NEW 2465A/2445A


NEW 2465A CT/
2465A DM/2465A DV
Special Editions

The Tek 2467/2465A/2445A Family: High Performance Capabilities to Match Your Tough Assignments

Start with the standard setting performance of Tek's top portable analog scopes. Add new productivity enhancing features for fast operation. Increase the probe tip bandwidth to 350 MHz. The result: six new four channel, dual time base scopes that bring unprecedented efficiency to your design lab, production line or field service site.

Built on High Performance That Set the Industry Standard

New preamplifier circuits make possible the increased bandwidth—350 MHz in the 2465A, even at 2 mV/div sensitivity. New probes take the full bandwidth to the probe tip—where you need it.

Timing measurements are possible with 20 ps resolution at sweep speeds to 500 ps/div in the 2467/2465A and to 1 ns/div in the 2445A. Trigger on signals to at least 500 MHz with the 2467/2465A and to at least 250 MHz with the 2445A, which extends the usefulness of each scope well beyond its vertical bandwidth.

Trigger from any one of the four input channels or on four asynchronous signals. Tek's Auto-Level Trigger mode keeps your scope triggered even as the input signal changes. You can choose to trigger at the 10, 50, or 90% level of the signal. On-screen trigger level readout eliminates trial-and-error triggering, saving you time and frustration.

CRT readout of the vertical scale factors and input coupling, sweep speeds, trigger level and source, and indicators such as Bandwidth Limit and Holdoff give you complete status information at a glance. These settings are recorded on film in your waveform photos.

Dual, delaying time bases, each with an independent trigger system, allow for precise measurements on details embedded in complex waveforms.

Time and Voltage Cursors With CRT Readout for Immediate, Exact Measurements of Waveform Parameters

Use the cursors to obtain quick readouts of voltage, time, frequency, ratio and phase with no interpretation or CRT linearity errors. Readouts are in units of volts, time, percent and degrees.

And now the cursors can even be applied to delayed sweep displays, improving timing measurement flexibility.

Tailor Your 2467/2465A/2445A for Special Needs, or Choose a Specially Configured Measurement Package

To fit specialized performance requirements, the 2467/2465A/2445A Family offers five integral and combinable enhancements: GPIB Interface, Digital Multimeter, Counter/Timer functions with Enhanced Triggering, 17-bit Word Recognition, and Video Measurement capabilities.

You can also select one of three 2465A Special Editions. As packages, they are offered at a significant savings over the separately ordered measurement options.

The Tek 2465A CT is designed especially for use with communications, office and computer related equipment. The 2465A DM adds a digital multimeter for applications in government/military electronics, avionics and ATE stations. Finally there's the fully optioned 2465A DV for even more extensive applications including the design, manufacture and service of raster scan devices and high resolution video equipment. Easily the most powerful portable available.

New Auto Setup, Instant Recall, Set-Up Sequencing: For Easy Answers Fast!

Now you can attach up to four probes to signal points, press AUTO-SETUP, and within seconds a stable, automatically triggered display of the probed waveforms appears on screen for quick viewing or advanced parametric characterization. With AUTO-SETUP, users of any experience level gain increased speed and ease of use in making day-to-day waveform observations and measurements.

Digital design and test personnel are sure to appreciate Tek's proprietary Pulse Mode for viewing narrow pulses in detail. AUTO-SETUP calculates the duty factor and properly displays either the low duty cycle pulse or several cycles of symmetrical waveforms. Input channel selection is also sensed, and display positioning adjusted for up to four waveforms with appropriate scaling.
Measure Signal Parameters Quickly, With Instant Access to Complex Setups
For closer examination of your signals and for more specialized setups, such as delayed sweep displays or ones using the extended measurement options, front panel controls are still necessary. But now you only need to create these setups once. Nonvolatile memory for 30 setups stores all front panel information, including cursor locations and control settings for the extended measurement options.

The SAVE/RECALL utility is a tremendous time-saver for designers, evaluators and production test operators who need several setups for measurements at multiple test points in a circuit or system. Switching between measurements is fast, just two buttons for a complete setup. And operator attention is focused on answers, not on control adjustments.

Measurements are highly reliable as well as efficient. Vertical and horizontal accuracy are tightly specified for a wide range of environmental conditions. Pulse response is optimized for flatness and speed so the waveform measurement is a true representation of the signal. With the advanced feature set, including waveform cursors, the 2467/2465A/2445A Family minimizes errors and maximizes your confidence in measurement results.

Automate Repetitive Measurement Sequences Without an External Controller
Now systematic verification procedures for engineering prototypes, final production test or field service can easily be set up, stored and sequenced without a computer. Step through up to 30 of the stored setups in the order you choose. Press the STEP button once for each sequence step. Or plug a foot switch into the rear panel audio jack for hands-free operation.

As a further aid, seven-character alphanumeric labels can be stored with each setup. The labels can be test titles or operator prompts for test point connections. You can protect the saved setups and sequences by write-protecting the memory.

Built-in sequencing and screen message capabilities are standard throughout the 2467/2465A/2445A Family. With a single, stand-alone portable oscilloscope you can implement extensive automated or semi-automated procedures. This provides an excellent, price-competitive entry into automated testing. The 2467/2465A/2445A Family offers complete upward mobility from the 2445A through the 2467 and its options.

Add the GPIB option and take advantage of no-controller setup and sequence transfers. Too. Create or modify stored setups on one scope, for example, then update the other scopes in a production test area with a simple transfer procedure.

The GPIB option opens even more capabilities for automating measurement procedures. All front panel controls on the 2467/2465A/2445A scopes are programmable and can be set up by an external controller. It also can send messages to the operator for semiautomated tests and read back measurement results for storage and analysis.

Personal Computers Assist Hardware Development and Evaluation Taskwork
For many single-step and multistep tests during product development, characterization and evaluation, the 2467/2465A/2445A's internal sequencer provides all the automation you need.

Further automation is accomplished by simply linking the scope with a PC, or other controller, via the GPIB. Use this configuration to debug prototypes, efficiently manage experiments, and record measurement results for documentation or analysis.

Test program generators such as EZ-TEK 2400 PC are designed so that developing your procedures involves little more than setting the scope's front panel controls and making selections from a screen menu. You don't need to write code.

