The oscilloscope experience redefined

Experience the speed
Find even more of your most intermittent signal anomalies
- 1,000,000 waveforms/sec update rate
- Uncompromised MegaZoom IV smart memory
- Standard segmented memory

Experience the usability
Quickly debug your design with an oscilloscope designed for touch
- Industry's largest 12.1-inch display
- Only capacitive touch screen
- Exclusive InfiniiScan Zone touch triggering

Experience the integration
Get the power of 5 instruments in 1, fully upgradable
- Best-in-class oscilloscope
- Integrated 16 digital channels on MSO models
- Serial protocol analyzer (optional)
- Industry-exclusive WaveGen built-in, dual-channel function/arbitrary waveform generator (optional)
- Integrated 3-digit voltmeter (optional)

Key specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz</td>
</tr>
<tr>
<td>Channels</td>
<td>2 or 4 analog channels (DSO) + 16 digital channels (MSO)</td>
</tr>
<tr>
<td>Sample rate</td>
<td>5 GSa/s</td>
</tr>
<tr>
<td>Memory</td>
<td>Standard 4 Mpts, Standard segmented memory</td>
</tr>
<tr>
<td>Display</td>
<td>12.1-inch capacitive touch display</td>
</tr>
<tr>
<td>Update rate</td>
<td>1,000,000 waveforms per second</td>
</tr>
<tr>
<td>Trigger</td>
<td>InfiniiScan Zone touch trigger 21 standard trigger modes</td>
</tr>
<tr>
<td>Upgradable</td>
<td>Bandwidth, MSO, integrated digital voltmeter, integrated dual-channel WaveGen, serial analysis, and other measurement applications</td>
</tr>
<tr>
<td>Warranty</td>
<td>3 year</td>
</tr>
<tr>
<td>Calibration</td>
<td>2-year interval</td>
</tr>
<tr>
<td>Connectivity</td>
<td>USB 2.0 (host x3, device x1), LAN, VGA out, GPIB (option)</td>
</tr>
</tbody>
</table>
Industry-exclusive features

- 1 million waveforms/sec update rate
- Capacitive touch screen
- InfiniScan Zone touch triggering
- Standard segmented memory
- Complete oscilloscope upgradability

Mean tangible advantages for you

- You are able to see more signal detail and infrequent anomalies than with any other scope
- Unprecedented usability speeds setup and update rate: 1 million waveforms/sec
- Simply touch the display to trigger on anything you see
- Turns your scope into an efficient ultra-deep memory scope that captures only the events you care about
- Protect your investment with the ability to add bandwidth, MSO, WaveGen, DVM, or serial bus debugging applications at any time after purchase

### Oscilloscope models

<table>
<thead>
<tr>
<th>Model</th>
<th>Bandwidth</th>
<th>Max sample rate</th>
<th>Memory</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSOX4022A</td>
<td>200 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2</td>
</tr>
<tr>
<td>MSOX4022A</td>
<td>200 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2 + 16</td>
</tr>
<tr>
<td>DSOX4024A</td>
<td>200 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4</td>
</tr>
<tr>
<td>MSOX4024A</td>
<td>200 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4 + 16</td>
</tr>
<tr>
<td>DSOX4032A</td>
<td>350 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2</td>
</tr>
<tr>
<td>MSOX4032A</td>
<td>350 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2 + 16</td>
</tr>
<tr>
<td>DSOX4034A</td>
<td>350 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4</td>
</tr>
<tr>
<td>MSOX4034A</td>
<td>350 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4 + 16</td>
</tr>
<tr>
<td>DSOX4052A</td>
<td>500 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2</td>
</tr>
<tr>
<td>MSOX4052A</td>
<td>500 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>2 + 16</td>
</tr>
<tr>
<td>DSOX4054A</td>
<td>500 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4</td>
</tr>
<tr>
<td>MSOX4054A</td>
<td>500 MHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4 + 16</td>
</tr>
<tr>
<td>DSOX4104A</td>
<td>1 GHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4</td>
</tr>
<tr>
<td>MSOX4104A</td>
<td>1 GHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4 + 16</td>
</tr>
<tr>
<td>DSOX4154A</td>
<td>1.5 GHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4</td>
</tr>
<tr>
<td>MSOX4154A</td>
<td>1.5 GHz</td>
<td>5 GSa/s</td>
<td>4 Mpts</td>
<td>4 + 16</td>
</tr>
</tbody>
</table>

