

Data Sheet

60 MHz Analog Oscilloscope Model 2160A



- 5 mV/div sensitivity
- 23 calibrated ranges-main time base
- 23 calibrated ranges-delayed time base
- Signal delay time
- Component tester
- Z axis input
- Single sweep

Specifications

model

2160A

VERTICAL AMPLIFIERS (CH 1 and 2)	
Sensitivity	5 mV/ 5 V/div, 1 mV/div to 1 V/div (X5 MAG)
Attenuator	1-2-5 sequence, plus x 5 gain step, Vernier control provide fully adjustable sensitivity between steps range 1/1 to at least 1/2.5
Accuracy	±3%, 5 mV to 5 V/div; ±5%, 1 mV, 2 mV/div
Input impedance	1 MΩ ±2%
Input Capacitance	25 pF±10%
Frequency Response	DC to 60 MHz (5 mV/div to 5 V/div), DC to 15 MHz (X5 MAG)
Rise Time	5.8 ns (Overshoot ≤5%)
Operating Modes	CH1, CH2, Dual, Alternate Chop
Polarity Reversal	CH 2 invert
Maximum Input Voltage	400V (DC + AC peak)
SWEEP SYSTEM	
Sweep Display Modes	Main, Mix, Delay, XY
Hold Off Time	5:1 continuously variable
Main Sweep	
Sweep Speed	0.1 μs/div. to 2.0s/div. in 1-2-5 sequence, 23 steps
Accuracy	±3%
Variable Time Control	5:1, uncalibrated, continuously variable between steps
Sweep Magnification	10 x , ±10%, extended sweep speed up to 10 ns/div
Delay Sweep	
Sweep Speed	0.1 μs/div. to 2.0 s/div. in 1-2-5 sequence, 23 steps
Accuracy	±3%
Sweep Magnification	10 x , ±10%, extended sweep speed up to 10 ns/div
Delay Time Position	Variable control to locate desirable waveform for extending
Triggering	
Trigger Coupling	AUTO, NORM, TV-V, TV-H
Trigger Source	CH1, CH2, ALT, EXT. LINE
Slope	+/-
HORIZONTAL AMPLIFIER	
(Input through channel 2 input)	
X-Y Mode	CH 1: X axis, CH 2: Y axis
Sensitivity	Same as vertical channel 2
Input Impedance	Same as vertical channel 2
Frequency Response	DC: DC to 1MHz (-3 dB). AC: 5 Hz or 2 MHz (-3 dB)
X-Y Phase Difference	3° or less at 50 kHz
Maximum Input Voltage	Same as vertical channel 2

CH 2 Output (on rear panel)	
Output Voltage	50 mV/div (nominal into 50 Ω load)
Output Impedance	Approximately 50 Ω
Frequency Response	20 Hz to 60 MHz, -3 dB into 50 V

CRT	
Type	6-inch rectangular with internal graticule
Display Area	8 x 10 div (1 div = 1 cm)
Accelerating Voltage	12 kV
Phosphor	P31
Scale Illumination	Continuously variable
Trace Rotation	Electrical, front panel adjustable

COMPONENT TESTER	
Components Tested	Resistors, capacitors, inductors, and semiconductors
Test Voltage	6 V rms maximum (open)
Test Current	11 mA maximum (shorted)
Test Frequency	Line frequency (60 Hz in USA)

Other Specifications

Cal/Probe	
Compensation Voltage	2.0 V p-p ±3% square wave, 1 kHz nominal
Sweep Output	TTL level allows synchronization of external equipment with scope sweep

Intensity Modulation	
Input Signal	TTL level, intensity increasing with more positive levels
Input Impedance	50 kΩ
Usable Freq. Range	DC to 5 MHz
Maximum Input Voltage	30 V (DC + AC peak)

Environment	
Within Specified Accuracy	50° to 95°F (10° to 35°C), 10-80% RH
Full Operation	32° to 122°F (0° to +50°C), 10 - 80% RH
Storage	-22° to 158°F (-30° to +70°C), 10 - 90% RH
Power Requirements	110/120/220/240 V ±10%, 50/60 Hz
Dimensions (H x W x D)	12.76 x 15.68 x 5.2" (324 x 398 x 132mm)
Weight	16.75 lbs. (7.6kg)

Three Year Warranty

Accessories
 Supplied: Instruction Manual, Two PR 33A x1/x10 Probes or equivalent, AC Power Cord, Spare Fuse
 Optional: PR 32A Demodulator Probe, PR 37AG x1/x10/REF Probe, PR 100A x100 Probe, PR-55 High Voltage x1000 Probe, LC 210A Carrying Case



The Right Source For Your Test & Measurement Needs

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