

PTS-30E

3U rack mounting high-precision expansion time servers



» Overview

PTS-30E is an expansion time server, which is generally used as a slave clock worked together with master clock, such as PTS-30M. It supports auto-tracking and locking IEEE1588 and IRIG-B signal on the ground as time source. It supports up to 12 slots for time output modules with total 120 time outputs.

» Key Features

3U 19 inch rack mounting time server

Support max 12 slots for time output modules

Time synchronization accuracy up to 50ns

Support IRIG-B, IEEE1588 used as time source

Support integrated TCXO or OCXO for time holdover

Support safe and reliable multi-source selection algorithm to guarantee time output accuracy

Support 5.7inch LCD touch-screen for operation

Support 1PPS, IRIG-B-DC/AC, Serial time coding, NTP, IEEE1588 V2.0, contact, etc time signal output

Support redundant power modules

» Product Specifications

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-Time Accuracy

1PPS Fiber $\leq 60\text{ns}$

TTL $\leq 60\text{ns}$

Differential level $\leq 0.5\mu\text{s}$

Contact $\leq 3\mu\text{s}$

IRIG-B Fiber $\leq 60\text{ns}$

TTL $\leq 60\text{ns}$

AC $\leq 20\mu\text{s}$

Differential level $\leq 0.5\mu\text{s}$

Serial Data RS232 $\leq 5\text{ms}$

RS485 $\leq 5\text{ms}$

NTP $\leq 50\mu\text{s}$

PTP $\leq 50\text{ns}$

-LED

Power LED 3.3V/5V/12V

Running LED RUN

Alarm LED A1/A2

-Holdover Accuracy

TCXO $55\mu\text{s}$ per hour

OCXO $6\mu\text{s}$ per 24h

RB. atomic clock $2\mu\text{s}$ per 24h

-Input Interface

Fiber FI1: ST-850nm MM (IRIG-B-DC)

FI2: ST-850nm MM (IRIG-B-DC)

-Network Interface

Type 1 2×10/100Base-TX RJ45 ports

Type 2 4×10/100Base-TX RJ45 ports

Type 3 2×1000Base-X SFP slot, 10/100/1000Base-T(X) Combo ports

Type 4 2×1000Base-X SFP slot, 10/100/1000Base-T(X) Combo ports + 2×10/100Base-TX RJ45 ports

-Output Interface

TTL (Terminal) Terminal connector, 1PPS/1PPM/1PPH or IRIG-B (DC)

TTL (BNC) BNC connector, 1PPS/1PPM/1PPH or IRIG-B (DC)

Fiber ST connector, 1PPS/1PPM/1PPH or IRIG-B (DC)

Serial Data (Terminal) RS232, 1PPS/1PPM/1PPH or serial TOD

RS485, 1PPS/1PPM/1PPH, IRIG-B or serial TOD

IRIG-B AC (Terminal) Terminal connector, IRIG-B (AC) signal

Contact (Terminal) Terminal connector, 1PPS/1PPM

-Power Supply

Power Input 110-220VAC/DC(85-264VAC/85-300VDC),47-63Hz

Single/Dual power input(s)

Power Terminal 5-pin 5.08 mm-spacing plug-in terminal block

Power Alarm Support

Status Alarm Support

-Physical Characteristics

Housing Metal

Cooling Natural cooling, fanless

Protection Class IP40

Dimensions(WxHxD) 483 × 135 × 280mm

Weight 5.5kg

Mounting 3U 19 inch rack mounting

-Environmental Limits

Operating temperature -20°C to +70°C

Storage temperature -30°C to +80°C

Ambient Relative Humidity 5% to 95% (non-condensing)

