



ptf

4211A RUBIDIUM FREQUENCY STANDARD

10MHz Rubidium Frequency Reference
100kHz Capability (with MOPS option)
1PPS Disciplining Input (standard)
RS 232 Monitor/Control
Convenient 1U bench or 19" rack mount



The **ptf** 4211A Rubidium Frequency Standard is an excellent, low cost, solution for providing a stable frequency reference in applications requiring atomic reference stability performance.

The instrument contains an integrated rubidium module with low aging rate, and standard output oscillator.

For even better long term stability the unit will accept a 1PPS input that can be derived from a reference such as caesium or GPS.

An ideal laboratory or system frequency reference, which includes a range of options are available to enhance the functionality of the unit.

Specifications subject to change without notice



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SPECIFICATIONS

ELECTRICAL

Output Level (standard)

10MHz 0.5 vrms into 50Ω
1PPS 5 v CMOS w/960Ω
source impedance

Output Level (w/MOPS Option)

1MHz 1.0 vrms into 50Ω +13dBm ±1dBm
5MHz 1.0 vrms into 50Ω +13dBm ±1dBm
10MHz 1.0 vrms into 50Ω +13dBm ±1dBm
1PPS 4.2 v CMOS into 50Ω

Stability

Short-term 1s 3E-11
10s 1E-11
100s 3E-12

Aging <5 E-11/month (after 30 days)
<5 E-10/year

Accuracy 5E-11 (at shipment)

Phase Noise 1Hz b/w,

Offset from carrier Phase Noise (dBc)
10Hz -90
100Hz -125

Spurious -60 dBc (100kHz bw)

ENVIRONMENTAL & PHYSICAL

Power Requirements

AC Input (±15%) 90 - 264 VAC, <10W
DC Input (optional) 20 to 70 VDC, 10W

Dimensions

(HxWxD) 1U x 19" x 12"

Configuration Options

Option #	Description
PPSI	External 1 PPS
EXP4	4 ch. Expansion Module
MOPS	Multiple RF Outputs (1, 5 & 10MHz)
RF01	1MHz Sinewave out (x4)
RF05	5MHz Sinewave out (x4)
RF10	10MHz Sinewave out (x4)
PULS	Pulse Distribution (x4)
OCXO	High Performance OCXO
ULNO	Ultra Low Noise Output
FPOC	Front Panel Outputs
DCPS	DC Power Supply
RSLD	Mounted Rackslides



ptf 4211A rear view (w/MOPS option)

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