OVERVIEW

Part of the Motivity™ Value product line, the DeskTop 554A (DT 554A) is a single channel CSU/DSU that provides economical, advanced network access at full T1 or fractional T1 (FT1) rates in an attractive, compact package. This highly reliable, user-friendly product is an excellent choice for branch office environments where network management is not needed, or for central sites requiring a basic high speed access solution. Remote site DT 554As can be combined with a GDC SpectraComm 5000 System at the central office for a cost-effective, integrated T1/FT1 network. And, the DT 554A interoperates with GDC’s DataComm 554 T1/FT1 CSU/DSU, or with any other data set conforming to the ANSI T1.403 specification, enabling easy placement in existing networks.

FLEXIBLE, HIGH SPEED ACCESS

When your existing application has outgrown 56 Kbps, the DT 554A 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 E1A-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 554A 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 both the ANSI and AT&T 54016 versions of Extended Superframe (ESF), D4 framing, as well as AMI and B8ZS (clear channel) line coding, to ensure compatibility with the latest digital services. In addition, the DT 554A complies with the AT&T 54019A specification for FT1 transmission — a requirement for access to Frame Relay services.

EASY INSTALLATION

The DT 554A simplifies both initial installation and any future reconfiguration. A console port on the back panel allows for soft-optioning and status monitoring via a VT-100 terminal using simple, text-based screens. In addition, the DT 554A can be configured through clearly marked on-board option switches, making it easy for the end-user to install. 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 554A automates both Line Build-Out (LBO) and framing format selection.

ECONOMICAL ADVANCED NETWORK ACCESS

High performance T1/FT1 CSU/DSU for office environments
Supplies bandwidth of up to 1.544 Mbps
Adheres to all T1/FT1 access standards
Easy configuration and installation
Powerful diagnostics for rapid fault isolation and system restoration
ESF error statistics, alarm and status reporting
### DeskTop 554A

**A MOTIVITY VALUE T1/FT1 CSU/DSU**

**POWERFUL DIAGNOSTICS** The DT 554A supports powerful diagnostic tests, including a full complement of loopbacks, to isolate and quickly resolve system faults. Network administrators can use the DT 554A’s VT-100 interface or convenient front panel switches to test the T1 aggregate circuit, bundled channels, and data terminal equipment (DTE). The DT 554A even has a built-in test pattern generator/error detector to minimize the need for external test equipment. For added flexibility, the network administrator can select 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 can be accessed through the VT-100 terminal. In addition, ESF registers provide the carrier with in-service statistics to help monitor the overall performance of the network.

**SUPERIOR PERFORMANCE** The DT 554A employs the latest digital technology to ensure the most trouble-free operation possible over the widest range of T1 circuits. Since it incorporates powerful VLSI and microprocessor components, it consumes very little power, resulting in low heat dissipation and longer component life for years of reliable performance.

### SPECIFICATIONS

**Compatibility:** Fully compliant with ANSI T1.403, AT&T TR6241 and AT&T TRS4016

**Data Rates:** N X 64 Kbps or N X 56 Kbps where N = 1 to 24; up to 1.336 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)

**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 lbs)
- **Shipping Weight:** 0.9 kg (2 lbs)
- **Humidity:** Up to 95% without condensation
- **Temperature:** 0° to 50° C (32° to 122° F) operating; –40 ° to 85° C (–40 ° to 185° F) non-operating

**Safety Protection:** UL recognized (UL 1459) and CSA certified

### Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT 554A Main Unit PC card</td>
<td>048A102-001</td>
</tr>
<tr>
<td>with Rj 48C to Rj 48C Network Cable (included with card)</td>
<td>022H024-010</td>
</tr>
<tr>
<td><strong>Options and Accessories</strong></td>
<td></td>
</tr>
<tr>
<td>530/422 Interface Card</td>
<td>048P042-009</td>
</tr>
<tr>
<td>V.35/530 Adapter Cable</td>
<td>027H001-001</td>
</tr>
<tr>
<td>(order separately)</td>
<td></td>
</tr>
<tr>
<td>Console Port Adapter (R) 48C to DB-25</td>
<td>029H120-001</td>
</tr>
<tr>
<td>Console Port Adapter Cable (order separately)</td>
<td>830-028-BXX</td>
</tr>
</tbody>
</table>

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