

# GPS Disciplined OCXO Time & Frequency Reference

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- Accurate to 25ns RMS UTC
  - -100dBc/Hz @ 1Hz offset phase noise
  - No Drift
  - Internationally Traceable Standard
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- The E8-Y provides low noise, traceable, calibration free time & frequency reference. These time & frequency standards maintain high time & frequency accuracy required for demanding applications. The E8-Y may be considered as a primary reference clock.
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## Features

- $1 \times 10^{-12}$  accuracy
- 10MHz output
- 1PPS output
- RS232 NMEA output
- Excellent holdover performance

## Benefits

- No calibration required
  - GPS receiver provides high accuracy UTC time & frequency reference
  - GPS traceable reference
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## Applications

- Wired & wireless network synchronization
  - Production test frequency reference
  - Time and frequency standard for calibration & RF laboratories
  - Frequency standard for counters, signal generators, spectrum & network analysers
  - Time & frequency reference for satellite communications ground stations CDMA, LTE, DTV & DAB
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<b>Specification</b>		<b>E8-Y</b>			
<b>Type</b>		<b>GPS Disciplined OCXO</b>			
<b>Output</b>					
Frequency		10MHz			
Level		+12dBm ±2dBm into 50 Ohms			
Number		1-6			
Connector		BNC & SMA			
<b>Frequency Accuracy</b>		1.00E-12			
<b>Frequency Stability</b>		<b>A</b>	<b>B</b>		
1s		1.00E-11	2.00E-12		
10s		5.00E-11	5.00E-12		
100s		2.00E-11	2.00E-12		
1 Hour		6.00E-11	6.00E-12		
<b>Phase Noise</b> dBc/Hz in 1Hz BW		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1Hz		-100	-108	-112	-90
10Hz		-130	-135	-138	-100
100Hz		-145	-145	-152	-154
1kHz		-150	-150	-155	-158
10KHz		-155	-158	-158	-165
<b>Harmonics</b>		<-30dBc			
<b>Spurious</b>		<-80dBc			
<b>Start Up (Warm) Time</b>		<25 Minutes			
<b>1PPS</b>					
Accuracy (GPS locked)		<±12ns			
Holdover (no GPS lock)		<6 µ seconds /24 hrs			
Level		3.3VCMOS			
Number		1			
Connector		BNC			
<b>Power Supply</b>					
AC		90 - 240Vac			
DC		12 - 18Vdc			
<b>Power Consumption @ 25°C</b>					
Warm Up		11W			
Stabilized		5W			
<b>Temperature</b>					
Operating		-20°C to +50°C			
Storage		-40°C to +70°C			
Humidity		90% (Non Condensing)			
<b>GPS Antenna</b>					
Gain		28dB @ 3.3V			
Noise Figure		0.8dB			
Voltage		2.7-5 Vdc			
Connector		BNC			
Mounting		Magnetic			
Cable		5m			
<b>Option 47: High gain antenna with up to 70m cable</b>					
<b>Mechanical</b>					
Colour		Black			
Dimension		165 x 105 x 35mm			
Dimension Packed		270 x 160 x 85mm			
Weight		1kg			