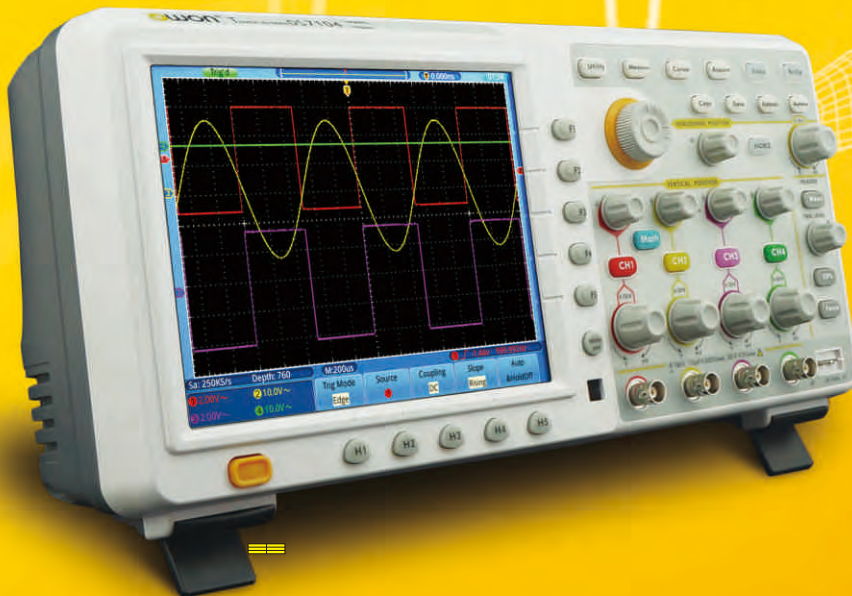




Touch

# TDS Series

Touch Screen Digital Storage Oscilloscope

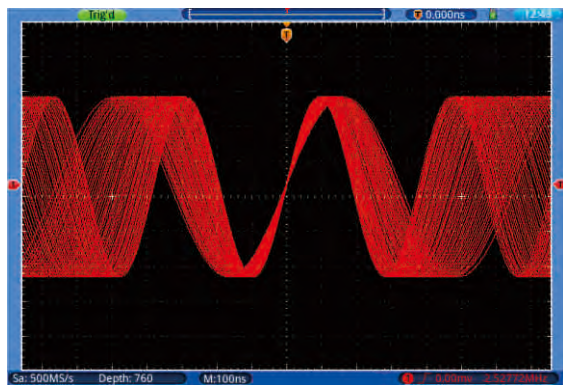
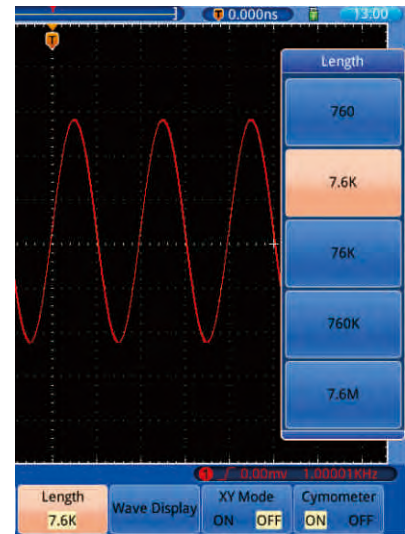


## Main Feature

- + Max 200MHz bandwidth, up to 2GS/s realtime sample rate
- + 7.6M record length
- + 50,000 wfms/s waveform capture rate
- + waveform zooming (horizontal / vertical), and saving
- + FFT points (length, and resolution variable)
- + multi-window extension
- + user-friendly voice warning
- + 8 inch 800 x 600 pixels high def LCD
- + multi- communication interface : USB, VGA, and LAN

### A multi-record length option, max 7.6M

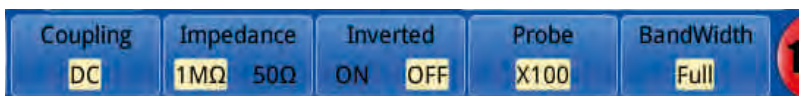
multi-record length option - 760 / 7.6K / 76K / 760K / 7.6M, when at 7.6M record length, single channel still able to maintain 1GS/s sample rate (dual channels @ 500MS/s simultaneously). Deep record length, and high sample rate, adding continual waveform capture capability, all of these get you access to the fine details into the complicated signals, from which to find irregular, occasional events.



