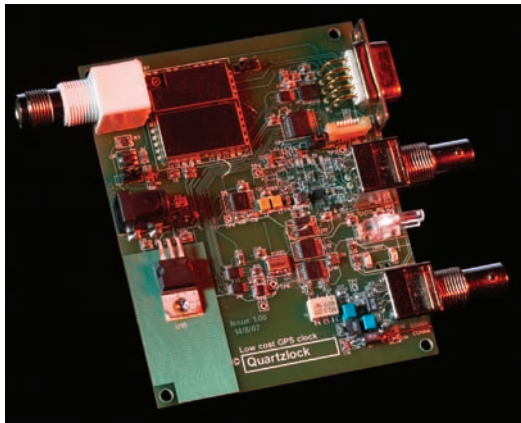


Breakthrough, Economy GPS Timing & Frequency Standards



Description

The Quartzlock E8-X represents a breakthrough in exceptionally low cost, traceable, **calibration-free "off air" frequency & time standards**. These very low cost references maintain the high frequency & time accuracy required for demanding applications.

Low distortion 10MHz Sine & 1PPS outputs.

Features

- 1×10^{-12} accuracy
- No Drift
- High Stability
- 1 Year Warranty
- Lowest Cost Available
- Very long production life & support. Quartzlock 2A (E8-X predecessor) series has been in production for > 30 years (3 generations)
- Many versions of the E8-X are available. PCB, Mill, Low & Very Low Noise etc.

Benefits

- No Calibration Required
- Traceable Reference, nationally & internationally

Applications:

- **Calibration of:** Counters, Frequency Meters, Spectrum & Network Analysers, Synthesizers, & Communication Analysers
- **Reference for:** VHF, UHF & PMR TX, CDMA, Tetra, DTV & DAB
- Production Test Frequency Standard
- Network Time Protocol use in Financial, Utilities, Security & Communications Timing
- OEM
- **Standard for:** Calibration Labs, Radio Workshops, Labs and Stations

Quality:

- Quartzlock's Hydrogen Maser based laboratory is used in production test & QA to ensure compliance with offset and stability specifications.

Economy GPS Timing & Frequency Standards

The Quartzlock E8-X represent a breakthrough in exceptionally low cost, traceable, **calibration-free “off air” frequency & time standards**. These very low cost references maintain the high frequency & time accuracy required for demanding applications.

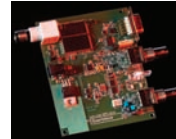
SPECIFICATION

Outputs

- a) Sinewave, 10MHz, 12dBm +/- 2dBm into 50 Ohms
Harmonics < -50dBc
Spurii < -75dBc
- b) TTL, 3.3VCMOS, 1pulse per second

Frequency Accuracy	1x10 ⁻¹² Long Term	
Short Term Stability	tau	Allan Variance
	1s	<2x10 ⁻¹⁰
	10s	<4x10 ⁻¹⁰
	100s	<5x10 ⁻¹¹
	1000s	<2x10 ⁻¹¹
10000s	<5x10 ⁻¹²	
Phase Noise (typ)	1Hz	-60 dBc
	10Hz	-90 dBc
	100Hz	-115 dBc
	1kHz	-130 dBc
	10kHz	-140 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	<15 minutes to specified accuracy	
Power Supply	6 to 12V dc (ac psu provided)	
Current Consumption	250mA typical	
Size	E8-X	105 x 30 x 125mm desktop module
	Option 3	100 x 120mm
	Option 4	41 x 25 x 51mm
Antenna Option 46	Supplied with cable & connectors	

Opt 3



100 x 120mm

Opt 4



41 x 25 x 51mm



105 x 30 x 125mm

OPTION 41

Interface	Shared between DPLL and GPS receiver
DPLL	9.6kbaud, RS232, PC compatible (8bits no parity, no handshake)
GPS	9.6kbaud, Motorola binary format (8bits no parity, no handshake)
DPLL Tracking	5mHz to 500mHz typical in 8 binary Bandwidths increments default 20mHz

Model E8-Y

Outputs	6 x10MHz low distortion, sinewave, isolated, +13dBm 1V rms 50 Ohms
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Low Noise Options (48)(contact Quartzlock)

Short Term Stability	Phase Noise				
		tau	Allan Variance	(typ -dBc/Hz)	
		Options	(contact Quartzlock)		
1s	x10 ⁻¹¹	1Hz	69	90	100
10s	x10 ⁻¹¹	10Hz	98	120	130
100s	x10 ⁻¹²	100Hz	120	130	150
1000s	x10 ⁻¹²	1kHz	130	145	155
10000s	x10 ⁻¹²	10kHz	140	145	155
	100kHz	143	145	-	

Option 43 (E8-X or Y)

PCB version

Option 44 (E8-X or Y) for OEM qty use

OCXO type case enclosure for PCB mounting. 1 output

Option 45 (E8-X or Y)

MIL spec environmental in CNC machine housing

Option 46

Antenna & PSU

Option 47

High gain antenna & PSU

Contact us:



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