

E1/T1 Series G703FTEC



Stand-Alone E1/T1 Cross-Rate Converter

The G703-FTEC is a T1 (US Standard) /E1 (European Standard) converter and timeslot cross connect which enables conversion between one T1 signal and one E1 signal. T1 and E1 signals with frames employ u-Law and A-Law compander encoding principles respectively and encode those analog signals into 64kbits digital data. Tests and diagnostics can easily be performed from the front panel pushbutton switches. Diagnostics include T1 local/remote and E1 local/remote loop back. The T1 interface supports D4 or ESF frame formats with B8ZS or AMI line code. The E1 interface supports CCS (PCM31) or CAS (PCM30) frames without CRC-4 and frames with CRC-4.

The line code is HDB3. Multiple clock source selection provides maximum flexibility in connecting both T1 and E1. The clock source may be from the T1 recovery clock, from the E1 recovery clock, from the internal oscillator, from an external clock or via transparent timing. The unit is built in a compact case that can be placed on a desktop, shelf or installed, by means of an optional adapter, in a 19 inch EIA rack. All setup controls can be performed via internal DIP switch settings or via the RS-232 console port and ASCII terminal.

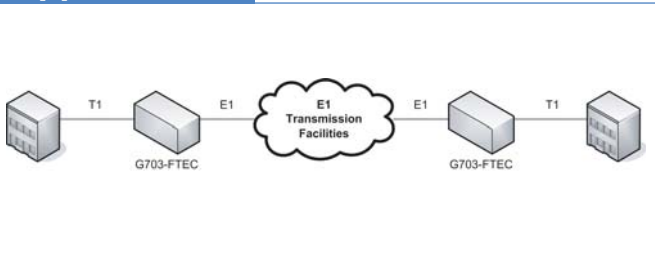
Features

- Converts between T1 and E1 data and signaling
- Configurable A-law/ u-law and signaling conversion
- Controlled slip for buffer over/underflow
- Enables equipment to operate at T1 and E1 rates
- Function setting via internal DIP switch setting or console port (RS-232 Async.)
- Local/remote loopback test capabilities on both T1 and E1 interface
- Signaling version: MFC R2
- Support G.802 Annex B
- The 24 timeslots of T1(nx64) can be inserted into E1(nx64), 30/CAS or 31/CCS timeslots
- Enables equipment to operate at T1 and E1 rates

Specifications

E1 Link		
Bit Rate	2.048Mbps ± 50ppm	
Framing	Unframed, CCS, CAS	
Connectors	BNC pairs, RJ-45	
Line Code	HDB3	
Line Impedance	Unbalanced 75 Ohms ±5%; balanced 120ohms ±5%	
Pulse Amplitude	Nominal 2.37V ±10% Nominal 3.00V ±10% @ 120ohms	
Zero Amplitude	±0.1V	
Receive Level	-43dB	
Jitter Performance	Complies with ITU-T G.823	
Pulse Mask	Complies with ITU-T G.703	
Delay Variance	8ms (maximum)	
T1 Link		
Bit Rate	1.544Mbps	
Framing	D4 or ESF selectable	
Connectors	RJ-45	
Line Code	AMI or B8ZS selectable	
Line Impedance	100 ohms balanced	
Equalization	0 — 655 feet settable	
CRC check	CRC-6 (when ESF)	
Receive Level	0 to -10dB	
Transmit pulse level	3.0V (±10%) B20	
General Specification		
Power	AC	90 — 250VAC input power
	DC	-48 VDC (-36 — -72)
Environment	Temperature	0 — 50°C (Operating); 0 — 70°C (Storage)
	Humidity	0 — 90% non condensing
	Power Consumption	20W
LEDs	System	PWR, FAIL
	T1 and E1	SIG LOSS, SYNC, BPV, AIS, YELLOW ALARM & TEST
Dimensions(WxDxH)	480mm x 330mm x 180 mm	
Weight	1.5kg	
Compliance	ITU-T G.703, G.704, G.823, G.824, ANSI T1.403 recommendations	

Application



Ordering Info

G703FTEC-AC/110	Fractional E1/T1 timeslot crossrate-convert with 90 — 250VAC power supply
G703FTEC-DC	Fractional E1/T1 timeslot crossrate-convert with -48 VDC power supply (-36 — -76 VDC)
G703FTEC-DC/+24	Fractional E1/T1 timeslot crossrate-convert with +24 VDC power supply (18 — 36 VDC)