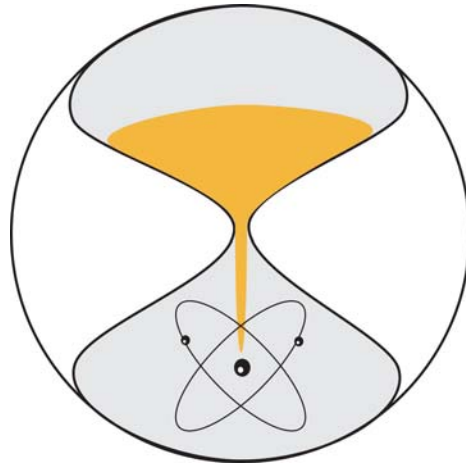




ptf

Precise Time and Frequency, Inc.

.....our timing is impeccable !



Short Form Catalog



SATCOM



WiMax



HDTV



NTP, and Time Distribution



RF Distribution

VLBI





ptf

DISTRIBUTION AMPLIFIERS



- ptf 1202A High Frequency (30MHz - 400MHz)**
- ptf 1203C RF Distribution (0.5MHz - 50MHz)**
- ptf 1203C-HP High Performance Distribution**
- ptf 1204A Digital Distribution (0.01Hz -50MHz)**
- ptf 1205A IRIG B (am) Time Code Distribution**
- ptf 1206A/1207A Configurable Distribution**
- ptf 1208A/1209A Optical Distribution**
- ptf 1231A L1 Band Distribution (up to 2GHz)**



The distribution range covers frequencies from <1MHz up to 2GHz and is suitable for virtually any standard of RF or Digital signal, giving 12 outputs from 1 input reference. Typically the inputs and outputs are either 13dBm sine or 5V TTL into 50 ohms, but special requirements can be accommodated upon request. IRIG B time code units distribute 1kHz amplitude modulated time code signals.

Specific "mixed" distribution requirements can be pre-configured to customer specifications using special modules.

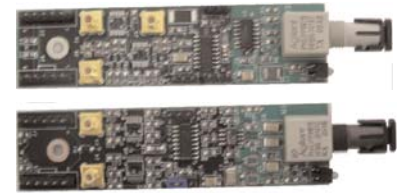
Modules and instruments are designed to preserve the high performance of precision frequency and timing reference units, with excellent phase noise performance, very low jitter, and high isolation both output to output and output to input (reverse isolation).



Quad Blocs, RF, Digital, IRIG B (AM)



Auto Switches for redundancy



Optical Receive/Transmit

GPS RECEIVERS



ptf 3203A GlobalTyme, multifunction GPS Rx

- Multiple oscillator options, TCXO, OCXO, Rb**
- 12 Parallel Channels for satellite tracking**
- 10MHz, 1PPS, IRIG B outputs standard**
- Multiple output options, 2U package available**
- NTP, SNMP, Ethernet, RS232, Control/Monitor**
- Mobile option for moving applications**



The ptf 3203A(1U) and 3204A(2U) offer the ultimate in feature packed performance from a GPS receiver. These units offer versions with phase noise to -135dBc at 10Hz and frequency accuracy of 2E-14 long term together with timing accuracy to <20 ns (1 sigma) and a variety of configurable outputs.

SAASM enabled solution now available



ptf 3201B GPS Frequency Standard



ptf 3203A WiMax GPS Standard

Specifications subject to change without notice



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NETWORK TIME SERVERS



ptf 3223A NetTyme Network Time Server

High security option available with all Ethernet functionality removed, except for NTP

- 12 Parallel Channels for satellite tracking**
- 1PPS, IRIG B (am) outputs standard**
- 10/100 BaseT Ethernet**
- NTP, SNMP, RS232, Control/Monitor**
- GPS Antenna and cable included**

The ptf 3223A and 3225A Network Time Servers provide a robust source of network time on the 10/100 BaseT Ethernet port. In addition both units provide a highly accurate 1PPS output, and the ptf 3223A additionally provides an amplitude modulated IRIG B output.

