

Technical Data

OTMC 100p

Antenna-integrated PTP Grandmaster Clock



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1. Timing Performance

Timing Accuracy	<p>± 100ns to reference time (UTC)</p> <ul style="list-style-type: none"> • PTP according to IEEE 1588–2008 (IEEE 1588 Version 2)
Supported Timing Protocols	<ul style="list-style-type: none"> • NTP v4 according to RFC 5905 • Time (RFC 868) • Daytime (RFC 867)
PTP (IEEE 1588) Features	<ul style="list-style-type: none"> • Default profile IEEE 1588-2008, Annex J • Power profile according to IEEE C37.238-2011 (IEEE profile for use of IEEE 1588-2008 Precision Time Protocol in power systems applications) • Power profile IEEE C37.238-2017 (IEEE profile for use of IEEE 1588-2008 Precision Time Protocol in power systems applications) • IEC/IEEE 61850-9-3:2016 • One-step and two-step operation • End-to-end (multicast) and peer-to-peer delay mechanisms • PTP over UDP/IPv4, UDP/IPv6 and Ethernet/IEEE 802.3 (IEEE 1588-2008 Annex D, E, and F) • PTP management interface • High performance (up to 512 messages/second)

2. GPS Performance

GPS Performance	<ul style="list-style-type: none"> • Integrated active GPS antenna • 12 channel GPS receiver • Frequency: 1575.42 MHz L1 Band
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3. Networking & Management

Management	<ul style="list-style-type: none"> • Web Interface (HTTP/HTTPS) • TFTP, FTP, and SSH access • Automated configuration via SSH and XML files • Fail-safe software upgrade in the field • Email notifications • Syslog (local and remote) • SNMP (for IEEE C37.238-2011)
Networking	<ul style="list-style-type: none"> • One Ethernet port, 10Base-T/100Base-TX Ethernet • Supports IPv4 and IPv6 • Power over Ethernet (PoE) according to IEEE 802.3af • DHCP • Zeroconf (MDNS/DNS-SD) • Waterproof Ethernet connector according to IEC 61076-3-106 (Variant 4)

4. Other

Power Supply	<ul style="list-style-type: none"> • Supplied by Power-over-Ethernet (PoE, IEEE 802.3af) • PoE Class 1 powered device • Power consumption < 2W
EMC	<ul style="list-style-type: none"> • This Product adheres to the electromagnetic compatibility (EMC) directive 2004/108/EC (CE conform) • Emission: EN 55022:2010 class B, EN 61326-1:2006 • Immunity: EN 55024:2010, EN 61326-1:2006, EN 62305-4:2010
Safety	<ul style="list-style-type: none"> • IEC 60950-1:2005 2 Ed. +A1:2009 (Information technology equipment - Safety - Part 1: General requirements) • IEC 60950-22:2005 (Information technology equipment - Safety - Part 22: Equipment to be installed outdoors)

Environmental

Operating temperature range	-40 °C ... +70 °C (-40 °F ... +158 °F)
Storage temperature range	-40 °C ... +85 °C (-40 °F ... +185 °F)
Climate	IEC 60068-2-30, Test Db, damp heat, cyclic (6 cycles, 55 °C)

Mechanical

Housing type:	Waterproof housing (IP 67)
Dimensions (without connector and mounting kit)	<ul style="list-style-type: none"> • Diameter: 115,5 mm / 4.55" • Height: 106,2 mm / 4.17"
Weight (without mounting kit)	< 500g / < 1.1 lbs
Vibration	<ul style="list-style-type: none"> • IEC 60068-2-6, Test Fc, Vibration sinusoidal • 6 mm at 5-9 Hz, 2 g at 9-200 Hz
Shock	<ul style="list-style-type: none"> • IEC 680068-2-27, Test Ea • 15 g/11 ms half-sine