

SPECIFICATIONS (apply to both independently programmable output channels)

Number of channels 2 fully independent output channels

Frequency

Range: 0.100 000 0 to 309.999 999 9 MHz

Resolution: 0.1 Hz

Accuracy: same as frequency standard

Control: remote by TTL-level parallel-entry BCD or GPIB (optional)

Switching Time (to within 0.1 radian at new frequency)

100 MHz-10 MHz digit: 20 μ seconds

1 MHz digit: 5 μ seconds

100 KHz - 0.1 Hz digit: 1 μ second transient, 2 μ second delay

Phase-Continuous Switching Range: 100 KHz through 0.1 Hz digits (-1 MHz bandwidth)

Output

Level: +3 to +13 dBm (1V max, 50 Ω)

Flatness: \pm 0.5 dB

Impedance: 50 Ω

Control: preset and remote by analog voltage

Spurious Outputs (at full power output, +13 dBm)

Discrete: -70 dBc

Harmonics: -30 dBc at full power output, (-40 dBc at lower level)

Phase Noise: -63 dBc (0.5 Hz to 15 KHz) including effects of internal standard

\mathcal{L} (1Hz): 100 Hz/-105 dBc, 1 KHz/ -115 dBc, 10 KHz/ -123 dBc, 100 KHz/ -127 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: 10 MHz, 0.4-2.0 Vrms into 300 Ω ;
5 MHz, 0.5-2.0 Vrms into 300 Ω

Aux. Output: 10,000 MHz, 0.4 Vrms into 50 Ω
(Note: internal or external standard required for operation)

General

Operating Ambient: 0 - 50°C, 95% R.H.

Power: 110 - 125V, 50 - 400 Hz, 75W (100, 220, 240V optional)

Dimensions: 19 x 5.25 x 18 inches (relay rack or bench cabinet)

Weight: 40 lbs

Optional Phase Rotation: 0 - 360° in .225° steps



PTS D310 FREQUENCY SYNTHESIZER

- two fully independent channels, each covering 0.1-310 MHz
- + 3 to + 13 dBm output
- low phase noise
- fast switching, 3 - 20 μ s
- fully programmable, BCD or GPIB
- DDS standard with phase-continuous switching
- low power consumption, high reliability

NOTE:
PTS D310 shown for illustration in "R" cabinet.
Consult pages 28, 29 for full cabinet style listing.
Consult page 26 for cabinet mechanical specifications.

