

## 2430/NEW 2430M

### Digital Oscilloscope



The 2430/2430M comply with IEEE Standard 488-1978 and with Tektronix Standard Codes and Formats.

150 MHz Bandwidth at Probe Tip

5 ns/Div Sweep Speed

100 MS/s Sample Rate

Simultaneous Acquisition of Two Channels

Envelope Mode With 2 ns Glitch Capture

8 Bit Resolution Over 10 Divisions

Save on Delta (Tek Patented Feature)  
Provides Unattended Pass/Fail Testing  
and Babysitting Against a User Defined  
Reference Envelope

Extensive Trigger Capability Such as Delay  
by Time, Delay By Events, Two External  
Trigger Inputs Provide Flexibility for Use in  
TTL, ECL, and Analog Circuit Applications

Save up to Six Waveforms for Later Display,  
Analysis and Comparison

Full Screen Readout and Extensive  
Cursor Functions for Easy Operation  
and Measurements

Fully GPIB Programmable for Systems and  
Automated Test Applications

Three Year Warranty—Five Years Optional

### TYPICAL APPLICATIONS

Analog and Digital Design  
Repetitive Test  
Power Supply Development  
T1 Carrier Test/Verification

See page 277 for available Application Notes.

### Power and Flexibility in an Easy-To-Use Portable Digital Oscilloscope

With the Tek 2430 we've brought the best features of our industry standard 2400 Series into the digital world. Capture complex wideband signals for TTL, ECL, and analog research, design and test.

With on-screen readout, cursor functions, and front panel layout similar to other Tek 2400 Series instruments, the 2430 provides an easy to use tool.

The 2430 has a 150 MHz bandwidth, 5 ns/div maximum sweep speed, a digitizing rate of 100 Megasamples/sec with 8 bit resolution, and dual channel simultaneous acquisition. With its advanced feature set, the 2430 can meet your general purpose measurement needs while offering the advantages of a digitized waveform—including long term storage for future reference, data transfer, and waveform analysis—making the 2430 a powerful systems component.

Features of the 2430 include: 1024 point per channel record length, Average Mode for increased resolution and noise reduction on repetitive signals, Envelope Mode to provide the unique ability to capture events as fast as 2 ns at any sample rate, Save on Delta to capture and save events that deviate from user selected limits, Delay by Time and Delay by Events for detailed examination of complex waveforms.

### NEW 2430M With MATE/CIL Capabilities

The 2430M digital oscilloscope offers Control Intermediate Interface Language (CIL) capability that is essential for operation in Modular Automatic Test Equipment (MATE) used in testing military avionics and weapons systems. A CIL interface allows communication between an ATLAS 716 host computer and the 2430M via the IEEE 488 bus. This interface is embedded in the 2430M. Upon a GAL (go to alternate language) command, the 2430M is essentially transparent to the IEEE bus until a CIL command is received. When a CIL command appears on the bus, the CIL interface is automatically invoked and acts as a translator between the ATLAS host computer and the IEEE 488 bus.

The 2430M was designed to the Proposed MATE System Control Interface Standard No. 2806763 Rev. B and has been accepted as a candidate for MATE qualification. All 2430 options and optional accessories are also available on the 2430M.

Due to the method of processing messages, software written for the 2430 may not be entirely compatible with the 2430M when using SRQs and when sending long messages. Contact your local Sales Representative for more detailed information.

### CHARACTERISTICS VERTICAL SYSTEM

The following characteristics are common to both instruments.

**Bandwidth** — Dc: to 150 MHz (−3 dB). Ac: <10 Hz to 150 MHz.

**Bandwidth Limit** — 20 MHz and 50 MHz; selectable (reduces −3 dB point to between 13 MHz to 24 MHz and 40 MHz to 55 MHz respectively).

