

## 1206A & 1207A CONFIGURABLE DISTRIBUTION

**Input Frequencies 500kHz to 50MHz**  
**100 MHz Option Available**  
**12 Broadband Outputs**  
**Low Additive Phase Noise**  
**Isolation (>100dB typical)**  
**Minimum Skew & Propagation Delay**  
**Pulse and IRIG DCLS**  
**Superior IRIG-B Signal Distribution**  
**High Channel Isolation**  
**Available in 1U & 2U , 19" rack mount package**  
**Low Cost**



The **ptf** 1206A (1U) & **ptf** 1207A (2U) provide the flexibility of distributing a variety of signals from one highly configurable box

With **ptf**'s *quad-bloc* distribution cards you can build a system that is tailored to your specific needs. Based on the **ptf** family of Distribution products, **ptf** *quad-blocs* are available for Broadband RF, Digital, Pulse and Modulated IRIG Distribution. Dual input A/B autoswitching capabilities are also available as an option.



The **ptf** **Broadband RF Distribution** provides high performance frequency references for laboratory or system use. In most applications the phase noise capability of the **ptf** Broadband RF Distribution will out-perform the input signal performance to such a degree that no additive phase noise will be noticeable on the outputs. Isolation output to output is ~100 dB and harmonics are <-40 dB.

The **ptf** **Digital Signal Distribution** is a flexible platform used for distribution of various pulse formats (e.g. 1 PPS, 1 PPM, 10 PPM, etc). The **ptf**

Digital Signal Distribution will also distribute digital timing signals such as IRIG-B DCLS format. Through decades of timing design experience, the **ptf** team is able to reproduce precision pulse input signals with the minimum of propagation delays, with two stages of input signal buffering to distribute the input signal to 12 separate outputs and insure maximum isolation between individual output signals.

The **ptf** **Modulated IRIG Distribution** uses at its heart a broadband design combining the latest technology in low noise components, to distribute modulated IRIG signal input to provide separate outputs.

The **ptf** **Auto Switch** is purpose designed for time and frequency applications where reliability criteria call for redundant RF, Pulse and timing sources. The unit accepts a pre-configured input consisting of either an RF (sine) signal, a pulse (typically 1 PPS), or Timing (IRIG) signals. The primary signal is monitored and automatically switches to the backup channel within ~ 3msec (typical).



Specifications subject to change without notice



## Specifications

### ELECTRICAL

#### RF DISTRIBUTION SPECIFICATIONS

##### Output

Frequency Range 500kHz to 50MHz  
 1 kHz - 20 MHz (optional)  
 Level 1V rms (nominal)  
 Harmonic Distortion <-40 dB  
 Non-Harmonic Signals <-80 dB  
 Load Impedance 50 $\Omega$   
 Isolation >90 dB\*  
 Connectors BNC  
 \*Isolation alternating channels >100 dB, up to 30MHz

##### Additive SSB Phase Noise

(1 Hz Bandwidth) Offset from 10MHz  
 1 Hz -120 dB  
 10 Hz -135 dB  
 100 Hz -145 dB  
 1,000 Hz -155 dB  
 10,000 Hz -160 dB

##### RF Input

Frequency Range 500kHz to 50MHz  
 1 kHz - 20 MHz (optional)  
 Level 1 V rms (nominal)

##### Alarm Output

Summary alarm indicates failure of any output signal  
 Non-alarm condition: Relay energized (fail safe)  
 Connector: 9 pin D-male

#### DIGITAL DISTRIBUTION SPECIFICATIONS

**Input Level** 10V max (0-5V nominal)

**Output Level** 0 - 5V

**Output Impedance** 50 Ohms

**Load Impedance** 50 Ohms

**Frequency Range** 50MHz maximum

**Rise Time** <2ns

**Ch to Ch Skew** <5ns (multi-cards), <1ns (1 card)



#### MODULATED IRIG DISTRIBUTION SPECIFICATIONS

##### Time Code Input/Output

Code Format IRIG A,B,D,E,G & H  
 Modulation Frequency 1kHz to 1MHz  
 Modulation Ratio 3:1  
 Amplitude 6V P-P into 50 Ohms  
 50 Ohm source impedance  
 Connectors BNC  
 Impedance 50 Ohms

#### AUTOSWITCH SPECIFICATIONS

**Switching Time** <3 milli seconds (typical)

**Type** Relays (Failsafe)

Break before Make

**Switch Control** Auto/Remote/Local

**Controls & Indicators**

**Power** Green LED,  
 power is connected

**Alarm** Red LED,  
 signal output failure

#### ENVIRONMENTAL & PHYSICAL

**Temperature:** 0° to 55° C

**Relative Humidity:** 0 to 95%, non-condensing

##### Power Requirements

AC Input ( $\pm$ 15%) 90 - 264 VAC, <10W

DC Input (optional)

**Dimensions** (HxWxD): 1U x 19" x 12"

##### Configuration Options

**Option # Description**

RF10 1MHz to 10MHz Sinewave out (x4)

RF100 100MHz Sinewave out (x4)

TIME Time Code Output

PULS Pulse Distribution (x4)

TELC T1/E1 Distribution (x4)

AUTO Auto Switch (Digital, Irig, or RF)

DCPS DC Power Supply

**RSLD Mounted Rackslides**



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