Precise Time and Frequency,LLC

1212A Frequency Multiplier

- **Input Frequency 5MHz**
- **Output frequencies: 10MHz (2) 100 MHz (1)**
- **Very Low Phase Noise**
- **Convenient 1U, 19" rack mount package**

The ptf 1212A is a unique instrument that has been designed to provide very low phase noise frequency conversion for RF sine signals from 5MHz (input) to 10MHz (2 outputs) and also provide a low noise 100MHz (1 output).

With a noise floor of -170dBc the ptf 1212A is designed to be compatible with the absolute best in frequency reference standards, including Active Hydrogen MASERs.

If required, the unit can provide additional RF sine outputs (up to 12 total).

Additionally, an auto switch option is available on the input to provide redundancy switching between primary and backup references if required.

The primary signal is monitored and automatically switches to the backup channel within ~3msec (typical) if the primary channel fails.

SPECIFICATIONS

ELECTRICAL

RF Output

Frequency 1 (2 outputs)	10MHz
Frequency 2	100MHz
Level	1V rms/13dBm(+/-2)
Harmonic Distortion	<-40 dB
Non-Harmonic Signals	<-80 dB
Load Impedance	50 ohms
Connectors	SMA

Additive SSB Phase Noise referenced to input

(1 Hz Bandwidth) Offset	
1 Hz	-141dBc
10 Hz	-159dBc
100 Hz	-166dBc
1,000 Hz	-168dBc
10,000 Hz	-170dBc

RF Input

Frequency	5MHz
Level	1V rms/13dBm (nom)
Impedance	50 ohms
Connector	SMA

Alarm Output

Summary alarm	failure of output signal
Non-alarm condition:	Relay energized
Connector:	9 pin D-male

Controls & Indicators

Power Green LED **Alarm** Red LED

ENVIRONMENTAL & PHYSICAL

Temperature:	0° to 55° C
Relative Humidity:	0 to 95%, non-cond.
Power Requirements	
AC Input (±15%)	90 - 264 VAC, <10W
DC input (optional)	18 to 75VDC
I/O Connector types	SMA
Dimensions (HxWxD):	1Ux19”x16”

Specifications subject to change without notice

50L Audubon Road, Wakefield, MA 01880, USA
Tel: (+1) 781 245 9090 Fax: (+1) 781 245 9099 www.ptf-llc.com rev. C