

GPS Disciplined Rubidium Frequency & Time Reference

- Excellent Long-term Holdover
 - Accurate to 25ns RMS UTC
 - No Drift
 - National & Internationally Traceable Reference
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The E8010 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
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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
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Specification	E8010
Type	Rubidium Rack
Output	
Frequency	10MHz
Level	10dBm \pm 2dBm 50Ohms
Number	1 to 10
Connector	BNC
Accuracy at Shipment	5.00E-11
Frequency Stability	
1s	8.00E-11
10s	3.00E-11
100s	5.00E-12
1 Hour	6.00E-12
Aging	
1 Day	5.00E-12
1 Month	5.00E-11
1 Year	
Phase Noise dBc/Hz in 1Hz BW	
1Hz	-67dBc/Hz
10Hz	-95dBc/Hz
100Hz	-127dBc/Hz
1kHz	-140dBc/Hz
Harmonics	<-40dBc
Spurious	<70dBc
Start Up (Warm) Time	<30 Minutes
Retrace	2.00E-11
1PPS	
Accuracy	< \pm 12ns
Holdover	< \pm 50ns
Level	3.3VCMOS
Number	1 to 10
Connector	BNC
Power Supply	
AC	90 - 240Vac
DC	External Input Option
Power Consumption @ 25°C	
Warm Up	22W
Stabilized	11.5W
Temperature	
Operating	-20°C to +50°C
Storage	-40°C to +70°C
Humidity	90% (Non Condensing)
Frequency Offset over operating temperature range	5.00E-10
Magnetic Field	
Sensitivity (Guass)	2.00E-11
Atmospheric Pressure (mbar)	1.00E-13
Approx MTBF Stationary	100000 hours
GPS Antenna	
Gain	28dB @ 3.3V
Noise Figure	0.8dB
Voltage	2.7-5 Vdc
Connector	BNC
Mounting	Magnetic
Cable	5m
Mechanical	
Colour	Aluminium
Dimension	44 x 483 x 240mm
Dimension Packed	100 x 560 x 340mm
Weight	3kg