Table 1-2. Specifications

FREQUENCY RANGE: 10 Hz to 520 MHz
DISPLAY: Nine-segment LED digits
DISPLAY TEST: RESET function (activated with GATE TIME switch) illuminates all segments of all digits.
INPUT IMPEDANCE: Three selections:
50Ω X1 (nominal) — fuse protected
1MΩ X1 (<40 pF shunt)
1MΩ X10 (<40 pF shunt, attenuation factor of 10)
ATTENUATION: X10 in 1MΩ
SENSITIVITY:

INPUT Switch Position	Frequency Range	Sensitivity (RMS)
50Ω X1	20 Hz to 520 MHz	25 mV
1MΩ X1	20 Hz to 10 MHz	25 mV
	10 Hz to 50 MHz	50 mV

MAXIMUM INPUT:

INPUT Switch Position	Range	Maximum Input
50Ω X1 (Fuse protected)	DC to 520 MHz	3.5V rms (+24 dBm)
1MΩ X1	DC to 40 MHz	200V (sum of dc + peak ac)
	40 Hz to 100 kHz	200V dc + 250V rms (ac)
	100 kHz to 5 MHz	200V dc = $\frac{*2.5 \times 10^7 \text{V rms (ac)}}{\text{Freq. (in Hz)}}$
	5 MHz to 520 MHz	200V dc + 5V rms (ac)
1MΩ X10	DC to 40 Hz	200V (sum of dc + peak ac)
	40 Hz to 1 MHz	200V dc + 250V rms (ac)
	1 MHz to 50 MHz	200V dc + $\frac{2.5 \times 10^8 \text{V rms (ac)}}{\text{Freq. (in Hz)}}$
	50 MHz to 520 MHz	200V dc + 5V rms (ac)

ACCURACY: ±1 Count ± Time Base Accuracy
GATE TIME: Manually selected .1 second, 1 second, 10 seconds
RESOLUTION: (Direct Count)

GATE TIME	Least-Significant Digit Value
.1s/MHz	10 Hz
1s/MHz	1.0 Hz
10s/Hz	0.1 Hz

OVERFLOW: LED indicator lamp shows display overflow.
RESET: Manual reset occurs when GATE TIME switch is between three normal positions.

*For example: The maximum signal level (when 1MΩ X1 input impedance is selected) for a 100 kHz input is:

$$\frac{2.5 \times 10^7}{100 \times 10^3} = 250\text{V (rms)} + 200\text{V dc}$$

Table 1-2. Specifications (Continued)

STANDARD

TIME BASE DATA:

Time Base: 10 MHz (Xtal Oscillator)
<3 ppm per month due to aging
±2.5 ppm due to temperature variations between 0°C and 40°C
±0.5 ppm due to ±10% line (power) variation
Time Base Output: Frequency: 10 MHz Time Base
Voltage: 200 mV peak-to-peak into 50Ω
Control: Active when the INT/EXT switch is in INT position.
External Frequency Standard Input (rear panel): 10 MHz
Rear Panel Input: Sensitivity: 250 mV rms
Impedance: >500Ω
Maximum Input: 10V rms
Control: Internal/External rear-panel switch at EXT.
Ratio: Rear Panel Input, 100 kHz to 10 MHz

OPERATING TEMPERATURE: 0°C to 40°C
POWER REQUIREMENTS: 100, 120, 220, and 240V rms +5 -10%; 48 Hz to 440 Hz; 30VA max.
WEIGHT: Net: 2.2 kg (4.75 lbs). Shipping: 2.7 kg (6 lbs).
DIMENSIONS: 89 mm H x 160 mm W x 248 mm D (3.5 in H x 625 in W x 9.75 in D).

OPTION 001 TEMPERATURE COMPENSATED XTAL OSCILLATOR

Does not provide rear panel input capability.

TIME BASE DATA:

Frequency: 10 MHz TCXO
Stability: <0.1 ppm per month due to aging
±1 ppm due to temperature variations between 0°C and 40°C
±0.1 ppm due to 10% line (power) variation
Rear Panel Input: Not available with Option 001.