General DataComm

DeskTop 554S

AN SNMP-MANAGED T1/FT1 CSU/DSU

OVERVIEW The DeskTop 554S (DT 554S) is a single channel, SNMP manageable CSU/DSU that provides economical, advanced network access at full T1 or fractional T1 (FT1) rates in an attractive, compact package. It features an onboard SNMP agent that allows assignment of an individual IP address to the unit. Direct SNMP communications can then be established with any SNMP manager via a PPP (Point-to-Point Protocol) or SLIP (Serial Link Interface Protocol) interface.

The DT 554S is an excellent choice for branch office environments or for central sites requiring high speed access plus standards-based network management. DT 554S units can also be used at any or all remote sites along with a central site SpectraComm 5000 System for cost-effective, integrated T1/FT1 networks.

FLEXIBLE, HIGH SPEED ACCESS When your application has outgrown 56 Kbps, the DT 554S is the answer. It supplies bandwidth as high as 1.544 Mbps for remote LAN access and Internet service provisioning, while saving on equipment costs. And its V.35 or optional EIA-530 interface interconnects LAN routers, T1 multiplexers, videoconferencing, CAD/CAM and medical imaging equipment over today's more attractively priced FT1 services.

SERVICE COMPATIBILITY The DT 554S operates at all N x 56/64 Kbps rates from 56 Kbps to 1.536 Mbps (where N=1 to 24) and at 1.536 Mbps in framed, or

1.544 Mbps in unframed, modes. It supports D4 framing,, both the ANSI and AT&T 54016 versions of Extended Superframe (ESF), and AMI and B8ZS (clear channel) line coding, to ensure compatibility with the latest digital services. In addition, the DT 554S complies with the AT&T 54019A specification for FT1 transmission — a requirement for access to Frame Relay services.
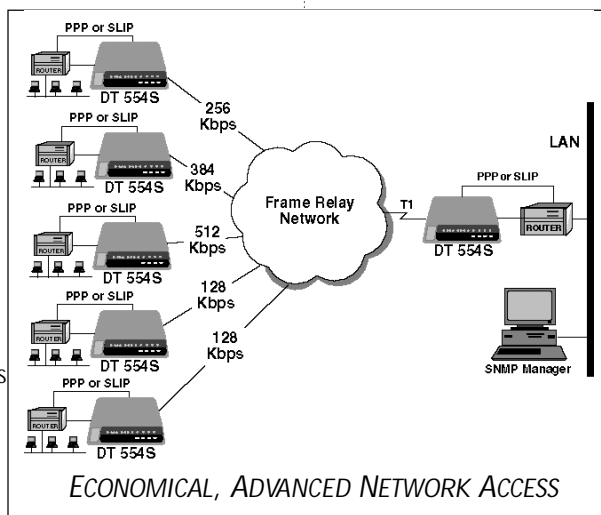
SNMP MANAGEMENT The DT 554S incorporates an SNMP version 1.0 compliant protocol agent, allowing direct access to local and remote CSU/DSUs for diagnostics, configuration and performance. Once an IP address is assigned (via a VT-100 type terminal connected to the management port), the DT 554S can be managed by any SNMP manager through a MIB (Management Information Base) browser or customer developed application software. MIBs are available in support of application software initiation. Additionally, users can Telnet into the DT 554S independently of, or in conjunction with, any LAN-based controller.

SNMP communications between the DT 554S and the manager are over a standard PPP or SLIP connection to a router, terminal server or SNMP workstation. SNMP traps can be sent to as many as four separate SNMP managers. The DT 554S supports both GDC enterprise MIBs and standard MIBs (RFC 1213 and RFC 1406).

ECONOMICAL, ADVANCED NETWORK ACCESS

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I.S. EN ISO 9001

EASY INSTALLATION The DT 554S simplifies both initial installation and any future reconfiguration. Two versions of firmware can be downline loaded to the unit using TFTP (Trivial File Transmission Protocol) and the alternate version remotely selected if the first does not work in a particular application. The unit's management port allows for soft-optioning and status monitoring via a VT-100 terminal using simple, text-based screens. An array of LEDs and front panel controlled tests quickly verify equipment operation, as well as identifying signal status and alarm conditions. To make things even easier, the DT 554S automates both Line Build-Out (LBO) and framing format selection.

