Table 1-1. Specifications	
INPUT CHARACTERISTICS Range:	Resolution: ± LSD ± (B Trigger Error × FREQUENCY A)/N
Channel A 10 Hz to 100 MHz Channel B 10 Hz to 2.5 MHz	Accuracy: ±1 count of A±(B Trigger Error × FREQUENCY A)/N
Sensitivity:	TOTALIZE (A)
Channel A:	Range: 10 Hz to 10 MHz
25 mV rms to 100 MHz	Resolution: ± 1 count of input
75 mV peak-to-peak minimum pulse with 5 ns Channel B:	GENERAL
25 mV rms to 2.5 MHz	Check: Counts internal 10 MHz Oscillator
75 mV peak-to-peak minimum pulse width of 50 ns	Display: 7-digit amber LED display with gate and over-
Coupling: AC	flow indication.
Impedance: 1 MΩ NOMINAL shunted by less than	Maximum Sample Rate: 5 readings per second.
30 pF Attenuator: X1 or X20 NOMINAL (A Channel only)	Operating Temperature: 0° to 50°C  Power Requirement:
Trigger Level:	115V, +10%, -25%; 230V, -17%, +9%; 48-66 Hz; 10 VA
Continuously variable ±350 mV_times attenuator	maximum.
setting around average value of signal.	Weight: 2.0 kg (4.4 lbs.)
Slope: Independent selection of + or - slope	<b>Dimension:</b> 238 mm wide×98 mm high×276 mm long
Channel Input: Selectable SEPARATE or COMMON A Damage Level:	(93/8 × 33/8 × 107/8 in.)
_	TIME BASE Frequency: 10 MHz
X1: DC to 100 kHz 350V (DC + peak AC) 100 kHz to 5 MHz 2.5×10 <sup>7</sup> C×Hz Product	Aging Rate: <3 parts in 107 per month
Above 5 MHz 5V rms	Temperature: <±1 part in 105, 0° to 50°C
X20: DC to 1 MHz 350V (DC + Peak AC)	<b>Line Voltage:</b> $<\pm 1$ part in 107 for $\pm 10\%$ variation.
1 MHz to 50 MHz 2.5×108V×Hz Product	OPTIONS
Above 50 MHz 5V rms	Option 001: High Stability Time Base (TCXO)
FREQUENCY (A)	Frequency: 10 MHz Aging Rate: <1 part in 107 per month
Range: 10 Hz to 10 MHz direct count	Temperature: <±1 part in 106, 0° to 40°C
1 MHz to 100 MHz prescaled by 10	Line Voltage: <±1 part in 108 for ±10% variation
LSD Displayed: Direct count 0.1 Hz, 1 Hz, 10 Hz switch	Option 002: Battery
selectable. Prescaled 10 Hz, 100 Hz, 1 kHz switch	Type: Recharageable lead-acid (sealed)
selectable.	Capacity: TYPICALLY 8 hour of continuous operation at 25°C.
Resolution: ± LSD Accuracy: ± LSD ± (time base error) × FREQ	Recharging Time: TYPICALLY 16 hours to 98% of full
-	charge, instrument nonoperating. Charging cir-
PERIOD (A) Range: 10 Hz to 2.5 MHz	cuitry included with option. Batteries not charged
LSD Displayed:	during instrument operation.  Battery Voltage Sensor: Automatically shuts instru-
100 ns for N=1 to 1000 in decade steps of N	ment off when low battery condition exists.
N	Line Failure Protection: Instrument automatically
Resolution:	switches to batteries in case of line failure.
± LSD ± 1.4 × Trigger Error	Weight: Option 002 adds 1.5 kg (3.3 lbs.) to weight of instrument.
Accuracy	
$\pm$ LSD $\pm$ 1.4 $\times$ Trigger Error	WARRANTY ALL COMPONENTS WITHIN OPTION 002,
± (time base error) × PER	EXCEPT THE BATTERY, ARE WARRANTED FOR
TIME INTERVAL (A TO B)	ONE FULL YEAR. BATTERY BT1 (HP PART NO.
Range: 250 ns to 1 s	1420-0253) IS WARRANTED FOR 90 DAYS.
LSD Displayed: 100 ns	DEFINITIONS
Resolution: ± LSD ± START Trigger Error ± STOP	Resolution: Smallest discernible change of measure-
Trigger Error Accuracy: ± LSD ± START Trigger Error ± STOP	ment result due to a minimum change in the input.
Trigger Error $\pm$ (time base error) $\times$ TI	Accuracy: Deviation from the actual value as fixed by
Time Interval measurements require an arming signal for	universally accepted standard of frequency and
both the START and STOP Channels.	time.
(See Paragraph 3-11.)	Trigger Error: $\sqrt{(80 \text{ µV})^2 + \text{e}^2}$
RATIO Range:	$\frac{\sqrt{(80 \ \mu\text{V})^2 + \text{en}^2}}{\text{Input Slew Rate at Trigger Point } (\mu\text{V/s})} \text{ (rms)}$
10 Hz to 10 MHz Channel A	
10 Hz to 2.5 MHz Channel B	Where en is the rms noise of the input for a 100 MHz bandwidth on Channel A and a 10 MHz
LSD Displayed:	bandwidth on Channel B
1 part in $\frac{A}{B} \times N$ in decade steps of N for N=1 to 1000	LSD: Least Significant Digit.