



MT95K2 KnowledgeBase

System Specifications

Chart Specifications	
Recording Method	Direct writing thermal array
Amplitude Resolution	300 dpi
Time Base Resolution	48 dots per mm (dpm) for speeds of 1 mm/hr to 50 mm/sec; 24 dpm for 51 mm/sec to 100 mm/sec; 12 dpm for 101 mm/sec to 200 mm/sec; 8 dpm for 201 mm/sec to 300 mm/sec; 4 dpm for 301 mm/sec to 500 mm/sec.
Chart Drive	Crystal referenced, micro stepped, bi-polar drive
Realtime Speeds	1mm/hr to 200 mm/hr in steps of 1mm/hr; 1 mm/min to 200 mm/min in steps of 1 mm/min; 1 mm/sec to 500 mm/sec in steps of 1 mm/sec.
Chart Type and Size	Z-fold pack: 16.3" wide, 393 feet long, 400 sheets per pack. Roll chart: 16.3" wide, 500 ft long (requires rewinder option)
Realtime Clock	Provides time stamping for System Channel and data capture
External Speed Control	Up to 50 mm/sec referenced to user supplied TTL compatible pulse train (96 pulses per mm). Minimum pulse width is 10 microseconds.
Remote Start/ Stop	Standard via TTL or switch closure
Realtime Sample Rates	
Raw Bus Sample Rate	4 million samples per second
Data Sample Rate	Up to 200 kSamples/sec per channel
Built-in Waveform Monitor	
Monitor Type	Bright vacuum fluorescent
Minimum Time Base	10 milliseconds per dot

Effective Speeds	Standard mode follows chart up to 50 mm/sec. Fast Mode is approximately 24 times the chart speed, up to 50 mm/sec.
Waveform Channels	
Maximum Number of Channels	32, can mix analog and digital
Nominal Bandwidth	20 kHz
Full Scale Waveform Amplitudes	170 mm (100 divisions); 85 mm (50 divisions); 51 mm (50 divisions); 43 mm (50 divisions); 25 mm (20 divisions); 17 mm (20 divisions); 11 mm (10 divisions); 9 mm (10 divisions). Metric grids also available.
Over-Range	± 10% of full scale except for 170 mm (± 5%)
Grid Appearance	Major and minor divisions can be turned on and off individually
Grid Synchronization	Grid time lines can be synchronized to either internal or external time references
Realtime Recording Formats	
Standard Default	8 waveforms with 8 channel label buffers in both overlap and separate channel mode
Disk Based Formats	A variety of 8, 16, and 32 waveform chart formats are supplied on a 3.5" DOS compatible disk which comes standard with all units
User Designed Formats	The user can design unique charts using standard menus. Up to 50 of these formats can be saved on the personal Disk supplied with each unit for quick and simple chart setups
Data Logger	Numeric reporting of waveform data in engineering units
Dual Speed	System toggles between any two chart speeds based on time interval or trigger
Timed Recording	System can be programmed to start and stop recording at specific times
Line Print	80 columns x 66 rows, 500 cps
Rotated Line Print	160 lines printed at 90° rotation
Page Print	Two 80 column x 66 row pages, 1000 cps
Annotation	

System Log Channel	Prints time, date, speed, time base and function on left chart edge
Waveform ID	A two digit code printed next to each waveform
Waveform Buffers	32 annotation buffers. Standard buffers are 128 characters long
On-the-fly Buffer	One additional 128-character annotation buffer, which can be positioned anywhere across the chart and printed with a keystroke
Signal Conditioner Buffer	Internal gain and zero position settings are automatically printed as the first 40 characters of the waveform text buffers
Standard Event Markers	
System Event	Standard with glitch capture. Operates from front panel key or external input (TTL or switch closure)
Tri-level Time	x1, x10, x100 based on user choice of reference
Tri-level Reference	Internal: 0.01, 0.02, 0.04, 0.1, 0.2, 0.4, 1.0, 3.6, 6 seconds. External: any available time code start pulse
Tri-level Location	Either right edge, left edge or both, selectable
Additional Markers	Up to 32
Basic Triggering	
System	Front panel, host, external TTL or switch closure
Computer Interfaces	
RS-232C	Baud rate selections from 300, 1200, 2400, 4800, 9600 and 19200, via front panel. Also includes XON/XOFF and DTR/DSR capabilities
GPIB (IEEE-488)	Parallel interface, with address selections from 0 to 30
Calibration	
Self-Calibration	Calibrates to an internal precision voltage source (traceable to NIST)
Additional Specifications	
Security	The K2 provides security by password
Approvals for Safety	ETL listed to UL544 verified conformity to EN6060-1 (IEC-601-1)

Approvals for EMI / RFI	Verified conformity to FCC Part 15, Subpart B, Class A EN 55022 (CISPR) Class A, RM50082-1 (IEC-801, -2, -3, -4)
Dimension	10.5" (266.7mm) High x 19"(482.6mm) Wide x 20" (508 mm) Deep
Weight	56 lbs (25.4 kg)
Environmental	0 to 40°C, 5 to 95% RH, non-condensing
Power	120/240 VAC, 50/60 Hz, 700 Watts max., fused