## **SPECIFICATIONS**

GENERAL		
Frequency Range Band A Band B	300 MHz to 950 MHz (Option P2) 925 MHz to 18 GHz	
Pulse Characteristics Pulse width	100 nsec min. (meas	sured at 3 dB points)
Pulse repetition freq.	Minimum-50 Hz normal, 0 Hz rear panel selected, Maximum - 2.5 MHz	
Time between pulses	300 nsec Minimum	
CW or pulses >100 μsec	Time base accuracy ±1 count	
Pulse < 100 μsec:	Time base accuracy $\pm$ averaging error $\pm$ gate error	
Averaging error (kHz rms)	Band A	Band B
100 μs Gate	√PW03	$\sqrt{\frac{100}{\text{PW03}}}$
1 ms Gate	√ PW03	√PW03
Gate error (max.)	± 100 kHz PW03	± 40 kHz PW03
	PW = pulse width in $\mu$ s.	
Time Base	Standard	Option P1
Oscillator Type	Room Temperature Crystal	Temperature Com- pensated Crystal (TCXO)
Crystal frequency	10 MHz	
Stability Aging rate	<   3 x 10 <sup>-7</sup>   /mon.	
Temperature (0-50°C)	<   3 x 10 <sup>-5</sup>	< 2 x 10 <sup>-6</sup>
Line voltage	±10% change produces frequency shift < 1 x 10 <sup>-7</sup>	
Warm up time	None required	
Sensitivity Band A (Opt. P2) Band B	300 to 950 MHz 925 MHz to 10 GHz 10 GHz to 18 GHz	- 10 dBm peak - 10 dBm peak - 5 dBm peak
FM Tolerance Band B (minimum)	CW: 40 MHz p-p deviat 10 MHz. PULSE (w/o max. freq. shift across PROFILE (using Input freq. shift during input	Input Inhibit): 20 MHz pulse. FREQUENCY Inhibit): 20 MHz max.

GENERAL, continued				
Maximum Input Level (peak) Band A 300 to	Operating	Burnout Level		
950 MHz (Opt. P2) Band B 925 MHz	+10 dBm	+27 dBm		
to 18 GHz	+10 dBm	+30 dBm		
Input Impedance Connector	Band A (Opt. P2) 50 $\Omega$ nom. BNC	Band B $50~\Omega~\text{nom}.$ Type N precision		
Measurement Speed (Band B Only) Acquisition Time PRF >100 Hz PRF <100 Hz	100 msec + 50 msec/GHz 100 msec + 5 sec/GHz			
Reading Time Band B (sec) 100 µs Gate	Band A 400 (PW03) (PRF)	Band B 100		
1 ms Gate				
Display	7 digit LED with fixed decimal point. Leading zero suppression.			
Resolution	10 kHz, 100 kHz, 1 MHz			
Power	100/120/220/240 VAC ±10%, 50-60 Hz, 100 watts nominal.			
Operating Tem- perature	0 to 50°C			
Weight	Net 30 lbs. Shipping 35 lbs.			
Dimensions	3.5" high and 16.75" wide and 19" deep			
Accessories Furnished	8 foot power cord and instruction manual			
Accessories Available	Model 400 Delay Generator. Carrying Case. P/N 5700001 Rack Mtg. Kit. P/N 2010008			

## SPECIFICATIONS, continued

FRONT PANEL	
Controls	
Sample Rate/Hold	Varies display reading time from 0.1 sec/ reading to 10 sec/reading. "Hold" displays last reading.
Test-200 MHz	Displays 200 MHz internal test frequency.
Display Test	Tests all LED numeral segments.
Resolution	(1 MHz, 100 kHz, 10 kHz): Sets display resolution.
1 ms Gate Band Select (A or B)	Selects 1 ms gate. Switch selects either Band A (Opt. P2) or Band B input.
Auto/Manual (Band B)	
Auto Mode	Band B searches upward for input signal beginning 105 MHz above preset number.
Manual Mode	Inhibits search. Signal must lie between 105 MHz and 325 MHz above preset number.
Thumbwheel Switch (Band B)	·
Auto Mode	Sets start point of frequency sweep (105 MHz above preset number.)
Manual Mode	Sets operating frequency range (105 MHz to 325 MHz above preset number.)
Indicators	
Level	Indicates sufficient input level.
Lock	Indicates signal acquired.
Gate	Indicates measurement in process.
Remote	Indicates Remote Programming (Option P4 or P5) active.
Reduce Signal (Band B)	Indicates signal level above optimum operating range.
Connectors	
Band A input	Type BNC female - 300 to 950 MHz (Option P2)
Band B input	Type N precision female - 925 MHz to 18 GHz

REAR PANEL	
Controls	
Power input	Power module containing AC connector, fuse, and voltage control for 100, 120, 220, or 240 VAC.
Storage (On/Off)	Normally on. In off position, display up- dates continuously during measurement cycle.
Min. PRF = (50 Hz/ 0)	Normally in 50 Hz position. In 0 position, allows measurements of very low PRF signal.
Connectors	
10 MHz reference	*
output	1 V peak-to-peak min. into 50 $\Omega$
Gate Output	-0.5v min. into 50 $\Omega$ corresponding to counter gate.
Signal Threshold Output	-0.5v min, into 50 $\Omega$ corresponding to signal exceeding threshold.
Inhibit Input	ECL high (-0.9v) inhibits. ECL low (-1.7v) enables. From 50 $\Omega$ source, 0 volts will inhibit, -1v will enable. Input impedance: 50 $\Omega$ to -2 volts.

OPTIONS	
P1	TCXO - temperature compensated crystal oscillator
P2	Band A: 300 - 950 MHz
P3	Rear panel inputs: Band A and B
P4	BCD output/remote programming Remote programming: provides rear panel programming of all front panel controls except SAMPLE RATE. Requires ground contact closure; one control line per function (T <sup>2</sup> L and DTL compatible). Digital output: 7 data digits in parallel form. 1-2-4-8 "1" state positive.
P5	GPIB: System interface per IEEE STD 488-1975.