

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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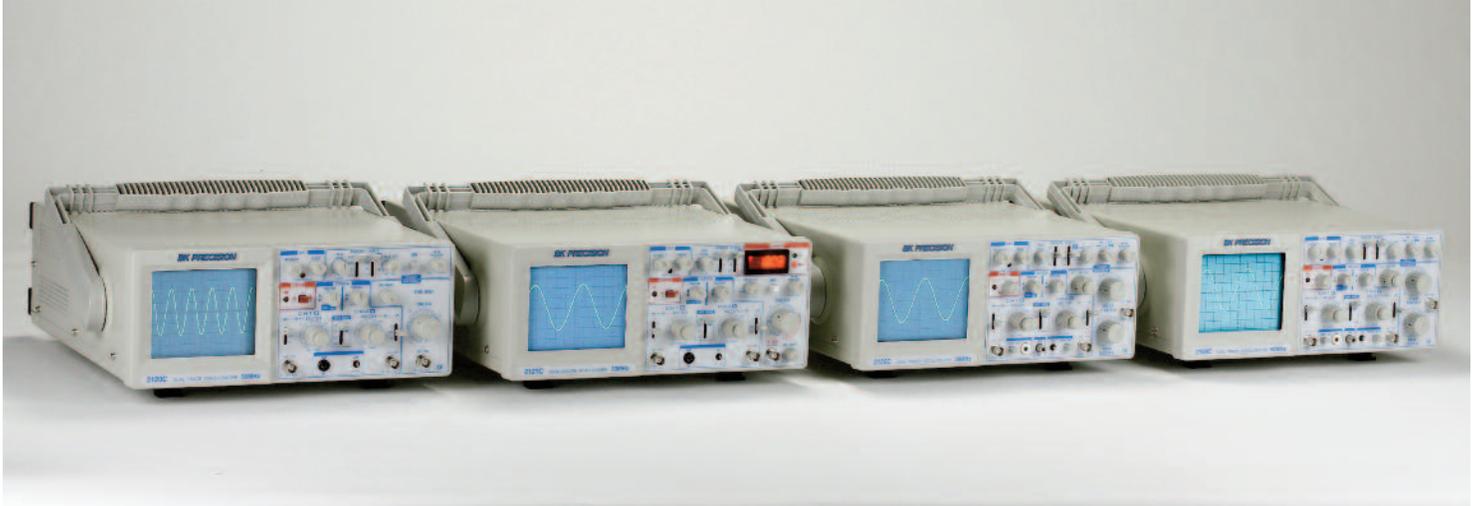
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Data Sheet

Analog Oscilloscopes With Probes

2100C Series



B&K Precision's 212x Series are dual trace oscilloscopes that offers high performance at a low price. Most competitor's entry level oscilloscopes have a 20 MHz bandwidth, while B&K Precision's 212x Series have a bandwidth of 30-60 MHz.

These oscilloscopes are built by and backed by B&K Precision, a company that has been selling reliable, durable, value priced test instruments for over 60 years.

Common Features & Benefits

- Dual or single trace operation
- 5 mV/div sensitivity
- Calibrated 23-step time base with X10 magnifier
- Video sync trigger
- Alternate/chop sweep
- Sum and difference capability

Additional Features

- Built-in component tester (2125C & 2160C)
- Built-in 50 MHz frequency counter (2121C only)
- Delayed time base
- Main, Mix, Delay, X-Y sweep modes

| Specifications | 2120C | 2121C | 2125C | 2160C |
|------------------|----------------------------|--------|--------|----------------------|
| Bandwidth | 30 MHz | 30 MHz | 30 MHz | 60 MHz |
| Sweep Time | 0.1 μ s/div to 2 s/div | | | 20 ns/div to 5 s/div |
| Component Tester | - | - | √ | √ |
| Counter | - | √ | - | - |



