



GPS-100CK

IMPROVE NETWORK PERFORMANCE AND RELIABILITY

FEATURES

- Integrated active GPS antenna and receiver which allows reception to unit in low-signal environments where passive antennas fail
- NEMA 4X and UL 508 outdoor rated enclosure
- FCC and CE approvals
- Power supply included.
- Provides precise 1PPS—GPS timing to attached Motorola PTP-SYNC unit. PTP-SYNC units can be cascaded up to 10 and used 1 GPS-100CK.

ADVANTAGES

PTP Synchronized Networks

- Efficient collocation
- Interference mitigation
- Anywhere communications
- High spectral efficiency
- Accurate link planning



ULTRASync®

SIMPLE COST EFFECTIVE GPS RECEIVER FOR
MOTOROLA PTP-SYNC
MOTOROLA PTP-500 & PTP-600 SERIES

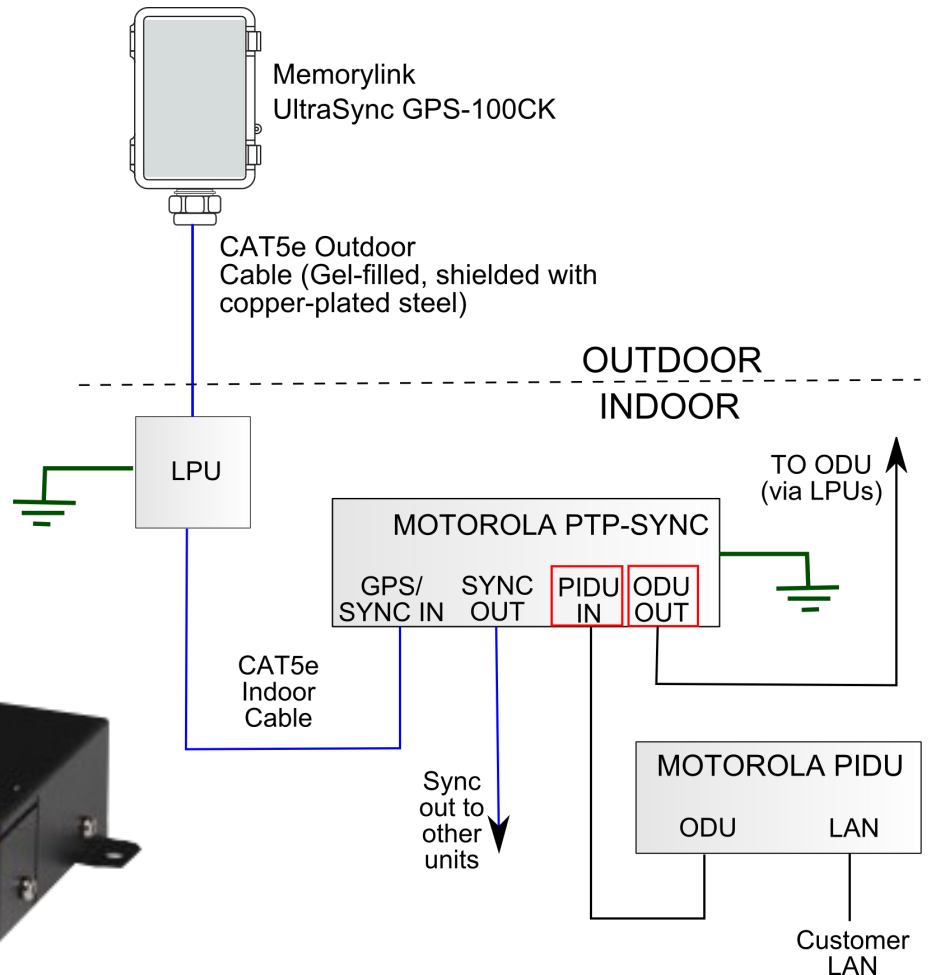
The UltraSync receives a stable, accurate timing signal from its integrated Global Positioning System (GPS) receiver, which obtains signals generated concurrently from 12 of 30 medium earth orbit satellites. The GPS system blanketing the Earth provides highly stable and redundant Cesium (Cs) and Rubidium (Rb) atomic clock sources to GPS receivers including the UltraSync, which can be located almost anywhere on the Earth's surface where a physically unobstructed path to the GPS satellites is available.