**Channels** — Two with simultaneous acquisition.

**Vertical Accuracy** —  $\pm 2\% + 1$  DL (DL = digitizing level, 25 DLs per CRT division).

**Deflection Factor** — 2 mV/div to 5 V/div in 1-2-5 sequence, continuously variable between ranges.

**Auto Scale Factor** — Probe tip deflection factors for 1X, 10X, 100X, and 1000X indicated by on-screen readout. Scale factor available over GPIB Bus. Probe identification available via on-screen readout.

**Delay Matching** —  $\pm 250$  ps.

**Channel Isolation** — 100:1 or greater attenuation of the deselected channel at 100 MHz, 50:1 or greater at 150 MHz for a 10 div input signal from 2 mV/div to 500 mV/div with equal VOLTS/DIV switch settings on both channels.

**Maximum Input Voltage** — 1 M $\Omega$ : Dc, Ac, GND Coupled: 400 V (dc + peak ac); 800 V p-p ac at 10 kHz or less. 50  $\Omega$ : 5 V RMS; 0.5 W sec for any 1 second interval for instantaneous voltages from 5 V to 50 V.

**Input R and C** — 1 M $\Omega \pm 0.5\%$  paralleled by 15 pF  $\pm 2$  pF, 50  $\Omega \pm 1\%$ .

**VSWR** —  $\leq 1.3:1$  (Dc to 150 MHz).

**Vertical Position Range** —  $\pm(10, +0.4, -0.7)$  divisions.

**CMRR** — At least 10:1 at 50 MHz for common-mode signals of 10 div or less, with VAR VOLTS/DIV adjusted for best CMRR at 50 kHz at any VOLTS/DIV setting from 5 mV to 5 V.

### HORIZONTAL SYSTEM

**Display Modes** — A, A Intensified, B.

**A and B Delayed Sweep Range** — 5 ns/div to 5 s/div in 1-2-5 sequence.

**Clock Accuracy** — .001%.

**External Clock Repetition Rate** — Min: 1 MHz. Max: 100 MHz. Events Max Rep Rate: 100 MHz.

### Signal Levels Required for EXT Clock or Events

Coupling	CH 1 or CH 2 Source	EXT 1 or EXT 2 Source Gain = 1
Dc	0.70 div from dc to 20 MHz; increasing to 2.0 div at 100 MHz; 3.0 div at 100 MHz in ADD mode	35 mV from dc to 20 MHz; increasing to 100 mV at 100 MHz
Noise Rej	$\geq 2.4$ div from dc to 20 MHz; increasing to 6.0 div at 100 MHz; 9.0 div at 100 MHz in ADD mode	$\geq 120$ mV from dc to 20 MHz; increasing to 300 mV at 100 MHz
Ac	0.7 div from 60 Hz to 20 MHz; increasing to 2.0 div at 100 MHz; 3.0 div at 100 MHz in ADD mode. Attenuates signals below 60 Hz	35 mV from 60 Hz to 20 MHz; increasing to 100 mV at 100 MHz; Attenuates signals below 60 Hz
HF Rej	2.0 div from dc to 30 kHz. Attenuates signals above 30 kHz	50 mV from dc to 30 kHz
LF Rej	2.0 div from 80 kHz to 20 MHz; increasing to 4.0 div at 100 MHz; 3.0 div at 100 MHz in ADD mode. Attenuates signals below 80 kHz	50 mV from 80 kHz to 20 MHz; increasing to 100 mV at 100 MHz

Signal Levels Required for EXT clock or EVENTS; GAIN = +6; Amplitudes are 5 times those specified for Ext. Gain = 1.

**Delay By Time and Delta Delay** — On-screen readout will display time delay between measured events.

**Delay By Time and Delta Delay Maximum Delay** —  $(0.04 \times B \text{ sec/div})$  to  $(65,536 \times 0.04 B \text{ sec/div})$ .

