

Compact Desktop Rubidium Frequency Reference

- ❑ Compact light weight portable for a wide range of applications
- ❑ Fast warm time
- ❑ Low power operation
- ❑ 12V dc operation (ac plug top adaptor supplied)



Actual size

Compact simple to install atomic frequency reference for use as a general purpose 10MHz rubidium frequency standard.

This frequency standard benefits from having Quartzlock's SMAC (Sub Miniature Atomic Clock) technology built in.

Features

- 10Mhz Output
- Ageing $<5 \times 10^{-10}$ /year
- -95dBc/Hz @ 10Hz
- 5×10^{-11} accuracy
- $8 \times 10^{-12}/\text{s}$ @ 100s

Benefits

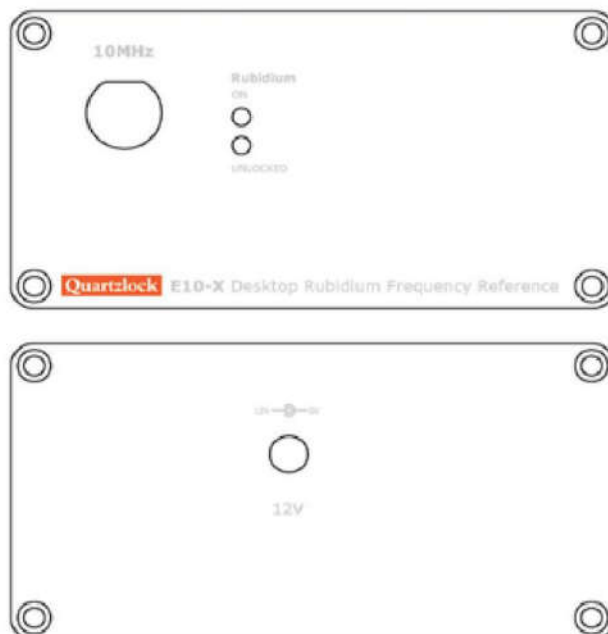
- Atomic accuracy
- No antenna
- Quick and simple use and install
- Transfer standard

Applications

- Production test frequency standard
- Time and frequency standard for calibration and RF laboratories
- Frequency standard for counters, signal generators, spectrum and network analysers
- Wired and wireless network synchronization

Specifications

Output	10MHz Sine, 10dBm, ± 3 dBm	
Harmonics	<-40dBc	
Accuracy	$\pm 5 \times 10^{-11}$ at shipment @25°C	
Short Term Stability (AVAR)	1s	8×10^{-11}
	10s	3×10^{-11}
	100s	8×10^{-12}
Drift	1 day	5×10^{-12}
	1 month	5×10^{-11}
Phase to Noise (SSB)	10Hz	-95dBc
	100Hz	-125dBc
	1kHz	-135dBc
Input Power	6W at 12V @ 25°C, Max 1.2A	
Input Voltage Range	90...245V ac or +12V dc	
Warm Up	5 minutes to lock @ 25°C	
Retrace	$\pm 2 \times 10^{-11}$	
Magnetic field sensitivity, dc (± 2 GAUSS)	< $\pm 4 \times 10^{-11}$ /GAUSS	
Size	103 x 55 x 122 mm	
Weight	500gm approx	
Warranty	24 months	



Environmental Specifications

Operating Temp Range	-20°C~+50°C Typical: -30~+65°C
Temperature Coefficient (ambient)	2×10^{-10} (0~50°C)
Storage Temperature	-55°C~+85°C
MTBF	100,000 hours
Environmental health	RoHS
EMI	Compliant to FCC Part 15 Class B