Decrease a product's time to market by using the same scope/controller system and software throughout the development cycle. Tests that were designed during the engineering phase can be used for evaluation, then adapted for production. Consistency will be maintained in methods and results.

Ideal for Production Test Systems
Configuring 2467/2465A/2445A oscilloscopes for semiautomated operation takes advantage of the strengths of both humans and computers. The controller can record measurement results, make arithmetic-based pass/fail decisions, set the scope for each step of the procedure, and write prompting messages on the CRT. The operator's time is used efficiently to adjust cursors to the signal, compare waveforms against references marked by the controller with the cursors, and decide whether the visual criteria for each test has been met.

Combining the DMM, Video Measurement and CTT options with a 2467/2465A/2445A oscilloscope provides multi-instrument capabilities while reducing rack space, equipment cost and programming complexity. The self-diagnostic capabilities and self-calibration functions of the 2467/2465A/2445A scopes make them excellent candidates for installation in large and small test systems. A built-in run time counter assists in recordkeeping for preventative maintenance and calibration. The 2400 Series instruments offer proven reliability and are all backed by Tek's three year warranty.

A Powerful Yet Portable System
A GPIB- and DMM-equipped 2467/2465A/2445A, plus a 4041 controller are all a service technician needs to carry into the field for maintenance or troubleshooting. The controller leads the technician through the steps of a diagnostic test or calibration procedure. Measurement results are recorded on magnetic tape for later analysis or use in statistical recordkeeping.

The 2467/2465A/2445A Family—Portable and Rugged
The 2467/2465A/2445A and Special Editions are easy to carry to any field service site. And when you get there, they perform—even in extreme conditions—with environmental characteristics including a low EMI profile and rugged construction per MIL-T-2880C, Type III, Class 3, Style C.

Channels 1 and 2 vertical input couplings can be independently selected as ac, dc or ground. Or terminate your circuit outputs and controlled impedance transmission lines into 50 Ω. To protect against overload while using the internal 50 Ω terminations, the scopes automatically switch to 1 MO coupling when an overload is detected, and a readout indicates the change.

The Assurance of Error-Free Operation is Backed by Tek's Three Year Warranty
The warranty includes the CRT and can be easily extended to five years (in most countries) through a variety of optional service plans.

This, plus Tek quality and proven reliability, means you can expect outstanding value and long life from your oscilloscope investment. With new productivity-enhancing features to minimize training and operating time, the 2467/2465A/2445A Family offers economical solutions to your needs in waveform observation, measurement and automation. High performance at its affordable best.
Choose From a Complete Range of Options
That Extend the Capabilities of the 2467, 2465A, 2455A, and 2445A

Option 09
Counter/Timer/Trigger (CTT)
With Word Recognizer (WR)
Crystal-Controlled Time Base
0.001% Accuracy
Totalize Up to 9,999,999 Events
Delay-by-Events Triggering Up to a Total of 4,194,305 Events
Boolean Logic Triggering on Both Digital and Analog Signals
17-Bit Word Recognizer Probe

Option 09 delivers the crystal-controlled timing accuracy and the extra triggering power you need for digital systems. Frequency and period are measured directly from any vertical channel. Time intervals can also be measured by the counter, with ease. And the delayed sweep (B sweep) trigger has been expanded to select independent signal sources, slopes, and levels for the beginning and ending of a time interval. This allows precise time measurements between two events, each with different characteristics—either the same or separate channels. This new capability provides for measurement of propagation delay through a level shifter or an amplifier, as well as rise time, fall time, or microprocessor power-up delay.

Once configured, these measurement setups can be saved in the scope's setup memory, either to be recalled later or used as part of a sequence. With the CTT, these recalled measurements are completely automatic and require no operator intervention.

With the Word Recognizer, any pattern of up to 17 digital bits can act as an input to the counter or as a trigger for the A or B sweep.

Pinpointing the "needle-in-a-haystack" signal in a digital system becomes feasible with the Word Recognizer and Delay-by-Events functions. These advanced triggering capabilities eliminate extraneous signals.

To characterize or unravel system operation, the CTT also can measure the frequency or period of recognized words, and it can delay the scope trigger by a selected number of words.

And with the Totalize function, you can record the passing of unusual events or verify a burst of events on any vertical input or recognized word.

Option 06
Counter/Timer/Trigger (CTT)

The Counter/Timer/Trigger is available without the word recognizer probe as Option 06. Specifications and included accessories (except WR probe) are the same as Option 09. The word recognizer cannot, however, be added to Option 06 after delivery (field retrofit kits are not available).

Video measurement capabilities extend the 2467/2465A/2445A's power and versatility to meet the challenges in broadcast and cable television, graphics displays and raster scan systems. The Video Waveform Measurement System makes quality measurements convenient during every stage of a product's life cycle: design, production, system calibration, quality assurance, maintenance and service.

With CRT readout of the line number and field selected for triggering, an operator knows precisely what the display represents. Any line can be selected from Field 1, Field 2, or Field 1 alternating with Field 2. The fourth video trigger selection is Lines, which superimposes all the lines in both fields. Systems with up to 1280 lines can be accommodated.

The back-porch clamp locks the video black level to a fixed point, so the display is stable and clean, even when the composite video contains low frequency hum or when the average picture level changes with ac coupling. Controls are provided for compatibility with a wide variety of system protocols.

Specifications begin on page 287.
Option 01 Digital Multimeter

4½ Digit Autoranging Digital Multimeter

True RMS Ac Volts From 20 Hz to 100 kHz

True RMS Ac Current From 20 Hz to 10 kHz

10 μV Resolution on Dc Volts

Continuity Beeper

UL Listed, CSA Certified

Temperature Probe: -62°C to +230°C

Calibration via Front Panel Without Removing Instrument Covers

Convenience Features Include:

- Set Reference, Hold, Smooth, Minimum/Maximum, dBV, and dBm

The 2467/2465A/2445A Digital Multimeter (Option 01) makes it possible to measure dc and ac (RMS) volts and current, dBm, dBV, resistance, and temperature at your workbench, without any added space requirements. Carry everything you need into the field for maintenance and repair, all in one rugged, portable package. The DMM and scope meet the same tough requirements for environmental conditions including temperature, humidity and shock. Calibration of the DMM is accomplished from the front panel, without removing any covers. Plug a DMM-equipped 2467/2465A/2445A into your system (rackmounting is optional as a modified product) to take advantage of its fully programmable measurements and screen prompts.