**Delay Time Resolution** — The greater of  $(0.04 \times B \text{ sec/div})$  or 20 ns.

**Delay By Events** — Delays the A or B sweep by a user selected number of B trigger events after the normal A trigger occurs. On-screen readout indicates number of events selected, the maximum number of events selectable is 65,536 with one event resolution.

### ACQUISITION SYSTEM

**Maximum Single Event Useful Storage Bandwidth** — 40 MHz (using internal Modified Sine X/X interpolator).

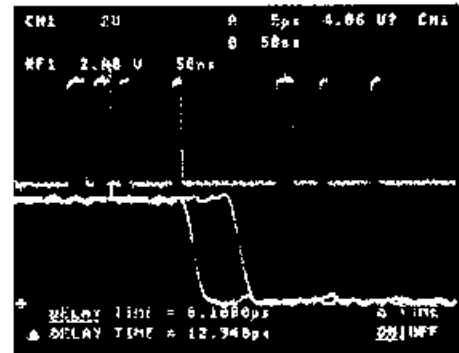
**Maximum Sample Rate** — 100 MS/s on two simultaneous channels.

**Vertical Resolution** — 8 bits (1 to 256 over 10.24 vertical div).

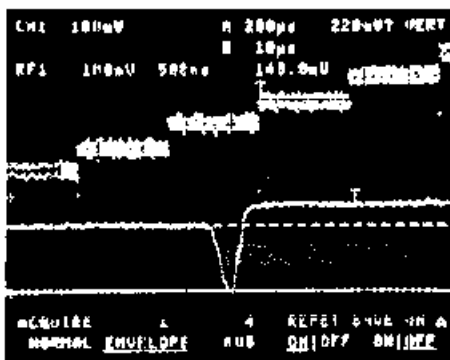
**Record Length** — 1024 points per channel.

### ACQUISITION MODES

**Normal Mode** — Repetitive and nonrepetitive acquisitions.



When you have to measure time intervals within complex sequences, as in disk drive applications, the 2430's DELAY BY EVENTS, DELAY BY TIME and DELTA DELAY enable you to simplify and measure intervals buried in long sequences.



Once you've found a DAC glitch, the 2430 lets you take a good look. (Top) The 2430's envelope mode displays a DAC OUTPUT WITH THE GLITCH highlighted by an intensified zone. (Bottom) The glitch has been expanded and stored in a display reference memory for comparison and cursor measurement.

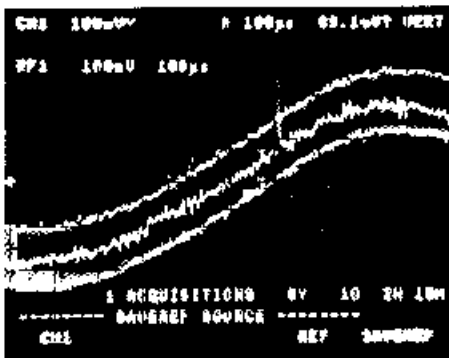
**Envelope Mode** — Records and displays minimum and maximum waveform values over 1 or more sweeps. Number of waveforms recorded before reset is user selectable in binary sequence from 1 to 256 or continuous.

**Envelope Mode Pulse Response (glitch capture)**

Pulse Duration	% of Amplitude Capture	Confidence Level
2 ns	50%	> 85%
4 ns	50%	100%
8 ns	> 80%	100%

**Average Mode** — Averages continuously for a number of acquisition from 2 to 256 in binary sequence (user selectable from front panel). Averaging of 256 acquisition effectively increases vertical resolution to 11 bits and vertical sensitivity to 200  $\mu$ V/div (for signals containing sufficient noise component). Average mode will do Stable Averaging for the user selected number of acquisitions, then switch to Exponential averaging for a weighted averaging of the display until there is a control change or other reset of the instrument.

**Save on Delta Mode** — Incoming waveforms will be compared against a user definable waveform envelope and SAVED if the waveform is outside reference limits. When event is SAVED it is horizontally positioned at center screen for examination.



