SNMP-Managed T1/FT1 CSU/DSU Data Set Emulator

Highlights

- Supports T1 and fractional T1 data rates from 1536 kbps (64 kbps x 24 DS0s) down to 56 kbps (56 kbps x 1 DS0).
- Communicates with an SNMP controller via a SpectraComm Manager (SCM) card co-located in the shelf.
- Supports comprehensive, non intrusive network management under Simple Network Management Protocol (SNMP), for configuration, alarm reporting, and diagnostic testing capabilities.
- Supports terminal interface via the SCM by an ASCII terminal or by Telnet access.
- Hardware selectable DTE interface conforms to either ITU-T V.35 or EIA-530.
- Compatible with remote SC553 DSUs or NMS 553 DSUs for transmission and reception of user data.
- Stores two versions of operating firmware, with user control of switchover between active and standby firmware versions
- Supports firmware download via TFTP for upgrades.

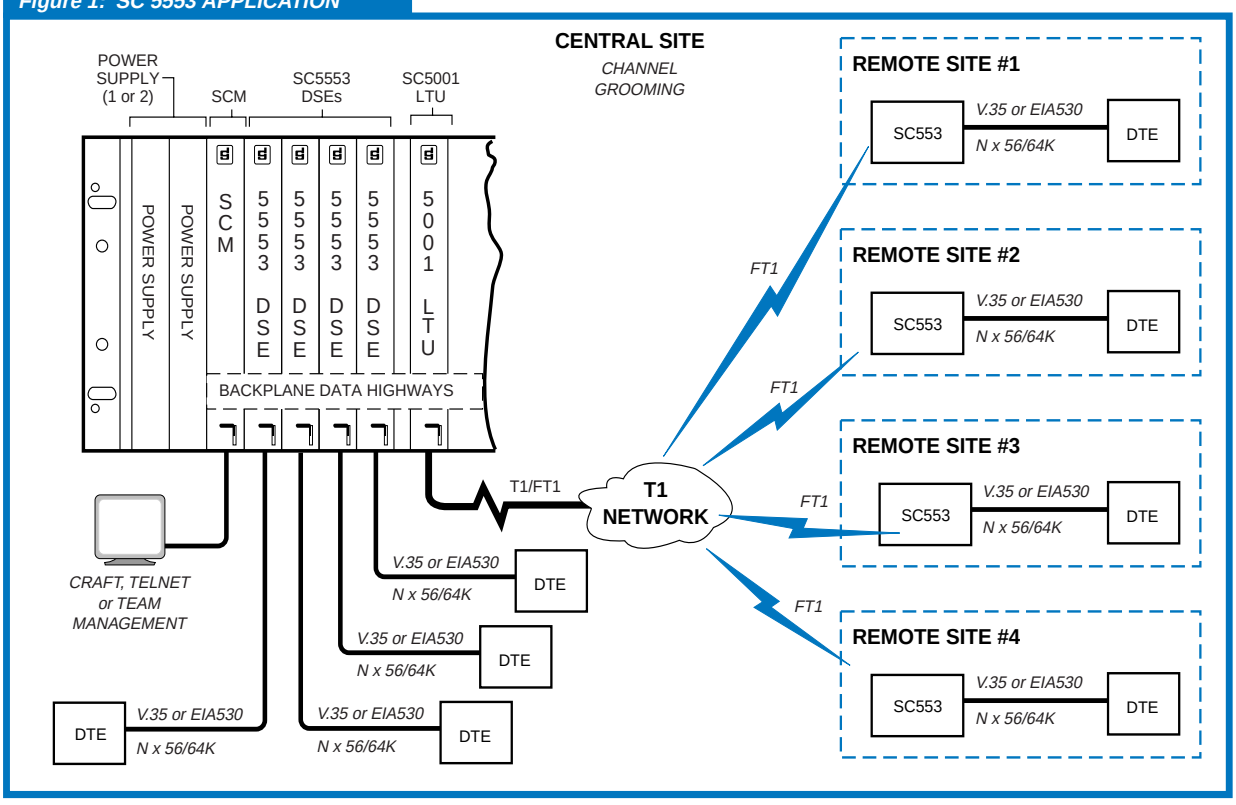
Overview

The SC5553 DSE provides the channel interface functionality of a fractional T1 DSU and works in conjunction with the SC5001 LTU to consolidate traffic between a user-owned central data communication site and a Telco central switching office. This system performs the line grooming necessary for the switching office to separate the signal back into its component parts for transmission to multiple locations *(Figure 1)*.

The SC5553 DSE interfaces DTE data to the shelf backplane at any rate from 56 kbps to 1536 kbps, using as many time slots on the backplane data highway as the selected rate requires (e.g., one timeslot for a 56 or 64 kbps channel, up to 24 timeslots for a 1536 kbps channel). Each timeslot on the backplane data highway is equivalent to one DS0 on a T1 line. The LTU provides the T1 line interface, and supports up to 24 DSEs co-located in a dual SpectraComm shelf. The DSEs and LTU exchange channel data via one of four data highways in the shelf backplane.

