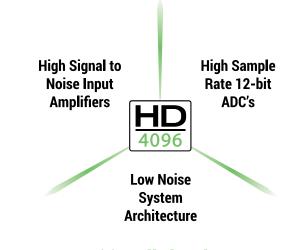




More Capability than you imagined

Comprehensive Probe Support Over 30 probes in 9 categories

# Highest Resolution





12 bits all the time.

# More Capability

Spectrum Analysis LabNotebook

170,000
wfms/sec

OneTouch
Frequency
Counter

HD 4096

AFG
Protocol

J Analysis

16 ch History Mode MSO Touch Pass/Fail



Comprehensive Probe Support





WaveSurfer 4000HD extends Teledyne LeCroy's leadership in High Definition Oscilloscopes with a bright,

12.1" touch screen display, performance without compromise, and price points that fit your budget.

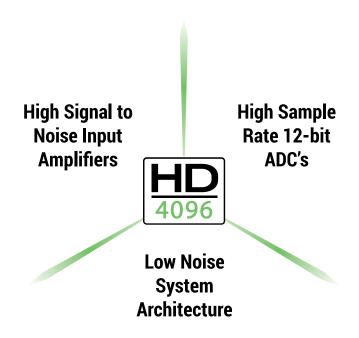
# 12 bits all the time.





WaveSurfer 4000HD

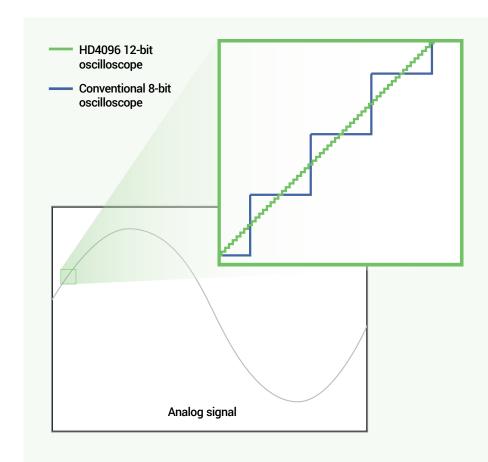
# HD4096 TECHNOLOGY - 12 BITS ALL THE TIME



Teledyne LeCroy high definition 12-bit oscilloscopes use unique HD4096 technology to provide superior and uncompromised measurement performance:

- 12-bit ADCs with high sample rates
- High signal-to-noise amplifiers
- Low noise system architecture (to 1 GHz)

Oscilloscopes with HD4096 technology have higher resolution than conventional 8-bit oscilloscopes (4096 vs. 256 vertical levels) and low noise for uncompromised measurement performance. The 12-bit ADCs support capture of fast signals and oscilloscope bandwidth ratings up to 1 GHz, while 5 GS/s sample rate ensures the highest measurement accuracy and precision. The high performance input amplifiers deliver pristine signal fidelity, and the low-noise system architecture provides an ideal signal path to ensure that signal details are delivered accurately to the oscilloscope display – 16x closer to perfect.



#### 16x Closer to Perfect

#### 16x more resolution

HD4096 technology provides 12 bits of vertical resolution — 16x more resolution than conventional 8-bit oscilloscopes. The 4096 discrete vertical levels reduce the quantization error compared to 256 vertical levels. This improves the accuracy and precision of the signal capture and increases measurement confidence.

# **EXPERIENCE THE DIFFERENCE**



Experience HD4096 accuracy, detail, and precision and never use an 8-bit oscilloscope again. Whether the application is general-purpose design and debug, high-precision analog sensors, power electronics, automotive electronics, mechatronics, or other specialized applications, the HD4096 technology provides unsurpassed confidence and measurement capabilities.

#### Clean, crisp waveforms

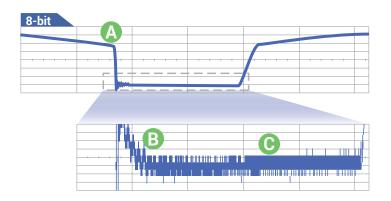
When compared to waveforms acquired and displayed using conventional 8-bit oscilloscopes, waveforms captured with HD4096 12-bit technology are dramatically crisper and cleaner, and are displayed more accurately. Once you see a waveform acquired with HD4096 technology, you will not want to go back to using a conventional 8-bit oscilloscope.