A new Tek patented feature, SAVE ON DELTA instructs the 2430 to compare incoming acquisitions against a user defined reference and save it in the event of a difference. You can catch intermittent failures automatically and implement automatic tests with improved repeatability.

## MEMORY

**Save Memory** — 8K of waveform memory. Four display waveforms (1K each), and four Reference waveforms (1K each). Reference memory number 4 is user-selectable for waveform data storage or to store four user-definable front panel settings. Capacitor backed waveform data retention time from last power off more than 120 hours at 26°C, 24 hours at 50°C.

**Nonvolatile Memory** — Approximately 2K of memory containing calibration data, readout information, an initial front panel setting, power down front panel setting, and 1 user definable front panel setting. Nonvolatile memory retention time of more than 3 years using a Lithium battery backup.

## DISPLAY

**Display Modes** — CH 1, CH 2, Invert, Add, Multiply, X/Y (CH 1 vs CH 2, Ref 1 vs Ref 2) Reference displays 1 through 4.

**Ground Reference Display** — A plus symbol (+) is displayed at left of screen, tracking ground location. If ground is located off screen, plus (+) remains at screen perimeter indicating off screen location.

**Trigger Reference Display** — A "T" symbol appears on waveform displays, tracking location of trigger. If trigger point is located off screen in any direction, "T" symbol remains on screen at perimeter. "T" symbol is user selectable.

**Waveform Expansion** — 10X vertical expansion of SAVED waveforms, in 1-2-5 sequence. 100X horizontal expansion of SAVED waveforms, in 1-2-5 sequence. Expanded waveforms can be positioned vertically and horizontally to examine any area of interest.

**Readout** — Readout characters are displayed on screen to indicate instrument's current vertical channel selection, input coupling and termination, volts/div, time base and sec/div, trigger level and trigger source configuration, as well as menu selections and cursor functions.

## ON SCREEN CURSORS

**Functions** — Volts, Time, Volts at Time, 1/Time, Slope. These settings can be selected for delta or absolute time/volts with reference to trigger point or ground respectively. Delta delay will make differential time measurements by utilizing dual delayed sweep.

**Units** — Volts, Percent, dB in absolute or delta time, percent, degrees in absolute or delta slope, percent.

## TRIGGERING

Following is a summary of triggering functions.

**A Mode** — Auto Level, Auto/Roll, Normal, Single Sequence.

**B Mode** — Triggerable After Delay, Runs After Delay.

**A and B Source** — Vertical, CH 1, CH 2, Line (A only), Ext 1, Ext 2, A B (A sweep only), Word (17-bit word recognizer probe optional accessory).

**A and B Coupling** — Dc, Noise Reject, HF Reject, LF Reject, Ac, TV (option: A coupling only).

**A and B Trigger Position** — Pre>post.

**A and B Slope (±), A and B Level, External Clock, Manual Trigger, Variable Holdoff, Trigger Status.**

## Minimum P-P Signal Amplitude for Stable A

**Trigger from CH 1, CH 2, or ADD Source** — Dc Coupled: 35 div from dc to 50 MHz increasing to 1 div at 150 MHz; 1.5 div at 150 MHz with ADD. Noise Reject Coupled: ≤1.2 div from dc to 50 MHz increasing to 3 div at 150 MHz; 4.5 div at 150 MHz with ADD source.