PRECISE TIMING

To maintain the precise timing required to synchronize transmit and receive frames a GPS timing reference signal is required. UltraSync GPS-100CK paired the Motorola PTP-SYNC unit provides a convenient, reliable timing reference for synchronizing collocated radios. The UltraSync GPS-100CK is perfect to provide the precise GPS timing required by the Motorola PTP-SYNC unit. The PTP-SYNC unit is optimized for use with the synchronization capability in PTP-500 and PTP-600 radios.

One PTP-SYNC unit is required per PTP-500/600 link and has the capability to daisy-chain up to 10 PTP-SYNC units together and share timing information among a group of radios with one UltraSync GPS-100CK.

When UltraSync and PTP-SYNC by Motorola are used this way, links can achieve frame timing synchronization across an entire network of radios.



ULTRASync GPS-100CK SPECIFICATIONS

Generates the sync signal used by Motorola's PTP-Sync™ devices, derived from a stable reference originating from atomic clocks on GPS satellites— Includes internally mounted GPS antenna

- Connects via a six pin RJ-12 connector to compatible FLEXX and/ or Canopy products equipped with sync port

Interface Specifications

- SYNC
Provides sync on pin one of the six pin RJ-12 connector (aka "RJ-25" connector) and ground on pin six
- Power over CAT 5 Ethernet on ETH1/PWR & ETH2/PWR
- GND terminal to ground to the shields of Cat5 cables

Integral GPS receiver

- 12-channel—L1 1575.42 MHz
- C/A code (1.023 MHz chip rate)
- Minimum PPS accuracy: 1 μ s
- Simultaneously tracks 12 satellites

Electrical

- Powered by Memorylink POCat5 on ETH1 or ETH2
- Input: 24-56 VDC, 0.8 A max.
- Max. GPS-100CK current: 70 mA
- Max. GPS-100CK power consumption: 4.0W

Maximum cable lengths

- See Motorola PTP-Sync User Guide

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Physical

- Enclosure Height: 5.92" (150mm)
Width: 3.95" (100mm)
Depth: 2.79" (71mm)
 - Material: UV stabilized PBT/PC blended plastic
 - NEMA 4X and UL 508 outdoor rated enclosure
 - UL94-5VA flammability rated
- Estimated weight: 23oz (650 grams) (w/o mtg. bracket, etc.)

LED indicators (PCB mount)

- Top PCB PPS_OUT|+3.3V|
- Bottom PCB +3.3V|RF_ON|GPS_FIX

Connectors

- SYNC — RJ-12 connector (aka "RJ-25" connector)
- ETH1/PWR IN & ETH2/PWR IN— RJ-45
- GND — Terminal screw

Environmental

- Operating temperature: -40° C to +60° C
- Storage temperature: -40° C to +85° C
- Operating & Storage humidity: 95% maximum (non-condensing)
- Passive cooling (no fan)

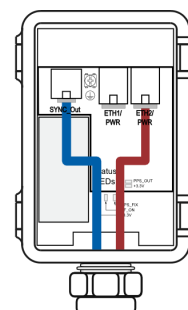
Regulatory

- FCC & CE
- RoHS -Restriction of Hazardous Substances – RoHS Directive 2002/95/EC compliant

Includes

- Mounting bracket, Screws and cable gland for waterproof cable ingress/egress, and power supply

Memorylink Part Numbers: GPS-100CK



Memorylink
UltraSync
GPS-100CK

SYNC OUT
to PTP-Sync | POWER IN
via CAT5e

