

# TEXIO

Test and Measurement Solutions

2GS/s Digital Storage Oscilloscope  
DCS-9700 Series Catalog

Digital Storage Oscilloscope

Fast waveform update rate

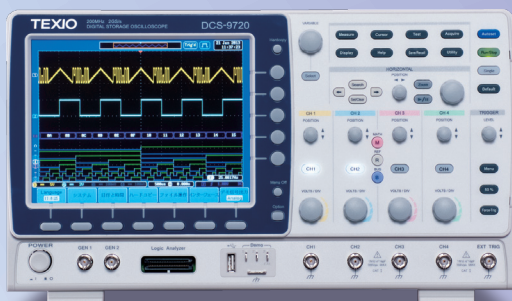
Optional Logic Analyzer / GPIB / LAN / SVGA interface

Flexible design and easy installation at the customers side any time



2GS/s Digital Storage Oscilloscope

## DCS-9700 Series



# Fast waveform update rate Optional Logic Analyzer / GPIB / LAN / SVGA interface Flexible design and easy installation at the customers side any time

The DCS-9700 Series Digital Storage Oscilloscope offers 2 and 4-channel configurations and wide bandwidth selections, including 300MHz, 200MHz, 100MHz and 70MHz. Each model provides 2GSa/s maximum real-time sampling rate, 2Mega point maximum record length and 100GSa/s high-speed equivalent-time sampling rate. Besides Logic Analyzer and Function Generator modules, the DCS-9700 series also provides optional LAN/SVGA Interfaces module and GPIB interface module for user's selection.

## DCS-9700 Series NEW

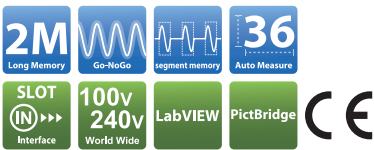
2 GS/ s Digital Storage Oscilloscope



### Interface control



### Features



Line-up			
Model	Channels	Bandwidth	Real Time Sample Rate
DCS-9707	4ch	DC ~ 70MHz (-3dB)	Max 2GS/s
DCS-9710		DC ~ 100MHz (-3dB)	
DCS-9720		DC ~ 200MHz (-3dB)	
DCS-9730		DC ~ 300MHz (-3dB)	
DCS-9707D	2ch	DC ~ 70MHz (-3dB)	
DCS-9710D		DC ~ 100MHz (-3dB)	
DCS-9720D		DC ~ 200MHz (-3dB)	
DCS-9730D		DC ~ 300MHz (-3dB)	

Options	
Model	
DS2-08LA	8 channel Logic Analyzer
DS2-16LA	16 channel Logic Analyzer
DS2-FGN	Function Generator Module
CB-2420P	GP-IB cable

- ### Accessories
- AC Power cord
  - Accessory CD-ROM (Instruction Manual)
  - Probe x 4pcs. or 2 pcs.

