PTS 3200

FREQUENCY SYNTHESIZERS

SPECIFICATIONS

Frequency

Range:	1.000 000 0 MHz to 3199.999 999 9 MHz
Resolution:	1 Hz
Accuracy	same as frequency standard
Control:	manual by keyboard and LCD; remote by TTL-level parallel entry BCD or GPIB (optional)

Switching Time (to within 0.1 radian at new frequency)

1 GHz - 10 MHz digit:	20 µseconds
1 MHz digit:	5 µseconds
100 KHz - 1 Hz digit:	1 µsecond transient, 2 µsecond delay

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

Output

Level:	+3 to +13 dBm (1V max, 50 Ω)
Flatness:	±0.7 dB
Impedance:	50 Ω
Control:	manual by front panel control; remote by analog voltage
Connector:	SMA female

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

Discrete:	-60 dBc 1 - 1600 MHz -55 dBc 1600 - 3200 MHz
Harmonics:	-30 dBc (-35 dBc at lower power level)
Phase Noise:	-60 dBc (0.5 Hz to 15 KHz) including effects of internal standard
$\mathscr{L}$(1Hz):	100 Hz/-99 dBc, 1 KHz/ -108 dBc, 10 KHz/ -116 dBc, 100 KHz/ -118 dBc
Noise Floor:	-130 dBc/Hz

Frequency Standard

Internal:	OCXO	or	TCXO
	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;
Aux. Output: 5 MHz, 0.5-2.0 Vrms into 300 Ω
} BNC Connector
10.000 MHz, 0.4 Vrms into 50 Ω
(Note: internal or external standard required for operation)

General

Operating Ambient:	10 - 45°C, 95% R.H.
Power:	105 - 125V, 50 - 400 Hz, 70W (100, 220, 240V optional)
Dimensions:	19 x 5.25 x 18 inches (relay rack or bench cabinet)
Weight:	35 lbs
Optional Phase Rotation:	0 - 360° in .36° steps (in .72° steps,1600 - 3200 MHz)

PTS 3200 FREQUENCY SYNTHESIZER

- 1 MHz to 3200 MHz
- + 3 to + 13 dBm output
- 1 Hz resolution with DDS phase-continuous switching
- low phase noise
- fast switching, 3 - 20µs
- fully remote control programmable, BCD or GPIB
- modular flexibility, remote-only versions
- low power consumption, high reliability

NOTE:
PTS 3200 shown for illustration in "D" and "R" cabinets.
Consult pages 28, 29 for full cabinet style listing.
Consult page 26 for cabinet mechanical specifications.