

## E1 Access Series ETU04



### 4E1 Inverse Multiplexer

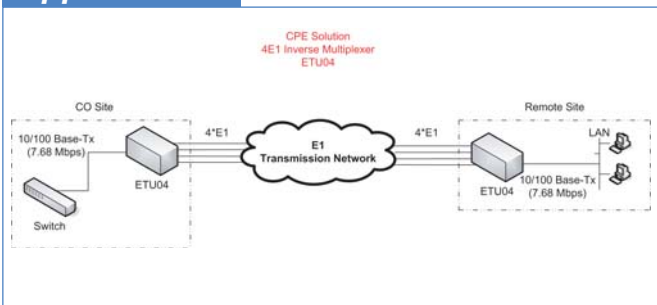
The ETU04 is an inverse E1 multiplexer that will multi-link up to 4 E1 lines and offers simple, cost-effective connection between E1 service and 10/100BaseT LANs. The ETU04 inverse multiplexer transmits a 7.68Mbps Ethernet bridge channel over 4 E1 links. The ETU04 bridges the gap between E1 and E3, allowing bridges to operate at faster rates. It also provides high speed access to SDH/SONET backbones where the only access service available is E1 lines. The ETU04 supports 4\*2.048Kbps G.703 E1 lines, for a line attenuation of up to 43 dB on twisted pair or coax cable.

This provides an approximate operating range up to 2km (using 22AWG). The ETU04 fully meets E1 specifications including ITU-T G.703 and G.823. The ETU04 features diagnostic capabilities for performing remote loopback. The operator at either end of the line may test both the ETU04 and the line in the digital loopback mode. The Ethernet interface supports auto-negotiation, allowing plug-and-play Ethernet connection without any additional configuration.

### Features

- Ethernet over 4 E1
- Allows maximum of 8ms delay variance between E1 links, the system will automatically shut-down a link when the delay value is over-range
- Built-in bridge operating at Fast Ethernet rates
- Provides alarm indication output
- Supports data rates from 1.92Mbps to 7.68Mbps
- Unbalanced E1 I/F (BNC) complies with ITU-T G.703, G.704, and G.823 Balun available for balanced E1
- Link compatible with ERM04

### Application



### Specifications

E1 interface		
Frame format	Unframed (Transparent)	
Bit rate	2.048Mbps ±50ppm (up to 4 E1s)	
Line Code	Line code HDB3	
Receive sensitivity level	-43dB	
Line Impedance	Unbalanced 75 Ohms ±5%	
Jitter Performance	Complies with ITU-T G.823	
Pulse amplitude	Nominal 2.37V ±10%	
Delay Variance	8 ms (maximum)	
Connector	BNC pairs	
Ethernet Interface		
Data Rate	10/ 100Mbps; Half Duplex 20/ 200Mbps; Full duplex	
Throughput	1E1 channel 320 frame/sec 2E1 channels 632 frame/sec 3E1s channel 942 frame/sec 4E1 channels 1262 frame/sec	
Automatic aging duration	5 — 10 minutes	
MAC address	1024	
Delay	1 frame	
Connector	Shielded RJ-45	
General Specification		
Standard	IEEE 802.3U	
Power	AC	90 — 250VAC
	DC	-48 (-40 — -57VDC)
Environment	Temperature	0 — 50°C (Operating);
		0 — 70°C (Storage)
	Humidity	0 — 90% non condensing
Power Consumption	10W	
LEDs	PWR, LOS(A~D), LOF(A~D), CRC, TMO, LINK, TX, RX, LOOP	
Dimensions(WxDxH)	195mm x 235mm x 45mm	
Weight	1.5kg	
Surge Protection	DC Sparkover Voltage: 230±0% Impulse	
Compliance	ITU G.703, G.704, G.706, G.732, G.823	
MTBF	TBA	

### Ordering Info

ETU04-AC	4 E1 lines to 10/100Mbps with AC power input
ETU04-DC	4 E1 lines to 10/100Mbps with DC power input