### B powerful waveform capture rate

up to 50,000 wfms/s waveform capture rate, restoring random / low-probability event in fine details

### C input impedance selectable - 1M $\Omega$ , and 50 $\Omega$



1M $\Omega$  : suitable for testing / measuring less- super-high frequency, and large voltage signal

50 $\Omega$  : suitable for testing / measuring high frequency, RF signal

### D multi-window extension

double-display, and proportion-zoom realizes waveform detail restoring when observing the whole outline



**E** FFT, and waveform display in the same screen

this function facilitates wave spectrum analyzing, and FFT points option available in 512 / 4K / 32K.



**F** user-friendly help menu

users is able to locate concrete help menu upon with touch control, and gesture-identifying



**G** Common output file formats supported

covering .bmp, .png, .jpg, and .bin, .csv format

**H** Multi- communication interface equipped



**H** Application

electronic circuit debugging  
education and training

circuit testing      design and manufacture  
automobile maintenance and testing

**I** Accessories

The accessories subject to final delivery.



Power Cord



CD Rom



Manual



USB



Probe





Probe Adjust



Soft Bag  
(optional)

## Performance Specifications

Model	TDS7104	TDS8104	TDS8204
Bandwidth	100MHz		200MHz
Channel	4		
Sample Rate	1GS/s	2GS/s	
Waveform Capture Rate	50,000 wfms/s		
Display	8" touch screen color LCD		
Input Coupling	DC, AC, and GND		
Input Impedance	1M $\Omega$ $\pm$ 2%, in parallel with 10pF $\pm$ 5pF; 50 $\Omega$ $\pm$ 1%		
Probe Attenuation Factor	1X, 10X, 100X, 1000X		
Max Input Voltage	1M $\Omega$ input impedance : 400V (PK - PK) (DC + AC, PK - PK) ; 50 $\Omega$ input impedance : 5V (PK - PK) (DC + AC, PK - PK)		
Channel Isolation	50Hz : 100 : 1 ; 10MHz : 40 : 1		
Interpolation	sin(x)/x		
Record Length	7.6M		
Horizontal Scale (s/div)	2ns/div - 100s/div, step by 1 - 2 - 5	1ns/div - 100s/div, step by 1 - 2 - 5	
Interval ( $\Delta$ T) Accuracy (full bandwidth)	Single : $\pm$ (1 interval time + 100ppm $\times$ reading + 0.6ns), Average > 16 : $\pm$ (1 interval time + 100ppm $\times$ reading + 0.4ns)		
Vertical Resolution (A/D)	8 bits resolution (4 channels simultaneously)		
Vertical Sensitivity	2mV/div - 10V/div (at input)		
Analog Bandwidth	100MHz	200MHz	
LF Respond (AC, -3dB)	$\geq$ 5Hz (at input, AC coupling, -3dB)		
Rise Time	$\leq$ 3.5ns	$\leq$ 1.7n	
DC Accuracy	$\pm$ 3%		
Trigger Type	Edge, Pulse, Video, Slope		
Trigger Mode	Auto, Normal, Single		
Trigger Level Range	$\pm$ 6 div from the screen center		
Trigger level Accuracy (typical)	$\pm$ 0.3 div		
Line / Field Frequency (video)	NTSC, PAL, and SECAM standard		
Automatic Measurement	Vpp, Vavg, Vrms, Freq, Period, Vmax, Vmin, Vtop, Vbase, Overshoot, Preshoot, Rise Time, Fall Time, Delay A $\rightarrow$ B  , Delay A $\rightarrow$ B  , +Width, -Width, +Duty, -Duty		
Waveform Math	+, -, $\times$ , $\div$ , invert, FFT		
Waveform Storage	4 reference waveforms		
Lissajous Figure	Bandwidth	full Bandwidth	
	Phase Difference	$\pm$ 3 degrees	
Cursor Measurement	$\Delta$ V, and $\Delta$ T between cursors		
Communication Port	USB host, USB device, VGA, LAN		
Power Supply	100 - 240 V AC, 50/60Hz, CAT II		
Dimension (W $\times$ H $\times$ D)	380 $\times$ 180 $\times$ 115 (mm)		
Weight (without package)	1.50 kg		

Specifications subject to change without prior notice.

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