**Ac Coupled**: 35 div from 60 Hz to 50 MHz increasing to 1.0 div at 150 MHz; 1.5 div at 150 MHz with ADD source.

**LF Reject**: 0.5 div from 80 kHz to 50 MHz increasing to 1.0 div at 150 MHz; 1.5 div at 150 MHz with ADD source.

**HF Reject**: 0.50 div from dc to 30 kHz. Attenuates signals above 30 kHz.

## Minimum P-P Signal for Stable Trigger from Ext 1 or Ext 2 Source — Ext Gain: 1.

**Dc Coupled**: 17.5 mV from dc to 50 MHz, increasing to 50 mV at 150 MHz.

**Noise Reject Coupled**: ≤60 mV from dc to 50 MHz, increasing to 150 mV at 150 MHz.

**Ac Coupled**: 17.5 mV from 60 Hz to 50 MHz, increasing to 50 mV at 150 MHz.

**LF Reject Coupled**: 25 mV from 80 kHz to 50 MHz, increasing to 50 mV at 150 MHz.

**HF Reject Coupled**: 25 mV from dc to 30 kHz.

**Ext ÷ 5**: Amplitudes are five times those given for Ext Gain = 1.

## Minimum P-P Signal for Stable B Trigger — Two times those required for stable A trigger.

### Ext 1 and Ext 2 Inputs —

**Resistance**: 1 MΩ ± 1%.

**Capacitance**: 15 pF ± 3 pF.

**Maximum Input Voltage**: 400 V (dc + peak ac), 800 V p-p ac at 10 kHz or less.

### Trigger Level Control Range —

**CH 1 and CH 2 Source**: ± 18 div x V/div.

**Ext 1 and Ext 2 Source Gain = ÷ 1**: ± 0.9 V.

**Ext 1 and Ext 2 Source Gain = ÷ 5**: ± 4.5 V.

**A and B Trigger Position**: (pre>post) 1/8 to 7/8 of acquisition record, user selectable in 1/8-1/4-1/2-3/4-7/8 sequence. User selectable in 32 sample intervals using GPIB.

## REAR PANEL OUTPUTS/INPUTS

**Channel 2 Output Voltage** — 20 mV/div ± 10% into 1 MΩ. 10 mV/div ± 10% into 50 Ω. —3 dB bandwidth is dc to >50 MHz.

### A Trigger, Record Trigger, and Word Recognizer Output —

**Logic Polarity**: Negative true trigger occurrence indicated by a Hi to LO transition.

**Output Voltage HI**: ≤400 μA load is 2.5 V to 3.5 V. 50 Ω Load to Ground is ≥0.45 V.

**Output Voltage LO**: <4 mA Load is ≤0.5 V. 50 Ω Load to Ground is ≤0.15 V.

**Direct Hard Copy Output** — Sends waveform data, cursor measurements, and instrument configuration over GPIB to a Hewlett Packard HP 2225A printer. In Save On Delta mode, when discrepancy is detected, send hard copy output and then reinitialize Save On Delta Mode.

### Plotter Output —

**X Output and Y Output**: Output resistance is 1 kΩ ± 10%.

**Output Range/Scale Factors**: Y is 390 mV/div.

**X(Y-T)** is 195 mV/div. **X(X-Y)** is 390 mV/div.

**Effective slew rate** is <8 V/s.

**Pen Lift, SPST Relay** — Contact to Ground: Polarity is Menu selectable.

**Maximum applied open-circuit voltage** is ± 25 V. **Maximum closed-circuit resistance** is ≤0.25 Ω.

**Maximum closed-circuit current** is ≤0.25 A.

## POWER REQUIREMENTS

**Line Voltage Ranges** — 115 V: 90 V to 132 V. 230 V: 180 V to 250 V.

**Line Frequency** — 48 Hz to 440 Hz.

**Power Consumption** — Typical (standard instruments): 160 W (250 VA). Maximum (fully optioned instrument): 200 W (300 VA).

## GPIB PROGRAMMABILITY

Standard on all instruments. Full talk-listen modes available, control all front panel settings. Transmit and receive waveform data. Sixteen lines of prompting messages or computed results can be displayed on screen via GPIB (40 characters per line) using Tek Codes and Formats.

