

SPECIFICATIONS (apply to both independently programmable output channels)

Number of channels	2 fully independent output channels
Frequency	
Range:	1.000 000 0 to 619.999 999 8 MHz
Resolution:	0.1 Hz, 1-310 MHz; 0.2 Hz, 310-620 MHz
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)
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Output	Level:	+3 to +13 dBm (1V max, 50 Ω)
	Flatness:	± 0.5 dB
	Impedance:	50 Ω
	Control:	preset and remote by analog voltage

Spurious Outputs	(at full power output, +13 dBm)
Discrete:	-70 dBc 1-310 MHz -65 dBc 310-620 MHz (-55 dBc, 1/2 & 3/2 f_{out})
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
$\mathcal{L}(1\text{Hz})$:	100 Hz/-100 dBc, 1 KHz/-110 dBc, 10 KHz/-120 dBc, 100 KHz/-125 dBc
Noise Floor:	-135 dBc/Hz

Frequency Standard	Internal:	OCXO	or	TCXO
		3×10^{-9} /day		1×10^{-9} /day
		$\pm 1 \times 10^{-6}$ /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, 80W (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 (in .450° steps, 310 - 620 MHz)



PTS D620 FREQUENCY SYNTHESIZER

- two fully independent channels, each covering 1-620 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 D620 shown for illustration in "R" cabinet.
Consult pages 28, 29 for full cabinet style listing.
Consult page 26 for cabinet mechanical specifications.

