a router or another 2701/I provide PPP and MAC bridging for a seamless LAN-to-LAN connection over the E1 network.

Telco

Terminate customer lease lines with Patton's rack-resident Model 2701RC or 2707RC NTUs.

Ordering Information

Model	Description
2701/B/ UI	G.703/G.704 NTU/Converter; EIA-530 (DB-25F) Interface; 100-240VAC Power Supply
2701/C/ UI	G.703/G.704 NTU/Converter; V.35 (M34F) Interface; 100-240VAC Power Supply
2701/D/UI	G.703/G.704 NTU/ Converter; X.21/V.11 (DB-15F) Interface; 100-240VAC Power Supply
2701/I/UI	G.703/G.704 NTU/Converter; 10Base-T Interface; 100-240VAC Power Supply
2701/B/48	G.703/G.704 NTU/Converter; EIA-530 (DB-25F) Interface; -48VDC Power Supply
2701/C /48	G.703/G.704 NTU/Converter; V.35 (M34F) Interface; -48VDC Power Supply
2701/D/48	G.703/G.704 NTU/Converter; X.21/V.11 (DB-15F) Interface; -48VDC Power Supply
2701/I/48	G.703/G.704 NTU/Converter; 10Base-T Interface; -48VDC Power Supply
2701RC/B/B	G.703/G.704 Rack Card NTU/Converter; EIA-530 (DB-25F) Interface
2701RC/A/I	G.703/G.704 Rack Card NTU/Converter; V.35 (M34F) Interface
2701RC/D/D	G.703/G.704 Rack Card NTU/Converter; X.21/V.11 (DB-15F) Interface, Dual BNC connectors
2701RC/D/V	G.703/G.704 Rack Card NTU/Converter; X.21/V.11 (DB-15F) Interface, RJ-45 connector
2701RC/C/IA	G.703G.704 Rack Card NTU/Converter; 10Base-T (RJ-45F) Interface, RJ-45 Connector

Optional parts

None, units are shipped complete with:

- 2701 or 2701RC Series unit
- User manual
- Power Supply and power cord (Standalone Units only)

Note: Rack cards operate in the 1001 Rack System with single or dual redundant power supplies. Option for local or SNMP Management via Patton's Models 1001CC and 1001MC proxy cards.

Replacement parts

Power supplies:
08055DCUI, Power supply 100-240VAC
48V-PSM, Power Supply 36-60VDC

User Manuals:
07M2701, Model 2701 User Manual
07M2701RC, Model 2701RC User Manual

Shipping/Export Information

ECCN export number: 8517.50.1000

Country of origin: United States of America, NAFTA

Total weight boxed: Standalone 1.6 lbs. (0.72 kg). **Rack Card** 0.62lbs. (0.28kg)

Individual unit: Standalone 1.0 lb. (0.45 kg). **Rack Card** 0.38lbs. (0.18kg)

MTBF/Repair Information

MTBF: **Standalone** 128,215 Hrs. Calculation based on MIL-HDBK-217F, Notice 2 "Parts Count Reliability Prediction"

Rack Card 128,215 Hrs. Calculation based on MIL-HDBK-217F, Notice 2 "Parts Count Reliability Prediction"

Mean time to repair (returns): 7-10 days

Warranty: 1-year parts and labor.

Out of warranty repair rate: $150, flat rate – contact Tech Support for details +(301) 975-1007 or e-mail support@patton.com

Physical Specifications

Dimensions: **Standalone** 5.84"L x 4.17"W x 1.50"H (14.84L x 10.6W x 3.84H cm)

Rack Card 3.5"L x 2.1"W x 0.78'H (9.0L x 5.3W x 2.0H cm)

Color: **Standalone** Case: black. Lexan front panel: black with white lettering. Rear panel: black with white silkscreen.

Rack Card white front and rear metal panels with black lettering

Case: **Standalone** Plastic, Fire retardant.

Rack Card No case

Interfaces and Connectors

Model	Terminal Interface	Connector Type	DCE/DTE	E1 Network Connector
2701/C	V.35	M34F	DCE	RJ-48C
2701/B	EIA-530	DB-25F	DCE	RJ-48C
2701/D	X.21/V.11	DB-15F	DCE/DTE Selectable	RJ-48C & Dual BNC
2701/I	10Base-T	RJ-45F	DTE	RJ-48C & Dual BNC
2701RC/A/I	V.35	M34F	DCE	RJ-48C
2701RC/B/B	EIA-530	DB-25F	DCE	RJ-48C
2701RC/D/V	X.21	DB-15F	DCE/DTE Selectable	RJ-48C
2701RC/D/D	X.21	DB-15F	DCE/DTE Selectable	Dual BNC
2701RC/C/IA	10Base-T	RJ-45F	DTE	RJ-48C

Environmental

Operating Temp: 32 to 122°F (0 to 50°C)

Storage Temp: -13 to 185°F (-25 to +85°C)

Relative Humidity: 5 to 95% RH, non-condensing

Altitude: 0–15000 feet (3,048 meters)

Ventilation requirements: None. Units do not require cooling fans.

Approvals

Safety	Emissions	Telecommunications
CE Marked per EMC directive 89/336/EEC and low voltage directive 72/23/EEC. ESD EN61000-4-2 EN60950 TS001 Australian Safety	FCC part 15, Class A EN55022 Class A, conducted and radiated emissions	CTR-12, CTR13, G.703, G.704/G.723, G.832. TS016 Australian Telecom

Power Supplies

Standalone :

AC: 120VAC, 230VAC, or 100-240VAC, 50-60Hz

DC: -48VDC (36-60VDC)

Rack Card:

Powered Internally by 1001-rack power bus. Rack comes with options for 100-240VAC or –48VDC