Blocks of accumulated measurements can be averaged and smoothed. Minimum and maximum values can also be displayed. Set a reference function if, for example, you need to compare deviations from a norm. Audible continuity checking is useful for applications in service, production and design/development. Troubleshoot circuit board hot spots with the temperature probe. It registers temperature variations with 0.1°C or F resolution.

Combining the DMM and CTT options allows direct measurement of system frequency, period or time interval while monitoring ac or dc volts, current or temperature. Use just one instrument to characterize voltage-to-frequency converters and temperature drift of crystal oscillators. Add the GPIB interface for a powerful measurement system to run tests and verification procedures and log measurement results with your controller.

Specifications begin on page 288.

Option 10 GPIB Interface


Remote Control of Front Panel Functions

Selectable at Front Panel:
- Device Address, Talk/Listen Mode, Message Terminator
- Front Panel Status Indicators: REM (Remote), SRQ (Service Request), LOCK (Local Lockout)

Compatible With All Other 2467/2465A/2445A Options

User-Generated SRQ: To Signal Controller During Program Control

RQS Control: Optional Enable or Disable of SRQ Reporting

Network the 2467/2465A/2445A With Your Other Equipment on the General Purpose Interface Bus

Option 10 adds the ability to communicate over the IEEE-488 General Purpose Interface Bus. Contents of set-up memory can be transferred between 2467/2465A/2445A units without an external controller. Or use a host controller to assist the oscilloscope or performing a series of checks and measurements. Front panel settings can be remotely set or changed, and the results of cursor, DMM and CTT measurements communicated back over the bus to the controller, as well as appearing on the scope's CRT.

It is possible not only to display scope parameters and settings on the CRT, but also to read them back over the GPIB to the controller.

The ability to display prompting messages (by embedding them in control programs) reduces the chance of operator error at critical points in a test procedure.

The 2467/2465A/2445A GPIB-message structure conforms to Tektronix Standard Codes and Formats, ensuring that all GPIB messages are "human readable" and consistent in format. Selectable message termination characters allow scope use with most types of controllers. The new 2445A and 2465A are compatible with programs for their predecessors, the 2445 and 2465.

New Tektronix software development packages provide an environment for quickly and easily generating automated and semi-automated test procedures. Not only are they easy for nonprogrammers to use, they substantially reduce the amount of time it would take to create a test program using previous programming methods and languages.

TEK EZ-TEST and EZ-TEK 2400 are automatic test program generators designed for use with the Tek 4041 controller. EZ-TEK 2400 PC runs on the IBM PC, XT and AT. The TEK EZ-TEST generator programs the 4041 to drive a wide variety of GPIB-compatible equipment. Both EZ-TEK 2400 and EZ-TEK 2400 PC are designed for systems that need only the capabilities found in 2467/2465A/2445A oscilloscopes and their options. None of these generators require previous GPIB programming experience since they use simple, multilevel menus to develop sophisticated test programs.

The Tek GPIB User's Resource Utility (GURU II) is a utility package for IBM PCs. It includes a GPIB interface board for the PC, GPIB cable, software and instruction manual.

Specifications begin on page 288.

Option 1R Rackmounting

The 2467/2465A/2445A instruments are available in standard 19-inch rackmount configuration, complete with slide-out chassis tracks.

Specifications begin on page 288.
CHARACTERISTICS
Characteristics are common to the 2467, 2465A, 2455A, 2445A and 2465A Special Editions except where indicated.

VERTICAL SYSTEM
Display Modes — CH 1, CH 2, CH 3, CH 4, Add (CH 1 + CH 2); Invert (CH 2 only); Alternating and Chopped display switching for all channels, and 20 MHz bandwidth limiting.

CHANNEL 1 AND CHANNEL 2
Deflection Factor — 2 mV/div to 5 V/div in a 1-25 sequence of 11 steps.
Deflection Factor Basic Accuracy — ± 2%. Measured at a volts/div setting with a four or five division signal centered on screen.
ΔV Accuracy — ± (1.25% of reading + 0.03 div + signal aberrations). Basic accuracies apply for temperatures from +15°C to +35°C. Add ±2% of reading for temperatures from −15°C to +15°C and from +35°C to +55°C. Add 1% of reading when 50 Ω input coupling is used. Add 1% of Channel 2 reading when inverted. Measured with cursors anywhere on the graticule.
ΔV Range — ± 8 times the Volts/div switch setting.
Variable Range — Continuously variable between Volts/div switch settings. Extends deflection factor to at least 12.5 V/div.

Frequency Response (−3 dB Bandwidth)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>+15°C to +35°C</th>
<th>−15°C to +15°C</th>
<th>+35°C to +55°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2467/2465A</td>
<td>300 MHz</td>
<td>300 MHz</td>
<td>300 MHz</td>
</tr>
<tr>
<td>2455A</td>
<td>250 MHz</td>
<td>250 MHz</td>
<td>250 MHz</td>
</tr>
<tr>
<td>2445A</td>
<td>150 MHz</td>
<td>150 MHz</td>
<td>150 MHz</td>
</tr>
</tbody>
</table>

All responses measured with standard accessory probe or internal 50 Ω termination.

Ac Coupled Lower −3 dB Point — With 1X Probe: 10 Hz or less. With 10X Probe: 1 Hz or less.

Step Response — 2467/2465A: <1 ns. 2455A, 2445A: <2.33 ns. Rise times calculated from t<sub>r</sub> = 0.35/EW.

Common-Mode Rejection Ratio (Add Mode With Channel 1 Inverted) — At least 201 at 50 kHz for common-mode signals of 8 div or less, with Var Volts/div control adjusted for best CMRR at 50 kHz at any Volts/div setting >5 mV.

Channel isolation — >100:1 attenuation of deselected channel at 100 MHz; >50:1 at nominal bandwidth. Measured with an eight division input signal and equal Volts/div switch settings on both channels from 2 mV/div to 500 mV/div.

Displayed CH 2 Signal Delay With Respect to CH 1 Signal — Adjustable through a range of at least ±500 ps.

