

Quartzlock E10-Y

Ultra Low Noise Rubidium Oscillators

with Active Noise Filtering

ACHIEVES
1/0 FROM GPS
1PPS
IN 100s



APPLICATIONS

- Frequency Calibration
- Telecom Network Synchronisation
- Broadcast
- Cellular Wireless Base Stations
- HDTV
- Secure Communications
- Satellite Communications

FEATURES & BENEFITS

- Aging: 5×10^{-10} /year
- Stability $6 \dots 8 \times 10^{-13}$ /100s
- 1PPS I/O Sync option
- 10MHz output (customer options)
- Very low cost, high performance reference
- Fits 1U case
- High reliability, 3-year warranty
- Simple integration into systems
- RS232 Interface
- Low Power 12V dc <8W

Very/Ultra Low Phase Noise Options

- | | |
|----------|-------------------------|
| • 10MHz | -115dBc/Hz @ 1Hz offset |
| • 10MHz | -173dBc/Hz noise floor |
| • 100MHz | -180dBc/Hz noise floor |
| • 5MHz | -123dBc/Hz @ 1Hz offset |

E10-Y SPECIFICATIONS PROVISIONAL INFORMATION

Output	10MHz HCMOS or Sinewave 7...13dBm 50Ω 1PPS option with GPS sync input			
Optional outputs	Consult factory			
Accuracy	±5E-11 at shipment @25°C			
Harmonics	-40dBc			
Spurii	-80dBc			
Aging	5x10 ⁻¹² /day	5x10 ⁻¹¹ /month	Low Noise Opt	5x10 ⁻¹³ /day
Retrace	≤±3E-11			
Short Term Stability (typical)	VLN 10MHz	ULN 10MHz	ULN 5MHz	ULN 80...120MHz
1s	8x10 ⁻¹³	6x10 ⁻¹³	6x10 ⁻¹³	
10s	4x10 ⁻¹³			
100s				
Phase Noise	VLN 10MHz	ULN 10MHz	ULN 5MHz	ULN 80...120MHz
1Hz	-110dBc	-115dBc	-123dBc	
10Hz	-136dBc	-140dBc	-150dBc	
100Hz	-145dBc		-156dBc	
1kHz	-155dBc	-168dBc (-170 NF)	-160dBc	-180dBc (noise floor)
Input Power	7.8W at 12V@25C, Max 1.75A@25C			
Input Voltage Range	11.4...18Vdc ± 0.5Vdc			
Warm Time	5 minutes to lock @ 25C			
Frequency Control	Internal trim range (trimpot) ≥2E-9 External trim range ≥2E-9 (0V~5V)			
Temperature	Operating -20C to +50C (-40C to +60C option) Temperature Coefficient (ambient) 2E-10 (-20C to 50C) Storage -55C to +85C			
MTBF	100,000 hours			
Connector	DB-9 Connector, SMA			
Size	89x76x28 (mm3) (190cc)			
Weight	0.25kg max			
Warranty	3 years			



These images do not include active noise filtering extension

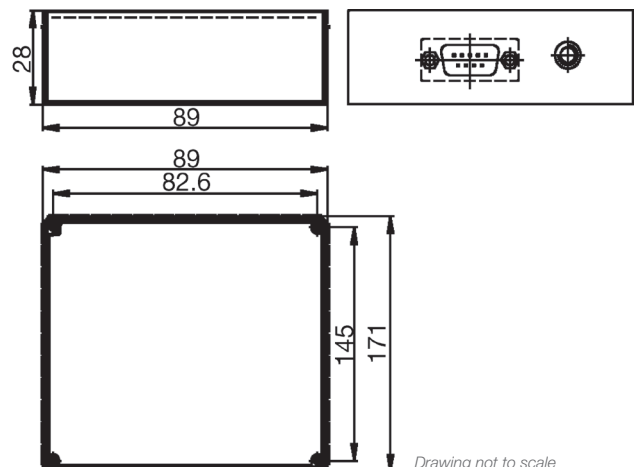
CONNECTOR INTERFACE

J1: SMA, RF OUTPUT
J2: DB-9

INDICATORS

LED 1: ON
LED 2: LOCK

DIMENSIONS



Drawing not to scale

Contact us:

Telephone: +44(0)1803 862062

Fax: +44(0)1803 867962

e-mail: sales@quartzlock.com

Web: quartzlock.com