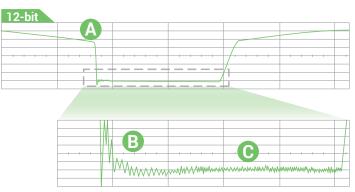
#### More signal details

16x more resolution provides more signal detail. This is especially helpful for analyzing wide dynamic range signals where very small amplitude signal details must be viewed. 12-bit acquisitions combined with the oscilloscope's vertical and horizontal zoom capabilities provide unparalleled insight into system behaviors and problems.

#### **Unmatched measurement precision**

HD4096 technology delivers measurement precision several times better than conventional 8-bit oscilloscopes. Higher oscilloscope measurement precision results in better ability to assess corner cases and design margins, perform root cause analysis, and create the best possible solution for any discovered design issue.





- (A) Clean, crisp waveforms | Thin traces show the actual waveform with minimal noise interference.
- **More signal details** | Waveform details can now be clearly seen on an HD4096 12-bit oscilloscope.
- Unmatched measurement precision | Measurements are more precise and not affected by quantization noise.

# MORE CAPABILITY THAN YOU IMAGINED





# Protocol Analysis with Serial Trigger and Decode

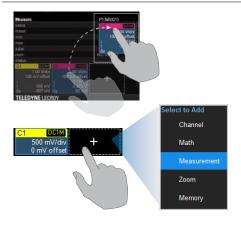
- Intuitive, color-coded overlays make it easy to understand serial data information
- Powerful, conditional data triggering capabilities
- Interactive decode table summarizes results of two different protocol decodes
- Touch a row in the table to automatically zoom and display the selected packet
- Search and conditional filtering

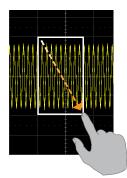
Index	Time	Protocol	→ Message	Data	CRC	Status 🔻	
▶ 11	323.943 µs	SSPI	0x43	0x43			
▶ 12	419.72 µs	UART	254	0xfe			
▶ 13	422.595 µs	SSPI	0x72	0x72			
▶ 14	521.247 µs	SSPI	0x6f	0x6f			
▶ 15	529.70 µs	UART	254	0xfe			M



# Logic Analysis with 16-channel Mixed Signal Capability

- Simultaneously view, measure, and analyze
   4 analog and 16 digital channels
- Dedicated digital logic port does not consume analog channels
- Analog and digital channels can be incorporated into a single pattern trigger
- Find anomalies in digital waveforms using WaveScan, trends, statistics, and histicons

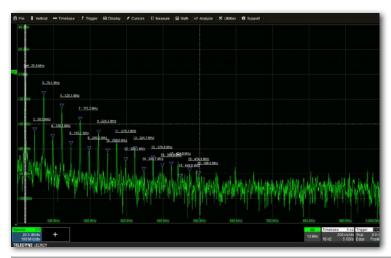




#### **MAUI** with OneTouch

- Most unique touch screen features on any oscilloscope
- Drag-and-drop to dramatically reduce setup time
- All common operations can be performed with one touch





#### **Spectrum Analyzer**

- Spectrum analyzer style controls
- Logarithmic scales
- Pop up Peaks and Markers table



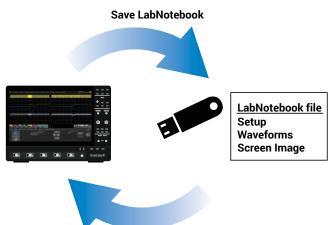
#### **Built-in Waveform Generator**

- Frequencies of up to 25 MHz
- Wide variety of waveform sources available
- Saved waveforms can be uploaded to oscilloscope to generate arbitrary waveforms



#### **DVM and Frequency Counter**

- 4-digit digital voltmeter, 5-digit frequency counter
- Works with any channel; measurements update even when system is not triggering
- Set voltage readings to DC, DC RMS, or AC RMS