Input Z (1 MΩ) — 1 MΩ ±5.5% shunted by 15 pf. ±2 pF. Maximum Input Voltage: 400 V (dc + peak ac); 800 V p-p ac at 10 kHz or less, for ac, dc, and ground-coupled signals.
Input Z (50 Ω) — 50 Ω ±1%. VSWR (2467/2465A): <1:3.1 from dc to 300 MHz: <1:15:1 from 300 MHz to 350 MHz. VSWR (2455A/2445A): <1:3:1 from dc to nominal bandwidth. Maximum Input Voltage: 5 VRMS, averaged for 1 s; ±50 V peak.

Cascaded Operation — Deflection Factor: 200 μV/div ±10%. For 200 μV/div sensitivity, use 20 MHz bandwidth limit.

CHANNEL 3 AND CHANNEL 4
Deflection Factor — 100 mV/div and 500 mV/div ±10%.
Frequency Response — Same as Channel 1 and Channel 2. Responses measured only with the full 100 division sweep.
Step Response — Same as Channel 1 and Channel 2.
Signal Delay Between Channel 1 and Either Channel 3 or Channel 4 — ±0.5 ns. Measured at 50% points.
Input Z — 1 MΩ ±1%, shunted by 15 pF ±3 pF. Maximum Input Voltage: 400 V (dc + peak ac); 800 V p-p ac at 10 kHz or less.
Channel isolation — >50:1 attenuation of the deselected channel at 100 MHz. Measured with an 8 div input signal.

ALL CHANNELS
Low Frequency Linearity — 0.1 div or less compression or expansion of a 2 div. center-screen signal when positioned anywhere within the graticule area.
Bandwidth Limiter — Reduces upper 3 dB bandpass to a limit of 13 MHz to 24 MHz.
Vertical Signal Delay — At least 30 ns of sweep is displayed before triggering event is displayed with Sec/div settings >10 ns/div. At least 10 ns of sweep is displayed before triggering event is displayed with Sec/div settings at 5 ns.
CHOP Mode Switching Rate — 2.5 MHz ±0.2% for sweep speeds ranging from 20 μs/div to 2 μs/div. 1 MHz ±0.2% for all other sweep speeds. The complete display cycle rate equals the CHOP mode switching rate divided by the number of channels displayed. The CHOP mode switching rate is modulated slightly to minimize waveform breaks with repetitive signals.

HORIZONTAL SYSTEM
Display Modes — A (main sweep), A INTEnseified, ALTernate A. Intensified and B (delayed sweep), and B in X-Y mode, Channel 1 provides X-axis (horizontal) deflection.
A Sweep Time Base Range — 2467/2465A: 500 m/s/div to 5 s/div in a 1-25 sequence of 25 steps. X10 magnification extends fastest sweep rate to 500 ps/div. 2455A and 2445A: 500 m/s/div to 10 ns/div in a 1-25 sequence of 24 steps. X10 magnification extends fastest sweep rate to 1 ns/div.
B Sweep Time Base Range — 2467/2465A: 50 m/s/div to 5 s/div in a 1-25 sequence of 22 steps. X10 magnification extends fastest sweep rate to 500 ps/div. 2455A/2445A: 50 m/s/div to 10 ns/div in a 1-25 sequence of 21 steps. X10 magnification extends fastest sweep rate to 1 ns/div.

Variable Timing Control — Continuously variable and calibrated between Sec/div settings.

Delay and Delay Time Accuracy — Same as Channel 1 and Channel 2.

For the A Sec/div settings of 200 ns and 500 ns, add ±0.5% of time interval or delay setting to preceding specifications.

For the A Sec/div settings of 500 ns and 2 μs, add ±0.5% of time interval or delay setting to preceding specifications.

For the A Sec/div settings of 2 μs, add ±0.5% of time interval or delay setting to preceding specifications.

Variable Timing Control — Add 2% of time interval to Timing Accuracy specifications for sweep when VAR control is out of detent.

Delay Jitter — 2467: Within 0.01% (one part or less in 10,000) of maximum available delay, plus 100 ps. 2465A/2455A/2445A: Within 0.004% (one part or less in 25,000) of maximum available delay, plus 50 ps.

Delay and Delay Time Range — Start of the 1 ms/div sweep can be positioned from right of graticule center to at least 10 division left of graticule center. Some portion of the sweep is always visible with X10 magnification off.
TRIGGERING

Trigger Sensitivity From CH 1 or CH 2 Source — Dc Coupled: 0.35 div. Noise Reject Coupled: <1.2 div. HF Reject Coupled: 0.5 div from dc to 30 kHz. LF Reject Coupled: 0.5 div from 80 kHz. Ac Coupled: 0.35 div from 60 Hz.

Above 50 MHz, triggering signal requirement increases to 1.5 div at 500 mhz (for 2467, 2465A, and 2455A) and at 250 MHz (for 2445A) with dc, LF Reject, and ac coupling. For Noise Reject coupling above 50 MHz, triggering signal requirement increases to 4.5 div at 500 MHz (for 2467, 2465A, and 2455A) and at 250 MHz (for 2445A).

Trigger Sensitivity From ADD Source — 2467/2465A/2455A: Add 0.5 div to CH 1 or CH 2 source requirements at 500 MHz.

Trigger Sensitivity From CH 3 or CH 4 Source — 2467/2465A/2455A: One-half the CH 1 or CH 2 source requirements.

Trigger Sensitivity From Multiple-Channel Composite Source — 2467/2465A/2455A: Add 1.0 div to CH 1 or CH 2 source requirements.

Maximum P-P Signal Rejected by Noise Reject Coupling Within Vertical Bandwidth — CH 1 or CH 2 Source: >0.4 div with Volts/div settings of 10 mV/div and higher. Maximum noise amplitude rejection is reduced at 2 mV/div and 5 mV/div settings. CH 3 or CH 4 Source: >0.2 div.

Jitter — 2467/2465A: <100 ps with 5 div of 300 MHz at 500 ps/div, 2455A/2445A: <100 ps with 5 div of nominal bandwidth of 1 mV/div.

Level Control Range — CH 1 or CH 2: ±18 times the Volts/div setting, CH 3 or CH 4: ±9 times the Volts/div setting.

Level Readout Basic Accuracy — CH 1 or CH 2 Source: ±[3% of Level setting +3% of p-p signal +0.2 div + 0.5 mV + (0.5 mV x probe attenuation factor)]. CH 3 or CH 4 Source: ±[3% of setting +4% of p-p signal +0.1 div +(0.5 mV x probe attenuation factor)].

