Data Sheet

60 MHz Analog Oscilloscope with Probes

Model 2160A

B&K Precision's model 2160A is a high performance oscilloscope with many features at a low cost. The model 2160A includes a built in component tester, which is an excellent tool for in circuit troubleshooting. This oscilloscope is built by and backed by B&K Precision, a company that has been selling reliable, durable, value priced test instruments for over 50 years.

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

Specification	
	2160A
VERTICAL AMPLIFIERS (CH I 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	I 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 Accuracy	0.1µs/div. to 2.0s/div. in 1-2-5 sequence, 23 steps ±3%
Variable Time Control	5:1, uncalibrated, continuously variable between steps
Sweep Magnification	10 x , $\pm 10\%$, extended sweep speed up to 10 ns/div
Delay Sweep	1
Sweep Speed	0.1 µs/div. to 2.0 s/div. in 1-2-5 sequence, 23 steps
Accuracy	±3%
Sweep Magnification	10 x , $\pm 10\%$, 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 AMPLIFIE Input through channel 2 input)	R
X-Y Mode	CH 1: X axis. CH 2: Y axis
Sensitivity	Same as vertical channel 2
	Same as vertical channel 2
Input Impedance	j Janie as veruedi Uldille Z
Input Impedance	DC: DC to IMH_{7} (3 dB) AC: 5 Hz or 2 MH ₇ (2 dB)
Input Impedance Frequency Response X-Y Phase Difference	DC: DC to 1MHz (-3 dB). AC: 5 Hz or 2 MHz (-3 dB) 3° or less at 50 kHz



H 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
riequency Response	20 HZ to 60 WHZ, -5 dB IIIto 50 V
CRT	
Туре	6-inch rectangular with internal graticule
Display Area	$8 \times 10 \text{ div} (1 \text{ div} = 1 \text{ cm})$
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	I I mA maximum (shorted)
Test Frequency	Line frequency (60 Hz in USA)
Other Specification	· 2
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Other Specification	ons
Other Specification Cal/Probe Compensation Voltage	ONS 2.0 V p-p ±3% square wave, 1 kHz nominal
Other Specification Cal/Probe Compensation Voltage Sweep Output	ONS 2.0 V p-p ±3% square wave, 1 kHz nominal TTL level allows synchronization of external equipment
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Other Specification Cal/Probe Compensation Voltage Sweep Output	2.0 V p-p ±3% square wave, 1 kHz nominal TTL level allows synchronization of external equipment with scope sweep TTL level, intensity increasing with more positive levels
Other Specification Cal/Probe Compensation Voltage Sweep Output Intensity Modulation Input Signal Input Impedance	2.0 V p-p ±3% square wave, 1 kHz nominal TTL level allows synchronization of external equipment with scope sweep TTL level, intensity increasing with more positive levels 50 kΩ
Other Specification Cal/Probe Compensation Voltage Sweep Output Intensity Modulation Input Signal Input Impedance Usable Freq. Range Maximum Input Voltage	2.0 V p-p ±3% square wave, 1 kHz nominal TTL level allows synchronization of external equipment with scope sweep TTL level, intensity increasing with more positive levels 50 kΩ DC to 5 MHz
Other Specificatio Cal/Probe Compensation Voltage Sweep Output Intensity Modulation Input Signal Input Impedance Usable Freq. Range Maximum Input Voltage Environment	2.0 V p-p ±3% square wave, 1 kHz nominal TTL level allows synchronization of external equipment with scope sweep TTL level, intensity increasing with more positive levels 50 kΩ DC to 5 MHz 30 V (DC + AC peak)
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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

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