**Data Transfer Rate** — 65 Kbytes per sec maximum typical in Fast Transmit Mode.

**IEEE Standard 488-1978 Interface Function Subsets Implemented** — SH1, AH1, T5, L3, SR1, RL1, DC1, DT0, PP0, C0.

## ENVIRONMENTAL AND SAFETY

The 2430 meets the environmental requirements of MIL-T-28800C for Type III, Class 3, Style D equipment, with humidity and temperature requirements defined in paragraphs 3.9.2.2, 3.8.2.3, and 3.9.2.4.

**Electromagnetic Interference (EMI)** — Meets MIL-T-28800C; MIL-STD-461B, Part 4 (CE-03 and CS-02), Part 5 (CS-06 and RS-02), and Part 7 (CS-01, RE-02, and RS-03—limited to 1 GHz); VDE 0871, Category B; Part 15 of FCC Rules and Regulations, Subpart J, Class A; and Tektronix Standard 062-2866-00.

**Ambient Temperature** — Operating: —15°C to +55°C. Nonoperating: —62°C to +85°C.

**Altitude** — Operating: To 4800 m (15,000 ft). Maximum operating temperature decreases 1°C for each 1,000 ft above 5,000 ft. Nonoperating: To 15,000 m (50,000 ft).

**Vibration** — Operating: 15 minutes along each of three axes at a total displacement of 0.025 inch p-p (4 g at 55 Hz), with frequency varied from 10 Hz to 55 Hz in one-minute sweeps. Held ten minutes at each major resonance, or if none existed, held ten minutes at 55 Hz (75 minutes total test time).

**Humidity** — Operating and Nonoperating: Stored at 96% relative humidity for five cycles (120 hours) from +30°C to +60°C, with operational performance checks at +30°C and +55°C.

**Shock** — Operating and Nonoperating: 50 g's, half-sine, 11 ms duration, three shocks on each face, for a total of 18 shocks.

**Drip Proof** — Front cover meets MIL-T-28800C paragraph 4.5.5.3.

**Safety** — Certified by CSA, Electronic Bulletin No. 5568 and UL 1244 and complies with IEC 348.

## PHYSICAL CHARACTERISTICS

Dimensions	Cabinet		Rackmount	
	mm	in	mm	in
Width (with handle)	330	13.0	483	19.0
Height (with feet & pouch)	190	7.5	178	7.0
Height (without feet & pouch)	160	6.3		
Depth (with front cover)	479	18.9	419	16.5
Depth (with handle extended)	550	21.7		
Weights—	kg	lb	kg	lb
Net			4.0	8.8
Net (w/accessories & pouch)	12.8	28.1		
Net (w/accessories & pouch)	10.9	23.9		
Shipping	16.4	36.0		

## Option 05

### TV Waveform Measurement System

The Option 05 complies with IEEE Standard 488-1978 and with Tektronix Standard Codes and Formats.

All of the High-Performance Characteristics of the Standard 2430 Oscilloscope Plus Television Waveform Assessment Capabilities

Selectable System-M and Nonsystem-M Protocols

Selectable Triggering on Any Line Within a Field, With Line-Number Readout

GP/IB-Controllable Functions for Use in Automatic Measurement Systems

Compatible With Composite Video

Television Blanking-Level Clamp (Back-Porch)

Optimized Vertical Response Comparable to High-Performance Television Waveform Monitors

## CHARACTERISTICS

The set of characteristics is the same as specified for the standard 2430 Oscilloscope and includes the following additions:

### VERTICAL SYSTEM (Channel 1 and Channel 2)

**Frequency Response** — For Volts/Div switch settings between 5 mV and 0.2 V, with Var Volts/Div calibrated and using a five-division, 50 kHz reference signal from a 50  $\Omega$  system, with external 50  $\Omega$  termination on 1 M $\Omega$  input.