-Quality Assurance

MTBF 50000hrs

Warranty 5 years

-Approvals

CE

-Standard

DL/T 1100.1-2018

IEC 60068-2-78

IEC 61000-4-2

IEC 61000-4-4

IEC 61000-4-5

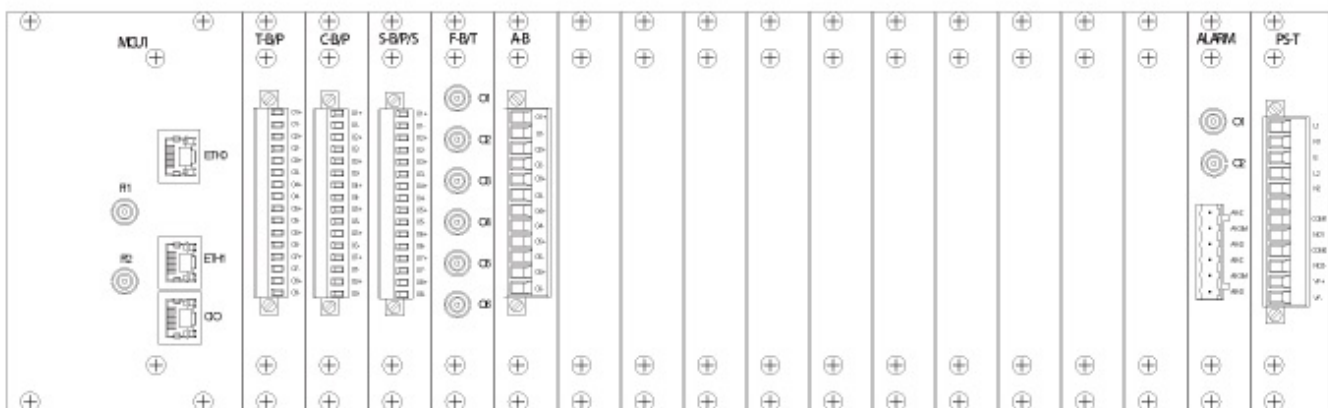
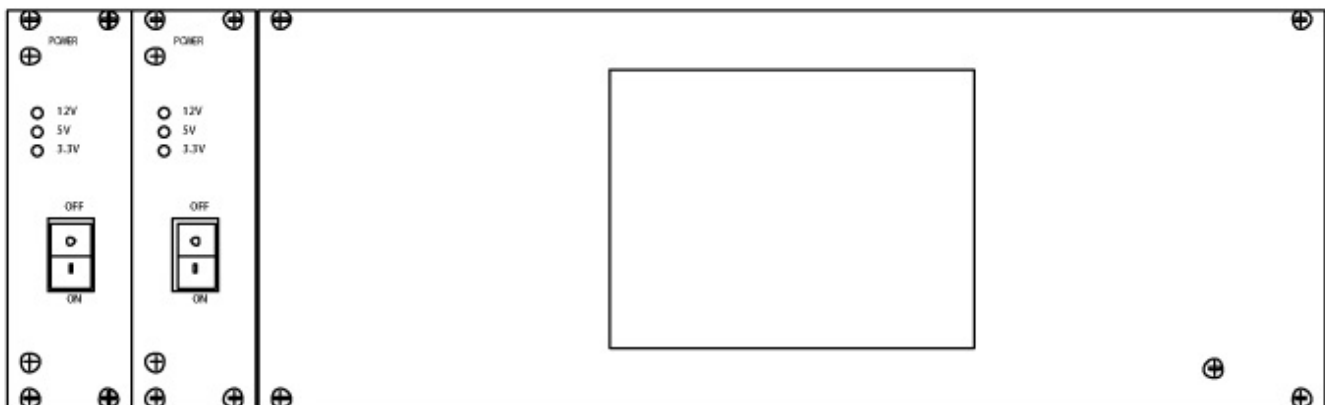
IEC 61000-4-8

IEC 61000-4-9

IEC 61000-4-10

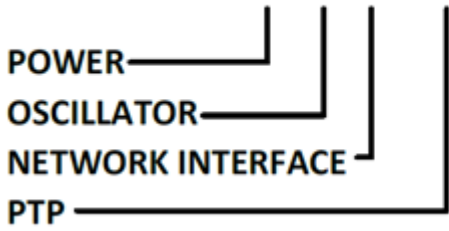
IEC 61000-4-12

» Mechanical Drawing



» Ordering Information

PTS-30E-C-DDXDXXXXXXXXXXXXXXXXX-XX



POWER

- 1 110-220VAC/DC Single
- 2 110-220VAC/DC Dual

OSCILLATOR

- 1 TCXO (<55µs/1h)
- 3 OCXO (<6µs/24h)

NETWORK INTERFACE

- 1 2 × 10/100Base-TX
- 7 2 × 1000Base-X SFP slot, 10/100/1000Base-T(X) Combo ports, 2×10/100Base-TX RJ45 ports

PTP

- 1 PTPv2 (ETH0/ETH1)

TIME OUTPUT MODULE (max 12pcs for 12 slots)

- PTS-30E-OUT-PPS-TTL-TB Output module with terminal connector for 8 outputs of TTL PPS
- PTS-30E-OUT-PPS-TTL-BNC Output module with 5 BNC ports for TTL PPS
- PTS-30E-OUT-PPS-850-FO Output module with 6 ST 850nm fiber ports for PPS
- PTS-30E-OUT-PPS-1310-FO Output module with 6 ST 1310nm fiber ports for PPS
- PTS-30E-OUT-PPS-485-TB Output module with terminal connector for 8 outputs of RS485 PPS
- PTS-30E-OUT-CONTACT-TB Output module with terminal connector for 8 outputs of PPS/PPM contact
- PTS-30E-OUT-IRIG-TTL-TB Output module with terminal connector for 8 outputs of TTL IRIG-B (DC)
- PTS-30E-OUT-IRIG-TTL-BNC Output module with 5 BNC ports for TTL IRIG-B (DC)
- PTS-30E-OUT-IRIG-850-FO Output module with 6 ST 850nm fiber ports for IRIG-B (DC)
- PTS-30E-OUT-IRIG-1310-FO Output module with 6 ST 1310nm fiber ports for IRIG-B (DC)
- PTS-30E-OUT-IRIG-485-TB Output module with terminal connector for 8 outputs of RS485 IRIG-B (DC)
- PTS-30E-OUT-IRIG-AC-TB Output module with terminal connector for 6 outputs of IRIG-B (AC)
- PTS-30E-OUT-PPS-232-TB Output module with terminal connector for 6 outputs of RS232 PPS
- PTS-30E-OUT-TOD-232-TB Output module with terminal connector for 6 outputs of RS232 TOD
- PTS-30E-OUT-TOD-485-TB Output module with terminal connector for 8 outputs of RS485 TOD

SOFTWARE

- PTS-30E-S11 WEB + SNMP

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