#### LabNotebook

- Store all setups, waveforms, and screen image in a single LabNotebook file
- Add descriptive notes to LabNotebooks, or mark up screen images
- Recall ("Flashback") LabNotebooks to restore oscilloscope to past state—including all setups, waveforms, and table data
- Extract component files from .LNB format files, or append other files to .LNB

# **COMPREHENSIVE PROBE SUPPORT**





#### **Active Power Rail Probe**



#### RP2060 RP4060

- Large (60 V) built-in offset, low noise
- Perfect for low impedance power rails
- Solder-in & U.FL connections

#### **Active Voltage Probes**



#### ZS1000 ZS1500

- Low 0.9 pF input capacitance
- High input impedance (1 M $\Omega$ )
- Low cost

#### **Current Probes**



#### CP030B, CP030-3M, CP031, CP031A CP150B, CP150-6M CP500, DCS025

- Peak currents up to 700 A
- Sensitivities to 1 mA/div
- Bandwidth up to 100 MHz

#### **Differential Probes**



ZD1500, ZD1000, ZD500, ZD200 AP033

- High CMRR, high bandwidth, low noise
- 1 pF capacitance, wide dynamic range
- Series/shunt voltage measurement

**High Voltage Differential Probes** 



HVD3102A, HVD3106A (1 kV) HVD3206A, HVD3220 (2 kV) HVD3605A (6 kV)

- 1, 2, or 6 kV common-mode ratings
- Excellent CMRR (65 dB at 1 MHz)
- 1% gain accuracy

**High Voltage Passive Probes** 



HVP120 PPE6KV-A

- 1 kV to 6 kV ratings
- Safe and easy probing accessories
- Sense pin for automatic scaling

High Voltage Fiber Optically-isolated Probes



#### **HVF0108**

- 35 kV common-mode rating
- Highest possible CMRR (140 dB)
- Ideal for gate-drive measurements

#### **Passive Probes**



#### PP019, PP026

- Rated for 500 V
- Sense pin for automatic scaling
- High input impedance of 10 MΩ

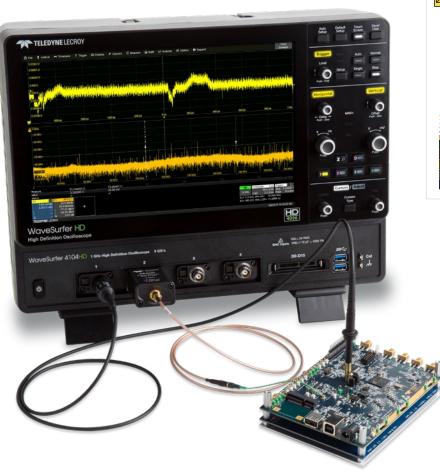
#### **Probe Adapters**

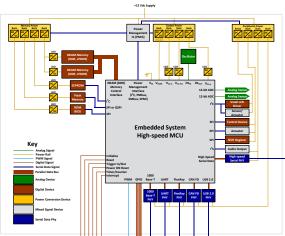


#### TPA10

- Supports TekProbe interface level II
- Configure power and offset control
- Supports wide variety of Tek probes





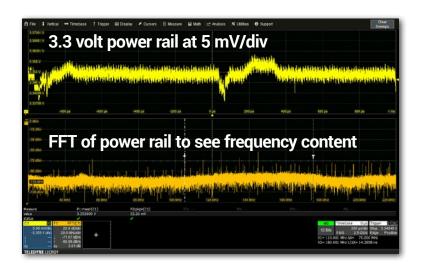




#### **Clock Analysis**

- Capture long records to build statistics faster
- All-instance measurements measure every clock edge in any acquisition length
- Trend values over time
- Histicons show statistical distribution





#### **Power Rail Analysis**

- 12-bit resolution and low noise clearly shows small signal details in power rails
- FFT or Spectrum Analyzer determines root cause of high noise events
- Built-in high offset capability permits native probing of power rails



#### **Protocol Analysis**

- Trigger on protocol elements or specific DATA patterns using powerful conditional DATA triggering
- Highly adaptable ERROR frame triggering isolates protocol errors
- Combine UART/SPI bytes into single "message frame" to trigger on proprietary protocols
- Use Search and Zoom to correlate protocol events to other embedded signals



