PTS 250



SPECIFICATIONS

Frequency

Standard

1.000 000 0 MHz to 249.999 999 9 MHz Range: 0.1 Hz to 100 KHz ,optional in decades Resolution:

same as frequency standard Accuracy 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)

100 MHz - 10 MHz digit: 20 useconds 1 MHz - 0.1 Hz digit: 5 µseconds

+3 to +13 dBm (1V max, 50 Ω), metered in Output Level:

dBm and volts (rms)

Flatness: ±0.5 dB Impedance: 50Ω

Control: manual by front panel control; remote by analog

voltage

Spurious (at full power output, +13 dBm)

Outputs Discrete: -70 dBc

> Harmonics: -30 dBc at full output (- 40 dBc at lower level) Phase Noise: -63 dBc (0.5 Hz to 15 KHz) including effects of

> > internal standard

ℒ(1Hz): 100 Hz/-105 dBc, 1 KHz/-115 dBc, 10 KHz/-123 dBc,

100 KHz/ -127 dBc

Noise Floor: -135 dBc/Hz

Frequency Internal: **OCXO TCXO** or

> 3 x 10⁻⁹/day 1 x 10⁻⁸/day ±1 x 10⁻⁸/0 - 50°C ±1 x 10⁻⁶/0 - 50°C 1 x 10⁻⁶/year 2 x 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 - 55°C, 95% R.H.

> 105 - 125V, 50 - 400 Hz, 45W (100, 220, 240V optional) Power:

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

Weight: 35 lbs

For units equipped with a DDS-TLU option, specifications are modified as follows:

DDS Option Н K

Phase-Continuous 100 KHz thru 0.1 Hz digits 10 KHz thru 0.1 Hz digits **Switching Range** (~1 MHz bandwidth) (~100 KHz bandwidth)

Frequency Resolution 0.1 Hz 0.1 Hz

0-360° in .36° steps **Switching Time** (within phase-continuous range) <1µs transient, 2µs delay

-65 dBc -70 dBc Spurious Discrete: Outputs Phase Noise: -63 dBc -63 dBc

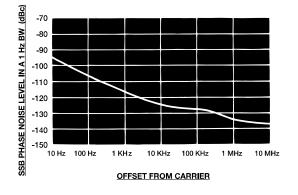


PTS 250 FREQUENCY SYNTHESIZER

- 1 MHz to 250 MHz
- + 3 to + 13 dBm output
- · choice of resolution
- · very low phase noise
- fast switching, 5 20µs
- fully programmable, BCD or GPIB
- · modular flexibility, remote-only versions
- · low power consumption, high reliability
- 7 decades of DDS resolution available with phase continuous switching

NOTE:

PTS 250 shown for illustration in "R, X-6" cabinet. Consult pages 28, 29 for full cabinet style listing. Consult page 26 for cabinet mechanical specifications.



Optional Phase Rotation

N/A