

GPS Time & Frequency Reference

- -110dBc/Hz @ 1Hz offset Phase Noise
 - Internationally Traceable Standard
 - Accurate to 25ns RMS UTC
 - No Drift
-



The E8-Y GPS provides low noise, traceable, calibration free Time & Frequency Reference. These time and frequency standards maintain high time & frequency accuracy required for demanding applications. The E8-Y may be considered as a primary reference clock.

Features

- 10MHz Output
- 1PPS Output
- 1×10^{-12} accuracy
- RS232 Connection (USB option)
- 12 Channel GPS Receiver with TRAIM
- Excellent Holdover performance

Benefits

- No Calibration required
 - GPS Traceable Reference
 - 12 Channel GPS receiver provides high accuracy UTC time & frequency reference
 - 1 year warranty
 - NTP option in place of GPS View
-

Applications

- Time & Frequency Reference for Satellite communication ground stations, CDMA, LTE, DTV & DAB
 - Production test frequency standard
 - Time & Frequency standard for calibration & RF laboratories
 - Frequency reference for counters, signal generators, spectrum & network analysers
 - Wired & wireless network synchronization
-

Specification

Outputs	a) Sinewave	10MHz, 12dBm +/- 2dBm into 50 Ohms
	Harmonics Spurii	<-50dBc <-75dBc
Frequency Accuracy	b) TTL	1 pulse per second
	3.3VCMOS	Jitter 7ns standard deviation
Hold over	100us per day	
Short Term Stability	τ	Allan Variance (typ)
	1s	2×10^{-12}
	10s	$<4 \times 10^{-13}$
	100s	$<5 \times 10^{-12}$
	1000s	$<2 \times 10^{-12}$
Phase Noise (typ)	1Hz	-110 dBc
	10Hz	-136 dBc
	100Hz	-145 dBc
	1kHz	-155 dBc
	10kHz	-157 dBc
Lock Indicator	On - Not Locked	
	Off - Locked, Low Phase Error	
	Short flash every second - Locked, High Phase Error	
GPS Indicator	Green - Indicates number of satellites used in time solution	
	Amber - Indicates number of satellites tracked but not used in time solution	
Warm Time	<30 minutes to specified accuracy	
Power Supply	15V dc (ac psu provided) Active GPS antenna supplied (5m lead). High gain antenna option with 20m lead.	
Current Consumption	250m A typical	
Size	E8-Y	105 x 30 x 125mm desktop module
	E8-Y PCB OEM	100 x 120mm
	E8-Y MIL	CNC machined microwave housing