#### **Power Analysis**

- Measure and analyze operating characteristics of power conversion circuits
- Identify turn-on and turn-off transitions using color-coded overlays
- Automatically calculate switching device measurements
- Measure input/output power and input harmonics





#### **Key Attributes**

- 1. 12.1" 1280 x 800 capacitive touch screen display
- 2. Buttons/indicators color-coded to associated waveform on display
- **3.** MAUI with OneTouch user interface for intuitive and efficient operation
- **4.** HD4096 Technology 12 bits all the time
- **5.** Use cursors and adjust settings without opening a menu

- **6.** ProBus input supports over 30 probes in 9 product categories
- 7. Mixed Signal capability with 16 channel dedicated digital logic port
- 8. USB 3.1 ports for easy connectivity
- **9.** WaveSource Arbitrary Waveform Generator
- 10. HDMI output
- **11.** USBTMC over USB 2.0 for data offload



# SPECIFICATIONS



Vertical - Analog Channels	WaveSurfer 4024HD	WaveSurfer 4034HD	WaveSurfer 4054HD	WaveSurfer 4104HD	
Analog Bandwidth @ 50 Ω (-3 dB)	200 MHz	350 MHz	500 MHz	1 GHz	
Rise Time (10–90%)	1.75 ns	1 ns	700 ps	450 ps	
Input Channels	4	-	2.2   2.2		
Vertical Resolution	12 bits				
Effective Number of Bits (ENOB)	8.7	8.6	8.5	8.3	
Vertical Noise Floor (rms, 50 Ω)					
1 mV/div	65 µV	70 μV	90 μV	125 μV	
2 mV/div	65 µV	70 µV	90 µV	125 μV	
5 mV/div	65 µV	70 µV	90 µV	125 µV	
10 mV/div	70 µV	75 μV	95 μV	130 µV	
20 mV/div	95 µV	95 μV	115 µV	160 µV	
50 mV/div	160 µV	175 µV	210 µV	280 µV	
100 mV/div	270 µV	290 µV	350 µV	465 μV	
200 mV/div	960 µV	925 µV	1.10 mV	1.65 mV	
500 mV/div	1.60 mV	1.75 mV	2.10 mV	2.75 mV	
1 V/div	2.70 mV	2.90 mV	3.50 mV	4.70 mV	
Sensitivity		iable; <b>1 M</b> Ω: 1 mV-10 V/div, f			
DC Vertical Gain Accuracy (Gain Component of DC Accuracy)	±0.5% FS, offset at 0 V				
Channel-Channel Isolation	60 dB	60 dB up to 200 MHz 50 dB up to 350 MHz	60 dB up to 200 MHz 50 dB up to 500 MHz	60 dB up to 200 MHz 50 dB up to 500 MHz 40 dB up to 1 GHz	
Offset Range	50 Ω: 1 mV to 4.95 mV: ±1.6 V; 5 mV to 9.9 mV: ±4 V; 10 mV to 19.8 mV: ±8 V; 20 mV to 1 V: ±10 V  1 MΩ: 1 mV to 4.95 mV: ±1.6 V; 5 mV to 9.9 mV: ±4 V; 10 mV to 19.8 mV: ±8 V; 20 mV to 100 mV: ±16 V;  102 mV to 198 mV: ±80 V; 200 mV to 1 V: ±160 V; 1.02 V to 10 V: ±400 V				
DC Vertical Offset Accuracy		5% FS + 0.02% of max offset +			
Maximum Input Voltage	50 Ω: 5 Vrms, 1 MΩ: 400 V max (DC + Peak AC $\leq$ 10 kHz)				
Input Coupling	1 MΩ: AC, DC, GND; 50 Ω: DC, GND				
Input Impedance	50 Ω: ±2.0%; 1 MΩ: ±2.0%    15 pF				
Bandwidth Limiters	20 MHz	20 MHz, 200 MHz	20 MHz, 200 MHz	20 MHz, 200 MHz	
Rescaling	Electrical: Volts, Amps				
Horizontal - Analog Channels					
Acquisition Modes		uence (Segmented Memory ι	ıp to 1000 segments with 1 μ	s min. intersegment time)	
Timebases	Internal timebase common t				
Time/Division Range	2 ns/div to 50 s/div	2 ns/div to 50 s/div	1 ns/div to 50 s/div	500 ps/div to 100 s/div	
Clock Accuracy	±2.5 ppm + 1.0 ppm/year fro	m calibration			
Acquisition - Analog Channels					
Sample Rate (Single-Shot)	2.5 GS/s on 4 Ch, 5 GS/s on 3	2 Ch			
Standard Memory (4 Ch / 2 Ch)	12.5 Mpts / 25 Mpts				
Averaging	Summed averaging to 1024				
Vertical, Horizontal, Acquisition		יט-MSU option only)			
Input Channels	16 Digital Channels				
Threshold Groupings	Pod 2: D15 to D8, Pod 1: D7 to D0				
Threshold Selections	TTL (+1.4 V), 5 V CMOS (+2.5 V), ECL (-1.3 V) or User Defined				
Maximum Input Voltage	±30 V Peak				
Threshold Accuracy	±(3% of threshold setting + 100 mV)				
Input Dynamic Range	±20 V				
Minimum Input Voltage Swing	500 mVpp				
Input Impedance (Flying Leads)	100 kΩ    5 pF				
Maximum Input Frequency	125 MHz				
Sample Rate	500 MS/s				
Record Length	12.5 Mpts - 16 Channels				
Minimum Detectable Pulse Width	4 ns				
Channel-to-Channel Skew	±(1 digital sample interval)				
User-defined Threshold Range	±10 V in 20 mV steps				