Basic accuracies apply from +15°C to +35°C and are measured with triggering signals having transition times greater than 20 ns and dc trigger coupling. Add (1.5 mV x probe attenuation factor) for temperatures from −15°C to +15°C and from +35°C to +55°C. Add ±1% of setting from 50.0 input coupling. Add ±1% of setting with Channel 2 inverted. Add ±0.6 div for CH 1 or CH 2 Source with Noise Reject trigger coupling. Add ±0.3 div for CH 3 or CH 4 Source with Noise Reject trigger coupling.

Maximum Triggering Signal Period

<table>
<thead>
<tr>
<th>A Sec/div Setting</th>
<th>AUTO LVL Mode</th>
<th>AUTO Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 ms</td>
<td>&gt;20 ms</td>
<td>&gt;80 ms</td>
</tr>
<tr>
<td>10 ms to 50 ms</td>
<td>&gt;10 times A Sec/div</td>
<td>16 times A Sec/div</td>
</tr>
<tr>
<td>&gt;50 ms</td>
<td>&gt;200 ms</td>
<td>&gt;600 ms</td>
</tr>
</tbody>
</table>

X-Y OPERATION

X-Axis Deflection Factor Range, Variable Range, and Accuracy — Same as Channel 1.

X-Axis Bandwidth — Dc to 3 MHz.

Input Z — Same as Channel 1.

Phase Difference Between X and Y (With Bandwidth Limiting Off) — <1° from dc to 1 MHz, <3° from 1 MHz to 2 MHz.

X-Axis Low Frequency Linearity — 0.1 div or less compression or expansion of a 2 div, center-screen signal when positioned within the graticule area.

CURSOR AND FRONT PANEL DISPLAY

Cursor Position and Range — ΔVolts: At least the center 7.6 vertical divisions. ΔTime: At least the center 9.8 horizontal divisions.

Z-AXIS INPUT

Sensitivity — From Dc to 2 MHz: Positive voltage decreases intensity. +2 V blinks a maximum intensity trace. 2 kHz to 20 MHz: +2 V p-p modulates a normal intensity trace.

Input Resistance — 9 kΩ ±10%.

Maximum Input Voltage — ±25 V peak; 25 V p-p ac at 10 kHz or less.

SIGNAL OUTPUTS

Calibrator — Measured with the Sec/div setting at 1 ms/div. Voltage into 1 MΩ Load: 400 mV ±1%. Voltage into 50 Ω Load: 200 mV ±1.5%. Short Circuit Load Current: 8 mA ±1.5%. Repetition Period and Accuracy: Two times the A Sec/div switch setting for settings from 100 ns/div to 100 ms/div ±0.1%, during the sweep time.

CH 2 Signal Out — Voltage: 20 mV/div ±10% in 1 MΩ. 10 mV/div ±10% into 50 Ω. Offset: ±10 mV into 50 Ω after dc balancing within ±5°C of the operating temperature. A Gate Out and B Gate Out — Voltage: 2.4 V to 5 V positive-going pulse, starting at 0 V to 400 mV. Drive: Supplies 400 mA during HI state; sinks 2 mA during LO state.

CRT READOUT AND WAVEFORM INFORMATION

Your eyes never have to leave the screen to obtain front panel settings and measurement results. In the CRT example above, the top area of the display provides trigger source, trigger voltage level, and time results. The lower area displays the selected volts/div and seconds/div scales and that bandwidth limit and holdoff are activated.

CRT AND DISPLAY FEATURES

Standard CRT — 2467: 68 mm x 85 mm. 2465A/2455A/2445A: 80 mm x 100 mm (8 cm x 10 cm). Markings: Eight major div vertically and 10 major div horizontally, with auxiliary markings.

Trace Rotation Range — Adequate to align trace with center horizontal graticule line.

Standard Phosphor — GH (P31).

Visual Writing Speed — (2467) With 20 ft-cd illumination Normal to CRT Faceplate (typical room light): >4 div/s at maximum INTENSITY control setting. No more than five bright spots will be visible at maximum INTENSITY control setting. Additional bright spots may be visible after displaying a high intensity trace. These spots will extinguish when INTENSITY control is set to minimum.

Photographic Writing Speed — (2467) >10 div/ms with C-30 Series camera and ISO 3000 film, without preflooding. Single-shot trace of instrument rise time at 500 ps/div is recorded with high contrast at f/1.9.

Display Intensity Limitation — (2467) Display intensity is automatically reduced and eventually extinguished after periods of no front panel control activity. The time elapsed before intensity reduction is shortened by high intensity settings and high duty factor/sweep speed/trigger rate combinations. Operating any switch or the INTENSITY control restores the selected intensity setting.

POWER REQUIREMENTS

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

Line Frequency — 48 Hz to 440 Hz.

Maximum Power Consumption — 120 W (180 V ac) for fully optioned instrument.

Fuse Rating — Either 2 A, 250 V, AGC/3AG, fast-blow or 1.6 A, 250 V, 5 x 20 mm, quick-acting. Each fuse type requires a different cap.

Primary Circuit Dielectric Voltage Withstand Test — 1500 V rms, 60 Hz, for 10 s without breakdown.

Primary Grounding — Type test to 0.1 Ω maximum. Routine test to check grounding continuity between chassis ground and protective earth ground.

ENVIRONMENTAL AND SAFETY

Environmental requirements qualify the electrical and mechanical specifications. When not rack-mounted, the instrument meets the environmental requirements of MIL-T-2880C for Type III, Class 3, Style C equipment, with humidity and temperature requirements defined in paragraphs 3.9.2.2, 3.9.2.3, and 3.9.2.4.

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

Altitude — Operating: To 4600 m (15,000 ft), Maximum operating temperature decreases 1°C for each 1,000 ft above 1500 m (5,000 ft). Nonoperating: To 15,000 m (50,000 ft).

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

Packaged Transportation Vibration — Meets the limits of the National Safe Transit Association Test Procedure 1A-B-1; excision of 1 inch p-p at 4.83 Hz (1.1 g) for 30 minutes per Tektronix Standard 002-2S855-00.
Humidity — Operating and Nonoperating: Stored at 95% relative humidity for 5 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.

Electromagnetic Compatibility — Meets requirements of the following standards: MIL-T-28800C; MIL-STD-451A 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; FCC Rules and Regulations Part 15, Subpart J, Class A; and Tektronix Standard 062-2866-00.