Frequency Response		
Frequency Range	With Full BW	With BW Limiting
50 kHz to 5 MHz	$\pm 1\%$	$\pm 1\%$ , $-4\%$
>5 MHz to 10 MHz	$\pm 1\%$ , $-2\%$	—
>10 MHz to 30 MHz	$\pm 2\%$ , $-3\%$	—

**Squarewave Flatness** —  $\pm 1\%$ , 1% p-p for both 60 Hz and 15 kHz squarewaves, using a 0.1 V input with Volts/Div settings between 5 mV and 20 mV and using a 1.0 V input with Volts/Div setting of 50 mV. Setup with 1 M $\Omega$  dc input coupling, external 50  $\Omega$  termination, Var Volts/Div in calibrated and fast-rise input signal (rise time  $\leq 1$  ns). Exclude first 20 ns following step transition and exclude first 30 ns when 20 MHz BW LIMIT is set. For signals with rise times  $\leq 10$  ns, add 2% p-p between 155 ns and 185 ns after step transition.

Note: Although flatness and frequency response are verified using a 50  $\Omega$  system, similar performance can be expected when using 75  $\Omega$  systems.

**Television Blanking-Level Clamp (Back-Porch) 60 Hz Rejection (Channel 2 Only)** —  $\geq 18$  dB at 60 Hz, with Volts/Div settings between 5 mV and 0.2 V, Var Volts/Div control set to calibrated and a six-division reference signal.

**Television Blanking-Level Clamp (Back-Porch) Reference** — Within 1.0 division of ground reference.

### TRIGGERING

**Sync Separation** — Stable sync separation from sync-positive or sync-negative composite video on systems with 525 to 1280 lines per frame, 50 Hz or 60 Hz field rate, interlaced or non-interlaced scan.

**Trigger Modes** — LINES, FLD 1, FLD 2, AND ALT (FLD 1, FLD 2) coupling.

**Input Signal Amplitude for Stable Triggering Channel 1 and Channel 2** — 2.0 division for composite video and 0.6 division for composite sync signals (dc + peak video-signal amplitude must be within 18 divisions of input ground reference).

**External 1 and External 2** — 60 mV division for composite video and 30 mV division for composite sync signals (dc + peak video-signal amplitude must be within 9 divisions of input ground reference).

## ORDERING INFORMATION

**2430 150 MHz Digital Oscilloscope** \$8,900  
Includes: Two P6133 10X, 1.3 m probes with accessories; snap accessory pouch (016-0692-00); ziploc accessory pouch (016-0537-00); 5 A, ACG/3AG, 250 V fuse (159-0014-00); blue plastic CRT filter, installed (378-0199-00); clear plastic CRT filter (378-0208-00); front cover (200-2742-00); user reference guide (070-5497-00); operator manual (070-4918-00); users GP/IB interface guide (070-5706-00).

**2430M 150 MHz Digital Oscilloscope with MATE/CIL** \$20,000  
Includes: Same as 2430.

### OPTIONS

**Option 05** — TV Waveform Measurement System. +\$1,050  
Includes: Same as 2430 plus OCIR graticule CRT filter (378-0199-01); NTSC graticule CRT filter.  
**Option 1R** — Configure scope for rackmount. +\$320  
**Option 1T** — Transit case. +\$340  
**Option 11** — Probe Power. +\$166

### INTERNATIONAL POWER PLUG OPTIONS

**Option A1** — Universal Euro 220 V, 50 Hz.  
**Option A2** — UK 240 V, 50 Hz.  
**Option A3** — Australian 240 V, 50 Hz.  
**Option A4** — North American 240 V, 60 Hz.  
**Option A5** — Switzerland 220 V, 50 Hz.