# **SPECIFICATIONS**



	WaveSurfer 4024HD	WaveSurfer 4034HD	WaveSurfer 4054HD	WaveSurfer 4104HD
Triggering System				
Modes	Normal, Auto, Single, and Sto	D		
Sources	Any input channel, Ext, Ext/5,	or Line; slope and level unique	e to each source (except Line	trigger)
Coupling	DC, AC, HFRej, LFRej			
Hold-off	From 10 ns up to 20 s or from 1 to 100,000,000 events			
Pre-trigger Delay Post-trigger Delay	0 to 100% of full scale			
Internal Trigger Level Range	0 to 10,000 divisions ±4.1 div from center (typical)			
External Trigger Level Range	±4.1 div from center (typical)  Ext (±0.610 mV); Ext/5 (±3.05 V)			
Maximum Trigger Rate	175,000 waveforms/second	,		
Trigger Sensitivity with Edge Trigger	0.9 division @ 10 MHz	0.9 division @ 10 MHz	0.9 division @ 10 MHz	0.9 division @ 10 MHz
(Ch 1-4)	1.0 division @ 200 MHz	1.0 division @ 350 MHz	1.0 division @ 500 MHz	1.0 division @ 1 GHz
Trigger Types	Edge, Width, Logic (Pattern), Interval (Signal or Pattern), Dr	opout, Qualified (State or Edg	ge). External input supports E	, Siew Rate, Edge trigger only.
Low Speed Serial Protocol Trigg		T D0000 04NI 1 04NO 0 0	AN ED LIN EL D	
	I2C, SPI (SPI, SSPI, SIOP), UAF	RI-RS232, CANT. I, CAN2.0, C	SAN FD, LIN, FlexRay	
Measure, Zoom, and Math Tools				
Measurement Parameters	Up to 6 parameters can be ca measurements: Amplitude, Ar Fall Time (80%–20%), Frequei Period (50%, @level), Phase, F ATime (@level) Top, ΔWidth ( Measurements can be gated.	rea, Base, Delay, Duty Cycle (5 ncv (50% @level) Maximum	0%, @level), Edge (@level), Fa Mean, Minimum, Overshoot+	all Time (90%–10%), - Overshoot- Peak-Peak
Zooming	Use front panel QuickZoom b			
Math Functions	Up to 2 math functions can b operations: Sum, Difference, F Floor, Integral, Invert, Recipro Spectrum output; Rectangula	Product, Ratio, Absolute Value cal. Rescale. Roof. SinX/x. Sa	e, Average, Derivative, Enhand uare. Square Root. Trend. Zoo	ced Resolution, Envelope.
Display System				
Size	12.1" widescreen capacitive to	ouch screen		
Resolution	1280 x 800 pixels			
Probes				
Standard Probes	1 per channel	PP026 (5 mm), 1 per channel		
Probing System	BNC and Teledyne LeCroy Pro	Bus for active voltage, currer	nt, and differential probes	
Connectivity				
Ethernet Port	1 x 10/100BaseT Ethernet int			
Removable Storage	1 Micro SD port, 16 GB Micro			
USB Host Ports	2 front USB 3.1 Gen1 ports, 2			
USB Device Port External Monitor Port	1 USBTMC over USB 2.0 port 1 HDMI port, supports up to 1	200 v 000 pivolo		
Remote Control	Microsoft COM Automation o		Sat	
Network Communication Standard	VICP or VXI-11, LXI compatible		<u>Jet</u>	
Power Requirements				
Voltage	100 to 240 VAC ±10% @ 50 to		C +10% @ 400 Hz +5% auto	matic ΔC voltage selection
Nominal Power Consumption	90 W / 90 VA	0 00 112 ±10 10, 100 10 120 VA	<u>∪ ±10 % (w 400 ⊓∠ ±0 %, aUl0l</u>	matic Ac voltage selection
