

# 30 MHz Analog Oscilloscope



**2120B**

- Dual or single trace operation
- 5 mV/div sensitivity
- AUTO/NORM triggered sweep operation with AC, TVH, TVV and line coupling
- Calibrated 23 step time base with x 10 magnifier
- Compact low-profile design

## Specifications

model

**2120B**

VERTICAL AMPLIFIERS (Ch 1 and CH 2)	
Sensitivity	5 mV/div to 5 V/div, 1 mV/div to 1 V/div at X5
Attenuator	10 steps in 1-2-5 sequence. Vernier control provides full adjustment between steps.
Accuracy	±3%, ±5% at X5
Input Resistance	1 MΩ ±2%
Input Capacitance	25 pF ±10pF
Frequency Response	5 mV to 5 V/div: DC to 30 MHz (-3dB). X5: DC to 10 MHz (-3dB)
Rise Time	12 ns (Overshoot <5%)
Operating Modes	CH 1: CH 1, single trace
CH 2	CH 2, single trace
ALT	dual trace, alternating
CHOP	dual trace, chopped
ADD	algebraic sum of CH 1 + CH 2
Polarity Reversal	CH 2 only
Maximum Input Voltage	400 V (DC + AC peak)

SWEEP SYSTEM	
Sweep Speed	0.1 μs/div to 2s/div in 1-2-5 sequence, 23 steps Vernier control provides fully adjustable sweep time between steps.
Accuracy	±3%
Sweep Magnification	10x

TRIGGERING			
Triggering Modes	AUTO (free run) or NORM, TV-V, TV-H		
Trigger Source	CH 1, CH 2, ALT, EXT, LINE		
Maximum External	300 V (DC + AC peak)		
Trigger Voltage	AC 30 Hz to 30 MHz		
Trigger Coupling	TV H Used for triggering from horizontal sync pulses		
TV V	Used for triggering from vertical sync pulses		
TRIGGER SENSITIVITY			
Coupling	Bandwidth	Int	Ext
Auto	100 Hz-30 MHz	1.5 div	100 mV
Norm	DC to 30 MHz	1.5 div	100 mV
TV V	20 Hz-1 kHz .5 div	100 mV	
TV H	1 kHz-100 kHz	.5 div	100 mV

HORIZONTAL AMPLIFIER (Input through channel 2 input)	
X-Y Mode	Switch selectable using X-Y switch. CH 1: X axis
CH 2	Y axis
Sensitivity	Same as vertical channel 1
Input Impedance	Same as vertical channel 1
Frequency Response	DC to 1 MHz typical (-3 dB)
X-Y Phase Difference	Approximately 3° at 50 kHz
Maximum Input Voltage	Same as vertical channel 1

CRT	
Type	Rectangular with internal graticule
Display Area	8 x 10 div (1 div = 1 cm)
Accelerating Voltage	2 kV
Phosphor	P31
Trace Rotation	Electrical, front panel adjustable

## Other Specifications

Calibrating Voltage	1 kHz (±10%) Positive Square Wave, 2 V p-p (±3%)
ENVIRONMENT	
Within Specified	
Accuracy	50° to 95°F (10° to 35°C), ≤ 85% RH
Full Operation	32° to 104°F (0° to 40°C), ≤ 85% RH
Storage	-4° to 158°F (-20° to +70°C)
Power Requirements	100/120/220/240 VAC ±10%, 50/60 Hz, approximately 40 W.
Dimensions (WxHxD)	7 x 14.5 x 17.25" (180 x 370 x 440 mm)
Weight	Approximately 17.2 lbs (7.8 kg)

## Accessories

**Two Year Warranty**

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