

# E1 FAMILY

## G703 E1 Pack

### Single Port E1 and Fractional E1 Access Unit

E1/T1 DSU/CSU  
E1 FAMILY

The **G.703 E1-U/ FE1/ FE1-A Access Units** are single port access units for Unframed E1 or Fractional E1 services. Data Port rates are selectable via DIP-switches, for any multiple of 64Kbps up to 2048kbps (Fractional models only). User data is placed into the E1 frame, using only the required number of timeslots. Timeslot assignment is accomplished according to the Data Port speed and is selected by DIP-switches. The main E1 link may be clocked from the recovered receive clock (LBT), from the data port, or from an internal oscillator. The data channel interface is RS-530 standard. Adapter cables are available for V.35, X.21 and RS-449. The **G.703 E1-U/FE1/ FE1-A's** DIP and slide switches, located on the side and front panels, provide for easy setup and control of all functions.

The **G.703/FE1-A** model may be cascaded as an E1 Multiplexer. The unused channel timeslots will pass through E1/Rx to E1/Tx.

#### Features

- LTU (Line Terminating Unit) built in unit.
- Single port access to E1 & Fractional E1 services.
- Interface conversion between G.703 and RS-530, RS-449 (V.36), X.21 or V.35.
- Data rate: DIP selectable sync Nx64Kbps to 2048Kbps. (FE1 and FE1-A only)
- Fully transparent signal conversion under unframed mode (2048Kbps).
- Clock Regeneration from incoming HDB3 data.
- Diagnostic Loopbacks both for G.703 and Data Port sides.
- All 1's monitor.
- Decoded data in NRZ form.
- Power: AC 110/230V 50/60Hz adapter to DC 9V
- Temp. range: 0° C to 50° C
- Humidity: 10% to 90% relative humidity, noncondensing.
- Dimensions: 19.2cm (L) x 10cm (W) x 2.4cm (H)
- Weight: 400g net

#### G.703 Interface Specifications

- **Type** Bidirectional (E1) 2048kbps.
- **Line** 4wire, 26-16AWG.
- **Range** Up to 1500 meter, 24AWG or better.
- **Impedance** RJ-45 120 ohm (balanced). BNC 75 ohm (unbalanced).
- **"Pulse" amplitude** 2.37V nominal for BNC, 75 ohm. 3.00V nominal for RJ-45, 120 ohm.
- **"Zero" amplitude** ±0.1V max.
- **Clock freq.** 2.048 MHz.
- **Freq. Tracking** ±50ppm.
- **Jitter** Complies with ITU-T G.823
- **Connector** RJ-45 or BNC.
- **Complies with** ITU G.703, G.704, G.706 and G.823.
- **Frame format** CAS/CCS, Unframe/Frame.
- **CRC check** CRC-4 enable/ disable.
- **Line code** HDB3.

#### Application



G703E1-U (Unframed)



G703FE1/FE1-A

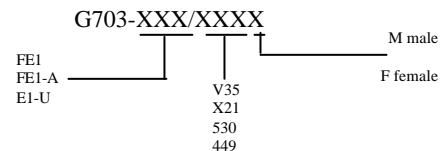
#### Data Port Interface Specifications

- **Type** RS-530/DB25 Standard or V.35, RS-449(V.36) or X.21 with adapter cable.
- **Data rate** 64kbps to 2.048Mbps.
- **Connector** DB25/F with adapter cable.
- **Line code** NRZ

#### LED Indicators

- **DTE** (green LED) Data port set to DTE mode.
- **DCE** (green LED) Data port set to DCE mode.
- **TD** (yellow LED) Transmit data.
- **RD** (yellow LED) Receive data.
- **TEST** (red LED) Loopback test mode.
- **ALARM** (red LED) Data loss, sync loss or Frame loss.
- **T-Clk Loss** (red LED) Transmit clock loss.
- **R-Clk Loss** (red LED) Receive signal loss.

#### Ordering Information



FE1	Fractional E1 (Nx64kbps).
FE1-A	Fractional E1, supports cascaded mode.
E1-U	E1, unframed only (2048kbps).

Optional Cable	
V35	DB25-V35 Cable.
X21	DB25-DB15 Cable.
530	DB25-DB25 Cable.
449	DB25-DB37 Cable.

\*Do not to forget to order the required cable for the dataport of your equipment.