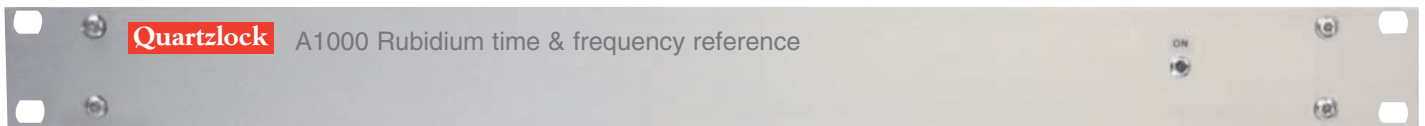


# Rubidium Frequency Reference



## Description

The Quartzlock A1000 Rubidium Frequency Reference is a 10 MHz high stability standard with very low capital and cost of ownership.

## Features

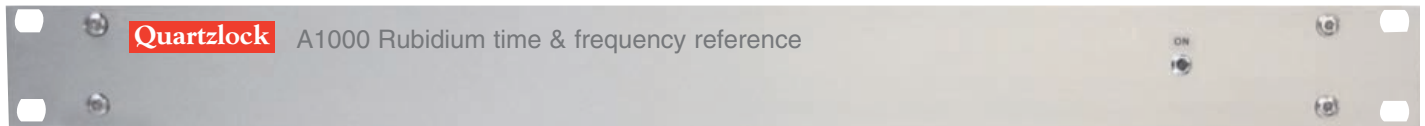
- Low Phase Noise
- Low Drift
- High Stability
- 3 Year Warranty

## Applications:

- Systems & Test Solutions
- Frequency Reference
- Frequency Standard
- Wireless Transmitter Ref.

# Quartzlock A1000

## Rubidium Frequency Reference



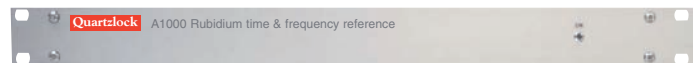
Low phase noise • low drift • high stability

### SPECIFICATION

Output (50 ohms)	10MHz sine 0.7V rms +7dBm
OPTION A	1V rms +13dBm
OPTION B	Custom output frequencies
Accuracy	$\pm 5 \times 10^{-11}$ at shipment @25°C
Phase to Noise (SSB)	10Hz -100dBc 100Hz -120 dBc 1KHz -140 dBc
Input Power	13W
Input Voltage Range	90-240V ac
Warm Time	5 minutes to lock @ 25°C
Retrace	$\pm 3 \times 10^{-11}$
Frequency Control Internal (external ask Quartzlock)	
Internal trim range (trimpot)	greater than $2 \times 10^{-9}$
External trim range	greater than $2 \times 10^{-9}$ (0V~5V)
Short term stability	1s $3 \times 10^{-11}$ 10s $1 \times 10^{-11}$ 100s $3 \times 10^{-12}$ hour $x 10^{-13}$ day $1 \times 10^{-12}$
Harmonics	
Second Harmonic	-48 dBc
Third Harmonic	-45 dBc
Frequency Drift	$3 \times 10^{-12}/d, 3 \times 10^{-11}/m, 5 \times 10^{-10}/yr$
Status Monitors	Lock and On LED
RS232 i/o NMEA NTP, lock advice etc.	
Operating Temp. Range	-20°C to +50°C
Temperature Coefficient (ambient)	$3 \times 10^{-10}$ (-20° to 50°C)
Storage Temperature	-40° to 70°C
MTBF	100,000 hours
Connectors	BNC RF & IEC line supply input
Size	19" Rack 1 U (44mm/1.75")
Weight	1.75Kg
Warranty	3 years

Applications:  
Systems & Test Solutions  
Frequency Reference  
Frequency Standard  
Wireless Transmitter Ref.

### new 2007 economy '1U' line instruments



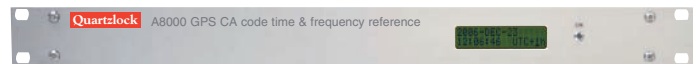
#### A1000 Rubidium instrument

Low phase noise • low drift • high stability



#### A5000 Distribution Amplifier

Up to 24 outputs from 1 or 2 inputs



#### A8000 GPS CA code time & freq. ref.

#### A4000 Redundant RF Switch Unit

For use with Rb and GPS references

**Quartzlock can combine any of the above instruments into a single 1U unit to meet specified requirements.**

### Contact us:

Test, Measurement, Calibration, Control & Recording Instrumentation



1-86-MEASURE-1 (1-866-327-8731) www.technical-sys.com