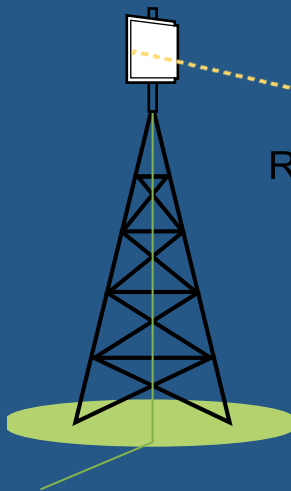




IMPROVE NETWORK PERFORMANCE AND RELIABILITY

- Integrated active GPS antenna and receiver which allows reception to unit in low-signal environments where passive antennas fail
- Frequency agnostic— Works with Motorola PTP-600 series radios.
- NEMA 4X and UL 508 outdoor rated enclosure
- FCC and CE approvals
- No separate power supply needed—powered by Motorola PIDU
- One UltraSync unit per PTP-600 pair - installed on “Master” unit



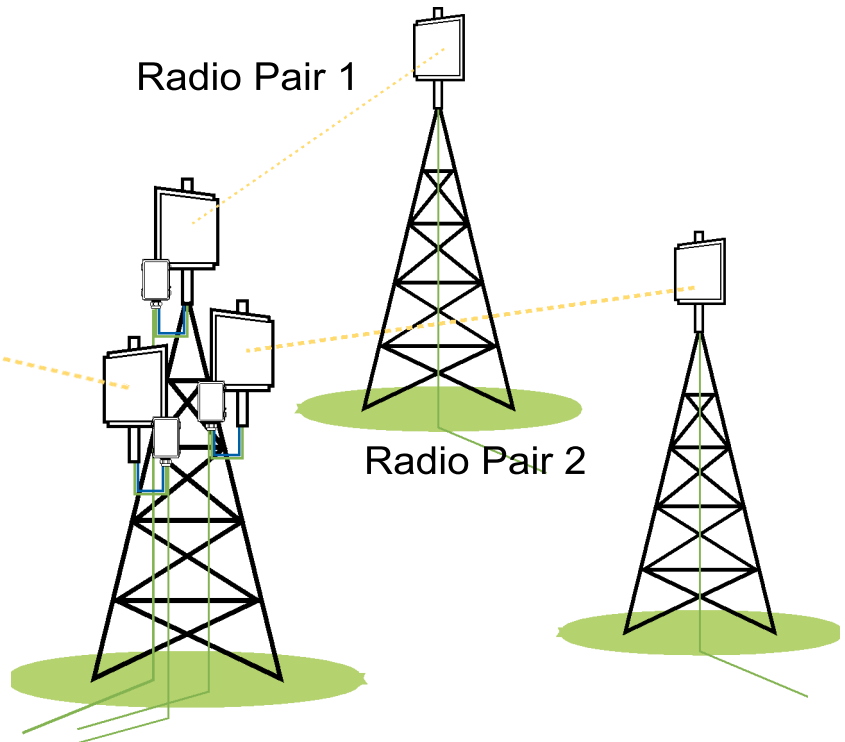
ULTRASync[®]

SIMPLE COST EFFECTIVE EXTENSION SYNC GENERATION FOR MOTOROLA PTP 600 SERIES RADIOS

MemoryLink’s UltraSync™ GPS-100M generates a precise, highly stable, proprietary sync signal used by Motorola’s MOTOwi4™ PTP-600 series of point-to-point (PTP) radios for timing synchronization.

MemoryLink’s UltraSync is the ideal solution to provide a cost-effective, reliable, high-stability timing reference for Motorola PTP radios, delivering significantly improved network performance and reliability. Use of the UltraSync minimizes timing drift and interference and provides a higher resultant bandwidth, helping to maximize link and system performance. UltraSync is critical for a wireless network’s efficiency and reliability when PTP radios are used to transport time division multiplexed (TDM) data over the wireless link, and particularly in a wireless coverage area where multiple radios and channels are in use. The UltraSync’s high-quality components, including an active antenna which allows use in low-signal environments, and a NEMA 4X and UL 508 outdoor rated enclosure, ensure reliable performance that meets the highest standards.

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.



ULTRASYNc GPS-100M SPECIFICATIONS

- Generates the proprietary sync signal used by MOTOwi4™ PTP-600 series of point-to-point (PTP) radios, derived from a stable reference originating from atomic clocks on GPS satellites
- Includes internally mounted GPS antenna
- Connects via RJ-45 connector to compatible MOTOwi4 PTP products equipped with sync port (MOTOwi4 PTP-600 series)

Protocol Support

- Passes 100BASE-T (Gigabit Ethernet) over ETH1/PWR & ETH2/PWR

Interface Specifications

- SYNC

Motorola proprietary differential 3.3V (nominal) peak-to-peak signal presented on pins 4(+) and 5(-) of SYNC (RJ-45 connector)

- Ethernet pass-through
 - ETH1/PWR
 - ETH2/PWR
- GND terminal to ground to the shields of cat5 cables

Maximum cable lengths

- SYNC: 0.6m (2')
- ETH1/PWR: 100m (328')
- ETH2/PWR: 0.6m (2')

- 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:
- Motorola's nonstandard power-over-cat5 via Ethernet pass-through
 - Input: 55 VDC, 1.3 A max.
 - Max. GPS-100M current: 70 mA
 - Max. GPS-100M power consumption: 4.0W

Physical

- Enclosure
 - Height: 5.92" (150mm)
 - Width: 3.95" (100mm)
 - Depth: 2.79" (71mm)
- Estimated weight: 23oz (650 grams) (without mounting bracket, cables, cable glands)
- Material: UV stabilized PBT/PC blended plastic
- NEMA 4X and UL 508 outdoor rated enclosure
- UL94-5VA flammability rated

Physical (cont.)

- Mount to post along with MOTOwi4 PTP-600 radio using included mounting bracket. Includes
 - Mounting bracket & Screws
 - Ethernet cables
 - Cable glands for waterproof cable ingress/egress
- LED indicators (PCB mount)
- Top PCB PPS_OUT — +3.3V
 - Bottom PCB +3.3V — RF_ON — GPS_FIX

Connectors

- SYNC, ETH1/PWR, ETH2/PWR RJ-45
- GND Terminal screw

Environmental

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

Regulatory

- FCC and CE
- Nationally Recognized Testing Lab (NRTL) safety approval is pending
- Restriction of Hazardous Substances – RoHS Directive 2002/95/EC compliant

Memorylink Part Numbers: GPS-100M-K Includes the GPS-100M with mounting hardware, cables (3), and cable glands (3)