Electrostatic Discharge Susceptibility — Instrument does not change control states with discharges of less than 10 kV. Meets requirements of Tektronix Standard 062-2862-00.

Radiation — Meets requirements of Tektronix Standard 062-1800-00.

Safety — UL listed (UL 1244) and CSA certified (CSA 566B).

Drip Proof — With Cover On: Meets MIL-T-28800C para 4.5.5.5.3.

Transit Drop — Not in Shipping Package: 12-inch drop on each corner and each face (MIL-T-28800C, para 4.5.5.5.4.2).

Packaged Transportation Drop — Meets the limits of the National Safe Transit Association Test Procedure 1A-B-2; 10 drops of 36 inches per Tektronix Standard 062-2868-00.

Bench Handling — With and Without Cabinet Installed: MIL-STD-810C, Method 516.2, Procedure V (MIL-T-28800C para 4.5.5.5.4.3).

Topple — Operating and Cabinet Installed: Set on rear feet and allowed to topple over onto each of four adjacent faces per Tektronix Standard 062-2858-00.

**PHYSICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>2465A/2467</th>
<th>2455A/2465A</th>
<th>Rackmount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>Width</td>
<td>330</td>
<td>13.0</td>
</tr>
<tr>
<td>Height</td>
<td>190</td>
<td>7.5</td>
</tr>
<tr>
<td>Depth</td>
<td>185</td>
<td>7.3</td>
</tr>
<tr>
<td>Weight</td>
<td>kg</td>
<td>lb</td>
</tr>
<tr>
<td>With accessories</td>
<td>10.9</td>
<td>24.0</td>
</tr>
<tr>
<td>Without accessories</td>
<td>9.7</td>
<td>21.3</td>
</tr>
<tr>
<td>Net Shipping</td>
<td>14.6</td>
<td>32.1</td>
</tr>
</tbody>
</table>

* Weight of conversion kit only. Rear support kit weight is an additional 8.9 kg (19.6 lb).
** Cooling — Forced air circulation.

Construction — Sheet aluminum-alloy chassis; plastic-laminate front panel; glass-laminate circuit boards.

Ordering Information — See page 289.
DELAY TIME
TRIG AFT DLY Accuracy — ±(LSD + 0.001% of reading + 0.5 ns + A trigger slew error + B trigger slew error). Add 0.5 ns for dual channel measurements.
Where: Trigger error equals trigger level control readout accuracy + trigger signal slew rate at the trigger point.
RUN AFT DLY Accuracy — ±(LSD + 0.0012 x A Sec/div + 0.03 x B Time/div + 50 ns). (B Time/div includes 10X mag.)
TRIG AFT DLY and RUN AFT DLY Accuracies Using Word Recognizer on the B Trigger — Add 100 ns, if using external clock. Add 200 ns, if not using external clock.

TOTALIZE
Maximum Count — To 9,999,999 events.

DELAY BY EVENTS
A or B Sweep — The A trigger or 17-bit word recognizer defines start events. The B trigger or 17-bit word recognizer defines delay events. With A sweep in the delayed by events mode, the B sweep is delayable by time.
Maximum Delay Count — Up to 4,194,303.
Minimum Time From Start Event to Any Delay Event — ≥ 4 ns.
Minimum Pulse Width — ≥ 3.3 ns.

LOGIC TRIGGER
Combination Trigger — A sweep can be triggered by logical combinations of A and B triggers (A and B) or (A or B); or the word recognizer. B sweep can be triggered from the word recognizer.
Minimum Time to Satisfy Logic Combinations — ≥ 4 ns.

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

<table>
<thead>
<tr>
<th>Input</th>
<th>Threshold</th>
<th>Load</th>
<th>Safe Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>&gt;2.0 V</td>
<td>&gt;-0.6 mA</td>
<td>&gt;5.5 V</td>
</tr>
<tr>
<td>Low</td>
<td>&gt;0.5 V</td>
<td>&gt;-0.6 mA</td>
<td>&gt;-0.5 V</td>
</tr>
</tbody>
</table>

Display Radix — Hexadecimal, octal, binary.
Data Rate — 0 MHz to ≥ 20 MHz with clock, 0 MHz to ≥ 10 MHz without clock.
Data Set-Up Time — 25 ns.
Data Hold Time — 0 ns.

GPIB Compatibility for Semiautomatic Measurement Systems — When combined with Option 10 the CRT/WR (Option 09) Oscilloscope combination is fully programmable. Complies with Tektronix Standard Codes and Formats.

Ordering Information — See page 289.

CHARACTERISTICS (OPTION 05)
The set of characteristics is the same as specified for standard 2467/2445A/2465A oscilloscopes and includes the following additions:

VERTICAL SYSTEM
(CHANNEL 1 AND CHANNEL 2)
Frequency Response — Applicable for vol/div settings between 5 mV and 0.2 V with Var vol/div control in calibrated deflection and using a 5 div, 50 kHz reference signal from a 50 Ω or 75 Ω system.

<table>
<thead>
<tr>
<th>Range</th>
<th>With Full BW</th>
<th>With SW Limiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 kHz to 5 MHz</td>
<td>±1%</td>
<td>±1%</td>
</tr>
<tr>
<td>&gt;5 MHz to 10 MHz</td>
<td>±1%</td>
<td>±2%</td>
</tr>
<tr>
<td>&gt;10 MHz to 30 MHz</td>
<td>±2%</td>
<td>±3%</td>
</tr>
<tr>
<td>&gt;30 MHz</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

* Same as basic instrument.

Squarewave Flatness — 1% p-p for both 60 Hz and 15 kHz squarewaves, from a 50 Ω or 75 Ω system using a 1.0 V input with a 50 mV/div setting and using a 0.1 V input at 20 mV/div setting. 1.5% p-p using a 0.1 V input with 5 mV/div and 10 mV/div settings. Exclude first 50 ns following step transition. For signals with rise times <10 ns, add 2% p-p between 156 ns and 186 ns after step transition.

Television Blanking-Level Clamp (Back-Porch) 60 Hz Rejection (Channel 2 Only) — >18 dB at 60 Hz, with calibrated Vol/div settings between 5 mV and 0.2 V, and a 6 div reference signal.

