



OfficeTime 21

GPS and CDMA Primary Reference Source

KEY FEATURES

- GPS or CDMA Stratum 1 Source
- Compact NEBS-Compliant Unit
- Two DS1 or E1 Input Signals
- Two Weeks Stratum 1 Holdover with Rubidium Clock Option
- Ten T1/CC/E1 Outputs
- Retiming of Input Signals
- SNTP Time of Day
- BITS or PRS Modes

INTRODUCTION

Symmetricom's OfficeTime 21™ is a Stratum 1 GPS or CDMA primary reference source. Designed in a NEBS compliant package, it is used by telecom operators to generate the highest quality synchronization signals.

The OfficeTime 21 architecture and intelligent software provides superior performance, reliability and flexibility. Remote software upgrades and user settable features are fully supported.

The OfficeTime 21 supports the management of critical, major and minor alarms. The alarm severity is user settable and up to 450 time-tagged events can be stored.

STRATUM 1 GPS/CDMA

The OfficeTime can receive GPS or CDMA

Stratum 1 sources. GPS is available with a rooftop or window-mounted antenna.

The OfficeTime can be provisioned with input references for use if the GPS/CDMA reference fails. If both the GPS/CDMA and the input references fail, the OfficeTime's intelligent software enhances output performance beyond the internal clock's holdover stability. The OfficeTime has Stratum 2E and 3E holdover oscillator options.

INPUTS

The OfficeTime optionally accepts up to two DS1 or E1 input reference signals. Input signals are automatically passed through in case of internal clock failure. They fully support SSM for provisioning self-healing networks. The OfficeTime can optionally be programmed to retime up to two DS1 or E1 input references.



OUTPUTS

The OfficeTime provides ten DS1/CC/E1 outputs which fully support SSM. It also provides TOD (Time-Of-Day) through the SNTP (Simple Network Time Protocol) interface. SNTP is supported through the GPS or CDMA engine.

MANAGEMENT

The OfficeTime provides communications capability for network management and craft personnel. The following interfaces are supported:

- 2x EIA-232 ports
- 1x Ethernet port (10 Base-T)
- TL1 command set
- Interactive ASCII command set

STANDARDS COMPLIANCE

The OfficeTime 21 meets industry standards, including ITU-T, ANSI and Telcordia.

OfficeTime 21 Specifications

GENERAL

- Long Term Frequency
 - Reference Signals
- Stratum 1 PRS per ANSI T1.101 and ITU-T G.811
Determined by the type of Radio Receiver:
GPS navigation signal
CDMA signal
2 x DS1/E1

ALARMS

- MINOR
 - MAJOR
 - CRITICAL
- 1 Amp Form C contact closure
1 Amp Form C contact closure
1 Amp Form C contact closure

MECHANICAL

- Width
 - Depth
 - Height
 - Weight
- 17.0 inches
11.400 inches
3.5 inches
< 12 lbs.

GPS ANTENNA

- Temperature
 - Relative Humidity
 - Altitude
- 40°C to +75°C
100% Non-Immersed
200 ft. below sea level to 13,000 ft. above sea level

OPERATING CONDITIONS

- Temperature
 - Temperature Rate of Change
 - Relative Humidity
 - Altitude
- 0 to 50 °C
8.3 °C/Hr
5 to 85%
200 ft. below sea level to 13,000 ft. above sea level

POWER

- Supply power
 - Maximum
 - Typical
 - Connector
- 38 to -72.5 vDC (-48 vDC nominal)
48 watts at power on
< 30 watts at normal operation
#6 Ring Terminal Block

OUTPUTS

- DS1
 - Format (user selectable)
 - Signal
- E1
- Format (user selectable)
 - Signal
- Composite Clock
- Waveshape
- 2048 kHz
- Format
- Framed, all ones, Alternate Mark Inversion (AMI) Per ANSI T1.403 (1995)
Each output D4/Super Frame (SF) or Extended Super Frame (ESF), user selectable
- Framed, all ones, Alternate Mark Inversion (AMI) Per ITU Rec. G.704 (1995)
HDB3
- Rectangular (62.5% or 50/50 duty cycle), software selectable
- Per ITU Rec. G.703/13 (1998)



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