Max Power Consumption	150 W / 150 VA			
Environmental Temperature	Operating: 0 °C to +50 °C; Nor	a aparating: -20 °C to 170 °C	<u> </u>	
Humidity	Operating: 5% to 90% RH (nor			on-condensing) at +50 °C:
Altitude	Non-operating: 5% to 95% rela Operating: 3,048 m (10,000 ft	ative humiditý (non-condensii	ng) as tested per MIL-PRF-28	3800F
	operating. 5,040 m (10,000 m	max at 3 20 °C, Norr operati	rig. up to 12,132 meters (+0,0	000 11)
Size and Weight				
Dimensions (HWD)	10.7" H x 14.9" W x 6.3" D (27)	3 mm x 380 mm x 160 mm)		
Weight	11.7 lbs (5.3 kg)			
Certifications				
CE Certification UL and cUL Listing	CE compliant, UL and cUL list CAN/CSA C22.2 No. 61010-1-		(3rd Edition), UL 61010-2-030	0 (1st Edition), and
Warranty and Service				
	3-year warranty; calibration re		nal service programs include	extended warranty,
	upgrades, and calibration serv	vices.		•

# **SPECIFICATIONS**

Symmetry

0% to 100%



WaveSurfer 4024HD WaveSurfer 4034HD WaveSurfer 4054HD WaveSurfer 4104HD

Functions	ilable no charge at teledynelecroy.com/ws4000hd/redeemdvm)  AC <sub>rms</sub> , DC, DC <sub>rms</sub> , Frequency
Resolution	ACV/DCV: 4 digits, Frequency: 5 digits
Measurement Rate	100 times/second, measurements update on the display 5 times/second
Vertical Settings Autorange	Automatic adjustment of vertical settings to maximize the dynamic range of measurements
	n Generator (WS4KHD-FG option only)
General	OF NIII
Max Frequency	25 MHz
Channels	1
Sample Rate	125 MS/s
Arbitrary Waveform Length	16 kpts
Frequency Resolution	1 µHz
Vertical Resolution	14 bits
Vertical Range	±3 V (HiZ); ±1.5 V (50 Ω)
Waveform Types	Sine, Square, Triangle, Pulse, DC, Noise, ARB, Exponential Fall, Exponential Rise, Ramp, Gaussian, Lorentz, Cardiac Haversine
Frequency Specification	
Sine/Haversine	1 μHz - 25 MHz
Square/Pulse	1 μHz - 10 MHz
Ramp/Triangular	1 μHz - 300 KHz
Exponential Fall/Rise	1 μHz - 1 MHz
Gaussian, Lorentz, Cardiac	1 μHz - 5 MHz
Noise	25 MHz (-3 dB)
Resolution	1 μHz
Accuracy	±50 ppm, over temperature
Aging	±3 ppm/year, first year
Output Specification	
Amplitude	4 mVpp - 6 Vpp ( HiZ); 2 mVpp - 3 Vpp (50 Ω)
Vertical Accuracy	±(0.3 dB + 1 mV)
Amplitude Flatness	±0.5 dB
DC Offset	
Range (DC)	±3 V (HiZ); ±1.5 V (50 Ω)
Offset Accuracy	±(1% of offset value + 3 mV)
Waveform Output	
Impedance	50 Ω ±2%
Protection	Short-circuit protection
Sine Spectrum Purity	
SFDR (Non Harmonic) @1.265 Vpp	
DC-1 MHz	-60 dBc
1 MHz - 5 MHz	-55 dBc
5 MHz - 25 MHz	-50 dBc
Harmonic Distortion @1.265 Vpp	
DC - 5 MHz	-50 dBc
5 MHz - 25 MHz	-45 dBc
Square/Pulse	
Rise/Fall time	24 ns (10% - 90%)
Overshoot	3% (typical - 1 kHz, 1 Vpp)
Pulse Width	50 ns minimum
Jitter	500 ps + 10 ppm of period (RMS cycle to cycle)
Ramp/Triangle	
Linearity	0.1% of Peak value output (typical - 1 kHz, 1 Vpp, 100% symmetric)
Symmetry	0% to 100%