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

TRIGGERING
Sync Separation — Stable sync separation from sync-positive or sync-negative composite video on systems with 525 to 1290 lines/frame, 50 Hz or 60 Hz field rate, interlaced or noninterlaced scan.

Trigger Modes — LINES, FLD 1, FLD 2, and ALT (FLD 1—FLD 2).

Input Signal Amplitude for Stable Triggering — Channel 1 and Channel 2: 1.0 div for composite video and 0.3 div for composite sync signals (dc peak video-signal amplitude must be within 18 div of input ground reference). Channel 3 and Channel 4: 0.5 div for composite video and 0.25 div for composite sync signals (dc peak video-signal amplitude must be within 9 div of input ground reference).

GPIB Compatibility for Semiautomatic Measurement Systems — When combined with Option 10, the TV Waveform Measurement System (Option 05)/oscilloscope combination is fully programmable. Complies with Tektronix Standard Codes and Formats.

Ordering Information — See page 289.
CHARACTERISTICS (OPTION 01)

This option is unavailable for the 2457. The set of characteristics is the same as specified for all other standard 2445A/2465A oscilloscopes and includes the following additions:

All accuracy specifications are stated with an operating temperature range of +18°C to +28°C and a relative humidity of 85% or less.

**DC VOLTAGE**
- Ranges: 200 mV, 2 V, 20 V, 200 V, 500 V.
- Resolution: 10 μV (4½ digits).
- Accuracy: ±(0.03% of reading +0.01% of full scale).
- Input Resistance: >100 GΩ on the 200 mV and 2 V ranges, 10 MΩ on the higher ranges. Resistance can be changed to 10 MΩ on all ranges.
- Normal-Mode Rejection Ratio: ≥80 dB at 50 Hz and 60 Hz.
- Common-Mode Rejection Ratio: 100 dB at dc; ≥80 dB at 50 Hz and 60 Hz with 1 kΩ imbalance.
- Maximum Input Voltage: 500 V RMS; 700 V peak between inputs and ground.
- Response Time: <2 s in Auto; <1 s in Manual.

**AC RMS VOLTAGE**
- Ranges: 200 mV, 2 V, 20 V, 200 V, 500 V.
- Resolution: 10 μV (4½ digits).
- Accuracy: ±(% of reading +% of full scale).
- Input Frequency: 300 kHz to 200 MHz.
- HDV to 40 Hz: ±(0.7% +0.1%) ±(0.7% +0.2%).
- 40 Hz to 10 kHz: ±(0.5% +0.1%) ±(0.3% +0.2%).
- 10 kHz to 20 kHz: ±(0.7% +0.1%) ±(0.7% +0.2%).
- 20 kHz to 100 kHz: ±(5% +0.1%) ±(5% +0.2%).

**Continuity**
- A audible tone indicates ≤10.0 Ω.
- Response time is ≤0.1 s.

**DILQ RESISTANCE**
- Ranges: 200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ.
- Accuracy: ±(0.1% of reading +0.1% of full scale) for 200 Ω range. Subtract (0.09% of full scale) for 2 kΩ to 20 kΩ ranges. Add (0.15% of reading) and subtract (0.09% of full scale) for 200 kΩ range. Add 2% of reading for each 10% Relative Humidity above 70% when in 2 MΩ and 20 MΩ ranges.
- Maximum Input Voltage: 500 V RMS; 700 V peak.
- Full Scale Voltage: 2 V.
- Open Circuit Voltage: ≤5 V.
- Resolution: 0.1 Ω (4½ digits).
- Response Time: <2 s in Auto; <1 s in Manual.

**DC CURRENT**
- Ranges: 100 μA, 1 mA, 10 mA, 100 mA, 1 A.
- Accuracy: ±(0.1% of reading +0.02% of full scale).
- Burden Voltage: ≤150 mV up to 100 mA increasing to ≤500 mV at 1 A.
- Resolution: 10 nA.
- Response Time: ≤2 s in Auto; ≤1 s in Manual.

**AC (RMS) CURRENT**
- Ranges: 100 μA, 1 mA, 10 mA, 100 mA, 1 A.
- Accuracy: ±(0.6% of reading +0.1% of full scale) from 20 Hz to 10 kHz.
- Burden Voltage: ≤150 mV up to 100 mA increasing to ≤500 mV at 1 A.
- Resolution: 10 nA.
- Response Time: <3 s in Auto; <2 s in Manual.

**TEMPERATURE**
- Range: -62°C to +230°C.
- Accuracy: ±(2% of reading +15°C).
- Resolution: 0.1°C.
- Readout: Selectable in either °C or °F.

**OTHER CHARACTERISTICS**
- Reading Rate: Three readings/s nominal except 1.5 readings/s on 20 MΩ range.
- Temperature Coefficient: ≤0.1 x the accuracy specification°C from -15°C to +18°C and from +28°C to +55°C.

**GPIB Compatibility for Semiautomatic Measurement Systems**
- When combined with Option 10, the DMM (Option 01) oscilloscope combination is fully programmable. Complies with Tektronix Standard Codes and Formats.

**Ordering Information**
- See page 289.

**CHARACTERISTICS (OPTION 1R)**

Environmental
- Rackmount changes the temperature, vibration, and shock capabilities. The rackmounted oscilloscope meets or exceeds the requirements of MIL-T-28800C with respect to Type III, Class 5, Style C equipment, when installed as directed. It also meets or exceeds Tektronix Standard 062-2853-00, Class 5 requirements.
- Ambient Temperature: Operating: -15°C to +55°C. Measured at the instrument's air inlet, fan exhaust temperature should not exceed +65°C.
- Vibration: Operating: Same as standard instrument, except total displacement is 0.015 inch pp (2.3 g/s at 55 Hz).
- Shock: Operating and Nonoperating: Same as standard instrument, except shocks are 30 g's.

**K212 Portable Instrument Cart**
- See page 461.

KLIPKIT makes high speed IC testing easy. For use directly with 51630 family probes or others via the included signal pins. See page 472.
ORDERING INFORMATION

2467* 350 MHz Oscilloscope $11,900
Includes: MCP CRT; four P6136 10X 1.3 m probes with
accessories, 2 A, 250 V fuse (159-0021-00); zip lock accessory
socket (016-0537-00); blue plastic CRT filter (378-0199-03);
clear plastic CRT filter; snap accessory socket (016-0652-00);
front cover; power cord (161-0104-00); operator manual (070-0564-00).

