

GPS Disciplined Rubidium Frequency & Time Reference

- Excellent Long-term Holdover
- Accurate to 25ns RMS UTC
- No Drift
- National & Internationally Traceable Reference

E80-GPS with 1 x 10MHz Output



E80-GPS with 6 Outputs distribution card



Rear panel configuration A



Rear panel configuration B

The E80-GPS provides a stable and accurate calibration free GPS time & frequency with multiple output signal formats in an easy to install 1U rack mountable chassis. This reference maintains high time and frequency accuracy required for demanding applications.

The added advantage of the internal rubidium module is that there is no measurable difference between the stability when locked to GPS or in Holdover mode with measurement times up to 1000s.

Features

- 1×10^{-12} accuracy
- No Drift
- 50ns 1PPS accuracy to UTC
- RS232 NMEA NTP Time Reference
- Excellent holdover performance up to measurement times up to 1000s

Benefits

- No calibration required
- National & International traceable reference
- Caesium replacement

Applications

- Frequency Reference for: Satellite Communication ground stations, VHF,UHF, & PMR TX, CDMA, Tetra, DTV & DAB, wired & wireless network sync
- Production test frequency standard
- Frequency Standard for counters, signal generators, spectrum & network analysers
- Stratum 1 primary reference clock

Specification	E80-GPS
Type	GPS Disciplined Rubidium
Output	10MHz (available up to 100MHz) +10dBm ±2dBm into 50Ω (75Ω available)
Frequency	
Level	
Number of output	1-6
Connector	SMA
Frequency Accuracy at GPS locked	2E-12
Frequency Stability	Options: A B
1s	1.00E-11 1.00E-12
10s	5.00E-11 5.00E-12
100s	2.00E-11 2.00E-12
1 Hour	6.00E-11 6.00E-12
Aging	5.00E-12
1 Day	4.00E-11
1 Month	
Phase Noise dBc/Hz in 1Hz BW	Options: A B C D
1Hz	-67 -100 -110 -115
10Hz	-95 -125 -138 -140
100Hz	-127 -145 -150 -152
1kHz	-145 -150 -155 -155
10KHz	-144 -150 -157 -158
Harmonics	<-40dBc
Spurious	<-70dBc
Start Up (Warm) Time Retrace	<30 Minutes
1PPS	2.00E-11
Accuracy (GPS locked)	<±12ns
Holdover (no GPS lock)	<1µs/24 hour
Level	3.3VCMOS 1 to
Number of output	1
Connector	SMA
Power Supply	90 - 240Vac External Input 15Vdc, 22.5W at warm-up. 8W at Steady state.
AC	
DC	
Internal battery (Optional):	Option 75: Add internal battery 2 hours running time
Temperature	-20°C to +60°C
Operating	
Storage	-40°C to +70°C
Humidity	90% (Non Condensing)
Frequency Offset	5.00E-10
Over operating temperature range -20 to +60	
Magnetic Field	2.00E-11
Sensitivity (Guass) Atmospheric Pressure (mbar)	1.00E-13
Approx MTBF Stationary	100000 hours
GPS Antenna	28dB @ 3.3V
Gain	
Voltage	2.7-5 Vdc
Connector	BNC
Mounting	Magnetic
Cable length	5m
	Option 47: High gain antenna with up to 70m cable
Mechanical	Black
Colour	
Dimension	122 x 105 x 60mm LWH
Weight	600gm