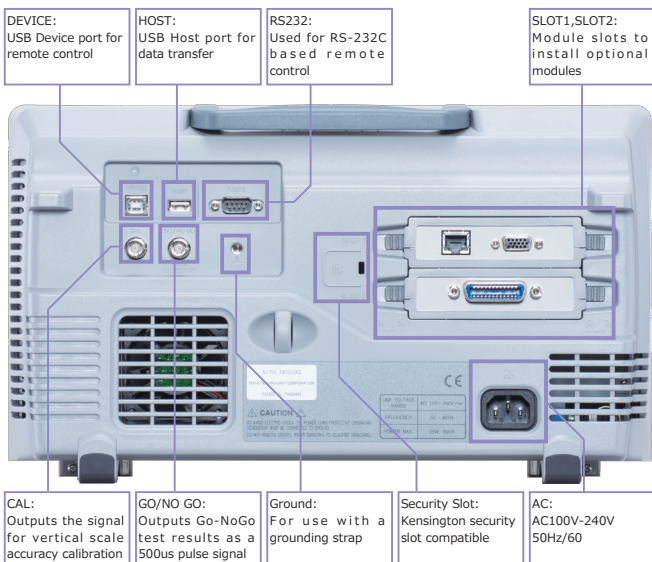
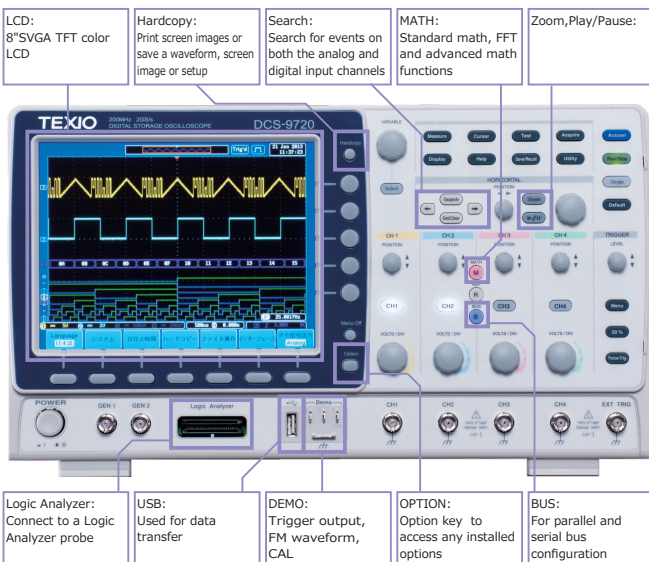
### Interface Options

Model	
DS2-LAN	Ethernet & SVGA output
DS2-GPIB	GP-IB Interface

- ### Software
- USB Driver (Windows XP(32bit),Vista(32bit),7(32bit,64bit))
  - LabVIEW Driver (Windows XP(32bit),Vista(32bit),7(32bit,64bit))

Interface Module	GP-IB	RS-232C	USB	LAN	VGA(Output)
None Module		✓	✓		
DS2-LAN		✓	✓	✓	✓
DS2-GPIB	✓	✓	✓		

### Panel Overview

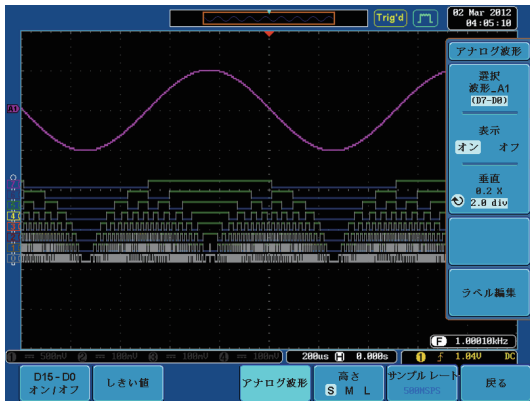




## Features

### ● 8 inch SVGA Display

DCS-9700 series equip with an 8-inch 800\*600 high-resolution TFT LCD display. It's easy to see and precise to display.



### ● 2Mega Point Long Memory

The GDS-2000A series provides 2Mega point record length with Waveform Search and Segmented Memory functions, which greatly enhance the value of long memory utilization of a DSO.

### ● Search function

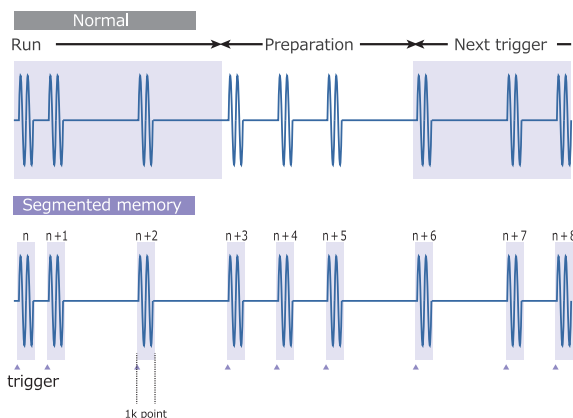
To find the parts of waveforms of interest from a long memory is sometimes a tedious task. With Search function, however, the user can define the search condition by a waveform shape or a digital event to quickly locate and mark the parts of waveforms, which comply with the search condition, from the whole memory. The search condition selections include Edge, Pulse Width, Runt, Rise and Fall Times of the waveform, and Logic and Bus triggers, if the Logic Analyzer option is installed.

