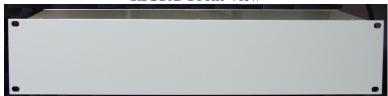


RFS10B: 10 MHz Rubidium Frequency Reference

RFS10B Front View



RFS10B Rear View



Key Features

- 10 MHz Output, +13 dBm
- Oven Controlled Rubidium Oscillator
- Very Low Phase Noise
- Low Aging of 5 x 10⁻¹¹ / month
- High Thermal Stability of 5 x 10⁻¹¹ (0 to 50 °C)
- Low 100 second Allan Deviation of 2 x 10⁻¹²
- 19" Rack mount Case
- Many Options Available
- CE Marked

General Description

The RFS10B is a 10 MHz rubidium frequency reference which offers excellent performance for virtually any frequency or timing application. It is ideal for instrumentation and communication systems which require a precise frequency reference. The RFS10B is supplied in a 19" rack mount case and is powered from a 115 / 230 VAC power supply.

Options such as a RS232 interface, DC power input, multiple isolated 10 MHz outputs and squarewave outputs are also available.

Applications

The RFS10B is already used by a leading UK telecommunications company to synchronize their automatic satellite communication system. It meets stratum 1 performance (72 hour)

Low Phase Noise

Traditionally rubidium frequency standards have suffered from poor phase noise. However, due to an unique phase lock loop design, the rubidium oscillator used in the RFS10B has very low phase noise, superior to most other competitive rubidium oscillators.

Miscellaneous Information

The RFS10B is a highly reliable unit. It is housed in a fully screened aluminum 19 inch case aluminum case and operates from a 115 VAC or 230 VAC supply. The RFS10B is CE marked for sale within the EEC.

RFS10B SPECIFICATIONS

Specification Parameter	Specification		
Frequency	10.000000 MHz		
Output level	$+13 \text{ dBm into } 50 \Omega$		
Output Waveform	Sinewave		
Spectral Purity	2 nd Harmonic < -45 dBc. Other harmonics < -60 dBc		
Accuracy at shipment	$< 5 \times 10^{-11}$		
Frequency Stability (0 to 50 °C)	$\pm 5 \times 10^{-11}$		
Aging (per month)	$< 5 \times 10^{-11}$		
Aging (per year)	$< 5 \times 10^{-10}$		
Frequency Retrace	$\pm 5 \times 10^{-11}$ (72 hrs. off then 72 hrs. on)		
Allan Deviation (1s)	< 2 x 10 ⁻¹¹		
Allan Deviation (10s)	$< 1 \times 10^{-11}$		
Allan Deviation (100s)	$< 2 \times 10^{-12}$		
Phase Noise 1 Hz	< -96 dBc/Hz		
Phase Noise 10 Hz	< -122 dBc/Hz		
Phase Noise 100 Hz	< -138 dBc/Hz		
Phase Noise 1 kHz	< -148 dBc/Hz		
Power (AC)	115 VAC or 230 VAC ± 10%. Power 130 Watts max		
Size	483 mm x 88 mm x 180 mm. Width x Depth x Height		
Weight	4.5 kg		
Ambient Operating Temperature	-20°C to +50 °C		
Options Available	RS232 interface, 1 pps time tagging, DC Power Input. Multiple Frequency Outputs. Different Frequency Outputs. Squarewave Outputs. Redundancy. IRIG timing outputs.		

Precision Test Systems			
Head Office - UK	South Africa	USA	Represented locally by:
Precision Test Systems LTD	Precision Test Systems cc	Precision Test Systems	
40 Holkham Avenue,	Randburg	Suite # 981	
South Woodham Ferrers	Gauteng	14781 Memorial Dr.	
Essex, CM3 7AU, England	South Africa	Houston, TX 77079	
Tel: +44 (0) 870 368 9608	Fax: 08651 58198	Tel: 1 888 876 4804	
Fax: +44 (0) 1245 330030	Email: sasales@ptsyst.com	Fax: 1 832 201 6564	
Email: uksales@ptsyst.com	Web: www.ptsyst.com	Email: usasales@ptsyst.com	
Web: www.ptsyst.com	1	Web: www.ptsyst.com	

 $Full \ specifications \ available \ from \ www.ptsyst.com. \ Specifications \ and \ features \ subject \ to \ change \ without \ notice \ (290311)$