GlobalSync™

Complete Package for a GPS Timing Receiver Reference

Compact GPS timing kit with a power supply and all necessary cables and connectors

GlobalSync™ with accessory kit is a complete package providing everything necessary to set up a GPS option to a network analyzer or GPS timing reference.

Using Datum's proprietary **SnapShot**™ technology, a network of **GlobalSync**™ units is able to lock system time to within 20 nsec (RMS) of each other. After a quick initial survey, only one GPS satellite need be visible in order to maintain system accuracy. This is especially important in a crowded urban environment that lacks antenna locations with an unobstructed view of the sky. Another helpful and advanced feature is the **T-RAIM** (time-receiver autonomous integrity monitoring) algorithm we have incorporated to monitor the health of individual GPS satellites. This algorithm assures that timing and position information from a malfunctioning satellite is not used, thus preventing it from negatively affecting your system's accuracy.

Contact Datum to discuss your specific requirements. Discover how our **GlobalSync**™, or another of the many precision timing and frequency products designed and manufactured by Datum, can enhance your applications.

Electrical Specifications

- **Inputs:**
  L1 GPS (1575.42 MHz) C/A code
  (from GPS antenna)

  90 - 264 VAC @ 1.25 Amp Max

- **Outputs:**
  1 PPS TTL @ 50Ω

  10 MHz Sine @ 50Ω (coherent with 1 PPS)
  13 dBm ±2 dB

  +5V@80 ma for antenna Amp.

  RS-232 for GPS time/status alarms

- **Timing Accuracy:**
  ≤20 nsec RMS between units over any 20 minute
  interval (under limited temp. variations)

  ±1 sec programmable offset from GPS in 17ns
  steps

- **Phase Noise:**

10 Hz	<-120 dBc/Hz
100 Hz	<-130 dBc/Hz
1 KHz	<-145 dBc/Hz
10 KHz	<-150 dBc/Hz
100 KHz	<-150 dBc/Hz

- **Holdover[1]:**
  <1 µs over 2 hours typ.

- **Spurious:**

Harmonic:	<-30 dBc
Non-Harmonic:	<-80 dBc

- **Time to first position fix:**
  <20 minutes, 90% of the time

- **Timestamp message:**
  Calendar date and time to 1 second using
  Datum Serial Binary Interface Protocol

Environmental Specifications

- **Operating Temperature:** 0℃ to +55˚C
- **Storage Temperature:** -40℃ to +85℃
- **Operating Altitude[2]:** Operating: -200 ft to 40,000 ft. (12,200 meters)
- **Operating Humidity:** ≤90%, Non-condensing

Physical Specifications

- **Size:** 12.0" L X 10.0" W X 2.0" H
  304.8mm L X 254mm W X 50.8mm H
- **Weight:** 3.65 lbs (1.65 kg)
- **Fault Indicators:** Software controlled/Power On LED (GRN)
- **Antenna Input:** Type F
- **Outputs:** 1 PPS and 10 MHz: BNC connectors
  RS-232: DB-9M (DTE)
- **Warranty:** 1 year (Consult factory for extended warranty)

[1]Holdover refers to operation without GPS signals after an initial period of 8 hours of proper GPS reception

[2]Maximum operating temperature derated above 5,000 feet (1,525 meters)

NOTE: Values are typical

GlobalSync and Accessories
Kit Order Number: 107054-001

Includes:
10' service cable D89 F to F
Two 10' 50 Ohm cables BNC/BNC
GPS antenna (26 dB) w/Stand
75' antenna cable
25' antenna cable

For more information call 1-800-337-2866 in the U.S. Or visit us on
the World Wide Web at http://www.datum.com for continuously
updated product specifications, news and information.