### ● Go-NoGo function

The Go-NoGo test checks if a waveform fits inside a user-specified maximum and minimum boundary. Boundary templates are automatically created from a source channel. Boundary tolerances and violation conditions can be set.

### ● Segmented Memory function

The advanced segmented memory utility allows the scope memory to be divided into different segments. Each time the scope is triggered, it only acquires data for one segment of memory at a time. This allows you to use the full potential of the scope one segment at a time. This effectively allows you to capture intermittent signal events while ignoring signal inactivity. The Advanced Segment Memory Utility is applicable for both analog and digital channels.



### ● Ideal for education

Provides easy-to-understand class by using the projector  
VGA output is enabled by using the DS2-LAN options.  
The oscilloscope screen can be displayed on the projector.

DCS-9700 Series  
+ DS2-LAN



### ● 80,000 wfms/s of Waveform Update Rate

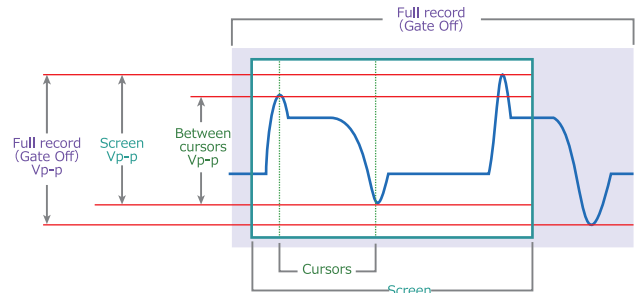
The waveform update rate of 80,000 wfms/s enables users to accurately acquire and examine inrush signals and elusive glitches without missing any detail.

### ● Automatic Measurement

DCS-9700 series perfect provide 36 kinds item, such as Voltage / Current, Time, Frequency and Delay measurement. And can simultaneously measure 8 kinds data in a single screen.

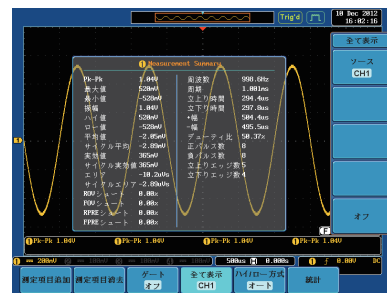
### Gate Mode

Some automatic measurements can be limited to a "gated" area between cursors. Gating is useful for measuring a magnified waveform or when using a fast time base. The Gated mode has three possible configurations: Off (Full Record), Screen and Between Cursors.



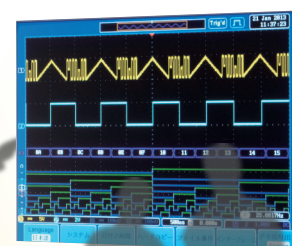
### Display All mode

Display All mode shows and updates all items from Voltage and Time type measurements.



### ● Logic Analyzer Module (Optional)

The DCS-9700 series provides the flexibility of easy conversion from a DSO into a MSO (Mixed Signal Oscilloscope) under a plug-and-play concept. As two plug-in compartments are available at the rear panel to accommodate various plug-in modules, the DCS-9700 series DSO with an 8 or 16 digital channels module performs MSO functions perfectly at the user's installation of the module. The analysis and decoding functions of parallel bus and serial bus such as CAN, LIN, I2C, SPI, and UART are supported after the module is installed.



