

# **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

Quartzlock A1000 Rubidium time & frequency reference

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## Low phase noise • low drift • high stability

#### **SPECIFICATION**

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Output (50 ohms) OPTION A OPTION B		10MHz sine 0.7V rms +7dBm 1V rms +13dBm Custom output frequencies		
Accuracy	±5x10 <sup>-11</sup> a	±5x10 <sup>-11</sup> at shipment @25°C		
Phase to Noise (SSB)	10Hz 100Hz 1KHz	-100dBc -120 dBc -140 dBc		
Input Power		13W		
Input Voltage Range		90-240V ac		
Warm Time	5 minu	5 minutes to lock @ 25°C		
Retrace		±3x10 <sup>-11</sup>		
Frequency Control Internal (external ask Quartzlock) Internal trim range (trimpot) greater than 2x10 <sup>-9</sup> External trim range greater than 2x10 <sup>-9</sup> (0V~5V)				
Short term stability	1s 10s 100s hour day	3x10 <sup>-11</sup> 1x10 <sup>-11</sup> 3x10 <sup>-12</sup> x10 <sup>-13</sup> 1x10 <sup>-12</sup>		
Harmonics Second Harmonic Third Harmonic		-48 dBc -45 dBc		
Frequency Drift	3x10 <sup>-12</sup> /d, 3>	3x10 <sup>-12</sup> /d, 3x10 <sup>-11</sup> /m, 5x10 <sup>-10</sup> /yr		
Status Monitors	Lock and On LED			
RS232 i/o NMEA NTP, loo	ck advice etc	).		
Operating Temp. Range		-20°C to +50°C		
Temperature Coefficient (	(ambient) 3x <sup>-</sup>	10 <sup>-10</sup> (-20° to 50°C)		
Storage Temperature		-40° to 70°C		
MTBF		100,000 hours		
Connectors E	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

Quartzlock A1000 Rubidium time & frequency reference		0
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A1000 Rubidium instrument	P.L	
Low phase noise • low drift • high stabi	lity	

A5000 Distribution Amplifier Up to 24 outputs from 1 or 2 inputs

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Quartzlock A8000 GPS CA code time & frequency reference	2006-06C-23 19185146 UTC+18	÷	8
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:**

Telephone: +44(0)1803 862062

Fax: +44(0)1803 867962

e-mail: sales@quartzlock.com

### Web: quartzlock.com

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