

CMGPS 588 Synchronization Unit



The CMGPS 588 synchronization unit is an antenna-integrated GPS controlled time reference optimized for outdoor usage. It works as a Precision Time Protocol (PTP) Grandmaster Clock and does not require any configuration work. It is automatically ready for operation within a very short time after providing power supply via Power over Ethernet (PoE). The distance between the CMGPS 588 and the CMC can be extended up to 95 m (312 ft) by using extension cables.

Compatible test sets

- > CMC 356, CMC 353, CMC 850, CMC 256plus and CMC 256-6 with NET-1B or NET-1C and Test Universe 3.0 or later
- > DANEO 400

Applications

- > Synchronizing output signals to the atomic clocks of the GPS system for distributed synchronized tests
- > Starting distributed tests synchronously at a configurable time (for example, for performing end-to-end tests of line protection schemes)
- > UTC or TAI synchronized recordings

Specifications

GPS data	
Timing accuracy	±100 ns to reference time (TAI/UTC)
Supported timing protocols	PTP Power Profile according to IEEE 1588-2008 and IEEE C37.238-2011
GPS performance	12 channel GPS receiver, Frequency: 1575.42 MHz, L1 band
Power supply	
Power supply	Power over Ethernet (PoE), class 1 powered device according to IEEE 802.3af
Power consumption	< 2 W
Environmental conditions	
Operating temperature	-40 °C ... +70 °C (-40 °F ... +158 °F)
Storage temperature	-40 °C ... +85 °C (-40 °F ... +185 °F)
Degree of protection	Robust and waterproof, IP67 according to IEC 60529
Vibration	IEC 60068-2-6, Test Fc, sinusoidal vibration, 6 mm at 5 – 9 Hz, 2 g at 9 – 200 Hz
Shock	IEC 60068-2-27, Test Ea, 15 g/11 ms half sine
Safety standards, electromagnetic compatibility	
EMC	The 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	IEC 60950-1:2005 2 Ed. +A1:2009, IEC 60950-22:2005
General	
Weight	500 g (1.1 lbs)
Dimensions	Height (without connector and tripod): 106 mm (4.2 in) Diameter: 116 mm (4.6 in)
Ethernet port	Waterproof Ethernet connector according to IEC 61076-3-106 (variant 4), 10Base-T/100 Base-TX
Certifications	TÜV
Delivery contents	
CMGPS 588 synchronization unit with integrated antenna and timing receiver, hardtop case, 15 m (49 ft) rugged ethernet cable with waterproof connector, tripod	

Ordering Information

Order number	Delivery contents
VEHZ3004	CMGPS 588 Synchronization Unit
VEHK0303	40 m (131 ft) rugged ethernet cable reel as extension (2 extensions possible)