Monitoring and control is available via either RS232 or Telnet ports and both units can report time separately on a dedicated "Time Print" port in standard ASCII format.

The units come complete with GPS Antenna and cable, and optionally available is an internal "window mount" antenna.



ptf 3225A NetTyme NTP Server

- 12 Parallel Channels for satellite tracking**
- 1PPS, NTP, Time Print outputs standard**
- DC Powered (AC wall adapter included)**

The ptf 3223A is a rack mount unit while the ptf 3225A is a desktop mounting unit (rack mount option available). Both units provide an ideal solution to supplying secure network time to synchronize a closed network and eliminate the need to open the firewall to access NTP from external sources.

AUTO SWITCHES FOR REDUNDANCY APPLICATIONS



ptf 1220A AutoSwitch (top) and 1226A Autoswitch with Integrated Distribution (bottom)

- Switch two RF/Pulse Pairs**
- Fast Switching Option (<500ns)**
- 10/100 BaseT Ethernet**
- SNMP, RS232, Control/Monitor**
- Power fail "failsafe" mode (1220 only)**
- Multiple RF/Pulse outputs (1226A only)**
- NTP, SNMP, RS232, Control/Monitor**

The ptf 1220A and 1226A have been designed to provide a high reliability solution to switching RF/Pulse signals from a primary to a back-up source in redundancy applications. These are "intelligent" switches that use both amplitude and period to continuously determine signal health of both primary and back-up channels, and automatically switch to the back-up channel in the event a primary signal is determined unhealthy.

Monitoring and control is available via Telnet, RS232, SNMP, or web browser interfaces.

Specifications subject to change without notice



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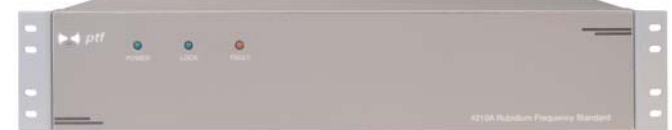
QUARTZ & RUBIDIUM FREQUENCY STANDARDS



ptf 2210A Quartz Frequency Standard

- 5MHz and 10MHz options available
- Low Phase Noise (also ultra low p/n option)
- Excellent Short Term Stability
- Disciplining Input Option
- Front Panel Status/Alarm Indicators
- Multiple outputs (1MHz, 5MHz, 1PPS) Option

The ptf Quartz and Rubidium frequency standards provide a range of performance options for independent/stand-alone frequency references including phase noise options, stability options, and output options. For a comprehensive list of the latest available capabilities and specifications visit our web site at www.ptfinc.com



ptf 4211A (top) ptf 4210A/20A (bottom)

- Standard (4211A) and Hi Perf. (4210A)
- 1PPS Disciplining Input for long term
- Excellent Medium Term Stability (<5E-11/mth)
- Ultra Low Phase Noise Option (4220A)
- Front Panel Status/Alarm Indicators
- Multiple outputs (1MHz, 5MHz, 1PPS) Option
- RS232 Monitor/Control

HYDROGEN MASERS

CH1-75A Active MASER



- <7E-16 / day
- <1E-15 / deg C
- Autonomous Auto Tuning
- Best in the World !

The CH1-75 Active Hydrogen MASER is unequalled in its ability to deliver an ultra stable frequency reference signal. With stability down to <7E-16 per day this instrument is suitable for the best in national and international time keeping. Also available is the CH1-76A passive maser which provides excellent performance for a lower budget

MEASUREMENT SYSTEMS



ptf 96000XL (TIMS)

- System Resolution to 9.5 E-14 @ 1 second
- Selectable sensitivity for wide device range
- Choice of input frequencies
- Auto/Manual Modes for ease of use

The ptf 96000XL is a revolution for the world of frequency and stability measurement. Now the capability to measure even TCXO/OCXO and deliver frequency offset and stability plots comes at an economical price.

For more information on any of our products please visit our website at www.ptfinc.com or call 1 978 535 4848 8.00 am to 5.00 pm EST

Precise Time and Frequency, Inc. 200 Corporate Place, Peabody, MA 01960, USA

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