### ORDERING INFORMATION



ORDERING INFORM	IAHUN		4096
Product Description	Product Code	Product Description	Product Code
WaveSurfer 4000HD Oscilloscopes		Probes	
200 MHz, 2.5 GS/s, 4 Ch, 12.5 Mpts/Ch	WaveSurfer 4024HD	250 MHz Passive Probe – 5 mm, 10:1, 10 M $\Omega$	PP019
High Definition Oscilloscope		500 MHz Passive Probe – 5 mm, 10:1, 10 M $\Omega$	PP026
with 12.1" capacitive touch screen		250 MHz 60 V Common Mode Differential Probe	DL02-HCM
350 MHz, 2.5 GS/s, 4 Ch, 12.5 Mpts/Ch	WaveSurfer 4034HD	500 MHz 60 V Common Mode Differential Probe	DL05-HCM
High Definition Oscilloscope		1 GHz 60 V Common Mode Differential Probe	DL10-HCM
with 12.1" capacitive touch screen		Power/Voltage Rail Probe. 2 GHz bandwidth, 1.2x att	tenua- RP2030
500 MHz, 2.5 GS/s, 4 Ch, 12.5 Mpts/Ch	WaveSurfer 4054HD	tion, +/-60V offset, +/-800mV	
High Definition Oscilloscope		Power/Voltage Rail Probe. 4 GHz bandwidth, 1.2x	RP4060
with 12.1" capacitive touch screen		attenuation, +/-60V offset, +/-800mV	
1 GHz, 2.5 GS/s, 4 Ch, 12.5 Mpts/Ch	WaveSurfer 4104HD	RP4030 Browser Tip Accessory	RP4000-BROWSER
High Definition Oscilloscope		30 A, 10 MHz Current Probe –	CP030-3M
with 12.1" capacitive touch screen		AC/DC, 30 Arms, 50 A peak pulse, 3-meter cable	
In alcohol with Other days Confirmment and		30 A, 50 MHz High Sensitivity Current Probe – AC/DC, 30 Arms, 50 A peak pulse, 1.5-meter cable	CP030B
included with Standard Configurations  ÷10 passive probes (Qty. 4), Micro SD card (insta	lled), Micro SD card	30 A, 100 MHz Current Probe – AC/DC, 30 Arms, 50 A peak pulse, 1.5-meter cable	CP031
adapter, protective cover, Getting Started Guide, or traceable calibration with certificate, power cable	commercial NIST	30A, 100 MHz High Sensitivity Current Probe – AC/DC, 30 Arms, 50 A peak pulse, 1.5-meter cable	CP031A
country, 3-year warranty	e for the destination	150 A, 10 MHz Current Probe – AC/DC; 150 Arms; 500 A peak pulse, 2-meter cable	CP150B
		150 A, 5 MHz Current Probe –	CP150-6M
Multi-Instrument Options		AC/DC, 150 Arms, 500 A peak pulse, 6-meter cable	OI 100 OIVI
Mixed-Signal Oscilloscope (incl. 16-channel digita	al WS4KHD-MS0	500 A, 2 MHz Current Probe –	CP500
leadset, 22 extra large gripper probes, 20 ground		AC/DC, 500 Arms, 700 A peak pulse, 6-meter cable	<del>, , , , , , , , , , , , , , , , , , , </del>
extenders, 5 flexible ground leads and license)		Deskew Calibration Source	DCS025
