



Model 54583

PTP IEEE-1588v2 Grandmaster Clock Module

SETTING THE NEW
STANDARD FOR THE
NEXTGEN NETWORK



Product Highlights:

- Versions compatible with virtually all CXR Larus StarClock shelves
- Provides Precision Time Protocol, (PTP IEEE-1588v2)
- Adds seamless Next Generation capability to legacy installations without forklift upgrade
- Hardware based 100 Mbps Wirespeed NTP processing
- 10,000 packets/sec unauthenticated / 1,000 packets/sec authenticated capacity
- Grandmaster, Boundary Clock, or Syntonized Boundary Clock
- PTP per G.823-SEC over 4 hops in engineered network
- IP address filtering
- SNMP V2c or V3 software supported
- TL1 Interface through craft port or Telnet/SSH session
- HTTP Web Interface
- Local Serial RS-232 Craft Port
- Two Front Panel SFP 1000Base-SX connectors
- Installation completely non-service affecting
- Local indicators for operational verification

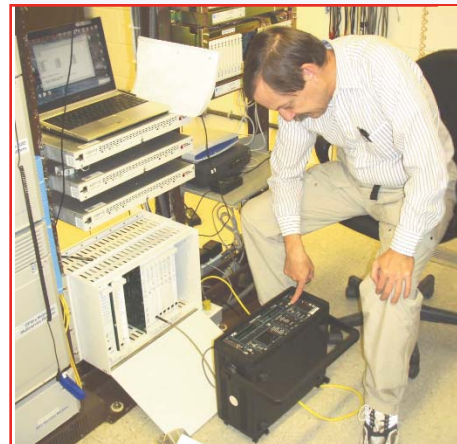


The specially designed CXR Larus Model 54583 PTP Grandmaster Clock Module for the CXR Larus StarClock 100, StarClock 200 and StarClock 200E series of BITS Clock shelves moves these timing legends into the latest Next Generation IP timing technologies without the need for a forklift upgrade. The Model 54583 PTP Server module can also be installed and serviced without taking the existing shelf out of service.

A HTTP Web interface and industry standard TL1 commands are available for management via an ethernet based Telnet/SSH session, and MIB support is included at no additional charge. A local RS-232 craft interface is also supplied for easy configuration and management.

The Model 54583 supports Precision Time Protocol, and provides full support for the latest version of IEEE-1588v2 (2008), ensuring compatibility with all other vendor's PTP Slave clocks in the network.

Supports both SNMP v2c and v3, ensuring seamless integration into managed networks.



The Model 54583 PTP Module can be installed without taking the shelf out of service, making installation and maintenance a snap!

CXR Larus Model 54583 PTP IEEE-1588v2 Grandmaster Clock Module

Specifications:

Physical:

Dimensions, Weight: (W x D x H):

1.5 in. (38mm) X 12.2 in. (310 mm) X 9 in. (226 mm)
Requires two output cards slots in StarClock shelf
Weight; Less than 2 lbs.

Supply Voltage (Supplied through shelf backplane)

-42 Vdc to -56 Vdc, , 0.6A maximum

Environmental:

Operating Temp: 0°C to 50° C
Storage Temp: -10°C to 70°C
Relative humidity: 0-95%, non condensing

Electrical:

Ethernet Connectors:

- (1) RJ-45, Fast ethernet for management
- (2) SFP Optical Gigabit Ethernet, 1000Base-SX (LC type).
SFP adapters not included

RS-232 Craft Interface Connector:

9 pin Male D-Sub connector, DTE.
Connection to PC or Laptop requires straight through (ie: not null modem) cable (not supplied)

LED Indicators:

Power: Green
Fail Alarm: Red
Network: Activity and Link
Output Alarm: Red
Reference Good: Green

PTP Performance:

Line rate: 100 Mbps
Precision: Per G.823-SEC, over 4 hops in engineered network (SP, EF and QoS turned on).
Holdover: 24 hours, 7×10^{-10} per day
Frequency Stability: Better than 50 ppb
In 32 packets per second mode, Brilliant profile supports 512 clients
In 64 packets per second mode, Telecom profile supports 256 clients

Protocol Support:

Protocol support for VLAN, DiffServ, DHCP, TFTP, HTTP, Telnet, SNMPv2C,v3

Standards:

Meets or exceeds industry standards:

IEEE-802.3
IEEE-1588v2 (2008), Clause 15 support
ITU G.823-SEC
ITU G.8261
IPv4
HTTP/HTTPS (RFC 2616)
MD5 (RFC1321)
Diff Serv/DSCP (RFC 2474)
RFC867
RFC868
Telnet (RFC854)
FTP (RFC 959) / TFTP (not simultaneously)
SNMP V2c
SNMP V3
MIB II (RFC 1213)
NEBS Level 3
UL Part 15 and CE
RoHS, WEEE
Future support for IPv6 (RFC 2553), 802.1q, 802.1p



**The CXR Larus StarClock 200E
Synchronization Timing System**

Ordering Information:

54583 List 0 **Module, PTP Grandmaster, StarClock 100/200 Compatible**
54583 List 1 **Module, PTP Grandmaster, StarClock 200E Compatible**

NOTE: How to identify which StarClock shelf you have:

The StarClock 100 and 200 use white painted faceplates with no screwlocks installed
The StarClock 200E uses brushed aluminum faceplates with screwlocks installed