

# OSCILLOSCOPES

## HP Digitizing Oscilloscopes (cont'd)

### Compare the Features

Whether you need pinpoint vertical resolution or lightning-fast signal capture, Hewlett-Packard's digitizing oscilloscopes provide a powerful set of features and capabilities in an easy-to-use package.

Here's a look at how the various models compare in terms of features, capabilities, and price.

Model	HP 54100A/D and HP 54110D	HP 54111D (with HP 54114A)	HP 54112D	HP 54121T	HP 54123T	HP 54124T	HP 54122T
<b>Bandwidth: Repetitive Single-Shot</b>	1 GHz 4 MHz <sup>1</sup>	500 MHz 500 MHz	100 MHz 100 MHz	20 GHz not applicable	34 GHz not applicable	50 GHz not applicable	12.4 GHz not applicable
<b>Time Interval Accuracy: Repetitive Single-Shot</b>	100 ps 300 ps	100 ps 300 ps	300 ps 300 ps	10 ps not applicable			10 ps not applicable
<b>Channels</b>	2	2	4	4			4
<b>Digitizing Rate</b>	40 MSa/s	1 GSa/s	400MSa/s	not applicable			not applicable
<b>Memory/ Channel</b>	1k samples	8k samples	64k samples	501 samples			501 samples
<b>Vertical Resolution</b>	7 bits; 10 bits with averaging	8 bits to 50 MHz 7 bits to 200 MHz 6 bits to 410 MHz	6 bits	12 bits; 14 bits with averaging			12 bits; 14 bits with averaging
<b>Input Voltage Ranges</b>	7 ranges 80 mV to 8 V full scale	continuously variable 8 mV to 40 V full scale	continuously variable 40 mV to 40 V full scale	continuously variable 1 to 80 mV per division			continuously variable 1 mV to 2.4 V per division
<b>Input Z, Coupling</b>	50 Ω, 10 kΩ, 1MΩ pods	1 MΩ, 50 Ω internal; ac, dc	1 MΩ, 50 Ω internal; ac, dc	50 Ω			50 Ω
<b>Pulse Parameter Measure- ments</b>	yes	yes	yes	yes			yes
<b>Waveform Math</b>	A + B, A - B, A vs B, invert	A + B, A - B, invert	A + B, A - B, invert	A + B, A - B, A vs B, min, max, invert, only			A + B, A - B, A vs B, min, max, invert, only
<b>Other Analysis Functions</b>	Variable and infinite persistence, averaging, magnify	Variable and infinite persistence, averaging	Variable and infinite persistence, averaging	Variable and infinite persistence, averaging			Variable and infinite persistence, averaging
<b>Waveform Storage</b>	2 pixel, 4 waveforms	2 pixel, 4 repetitive, 4 single-shot waveforms	2 pixel, 4 repetitive, 4 single-shot waveforms	2 pixel, 4 waveforms			2 pixel, 4 waveforms
<b>Trigger Enhance- ments</b>	Edge; pattern, state, digital delay by event and time, time-qualified pattern <sup>2</sup>	Edge, pattern, state, digital delay by event and time, time-qualified pattern	Edge, pattern, state, digital delay by event and time	2.5 GHz edge trigger; 18 GHz with HP 54118A			2.5 GHz edge trigger; 18 GHz with HP 54118A
<b>Instant Hard-Copy and Disk Support</b>	HP printers and HP plotters			HP graphic printers including PaintJet, plotters			HP graphic printers including PaintJet, plotters
<b>Other</b>	Color display and color hard copy <sup>3</sup>	Color display and color hard copy	Color display and color hard copy	Built-in histograms TDR/TDT color display and color hard copy			Built-in histograms Color display and color hard copy
<b>For More Information, Order Publication Number</b>	HP 5954-2659 (D)			HP 5952-7084(D)		HP 5952-7084(D) HP 5952-1171 (D)	HP 5952-7084(D)
<b>Page Reference</b>	140	141	143	144	144	144	144
<b>Price</b>	\$16,900 \$21,900 \$23,900	\$29,900	\$24,900	\$30,400	\$36,400	\$44,400	\$32,400

<sup>1</sup>10 points per period without reconstruction.

<sup>2</sup>D models only.

<sup>3</sup>HP 54110D only.