Spectrum Analyzer for WaveSurfer 4000HD	WS4KHD-SPECTRUM-1	700 V, 25 MHz High Voltage Differential Probe (÷10,	
WaveSource Arbitrary Waveform Generator	WS4KHD-FG	1 kV, 25 MHz High Voltage Differential Probe	HVD3102A
Serial Trigger and Decode Options		1 kV, 25 MHz High Voltage Differential Probe (without tip accessories)	HVD3102A-NOACC
AudioBus Trigger and Decode	WS4KHD-AUDIO TD	1 kV, 120 MHz High Voltage Differential Probe	HVD3106A
Automotive Bundle: CAN, CAN FD, LIN,	WS4KHD-AUTO TD	1 kV, 80 MHz High Voltage Differential Probe	HVD3106A-6M
FlexRay Trigger and Decode		with 6-meter Cable	
Embedded Bundle: I2C, SPI, UART-RS232 Trigger and Decode	WS4KHD-EMB TD	1 kV, 120 MHz High Voltage Differential Probe (without tip accessories)	HVD3106A-NOACC
rrigger and becode		2 kV, 120 MHz High Voltage Differential Probe	HVD3206A
Power Analysis Options		2 kV, 80 MHz High Voltage Differential Probe with 6-meter Cable	HVD3206A-6M
Power Analysis	WS4KHD-PWR	2kV, 400 MHz High Voltage Differential Probe	HVD3220
		6 kV, 100 MHz High Voltage Differential Probe	HVD3605A
General Accessories		High Voltage Fiber Optic Probe, 150 MHz bandwidth	
Softcase	WS4KHD-S0FTCASE	HVF0100 Universal ±1 V Tip Accessory	HVF0100-1X-TIP-U
Rackmount Kit	WS4KHD-RACK	HVF0100 Universal ±5 V Tip Accessory	HVF0100-5X-TIP-U
		HVF0100 Universal ±10 V Tip Accessory	HVF0100-10X-TIP-U
		HVF0100 Universal ±20 V Tip Accessory	HVF0100-20X-TIP-U
		HVF0100 Universal ±40 V Tip Accessory	HVF0100-40X-TIP-U
		100:1 400 MHz 50 MΩ 1 kV High Voltage Probe	HVP120
		2 kV HV Probe, 6 kV overvoltage capability	PPE6KV-A
		500 MHz, 60 V Common Mode Differential Probe.	DL05-HCM
		Includes standard set of leads and tips.	DI 10 LIOM
		1 GHz, 60 V Common Mode Differential Probe. Includes standard set of leads and tips.	DL10-HCM
		000 MIL OF ETMON CONTROL CONTROL	70000

200 MHz, 3.5 pF, 1 M $\Omega$  Active Differential Probe, ±20 V

500 MHz, 1.0 pF Active Differential Probe, ±8 V

1 GHz, 1.0 pF Active Differential Probe, ±8 V

1.5 GHz, 1.0 pF Active Differential Probe, ±8 V

Tek Probe to ProBus Probe Adapter

**Probe Adapters** 

500 MHz Active Differential Probe (÷1, ÷10, ÷100)

1 GHz, 0.9 pF, 1 M $\Omega$  High Impedance Active Probe

1.5 GHz, 0.9 pF, 1 M $\Omega$  High Impedance Active Probe

<b>TELEDYNE</b> LECROY
Everywhere <b>youl</b> ook <sup>™</sup>

ZD200

ZD500

AP033

ZD1000

ZD1500

ZS1000

ZS1500

TPA10