PTP Translator

The PTP Translator is a compact DIN-rail mount device that translates PTP (default, power and telecommunications profiles) to common time codes such as IRIG-B.

It enables you to migrate to PTP without the expense of replacing non-PTP equipment.

Key Features

- Compact DIN-rail mounting form factor
- Allows IED's equipped with IRIG-B, Pulse or other common time code inputs to conveniently access a PTP network
- Input: default, telecommunications or power profiles
- Output: HV MOSFET, AM IRIG-B, RS232/422, TTL programmable and ST Fiber
- Intuitive Configuration Software
- Enhanced Security and encryption that exceed NERC CIP requirements

About Tekron

Tekron is a leading developer of accurate GPS/GLONASS clocks and time synchronisation solutions for use in industrial applications.

Contact Us

www.tekron.com
Phone: +64 4 566 7722
Sales Freephone: (Australia) 1800 608 572
Sales Freephone: (North America) 1800 256 2309

*Some optional features may incur extra costs

WORLD WIDE WARRANTY
10 YEARS

www.tekron.com
2019

Physical

UL94-V0 polycarbonate flame retardant DIN-rail mount case with IP40 (Ingress Protection rating).

(W) 72 mm x (D) 60 mm x (H) 90 mm, 0.2 Kg

Rising clamp terminals: Wire size (max): 1.5 mm Ø

LED Indicators

- PTP Status / availability
- Power
- Ethernet ACT and LNK LEDs

Environment and Electrical

Power supply:

L = 14-36 Vdc
M = 20-75 Vdc
H = 90-300 Vdc

Power Drain:

5 W max

Operating temperature:

-10 to +65°C

Humidity:

To 95%
non-condensing

Isolation

Power to I/O: 1.6 kV
Between TTL outputs A+B:
2.5

Standard Outputs

TTL
1 x TTL programmable output, 2-pin, 0-5 V, 150 mA, self resetting fuse

Fiber
1 x programmable output, Fiber TX (62.5/ 125 µm, λ 820 nm), compatible with multi-mode fiber (ST Fiber connectors)

Alarm
1 x Sync relay (2 pin - Form A contact)
Contact rating: 300 V, 150 mA DC or 265 V, 100 mA AC

Optional Outputs

In addition to the standard output, one of the following output options are also available for the PTP Translator

TTL
1 x TTL programmable output, 2-pin, 0-5 V, 150 mA, self resetting fuse
Or

AM IRIG-B
1 x AM IRIG-B output, 2-pin, 8 Vpp, 120 ohm
Or

Serial Strings
1 x RS232, 2-Pin +/- 9 V, 15 mA.
Serial time messages can be configured to be output at 1200, 2400, 4800, 9600, 19200 and 38400 baud.

Timing accuracy of RS232 port:
Serial Message <1 bit time
Or

HV MOSFET
1 x HV MOSFET output, 2-pin, 300 V, 1A ('+' = Drain, '-' = Source)

Accuracy at Port

Fixed Outputs:

TTL	± 100 ns
Fiber	± 100 ns

Optional Outputs:

TTL	± 100 ns
AM IRIG-B	± 2 µs
RS232	< 200 µs
HV MOSFET	± 60 µs

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Ethernet Connection

- 1 x RJ45 10/100 Ethernet UTP connectors

or

- 1 x ST multi-mode 100 Fx fiber Ethernet available

Timing accuracy: <100 ns

Protocols Supported

General

- DHCP auto-configuration with fallback to ARP tested link-local address
- VLAN packet tagging

SNMP

- v1, v2c & v3 support can be independently enabled
- Configurable v1, v2c community names & security groups
- Fully configurable via SNMP
- v3 User-based Security Module (USM) supports USM authentication methods: MD5, SHA
- USM privacy methods: DES, AES
- USM MIB support

Notifications

- SNMP trap generation v1, v2c & v3
- SNMPv3 traps can be authenticated & privatised via USM
- Syslog (RFC-3164 & 5424 verities)

IEEE 1588 v2 (PTP v2) Support

- PTP (IEEE1588) v2 slave operation
- Slave only profile selection:
-      Default
-      Power
-      Telecommunications
- Operating mode supports 1-step / 2 step tx/rx Layer 2 or Layer 3 mapping
- Peer to Peer and End to End delay support

Configuration Software

Windows based configuration software is available to be downloaded from the Tekron website.

User adjustable features include:

- Multi-level access control
- Privacy & authentication methods equivalent to SNMP USM
- "Supervisor-mode" prevents non-approved changes
- Test mode
- Commissioning tool

*Some optional features may incur extra costs