



# ESU LT

## Full-Featured E1/FE1 DSU/CSU

### Product Features

- Single DB-25 DTE interface supporting V.35, V.36, X.21/V.11 or EIA-530
- Nx56 or Nx64 operation for data rates to 2.048 Mbps
- G.704 framing support
- HDB3 line coding
- Front-panel LCD for configuration and monitoring
- PC-based configuration support via T-Watch PRO™ software
- Remote ESU LT configuration via 8k in-band and T-Watch PRO software
- Local and remote loopback capability

The ADTRAN ESU LT is a low-cost, full-featured E1/FE1 data service unit/channel service unit (DSU/CSU). The ESU LT provides an interface between E1 or Fractional E1 service and the end user's data terminal equipment (DTE) for applications such as LAN-to-LAN bridging, Frame Relay circuit termination, and video-conferencing. The ESU LT provides access to traditional dedicated point-to-point E1 services as well as network termination for Frame Relay.

Housed in a compact, durable plastic housing, the ESU LT supports synchronous data rates from 56 kbps to 2.048 Mbps at Nx56 or Nx64 kbps. A single DB-25 DTE physical interface, supporting V.35, V.36, X.21/V.11 or EIA-530, provides a connection to the end user's DTE equipment. Adapter cables are available.

For configuration and testing, the ESU LT provides the capability to control a remote ESU LT using 8 kbps of the data traffic. The

in-band control channel is used on an as-needed basis and is automatically controlled by the ESU LT.

The ESU LT responds to standard local and remote loopback commands from the telephone company central office. In addition, the user has several built-in test capabilities including V.54 remote loopback and 511 BERT test patterns. Complete configuration and performance data is available from the front panel keypad and two-line by 16-character LCD display. For additional configuration and monitoring options, the ESU LT supports VT100 terminal configuration and control mode which is available through the control port. For direct serial connections or for remote devices, optional Windows-based PC management is available through the comprehensive, easy-to-use T-Watch PRO software package.



## Full-Featured E1/FE1 DSU/CSU

### Product Specifications

#### Network Interface

- **Line Rate:** E1/FE1 (2.048 Mbps)
- **Electrical:** G.703
- **Physical Interface:** 120 ohm DB-15
- **Framing:** G.704
- **Line Code:** HDB3
- **Input Signal:** 0 to -30 dB
- **E1 Transmit Timing:** Loop timed, internal, DTE

#### DTE Interface

- **Data Rate:** Nx56 or Nx64 kbps (N=1 to 30)

#### Electrical and Mechanical

- **Electrical:** V.35, V.36, X.21/V.11 or EIA-530
- **Physical Interface:** DB-25 connector
- **TS0 Assignment:** User selectable
- **DTE Transmit Clock:** Automatic

#### Management

##### Control In / Control Out Ports

- **Interface:** EIA-232, PC serial port or modem
- **Physical Connector:** RJ-45, modular 8-pin
- VT100 terminal configuration and control
- Optional Windows-based PC management via T-Watch PRO™ software package

#### Testing and Troubleshooting

##### Loopbacks

- NI line, NI payload, and DTE bi-directional loopback
- **Local:** Payload/line loopback, DTE loopback
- **Remote:** Payload/line loopback, V.54 (DTE) loopback
- **Network:** CSU and DSU loopbacks
- Test pattern generator and detector
- QRSS and 511 (selectable TS0s)
- All 0s and all 1s (transmit only)

##### Performance Monitoring

- Performance statistics based on G.821
- **Reports:** NI information stored for last 24 hours (15-minute increments)

#### Environment

- **Operating Temperature:** 0° to 50°C, (32° to 122°F)
- **Storage Temperature:** -20° to 70°C, (-4 to 158°F)
- **Relative Humidity:** Up to 95%, noncondensing

#### Physical

- **Dimensions:** 3.81cm (1.5") H, 15.88cm (6.25") D, 22.86cm (9.0") W
- **Weight:** .91kg (2 lbs)
- **Power:** 90-250 vAC, 50/60Hz

#### Agency Approvals

- UL 1950, IEC 950, CISPR 22, FCC Part 15 (Class A), and CE Mark

#### Product Includes

- DB-15 to BNC adapter,
- 8-pin to 8-pin modular cable
- Modular to female DB-25 adapter
- User manual

### Ordering Information

Equipment	Part #
ESU LT	1200410L1
V.35 Female Adapter Cable	1200285L1
X.21/V.11 Adapter Cable	1200282L1



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