

SPECIFICATIONS

Frequency

Range:	specified 10 MHz decade, 0.1 - 100 MHz (0.1-10, 10-20, ..., 90-100 MHz)
Resolution:	1 Hz (optional, 0.1 Hz under remote-control only)
Accuracy:	same as frequency standard
Control:	manual by 10-position dial; remote by TTL-level parallel entry BCD or GPIB(optional)

Switching Time

	(to within 0.1 radian at new frequency)
1 MHz digit	
	non-phase-continuous: 5 μ seconds
	phase-continuous: < 1 μ second transient, 1 μ second delay
100 KHz - 1 Hz digits:	< 1 μ second transient, 1 μ second delay, phase-continuous

Output

Level:	+3 to +13 dBm (1V max, 50 Ω)
Flatness:	+0.25 dB
Impedance:	50 Ω
Control:	manual by front panel control; remote by analog voltage

Spurious Outputs

	(at full power output, +13 dBm)
Discrete:	-60 dBc
Harmonics:	-35 dBc
Phase Noise:	-70 dBc (0.5 Hz to 15 KHz) including effects of internal standard
\mathcal{E} (1Hz):	10 Hz/ -110 dBc, 100 Hz/ -122 dBc, 1 KHz/ -132 dBc, 10 KHz/ -133 dBc, 100KHz/ -134 dBc
Noise Floor:	- 135 dBc/Hz

Frequency Standard

Internal:	OCXO	or	TCXO
	3×10^{-9} /day		1×10^{-8} /day
	$\pm 1 \times 10^{-8}$ /0-50° C		$\pm 1 \times 10^{-6}$ /0-50° C
	1×10^{-6} /year		2×10^{-6} /year
External Drive:	10 MHz, 0.4 Vrms into 50 Ω ; 5 MHz, 0.5 Vrms into 50 Ω		
Aux. Output:	10.000 MHz, 0.4 Vrms into 50 Ω		
	(Note: internal or external standard required for operation)		

General

Operating Ambient:	0 - 55° C, 95% R.H.
Power:	105 - 125V, 50 - 400 Hz, 30W (100, 220, 240V optional)
Dimensions:	19 x 3.5 x 17.5 inches (relay rack or bench cabinet)
Weight:	18 lbs.
Optional Phase Rotation:	0-360° in 0.225° steps

Pricing (USA domestic)

\$2,450 plus any options

PHASE-CONTINUOUS SWITCHING

The PTS x10 sets new standards by offering users a 2 MHz bandwidth of ultra-low phase noise and low spurious

phase-continuous switching range. Furthermore, the 2 MHz bandwidth can be switch-selected to span either **even** or **odd** MHz steps, guaranteeing phase-continuous coverage in the neighborhood of any selected output frequency.

Example: Consider the PTS x10 configured to cover the 40-50 MHz decade.

With switch-selected even coverage, phase-continuous spans are: 40-41.999999, 42-43.999999, 44-45.999999, 46-47.999999, 48-49.999999

With switch-selected odd coverage, phase-continuous spans are: 39-40.999999, 41-42.999999, 43-44.999999, 45-46.999999, 47-48.999999

