



TimeCreator 1000

DTI Server

KEY FEATURES

- CableLabs DTI Compliant
- High Reliability/Carrier Class
- Flexible Architecture in a 1RU Chassis
- Root or Slave DTI Server Capable
- Up to 12 DTI Client Connections
- SNMP Manageable
- Automatic Client Health Monitoring & Configuration
- NTP Server Option
- GPS Option for Expanded Capabilities and Compliance
- Optional Redundancy
- AC or DC Power Options
- Software Upgradeable for Future Standards

INTRODUCTION

The TimeCreator™ 1000 DTI Server is designed to deliver the most reliable and precise time and frequency synchronization ever designed for communication networks. The TimeCreator 1000 enables operators to deploy with flexibility to balance economics, scalability, functionality and carrier class reliability. TimeCreator 1000 is a compliant* DOCSIS Timing Interface (DTI) Server with optional GPS traceability, redundant clock cards, redundant power supplies and an NTP Server option. TimeCreator 1000 is a fundamental part of a cable operators headend or hub network deploying M-CMTS, DOCSIS 3.0 or Business Services over DOCSIS.

Cable operators have made great strides to upgrade and converge their services onto a unified network architecture. The drivers behind this movement are clear-lower QAM prices, higher bandwidth, flexible spectrum management and new services. Today broadband cable operators are in a fierce market battle to innovate their competitive service platform for future success. They are rapidly escalating current services to satisfy hungry consumer demand for high-speed, high-bandwidth networks, and are looking to build secure, fast and cost-effective, state-of-the-art network infrastructures to run these new applications.

TimeCreator 1000's integrated DOCSIS Timing Interface Server capabilities ensures that the M-CMTS core, Edge QAM and upstream are synchronized to nanosecond

levels to support the existing DOCSIS requirements for frequency and timestamps that existed in the traditional CMTS. With TimeCreator 1000 in an M-CMTS architecture, a cable modem receive its synchronization from the Edge QAM so that it is synchronized to other cable modems to properly transmit to the upstream burst receiver. Additionally, the M-CMTS core is synchronized to the Edge QAM to schedule, correct and insert MPEG timestamps for video.

TimeCreator 1000 manages the synchronization quality of the network not only at the server side, but at the client output as well. TimeCreator 1000 continuously monitors each individual client's performance as well as automatically calibrating the client and detecting any timing loops at startup.

Various configurations of TimeCreator 1000 are available. For carrier class systems supporting voice and other critical applications high reliability can be achieved by configuring the TimeCreator 1000 with redundant power supplies and clock cards for hitless switching. TimeCreator 1000 supports GPS for applications where either Stratum 1 traceability is needed for interconnecting sites, interfacing with other carriers, Business Services, location management or Time of Day services. TimeCreator 1000 also supports an optional NTP Server to increase the reliability and accuracy of NTP used throughout the network including PacketCable and DOCSIS modem requirements.



TimeCreator 1000

TimeCreator 1000 Specifications

DTI SERVER FEATURES

- 10+2 DTI Ports
- Optional clock card redundancy
- Hitless switching when configured for redundancy
- GPS option to enable Stratum 1 traceability and global timestamps
- Business services capable (with GPS)
- 24 Hour holdover when using GPS
- Root and slave DTI server capable
- Per port performance monitoring
- Per port delay and path calibration

INPUTS

- GPS (two-way timing antenna)
- 2 dual mode DTI client ports to support slave server mode
- BITS ports (reserved for future use)

OUTPUTS

- 10 DTI client ports
- 2 dual mode DTI client ports
- 10.24 MHz master frequency
- 10KHz frame clock
- NTP server ethernet port

MANAGEMENT FEATURES

- SNMP v2c & v3
- Local and remote management
- Consol port for local management
- Telnet & SSH support
- Firmware upgradeable via SFTP
- LED status & alarm indicators
- Event logging
- Radius and TACACS+

PHYSICAL SPECIFICATIONS

- 1RU high x 19" W x 20" D
- Weight: 11 lbs (4.6 Kg)

POWER REQUIREMENTS

- AC Power module 100-240V AC, 50/60Hz
- DC Power module -48V DC
- Optional power supply redundancy

OPERATING ENVIRONMENT

- Temperature: 0°C to 50°C, 32°F to 104°F
- Humidity: 10% to 90% RH non-condensing

STORAGE ENVIRONMENT

- Temperature: -25°C to 70°C, 13°F to 158°F
- Humidity: 5% to 90% RH non-condensing

SAFETY

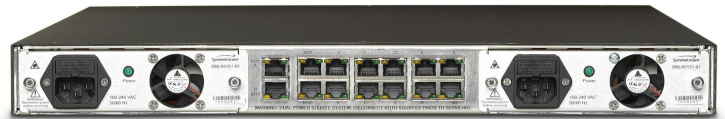
- UL/CSA 60950-1
- EN60950-1, IEC60950-1
- CE Mark
- NRTL

EMC

- FCC Part 15, ICES-003 Class B
- EN300-386 v1.3.3
- CE Mark

RoHS

- CE Mark



Rear View



SYMMETRICOM, INC.
2300 Orchard Parkway
San Jose, California
95131-1017
tel: +1 888 FOR SYMM (+1 888 367-7966)
fax: +1 408 428 6960
info@symmetricom.com
www.symmetricom.com