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microSyncXS: Ultra-Compact NTP Server and PTP Clock

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The microSyncXS is a fully-featured GNSS-synchronized NTP & PTP time server. With two PTP-capable network ports operable either in timeTransmitter or timeReceiver mode, the microSyncXS is operable as a high-accuracy grandmaster, boundary clock or ordinary clock.

Naturally, the microSyncXS is also a powerful NTP server and programmable clock signal generator, capable of producing a wide variety of reference signals via three programmable pulse outputs (e.g. PPS, 10 MHz, DCLS timecode).

Key Features

- Selectable Reference Time Sources: GPS: Satellite receiver for the GPS constellation (using Meinberg's downconverter technology for reliable GNSS signal transmission over long distances) - Recommended for fixed-site applications GNS-UC: Satellite receiver for the GPS and Galileo constellations (using Meinberg's downconverter technology for reliable GNSS signal transmission over long distances) - Recommended for both fixed-site and mobile applications GNS: Multi-GNSS satellite receiver with support for all four of the main constellations: GPS, GLONASS, Galileo, and BeiDou - Recommended for both fixed-site and mobile applications
- Powerful NTP and IEEE 1588 Time Server
- meinbergOS Web interface for configuration and status monitoring
- Wide varity of programmable pulse outputs
- Fully integrated version of the PTP monitoring solution, PTP Track Hound
- Ultra compact and space-efficient time server solution
- Option: OLED display for fast initial start of operation and status indication
- All microSync models offer a wide range of multiple output signals, allowing devices to be synchronized over a network via NTP or PTP or directly "on the wire" using a variety of electrical and optical signals.
- 10,000 NTP requests per second

Description

Providing two IEEE 1588 ports, the microSyncXS models are powerful GNSS-synchronized PTP Grandmasters offering a high level of accuracy. With full support for practically every published PTP profile, including the SMPTE 2059-2 Profile and AES67 Media Profile, the microSyncXS is perfect as an ultra-compact PTP Grandmaster solution for outside broadcasting vans and other situations where space is at a premium.

Equipped with a fully-featured version of the powerful, synchronization-centric meinbergOS operating system, the microSyncXS offers up all of the security and flexibility that the microSync family is known for. These include the new features introduced in the latest meinbergOS versions, specifically LDAP, TACACS+, and RADIUS authentication, native PRP for NTP and PTP traffic, industry-specific network functionality such as IEC 61850 MMS support, detailed analysis features for GNSS reception and clock performance, and also a fully integrated version of Meinberg's PTP monitoring solution, PTP Track Hound.

The version of PTP Track Hound in the meinbergOS firmware is pre-activated with a Capture license, which means that in addition to evaluating PTP traffic locally via its own PTP-capable network interfaces, it can also forward traffic data to one or several central PTP Track Hound Professional instances for combined analysis.

Characteristics

Supported PTP Profiles	**Default Profiles:** - E2E IEEE 1588-2008 Profile - P2P IEEE 1588-2008 Profile **Power Profiles:** - IEEE C37.238-2011 * - IEEE C37.238-2017 * - IEC/IEEE 61850-9-3 Power Utility Profile * **Telecom Profiles:** - ITU-T G.8265.1 * - ITU-T G.8275.1 * - ITU-T G.8275.2 **Broadcast Profiles:** - DOCSIS 3.1 - SMPTE ST 2059-2 * - AES67 Media **AVB/TSN:** - IEEE 802.1AS **Automotive Profile:** - AUTOSAR ***** *including profile extensions*

Operating Mode	* PTP V2 * PTP V1 (Option: Performance Level C only) * NTP
Network Protocols	IPv4, IPv6 NTPv3, NTPv4 PTPv2 IEC 62439-3 (PRP) DHCP, DHCPv6 DSCP IEEE 802.1q VLAN filtering/tagging IEEE 802.1p QOS SNMPv1/v2/v3 Remote Syslog Support (UDP) LDAP, TACACS+, RADIUS authentication
Interface	Single serial RS-232 interface
Available PTP Performance Level	microSyncs are provided with a license that allows a specific performance level to be achieved with the IEEE1588 implementation. There are three Performance Levels available: Performance Level Max. Unicast Clients Max. Delay Requests per Second / Hybrid Mode PL-A 8 1024 PL-B 256 32768 PL-C 512 65536
Network Interface	2x SFP (LAN 0, LAN 1) Gigabit Ethernet (GbE), 10/100/1000 Mbit, RJ45 or 1000FX (SFP) Management, NTP, PTP Master & Slave Operation Synchronous Ethernet
Universal Serial Bus (USB) Ports	USB Type-A, usable for the following purposes: * Backing up and restoring a microSync configuration (or rolling a shared configuration out to multiple devices) * Backing up log files * Uploading and downloading cryptographic certificates * Installing firmware updates * Restoring factory settings using a specially prepared 'USB key'

SMA Connectors	3 x SMA connectors for different programmable pulses outputs (PPS, PPM, PPH, TC DCLS, PTTI 1PPS ...)
Oscillator Options	**OCXO SQ** 1 Day Holdover Performance: ± 65 µs 1 Year Holdover Performance: ± 4.7 s **OCXO HQ** 1 Day Holdover Performance: ± 10 µs 1 Year Holdover Performance: ± 788 ms
Power Consumption	typ. 16.5 W
Operating Voltage	20 V - 60 V DC
Form Factor	Housing Type 6.33 inch, desktop, 1U 148 mm x 236 (264) mm x 44 mm / 5.8 inch x 9.4 (10.4) inch x 1.7 inch / width x depth (with connectors and control element) x height Housing Material: Steel
Atmospheric Pressure	540 to 1,600 hPa
Operating Altitude	Up to 5,000 m (16,404 ft) above sea level
IP Rating	IP30
Product Weight	1.35 kg (2.98 lbs)
Supported Temperature	-20 °C to 55 °C (-4 °F to 131 °F)
Storage Temperature	-30 °C to 70 °C (-22 °F to 158 °F)
Supported Humidity	5 % to 95 % at 40 °C, non-condensing
Compliances	

* CB Scheme
* CE
* FCC
* UL
* CSA
* WEEE, Waste of Electrical and Electronic Equipment
* RoHS, Restriction of Hazardous Substances
* REACH, Registration, Evaluation, Authorization and Restriction of Chemicals

Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

There is no online manual available for this product.: [2]Contact us

Links:

[1] https://www.meinbergglobal.com/english/products/
[2] mailto:info@meinberg.de