Analog Oscilloscopes
2100C Series

| Specifications | 2120C & 2121C |
|---|--|
| 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 Impedance | 1 MΩ ±2% |
| Input Capacitance | 25 pF ±10 pF |
| 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 |
| Max. Input Voltage | 400 V (DC + AC peak) |
| SWEEP SYSTEM | |
| Sweep Speed | 0.1 μs/div to 2 s/div in 1-2-5 sequence, 23 steps, Vernier control provides fully adjustable sweep time between steps. |
| Accuracy | ±3% |
| Sweep Magnification | 10x ±10% |
| TRIGGERING | |
| Triggering Modes | AUTO (free run) or NORM, TV-V, TV-H |
| Trigger Source | CH 1, CH 2, ALT, EXT, LINE |
| Max External Trigger Voltage | 300 V (DC + AC peak) |
| Trigger Coupling | AC 30 Hz to 30 MHz |
| TV H | Used for triggering from horizontal sync pulses |
| TV V | Used for triggering from vertical sync pulses |
| TRIGGER SENSITIVITY | |
| Auto | Bandwidth: 100 Hz-30 MHz, Internal: 1.5 div, External: ≥0.5Vp-p |
| Norm | Bandwidth: DC to 30 MHz, Internal: 1.5 div, External: ≥0.5Vp-p |
| TV V | Bandwidth: 20 Hz-1 kHz, Internal: 1.0 div, External: ≥0.5Vp-p |
| TV H | Bandwidth: 1 kHz-100 kHz, Internal: 1.0 div, External: ≥0.5Vp-p |
| HORIZONTAL AMPLIFIER (Input through channel 1 input) | |
| X-Y Mode | Switch selectable using X-Y switch. CH 1: X axis, CH 2: Y axis |
| Sensitivity | Same as vertical channel 2 |
| Input Impedance | Same as vertical channel 2 |
| 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 2 |
| 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 |
| Calibrating Voltage | 1 kHz (±10%) positive square wave, 2 V p-p (±3%) |
| COUNTER (2121C) | |
| Display | 5 digits, 0.36" red LED, display at "Hz" or "kHz" auto range |
| Display Resolution | Auto select from 0.001 Hz to 1 kHz depending on the frequency |
| Max. Counter Range | 0.1 Hz to 50 MHz |
| Accuracy | +0.01% + 1 digit or 1/99999 + 1 digit |
| Time Base | 18,432 MHz + 10ppm (23 °C ±5 °C) |
| GENERAL | |
| Temperature | 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 |
| AC Input | 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 | 16.8 lbs (7.6 kg) |
| One Year Warranty | |
| Supplied Accessories | Instruction manual, two PR-33A X1/X10 probes or equivalent, AC power cord and spare fuse |
| Optional Accessories | PR-32A demodulator probe, PR-37A x1/x10/REF probe, PR-100A x100 probe, PR-55 high voltage x1000 probe, LC-210A carrying case |

| Specifications | 2125C & 2160C |
|---|--|
| 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 Impedance | 1 MΩ ±2% |
| Input Capacitance | 25 pF ±10 pF |
| Frequency Response | 5 mV to 5 V/div: DC to 30 MHz (-3dB), X5: DC to 10 MHz (-3dB) DC to 60 MHz (-3 dB), Model 2160C X5 MAG: DC to 15 MHz (-3 dB), Model 2160C |
| Rise Time | 12ns (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 |
| Max. Input Voltage | 400 V (DC to AC peak) |
| SWEEP SYSTEM | |
| Operating Modes | Main, mix (both main sweep and delay sweep displayed), or Delay (only delay sweep displayed), X-Y |
| Main Sweep Speed | 0.1 μs/div to 2.0 s/div in 1-2-5 sequence, 23 steps Vernier control provides fully adjustable sweep time between steps |
| Accuracy | ±3% |
| Sweep Magnification | 10X ±5% |
| Delayed Sweep Speed | 0.1 ms/div to 0.1s/div in 1-2-5 sequence, 23 steps |
| Holdoff | Continuously variable for Main sweep up to 10 times normal |
| Delay Time Position | Continuously variable to control percentage of display that is devoted to main and delay sweep |
| TRIGGERING | |
| Triggering Modes | AUTO (free run) or NORM, TV-V, TV-H |
| Trigger Source | CH 1, CH 2, ALT, EXT, LINE |
| Trigger Voltage | 300 V (DC + AC peak) |
| Trigger Coupling | AC 30 Hz to 30 MHz, TV H used for triggering from horizontal sync pulses, TV V Used for triggering from vertical sync pulses |
| TRIGGER SENSITIVITY | |
| Auto | Bandwidth: 100Hz - 40MHz, Internal: 1.5 div, External: ≥0.5Vp-p |
| Norm | Bandwidth: 100Hz - 40MHz, Internal: 1.5 div, External: ≥0.5Vp-p |
| TV-V | Bandwidth: DC - 1kHz, Internal: 1.0 div, External: ≥0.5Vp-p |
| TV-H | 1 kHz - 100kHz, Internal: 1.0 div, External: ≥0.5Vp-p |
| HORIZONTAL AMPLIFIER (Input through channel 1 input) | |
| X-Y Mode | Switch selectable using X-Y switch. CH 1: X axis, CH 2: Y axis |
| Sensitivity | Same as vertical channel 2 |
| Accuracy | Y-Axis: ±3%, X-Axis: ±6% |
| Input Impedance | Same as vertical channel 2 |
| Frequency Response | DC to 1MHz typical (-3 dB), to 6 div horizontal deflection |
| X-Y Phase Difference | 3° or less at 50 kHz |
| Max. Input Voltage | Same as vertical channel 2 |
| CRT | |
| Type | Rectangular with internal graticule |
| Display Area | 8 x 10 div (1 div = 1 cm) |
| Accelerating Voltage | 2 kV, 12 kV (2160C) |
| Phosphor | P31 |
| 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) |
| Calibrating Voltage | 1 kHz (±10%) positive square wave, 0.2 V p-p (±2%) |
| GENERAL | |
| Temperature | 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 |
| AC Input | 100/120/220/240 VAC ±10%, 50/60 Hz, Approximately 40 W |
| Dimensions (WxHxD) | 7 x 14.5 x 14.25" (180 x 370 x 440 mm) |
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