2465A 350 MHz Oscilloscope $5,350
Includes: Two P6136 10X 1.3 m probes with accessories
(P6136); 2 A, 250 V fuse (159-0021-00); zip lock accessory
socket (016-0537-00); blue plastic CRT filter (378-0199-03);
clear plastic CRT filter; snap accessory socket (016-0652-00);
front cover; power cord (161-0104-00); operator manual (070-0564-00).

2455A 250 MHz Oscilloscope $3,150
Includes: Same as 2465A.

2445A 150 MHz Oscilloscope $3,590
Includes: Same as 2465A, except two P6133 10X 2 m
probes (P6133).

2465A DV 350 MHz Oscilloscope $9,200
Includes: Same as 2465A, plus DMX (Option 01), TV
(Option 06), CTT/WTR (Option 08), GPIB (Option 10),
and two additional P6136 probes (Option 22). Provides most
cost-effective combination of these options.

2465A DM 350 MHz Oscilloscope $8,400
Includes: Same as 2465A, plus DMX (Option 01),
CTT/WTR (Option 08), GPIB (Option 10), and two
additional P6136 probes (Option 22). Provides most
cost-effective combination of these options.

2465A CT 350 MHz Oscilloscope $7,150
Includes: Same as 2465A, plus CTT/WTR (Option 08),
GPIB (Option 10), and two additional P6136 probes (Option 22).
Provides most cost-effective combination of these options.

INSTRUMENT OPTIONS
Option O1** — Digital Multimeter. $1,150
Includes: As standard instruments, plus probe set
(012-0341-00); temperature probe (P6202); probe set
accessories (020-0087-00).

Option O5 — TV Waveform Measurement System. $1,050
Includes: Same as standard instruments, plus GCR
gratings visible CRT filter (378-0199-02); NTSC
gratings visible CRT filter (378-0199-02); polarized collimating
viewing hood (016-0180-00).

Option O6 — Counter/Timer/Trigger. $1,100
Includes: Same as standard instruments, plus 20
graber tips (206-0220-00); two 10 inch wide comb
(012-0747-00).

Option O8* — Counter/Timer/Trigger and
Word Recognition. $1,400
Includes: Same as standard instruments, plus a
word recognizer probe (010-6407-01); 20 grabber tips
(206-0220-00); two 10 inch wide comb (012-0747-00).

MULTIPLE OPTION ALLOWANCE (MOA)
When a 2467 or 2465A instrument is ordered with more
than two of the above options, a special price allowance is
applied. This allowance is not applicable to the
2465A DV, 2465A DM, or the 2465A CT.

Option 2A — MOA for combining two of the
above options $250

Option 3A — MOA for combining three of the
above options $500

Option 4A — MOA for combining four of the
above options $750

OTHER INSTRUMENT OPTIONS
Option B1 — Service manual. For 2465A/2465A/2465A.
(Standard manual plus options manual. $550
(Options/Special Editions) includes
standard manual plus options manual. $50

OPTIONAL ACCESSORIES
Option 1T — Transit Case. +$340
Option 111* — Rear Panel Probe Power. +$185
Option 22 — Two additional probes.
(2467/2465A) P6136 probes. +$265
(2455A) P6133 probes. +$205
* Option 11 may be ordered with Option 09 or the 2465A.
* Option 09 is recommended. $65
* Option 1T may be ordered with Option 01, 2465A DM,
or 2465A DV. For rackmount instruments equipped with
Option 01, contact your local Sales Engineer. $1,795
* Option 01 is not available with the 2467.

INTERNATIONAL POWER OPTIONS
Option A0 — 115 V, 60 Hz, US plug.
Option A1 — 220 V, 60 Hz, Universal Euro plug.
Option A2 — 240 V, 50 Hz, UK plug.
Option A3 — 240 V, 50 Hz, Australian plug.
Option A4 — 240 V, 60 Hz, North American plug.
Option A5 — 220 V, 50 Hz, Swiss plug.

WARRANTY-PLUS SERVICE PLANS
SEE PAGE 497
M1 — (2467/2465A/2455A and Special Editions)
2 Calibrations. +$265
M2 — (2465A) 2 Calibrations. +$255
M3 — (2465A) 2 Years Service. +$370
M2 — (2465A) 2 Years Service and 4 Calibrations. +$665
M3 — (2465A) 2 Years Service and 4 Calibrations. +$655
M4 — (2465A/2465A and Special Editions) 5 Calibrations. +$670
M5 — (2465A) 5 Calibrations. +$680
M6 — (2465A/2465A and Special Editions) 9 Calibrations + 2 Years Service. +$1,465
M7 — (2465A/2465A and Special Editions) 9 Calibrations + 2 Years Service. +$1,380

OPTIONAL ACCESSORIES
Rackmount Conversion Kit — Not compatible with Option 01. Order 016-0655-01
Probe Pointer Extender Cable for Rackmount Instrument With Option 11 — Order 020-0104-00
Word Recognizer Extender Cable for Rackmount Instrument With Option 09 and
2465A GT — Order 020-0103-00
GPIB Cables — Double shield, low EMC. (1 m) Order 012-0941-01
(2 m) Order 012-0941-00
(3 m) Order 012-0941-00
(5 m) Order 012-0941-00
(20 m) Order 012-0941-00
(30 m) Order 012-0941-00
Viewing Hoods — Polycarbonate Collapsible — Order 016-0180-00
Folding Light Shield — Order 016-0920-00
Folding Binocular — Order 016-0960-00
Protective Waterproof Vinyl Cover — Order 016-0950-00
Carrying Case — Order 016-0792-01
Carrying Strap — Order 346-0159-00
De Power — For more information, see page 306.
(1) $1,600
(2) $1,900
(3) $2,200

Additional accessories begin on page 439.

SOFTWARE
EZ-TEK 2400 Test Program Generator. For instruments with GPIB, used with 4011
controller. Order 499100
EZ-TEK 2400 PC Test Program Generator For instruments with GPIB, used with IBM
PC/XT/AT and compatibles. Requires GURU
hardware. Order 499103
GPIB User’s Resource Utility (GURU) includes GPIB PC interface board, GPIB
software, and documentation.

To order, call your local Tektronix Sales Office, or call Tek’s National Marketing Center,

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