### WARRANTY-PLUS SERVICE PLANS SEE PAGE 497

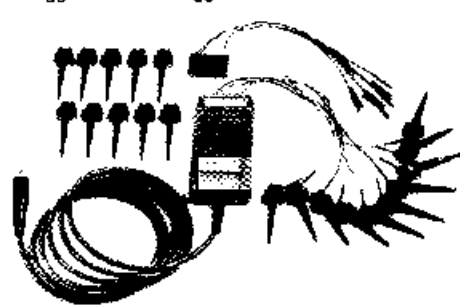
**M1** — 2 Calibrations. +\$240  
**M2** — 2 Years Service. +\$240  
**M3** — 2 Years Service and 4 Calibrations. +\$765  
**M4** — 5 Calibrations. +\$610  
**M5** — 9 Calibrations + 2 Years Service. +\$1,430

### OPTIONAL ACCESSORIES

**Service Manual** — Order 070-4917-00. \$30  
**Rackmount Conversion Kit** — Order 016-0825-00. \$365  
**Protective Cover** — Blue vinyl. Order 016-0720-00. \$24  
**Carrying Strap** — Order 346-0058-00. \$17

### P6407 WORD RECOGNIZER PROBE

A 17-bit Word Recognizer provides a triggering from a variety of TTL-compatible logic families. Operable up to 20 MHz with an external clock, and up to 10 MHz without, the Word Recognizer enables the 2430 to trigger the A or B triggers on word occurrences.



**Input** — P6407 Word Recognizer Probe, 17 bits plus clock. (No CRT display from P6407.)

All Inputs	Threshold	Load	Safe Limit
H	$< 2.0$ V	$< 20$ $\mu$ A	5.5 V
L	$> 0.6$ V	$> -0.6$ mA	-0.5 V

**Display Radix** — Hexadecimal, octal, binary.

**Data Rate** — 0 MHz to  $\geq 20$  MHz with clock, 0 MHz to  $\geq 10$  MHz without clock.

**Data Setup Time** — 25 ns.

**Data Hold Time** — 0 ns.

**GP/IB Compatibility for Semiautomatic and Automated Measurement Systems when used in combination with 2430 Digital Oscilloscope.**

**P6407** — Word Recognizer Probe. \$435  
Includes: 20 grabber tips (206-0222-00); two 10 inch 10 wide comb (012-0747-00); operator's manual.

### RECOMMENDED PROBES

**P6230** — ECL Probe. \$395  
**Current Probes** — See page 483.  
**P6021** — 5 ft. \$430  
**P6022** — 5 ft. \$475  
**A6302** — 2 m. \$565  
**A6303** — 2 m. \$1,070  
**High Voltage Probe** — P6008, 100X. \$195

### DCS01/350 MHz DIGITIZING CAMERA SYSTEM



**DCS01 350 MHz Digitizing Camera System** — Coupling a DCS01 Digitizing Camera System with a 2467 Oscilloscope provides a fully programmable system for digitizing repetitive or single shot events to a full 350 MHz bandwidth. The 2467/DCS combination also provides Save-On-Delta capability to detect and save that one-in-a-million deviation in a high repetition rate signal.

The 2467/DCS01 combination is a very cost effective data acquisition system for either lab or ATE use where 350 MHz single shot digitization or one-in-a-million Save-On-Delta operation is important.

See page 363 for a complete description of the Digitizing Camera System.

See page 278 for complete description of 2467 oscilloscope.

### RECOMMENDED CAMERAS

**HC100 Plotter\*** — Four pen color plotter. See page 445.  
**C-63P** — See page 451. \$1,340

### RECOMMENDED CARDS

**K212** — Portable Instrument Card. See page 461. \$330  
**K213** — Lab System Card. See page 462. \$595

\*For ordering, contact your local Tektronix Sales Office.

### TRAINING

Operation and application training workshops applicable to this product are available to the purchaser at 50% off the normal fee, for one seat only for each product purchased. Certain other restrictions apply. Workshop content information is on pages 166-168. For further information, or to enroll, call us at 1-800-228-7862. For international orders, contact your nearest Sales Office.



To order, call your local Tektronix Sales Office, or call Tek's National Marketing Center, toll free: 1-800-425-2200, Ext 99. In Oregon call collect: (503) 627-9000, Ext. 99