### Bandwidth and MSO upgrade options

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSOX4B2T32U</td>
<td>Service center bandwidth upgrade from 200 to 350 MHz, 2 ch models</td>
</tr>
<tr>
<td>DSOX4B2T34U</td>
<td>Service center bandwidth upgrade from 200 to 350 MHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B3T52U</td>
<td>Licensed bandwidth upgrade from 350 to 500 MHz, 2 ch models</td>
</tr>
<tr>
<td>DSOX4B3T54U</td>
<td>Licensed bandwidth upgrade from 350 to 500 MHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B5T104U</td>
<td>Service center bandwidth upgrade from 500 MHz to 1 GHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B1T154U</td>
<td>Service center bandwidth upgrade from 1 GHz to 1.5 GHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B2T52U</td>
<td>Service center bandwidth upgrade from 200 to 500 MHz, 2 ch models</td>
</tr>
<tr>
<td>DSOX4B2T54U</td>
<td>Service center bandwidth upgrade from 200 to 500 MHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B2T104U</td>
<td>Service center bandwidth upgrade from 200 to 1.5 GHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B3T154U</td>
<td>Service center bandwidth upgrade from 350 to 1.5 GHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B3T104U</td>
<td>Service center bandwidth upgrade from 350 to 1.5 GHz, 4 ch models</td>
</tr>
<tr>
<td>DSOX4B5T154U</td>
<td>Service center bandwidth upgrade from 500 MHz to 1.5 GHz, 4 ch models</td>
</tr>
</tbody>
</table>

### Measurements options

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSOX4AERO</td>
<td>MIL-STD 1553 &amp; ARINC 429 serial triggering and analysis</td>
</tr>
<tr>
<td>DSOX4AUDIO</td>
<td>Audio serial triggering and analysis (FSI)</td>
</tr>
<tr>
<td>DSOX4AUTO</td>
<td>Automotive serial triggering and analysis (CAN/LIN)</td>
</tr>
<tr>
<td>DSOX4COMP</td>
<td>Computer serial triggering and analysis (RS232/UART)</td>
</tr>
<tr>
<td>DSOX4EMBD</td>
<td>Embedded serial triggering and analysis (PC, SPI)</td>
</tr>
<tr>
<td>DSOX4FLEX</td>
<td>FlexRay serial triggering and analysis</td>
</tr>
<tr>
<td>DSOX4USBL</td>
<td>USB 2.0 full/low speed serial decode and triggering</td>
</tr>
<tr>
<td>DSOX4USBH</td>
<td>USB 2.0 hi-speed serial decode and triggering</td>
</tr>
<tr>
<td>DSOX4USBQ</td>
<td>USB 2.0 signal quality test</td>
</tr>
<tr>
<td>DSOXDVVM</td>
<td>Integrated digital voltmeter (DVM)</td>
</tr>
<tr>
<td>DSOXEDK</td>
<td>Education and training kit</td>
</tr>
<tr>
<td>DSOXFPGAX</td>
<td>FPGA dynamic probe option for Xilinx</td>
</tr>
<tr>
<td>DSOX4MASK</td>
<td>Mask limit testing</td>
</tr>
<tr>
<td>DSOX4PWR</td>
<td>Power analysis application</td>
</tr>
<tr>
<td>DSOX4VID</td>
<td>Enhanced video/TV application package</td>
</tr>
<tr>
<td>DSOX4WAVEGEN2</td>
<td>Dual-channel 20 MHz WaveGen function/arbitrary waveform generator</td>
</tr>
<tr>
<td>N8900A</td>
<td>InfiniView oscilloscope analysis software</td>
</tr>
<tr>
<td>64997A</td>
<td>Keysight spectrum visualizer (ASV)</td>
</tr>
<tr>
<td>89610B</td>
<td>Vector signal analyzer software (Var.16 and higher only)</td>
</tr>
<tr>
<td>33503A</td>
<td>Benchlink waveform builder pro and basic</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N2750A</td>
<td>1.5 GHz InfiniMode differential active probe</td>
</tr>
<tr>
<td>N2795A</td>
<td>1 GHz active single-ended probe (recommended)</td>
</tr>
<tr>
<td>N2763A</td>
<td>Rackmount kit</td>
</tr>
<tr>
<td>N2733A</td>
<td>Soft carrying case</td>
</tr>
<tr>
<td>N2894A</td>
<td>700 MHz 10:1 passive probe (1 per ch included standard)</td>
</tr>
<tr>
<td>N2821A</td>
<td>1-channel high-sensitivity current probe</td>
</tr>
<tr>
<td>N2820A</td>
<td>2-channel high-sensitivity current probe</td>
</tr>
<tr>
<td>N4865A</td>
<td>GPIB connection module</td>
</tr>
<tr>
<td>N6455A</td>
<td>Hard copy manual</td>
</tr>
</tbody>
</table>

For probing information, see the Keysight Oscilloscope Probes and Accessories Selection Guide, publication number 5989-6162EN.

Three-Year Warranty

www.keysight.com/find/ThreeYearWarranty

Keysight’s commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans

www.keysight.com/find/AssurancePlans

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

www.keysight.com/find/4000X-Series