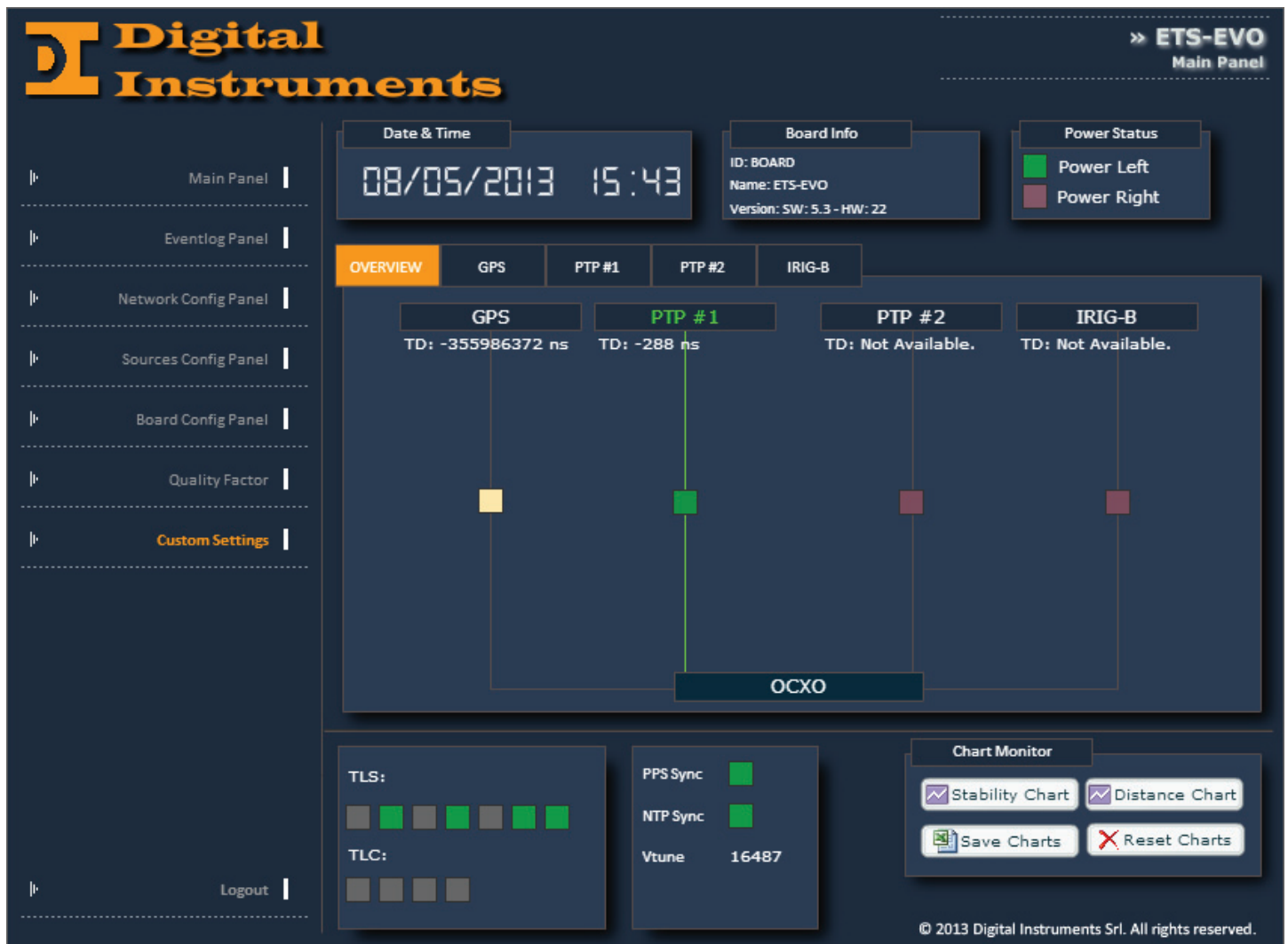




ETS-EVO is a very flexible solution to generate ultra stable Time (1PPS, Time Codes, NTP/PTP Serial Time Telegrams etc...) and Frequency (10 MHz Low Noise and 1-100 MHz factory programmable output). The unit is a multi reference input equipment that can accept various reference inputs from GPS, NTP/PTP, IRIG B Time Code.

ETS-EVO is a ultra compact unit (19"/1U mechanical chassis) it has a dual Power Supply that, with the multi reference input, make the equipment ultra reliable. Furthermore the unit can be easily remote managed by SNMP or a user friendly GUI on web interface.



Features

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- Internal high stability OCXO having aging $\pm 1 \cdot 10^{-10}$ /day,
- Galileo Ready,
- New generation DPLL fast lock,
- 12 channel GPS receiver with automatic tracking and timing error management system,
- 2 x Ethernet interface for NTP and or PTP synchronization,
- 1 x 10 MHz Low Noise output,
- 1 x 1 ÷ 100 MHz factory setting output,
- 1 x IRIG B 006 via BNC connector (1 x in - 1 x out),
- 1 x IRIG B 006 via ST connector (1 x in - 1 x out),
- 7 x Optoisolated dry contact for signalling,
- 2 x PSU (AC or DC),
- Operative temperature range: 0 - 50 °C,
- Size: 1U/19" – depth 300 mm (connector excluded) – weight 1,5 Kg,
- Certification CE.



GPS SECTION

Receiver	1.575,42 MHz - 12 channels
Tracking	12 satellites correlation
PPS accuracy	< 50 ns
Antenna connector	TNC
Acquisition time	4 mins
Local oscillator	OCXO
Stability when locked	To GPS 1×10^{-12} (after 24 hours) – Ageing in holdover $\pm 1 \times 10^{-10}$ day

PTP SECTION

Protocol	IEEE1588-2008 (PTPv2)
Role	Grandmaster Clock Source (with GPS) or slave

NTP SECTION

Protocol	NTPv4
Role	Master Clock Stratum 1 (with GPS) – slave clock Stratum 2

TIME CODE IRIG-B

IRIG-B DCLS (006)
Electrical via BNC Connector (1 x Input + 1 x Output)
Optical via ST Connector 820 nm multimode (1 x Input + 1 x Output)

FREQUENCY SYNTHESIZER

User defined both as Input and Output : $1 \div 100$ MHz square wave (factory setting) via BNC
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LOW NOISE OUTPUT

10 MHz Sine Wave Low Phase Noise (-130 dBc/Hz @ 1 kHz) on BNC

PPS OUTPUT

1 PPS signal – 100 μ sec duty, - 5Vpp

MULTI DRY CONTACTS

7 opto isolated dry contacts for signalling or programmable pulse (factory setting) Connector: Wedmuller connector

SERIAL CONNECTION

1 x RS232 over DB9 connector User defined as controller or time telegram provider
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NETWORK INTERFACE

2 x 10/100 BaseT Ethernet (2 x NTP or 1 x NTP + 1 x PTP User Define)
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SUPPORTED PROTOCOL

IPv4, PTP/IEEE 1588-2008, NTP, SNTP, HTTP, SYSLOG, SNMP, TIME, TELNET

STATUS INFO

5 status led's, RS232, SNMP (Simple Network management Protocol), Web Interface
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POWER SUPPLY

2 x Independents PSU AC: 85 – 265 VAC DC: 12 – 48 VDC Power Consumption < 50W
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