T1 ESF CSU ACE

Stand Alone and Smart 16 T1 Network Facility Interface

Product Features

- Provides T1 facility interface and jitter tolerance per ANSI T1.403, T1.102 and AT&T TR 62411
- Supports B8ZS or AMI formats
- Conversion for signal formats and line coding
- Transmits unframed "All 1's" during signal loss from DTE or T1 Network
- Front Panel LCD and 4 button keypad (ACE)
- Equipment line build-out configuration 0-655 feet
- Standalone ACE package or Smart 16 single slot card
- Supports Performance Report Messages of ANSI T1.403 and AT&T 54016 maintenance messages
- Industry-leading five-year North American warranty

The ADTRAN® T1 ESF CSU™ is a full-featured T1 Channel Service Unit used to connect T1 data terminal equipment (DTE) such as a PBX, switch or channel bank to T1 facilities. Capable of interfacing to both B8ZS or AMI circuits, the T1 ESF CSU can convert signal formats or line code to integrate older equipment. The ESF CSU is designed to provide alarms, loopbacks, signal regeneration, line build-out, and surge protection, while maintaining 1's density for the DTE and T1 network.

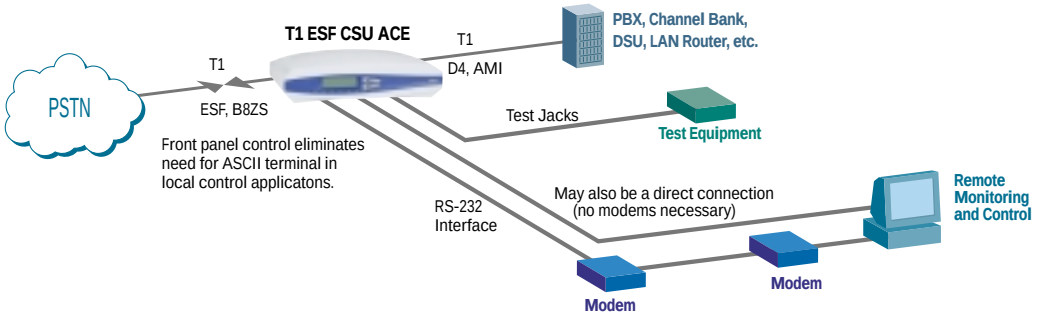
The T1 ESF CSU ACE is suitable for wall- or rackmounting or desktop use, while the T1 ESF CSU Smart 16 Card occupies a single slot in the rackmount ADTRAN Smart 16 shelf. The stand-alone models provide a front panel LCD, four user keys on the front of the ACE, and provides easy configuration and unit monitoring from the front panel. The ESF CSU provides an EIA-232 port (DB-9) for provisioning through a VT100 interface. The Smart 16 ESF CSU card can be controlled from the shelf controller through a VT100 interface or the optional Datamate™. For SNMP management, the Smart 16 ESF CSU card is supported by the Smart 16e controller and the ADVISION software package.

The T1 ESF CSU provides a T1 network interface and a DSX-1 DTE connection through modular RJ48C jacks. For testing purposes, the T1 ESF CSU is capable of initiating several built-in local and remote loopback tests and conducting stress testing of the network with built-in test patterns. For more extensive network testing, the unit uses bantam jack access for external test equipment. To aid with circuit monitoring, the T1 ESF CSU gathers AT&T maintenance information in 15 minute intervals for 24 hours, which is fully accessible over the FDL or via the Smart 16 controller.

Remote configuration is made simple by using the FDL channel for the standalone ACE or the Smart 16 controller interface for the rackmount version. Using the remote configuration capability of the T1 ESF CSU enables central site control and setup for ADTRAN T1 CSUs or TSU devices.

The standalone ACE includes an auto-ranging 12-48V internal DC power supply and wallmount AC power supply. The L2 version adds a terminal block for easier connection to an external DC supply.

For additional T1 applications, ADTRAN provides several T1 DSU/CSUs and T1 Multiplexers for combining traditional DSX-1 functionality with additional DTE ports. The TSU 100e™, TSU 120e™ and TSU 600e™ are modular T1 DSU/CSUs with embedded SNMP and are capable of supporting a single DSX-1 interface and up to 22 DTE interfaces for data or video applications.



T1 ESF CSU ACE

Stand Alone and Smart 16 T1 Network Facility Interface

Product Specifications

Network Interface

Line Rate
- T1/FT1 (1.544 Mbps)

Physical Interface
- **RJ48C:** 8-Pin Modular

Specifications
- ANSI T1.403, AT&T TR62411

Framing
- SF/ESF

Line Code
- AMI/B8ZS

ESF Format
- ANSI T1.403, AT&T 54016

Input Signal
- 0 to -36dB

Transmission Type
- **Regenerative transparent:** Network & DTE

User Testing

Local
- Payload/Line (NI), DTE (T1)

Remote
- Payload/Line (NI)

Test Patterns
- 1:8, All 0's, All 1's

Performance Monitoring

Performance Data
- BPVs/CRCs, ES, SES, UAS, %AS, %EF SEC
- Alarms, Error Rates

Reports
- NI information stored 24 hrs, every 15 min.

PRMS
- ANSI Performance Report
- Messages (User Selectable)

Equipment Interface

Compliance
- ANSI T1.403, AT&T 62411

Receiver Performance
- Line Build-out for 0-655 ft.

Keep Alive Signal
- Unframed/framed "All 1's" loss of DTE signal

User Options

Mounting
- Desktop or Wallmount (ACE)
- Single Slot in ADTRAN Smart 16 Chassis

Bantam Jacks
- Test Signal access to Network & DTE
- **Non-interrupt signal receive:** Network & DTE

LED Indicators (ACE)
- Power
- Alarms
- Errors
- Loopback

LED Indicators (SM 16)
- Status
- Net. & Eq. LOS
- Net. & Eq. AIS
- Net. & Eq. OOF
- Net. & Eq. Yellow Alarm
- Test
- Net. & Eq. Code Violation

Compliance
- FCC part 15, Class A, Part 68, Industry Canada CS03, UL 1459, CUL

Environment

Operating
- 0° to 50°C (32° to 122°F)

Storage
- -20° to 70°C (-4° to 158°F)

Relative Humidity
- Up to 95%, non-condensing

Dimensions
- ACE: 2" H x 6.5" D x 9.3" W
- Smart 16 Card: Standard ADTRAN SM 16

Weight
- 1 lb.

Power
- **ACE:** 12-48 VDC, 2.5W (via AC wall adapter)
- **ACE (L2):** Provides terminal block for DC power
- **Smart 16 Card:** From Smart 16 Chassis

Product includes
- Manual, T1 Loopback Test Adapter, and RJ45 Cable
- ACE includes AC wallmount power supply

Ordering Information

Equipment	Part #
T1 ESF CSU ACE	1204025L1
T1 ESF CSU ACE (DC)	1204025L2
T1 ESF CSU Smart 16 Rackmount Card	1202066L1
Accessories	
HRM-1MA Shelf	1200411L1
VRM-7MA Shelf	1200417L1
Spare AC Power Supply	1903022L1

Pulse Supply
909 Ridgebrook
Road.,Sparks,Maryland 21152,USA
TEL : +1-410-583-1701
FAX : +1-410-583-1704

E-mail: sales@pulsesupply.com
https://www.pulsesupply.com/adtran

ADTRAN is an ISO 9001: 2000 certified supplier.

ADTRAN is a TL 9000 3.0 certified supplier.

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