POWERFUL DIAGNOSTICS The DT 554S supports powerful diagnostic tests, including a full comple-ment of loopbacks, to isolate and quickly resolve system faults. Testing of the T1 aggregate circuit, bundled channels, and data terminal equipment (DTE) can be initiated via the SNMP manager, a Telnet session, the VT-100 interface, or convenient front panel switches. The DT 554S even has a built-in test pattern generator/error detector to minimize the need for external test equipment. For added flexibility, selections can be made from multiple test patterns, including QRSS (Quasi-Random Signal Source) to stress test the T1 link, as well as ITU-T 511 and 2047 for data channel testing. DTE EIA status reporting and a series of reported alarms are available for troubleshooting. In addition, ESF registers provide the carrier with in-service statistics to help monitor the overall performance of the network.

SPECIFICATIONS

Compatibility:	Fully compliant with ANSI T1.403, AT&T TR6241 and AT&T TR54016
Data Rates:	N x 64 Kbps or N x 56 Kbps where N = 1 to 24; up to 1.536 Mbps framed or 1.544 Mbps unframed
Data Encoding:	Bipolar, return to zero (AMI or B8ZS)
Frequency:	1.544 Mbps ± 50 bps
Framing:	D4, AT&T 54016 ESF, ANSI T1.403 ESF, unframed
Network Interface:	1.544 Mbps channelized DS1 in consecutive or alternate DS0s or field selectable DSX-1
DTE Ports:	One
DTE Interfaces:	ITU-T V.35 or optional EIA-530
Timing Options:	Internal clock; DTE external clock; slave timing (received loopback timing)
SNMP Compatibility:	Fully compliant with SNMP version 1 RFC 1213 MIB II and RFC 1406 DS1 MIB Enterprise MIB for DT 554S Traps: supported: loss of signal, loss of frame, alarm indication signal, received yellow, unavailable signal state, low average density, bipolar violations, CRC error, configuration error, power up, TFTP fail and Firmware Load Failure
Diagnostics:	Digital Loop, Line Loop, Local Test, Remote Test, Self Test (QRSS, 3:24, Prog 16Bit 2047, 511), Local Test with Self Test and Remote test with Self Test, NI Loop
LAN Interfaces:	PPP and SLIP, integral to unit
Network Manager:	SUN, HP, or Netview workstation; Telnet screens, VT-100 craft interface; TFTP downloading
Power Requirements:	99 -129 VAC, 50/60 Hz, 20 W maximum
Physical and Environmental	
Dimensions:	36 mm (1.4 in) H X 188 mm (7.4 in) W X 279 mm (11.0 in) D
Weight:	45 kg (1.0 lb.)
Shipping Weight:	0.9 kg (2 lb.)
Temperature:	0° to 50° C (32° to 122° F) operating; –40° to 85° C (–40° to 185° F) non-operating
Humidity:	Up to 95% without condensation
Safety Protection:	UL recognized (UL 1459) and CSA certified

Ordering Information	*Description*	*Part Number*
	DT 554S Main Unit PC card (with RJ48C to RJ48C Network Cable)	048A102-003
	Options and Accessories	
	530/422 Interface Card	048P042-001
	V.35/530 Adapter Cable (order separately)	027H901-001
	Console Port Adapter (RJ48C to DB-25)	029H210-001
	Console Port Adapter Cable (order separately)	830-028-8XX
	PPP/SLIP Adapter to DTE (RJ48 to DB-25F)	209-036-023
	PPP/SLIP Adapter to DTE (RJ48 to DB-25M)	209-036-021
	PPP/SLIP Adapter to DCE (RJ48 to DB-25M)	209-036-022

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