

BK Precision Digital Storage/Analog Oscilloscope

Part No. 01BK2522

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Digital Mode Specifications	model 2522B
Storage Word Size	2048x8 bits/channel; (2k/channel with direct sampling, 1 k/channel with equivalent time sampling).
Vertical Resolution	1 in 256, approximately 25 steps/div.
Horizontal Resolution	1 in 2048, approximately 200 samples/div.
Sampling Rate	10M samples/sec to 4 samples/sec, reduced in proportion to time base. Direct sampling at time base settings of 20us/div and slower, equivalent time sampling at time base settings of 10us/div and faster.
Time Base Expander	For storage of slow time events, time base steps 10ms/div and slower have selectable 1/1 or 1/100 rate. 1/100 rate expands time base from 1 sec/div to 50 sec/div in 1-2-5 sequence.
Equivalent time Sampling Bandwidth	20 MHz for repetitive waveforms.
Dot Joining	Linear interpolation between samples.
DIGITAL DISPLAY MODES	
Roll	Stored data and display updated continually.
Refresh	Stored data and display updated by triggered sweep.
Hold	Freezes channel 1 and channel 2 data immediately.
Save CH2	Freezes channel 2 data immediately.
Pretrigger Storage	Available in single shot mode, switchable to 0% or 50%.
LED Indicators	Trigger (green), Arm (red), Pen Down (red).
PLOT OUTPUT	
CH 1 and CH 2 Outputs OUTPUT and CH 2 OUTPUT	Selected by PLOT switch on rear panel. Output via CH 1 jacks on rear panel. Amplitude 0.1 V/div (A V maximum).
Output Sweep Rate	Output sweep rate is 1/10 of TIME/DIV setting (and 1/100 switch when applicable).
Pen Lift Output	Available at Pen Down jack on rear panel. TTL high, Pen Up. TTL low, Pen Down.
Analog Mode Specifications	
VERTICAL AMPLIFIERS (CH 1 and CH 2)	
Sensitivity	5mV/div to 5V/div in 1-2-5 sequence, 10 steps. Vernier control provides fully adjustable gain between steps. Pull x5 increases maximum sensitivity to 1mV/div (at reduced bandwidth).
Accuracy	+3%, +-5% at x5 MAG
Input Resistance	1M Ω + 2%
Input Capacitance	25pF + 10pF
Frequency Response	5 mV to 5 V/div: DC to 20 MHz (-3 dB). x5: DC to 10 MHz (-3dB)
Rise Time	Approximately 17.5 ns (overshoot \leq 3%)
Polarity Reversal	CH 2 only
Maximum Input Voltage	400 V (DC + AC peak)
MAXIMUM UNDISTORTED AMPLITUDE	
DC-to-20 MHz	4 divisions
DC-to-10 MHz	8 divisions
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

SWEEP SYSTEM	
Sweep Speed	0.1 us/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, + 6%
Hold off	variable.
TRIGGERING	
Modes: AUTO (free run) or NORM. Source: CH1, CH2, ALT, EXT, LINE	
Maximum External Trigger Voltage: 200 V (DC + AC peak).	
Sensitivity	Internal - 0.5 division, External - 500 mV.
TRIGGER COUPLING	
AC	30 Hz to 30 MHz.
TV H/HF:	Used for triggering from horizontal sync pulses. Low frequencies are attenuated.
TV V DC/LF:	Used for triggering from vertical sync pulses. High frequencies are attenuated. Direct coupled.
HORIZONTAL AMPLIFIER (Input thru CH 1 Input)	
X-Y Mode	Switch selectable using X-Y switch CH 1: X axis CH 2: Y axis
Sensitivity	Same as vertical channel 1
Accuracy	Y-Axis: +-3%, X-Axis: +-6%
Input Impedance	Same as vertical channel 1
Frequency Response	Dc to 2 MHz typical (-3 dB) (to 6 divisions horizontal deflection)
X-Y Phase difference	Approximately 3 ° at 50 kHz
Maximum Input Voltage	Same as vertical channel 1
Other Specifications	
CRT	
Type	Rectangular with internal graticule
Display Area	8 x 10 div (1 div = 1 cm).
Accelerating Voltage	2 kV
Type	Rectangular with internal
Display Area	8x10 div (1 div = 1 cm)
Accelerating Voltage	2kV
Phosphor	P31
Trace Rotation	Electrical, front panel adjustable
ENVIRONMENT	
Within Specified Accuracy	50 ° to 95 ° F (10 ° to + 35 °C), 85% maximum RH
Full Operation	32 ° to 104 ° F (0 ° to + 40 °C), 85% maximum RH
Storage	-4 ° to 158 ° F (-20 ° to + 70 °C)
OTHER	
CH 1 Output	(on rear panel)
Output Voltage	25mV/div (nominal into 50 Ω load)
Output Impedance	Approximately 50 Ω
Frequency Response	20 Hz to 10 MHz, -3 dB into 50 Ω
Cal/Probe Compensation Voltage	0.5 Vp-p +3% square wave, 1kHz nominal
Power Requirements	110V/125/220/240VAC, 50/60 Hz, approximately 60 W
Dimensions (HxWxD)	5.2x12.8x15.6" (132x324x397 mm)
Weight	Approx. 19 lb. (8.6 kg)
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-37A x1/x10/REE Probe, PR_100Ax100 Probe, PR-55 High Voltage x1000 Probe, LC-210A Carrying Case	