



ptf

2210A & 2211A QUARTZ FREQUENCY STANDARDS

5MHz or 10MHz Frequency Reference
100kHz Capability (with MOPS option)
Ultra High Stability
Low Phase Noise
Alarm Indicator and Output
Available in 1U (2210A) & 2U (2211A)



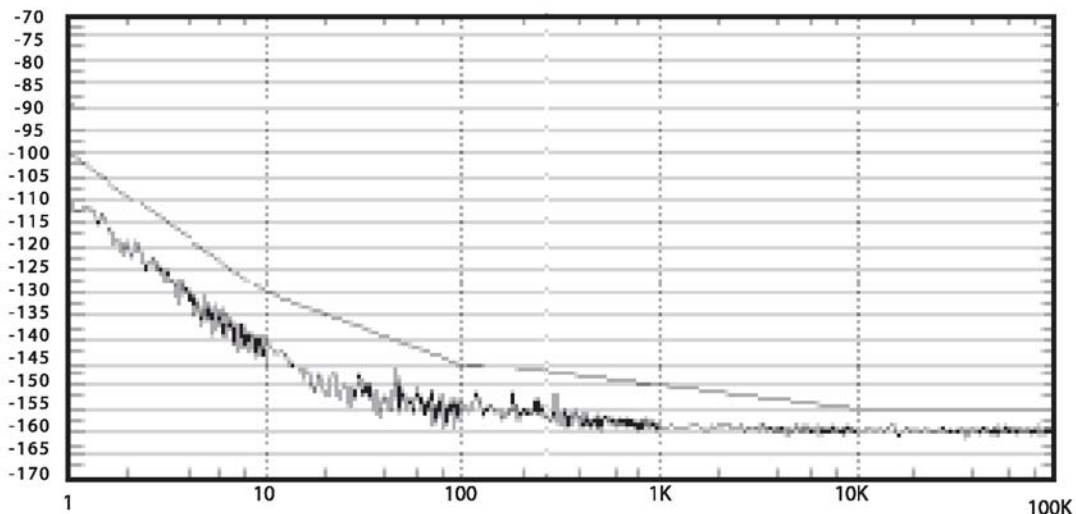
ptf 2210A

The **ptf** 2210A Quartz Frequency Standard has been designed to provide a highly stable and spectrally pure frequency reference for applications requiring the ultimate in short term frequency performance.

The instrument contains a double oven controlled stress compensated (SC cut) quartz crystal oscillator (OCXO) to give the ultimate in performance.

Ideal for laboratory or system use, the unit provides good stability performance at lower cost and with improved phase noise. A range of options are available to enhance the functionality of the unit including disciplining from an external reference for improved long term stability, multiple frequency outputs and a DC power supply. Refer to the Configuration Options table for complete list.

Phase Noise: **ptf** 2210A



Specifications subject to change without notice



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SPECIFICATIONS

ELECTRICAL

Outputs

Frequency	5MHz or 10MHz RF sine, +13dBm
Output Amplitude	1V (into 50Ω)
Harmonic Distortion	-40dB
Spurious	<-80dB

Aging

1E-10/day (5MHz)
3E-8/year
5E-10/day (10MHz)
3E-8/year

Short-term Stability

1E-12 (5MHz)
1E-11 (10MHz)

Environmental

-30C to +70C	2E-10
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SSB Phase Noise dBc/Hz

Offset	5MHz	10MHz
1Hz	-110	- 95
10Hz	-140	-125
100Hz	-150	-150
1000kHz	-155	-150
10000kHz	-155	-155
100000kHz	-155	-155

ENVIRONMENTAL & PHYSICAL

Temperature Range

0° to +50°C (Ref +25°C)

Power Requirements

AC Input (±15%)	90 - 264 VAC, <10W
DC Input (optional)	

Dimensions (HxWxD)

2210A	1U x 19" x 12"
2211A	2U x 19" x 12"

Configuration Options

Option #	Description
PPSI	External 1 PPS
MOPS	Multiple Outputs(0.1, 1, 5 & 10MHz)
RF01	1MHz Sinewave out (x4)
RF05	5MHz Sinewave out (x4)
RF10	10MHz Sinewave out (x4)
RF100	100MHz Sinewave out (x4)
PULS	Pulse Distribution (x4)
TELC	T1/E1 Distribution (x4)
DCPS	DC Power Supply
RSLD	Mounted Rackslides



ptf 2210A rear view



ptf 2211 rear view (w/multiple options)

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