As part of the SpectraComm family, the SC5553 conforms to GDC's SpectraComm shelf/enclosure systems. It supports an optional EIA530 interface plug-in, and is compatible with remote SC553 and NMS553 DSUs.

Figure 1: SC 5553 APPLICATION



General DataComm
The Best Connections in the Business

SpectraComm 5553

SC5553 Physical Specifications

Single-slot Blade

Width: 178 mm (7.0 in)
Height: 21 mm (0.81 in)
Depth 241 mm (9.5 in)
Weight: 0.28 kg (10 oz)

Environmental Specifications

Non-Operating

Temperature: -40 to 85 degrees C (-40 to 185 degrees F)
Relative Humidity: 5% to 95%
Altitude: 0 to 12,191 m (40,000 ft)

Operating

Temperature: 0 to 50 degrees C (32 to 122 degrees F)
(Derate by 1 deg C/1000 ft above sea level)
Relative Humidity: 5% - 95% non-condensing
Altitude: 0 to 3,047 m (0 to 10,000 ft)

Electrical Characteristics

Power (AC or DC), voltage, frequency, and fusing determined by your SpectraComm shelf or enclosure

Power Dissipation: 4 Wattsmaximum

Compliance

Safety: UL Approved

NEBS Level III Certified

EMI: FCC Part 15 Approved

Quality Assurance: ISO 9001: 2000 Certified

Operational Specifications

Mode of Operation

N x 56 kbps or N x 64 kbps Point-to-point

Signal Format

Serial, synchronous

Data Rate

Synchronous 56 kbps to 2048 kbps

DTE Interface

ITU-T V.35 or EIA-530 (jumper-selectable on card)

Transmit Timing

Shelf (Receive) or external (DTE)
(can accept external clock up to ±0.02%)

Diagnostic Tests

Local Test

Remote Loop

Data Loop

Self-Test.

Alarm Reporting

EEPROM Checksum failure

RXD No Transitions

Front Panel Test

DCD Loss TXD

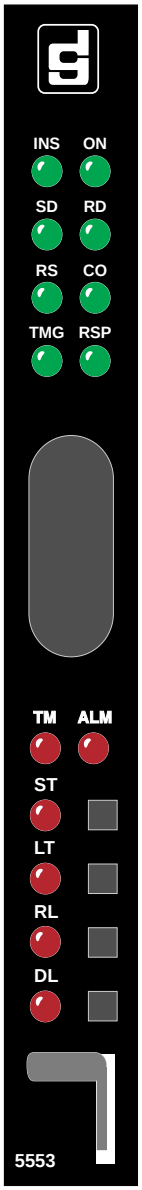
No Transitions DSR Loss

Timing (Shelf) loss

DTR Loss DTR Loss

TxC (Ext. Clock) loss

DTE Test



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