

Portable 10MHz Rubidium Frequency Reference



Description

The Quartzlock A10-XLB Rubidium Frequency Reference is a 10 MHz high stability standard with completely portable and multiple power supply options.

Features

- Low Phase Noise
- Low Drift
- High Stability
- 3 Year Warranty
- Internal Li Ion Rechargeable Battery
- Internal Battery Charger
- External 12Vdc & 24Vdc operation
- External ac operation & charging
- 4 hours battery operation
- Full battery back-up redundant supply operation

Applications:

- Field Systems & Test Solutions
- Field Frequency Reference
- Portable Frequency Standard
- W-CDMA Wireless Transmitter Ref.
- HDTV Transmitter Reference

Portable 10MHz Rubidium Frequency Reference

Output	10MHz sine 0.7V rms into 50 ohms
Accuracy	$\pm 5 \times 10^{-11}$ at shipment @25°C
Phase Noise (SSB)	-100dBc (10Hz) -120 dBc (100Hz) -140 dBc (1KHz)
Input Power	13W at 24V@25°C, Max 2A
Input Voltage Range (see options)	22 to 30Vdc
Warm Time	5 minutes to lock @ 25°C
Retrace	$\pm 3 \times 10^{-11}$
Frequency Control	
Internal trim range (trimpot)	greater than 2×10^{-9}
External trim range	greater than 2×10^{-9} (0V~5V)
Short term stability	$3 \times 10^{-11}/1s$ $1 \times 10^{-11}/10s$ $3 \times 10^{-12}/100s$ /hour
Aging	$3 \times 10^{-12}/day$ $4 \times 10^{-11}/month$ $5 \times 10^{-10}/year$
Harmonics	
Second Harmonic	-48 dBc
Third Harmonic	-45 dBc
Frequency Drift	$3 \times 10^{-12}/day$, $3 \times 10^{-11}/month$
Status Monitors	Lock and On LEDs
Operating Temp. Range	-20°C to +50°C
Temperature Coefficient (ambient)	3×10^{-10} (-20° to 50°C)
Storage Temperature	-40° to 70°C
MTBF	100,000 hours
RF Connector	BNC
Power Supply	

Internal Battery is a third generation lithium ion prismatic high capacity 24Vdc supply that will operate the A10-XLB for 4 hours. External charger provided.

Size	222x215x57mm
Weight	1.75Kg
Warranty (excluding battery)	3 years
OPTION 01	
Multiple Power Supplies	
Ext 12Vdc or 24Vdc supply. 90-240V ac input.	
Redundant battery back-up operation.	

Applications:

- Field Systems & Test Solutions
- Field Frequency Reference
- Portable Frequency Standard
- W-CDMA Wireless Transmitter Ref.
- HDTV Transmitter Reference
- “Supply Noise Immune” Source



- A padded carrying bag is optional
- All inputs and outputs are on the front panel

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