## Specification

	DCS-9730 / D	DCS-9720 / D	DCS-9710 / D	DCS-9707 / D
<b>Vertical</b>				
Channels	DCS-97xx: 4ch+EXT, DCS-97xxD: 2ch+EXT			
Bandwidth	DC ~ 300MHz	DC ~ 200MHz	DC ~ 100MHz	DC ~ 70MHz
Resolution	8 bit @1MΩ: 1mV*~10V *: When the vertical scale is set to 1mV/div, the bandwidth limit will be set to 20MHz automatically.			
Input Coupling	AC, DC, GND			
Input Impedance	1MΩ // 16pF			
DC Gain Accuracy*	± (5% ×  Readout  + 0.1 div + 1mV) when 1mV/div is selected ± (3% ×  Readout  + 0.1 div + 1mV) when 2mV/div or greater is selected *: The measurement type is average of ≥ 16 waveforms with the vertical position at zero			
Polarity	Normal & Invert			
Maximum Input Voltage	300V (DC+AC Peak), CAT I			
Offset Position Range	1mV/div ~ 20mV/div: ±0.5V 50mV/div ~ 200mV/div: ±5V 500mV/div ~ 2V/div: ±25V 5V/div ~ 10V/div: ±250V			
Waveform Signal Process	+, -, ×, ÷, FFT, FFTrms, d/dt, ∫dt, √ FFT:Spectral magnitude. Set FFT Vertical Scale to Linear RMS or dBV RMS, and FFT Window to Rectangular, Hamming, Hanning, or Blackman-Harris.			
<b>Trigger</b>				
Source	CH1, CH2, CH3, CH4, Line, EXT, D0-D15			
Trigger Mode	Auto (supports Roll Mode for 100 ms/div and slower), Normal, Single			
Trigger Type	Edge, Pulse Width, Video, Pulse Runt, Rise & Fall, Timeout, Alternate, Event-Delay (1~65535 events), Time-Delay (10nS~10S), Logic*, Bus**with Logic Analyzer Option			
Holdoff range	10nS to 10S			
Coupling	AC, DC, LF rej., HF rej., Noise rej.			
Sensitivity	DC ~ 100MHz Approx. 1div or 1.0mV 100MHz ~ 200MHz Approx. 1.5div or 15mV 200MHz ~ 300MHz Approx. 2div or 20mV			
<b>External Trigger</b>				
Range	±15V			
Sensitivity	DC ~ 100MHz Approx. 100mV 100MHz ~ 200MHz Approx. 150mV 200MHz ~ 300MHz Approx. 150mV			
Input Impedance	1MΩ / 16pF			
<b>Horizontal</b>				
Time base Range	1ns/div ~ 100s/div (1-2-5 increments) ROLL: 100ms/div ~ 100s/div			
Pre-trigger	10 div maximum			
Post-trigger	1000 div maximum.			
Accuracy	±20 ppm over any ≥ 1 ms time interval			
Real Time Sample Rate	1CH: 2GSa/s 2CH: 1GSa/s			
ET Sample Rate	100GSa/s maximum			
Record Length	1CH: 2Mpts(10div) 2CH: 1Mpts(10div)			
Acquisition Mode	Normal, Average, Peak Detect, Single			
Peak Detection	2ns (typical)			
Average	Selectable from 2 to 256			
<b>X-Y Mode</b>				
X-Axis Input	Channel 1; Channel 3*			
Y-Axis Input	Channel 2; Channel 4*			
Phase Shift	±3° at 100kHz			
<b>Cursors and Measurement</b>				
Cursors	Amplitude, Time, Gating available			
Automatic Measurement	36 sets: Pk-Pk, Max, Min, Amplitude, High, Low, Mean, Cycle Mean, RMS, Cycle RMS, Area, Cycle Area, ROVShoot, FOVShoot, RPREShoot, FPREShoot, Frequency, Period, RiseTime, FallTime, +Width, -Width, Duty Cycle, +Pulses, -Pulses, +Edges, -Edges, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF, Phase			
Cursors measurement	Voltage difference between cursors (ΔV) Time difference between cursors (ΔT)			
Auto counter	6 digits, range from 2Hz minimum to the rated bandwidth			

<b>Control Panel Function</b>	
Autoset	Single-button, automatic setup of all channels for vertical, horizontal and trigger systems, with undo Autoset
Save Setup	20set
Save Waveform	24set
<b>Display</b>	
TFT LCD Type	8" TFT LCD SVGA color display 800 horizontal × 600 vertical pixels (SVGA)
Display Resolution	800 horizontal × 600 vertical pixels (SVGA)
Interpolation	Sin(x)/x & Equivalent Time Sampling
Waveform Display	Dots, vectors, variable persistence (16ms~10s), infinite persistence
Waveform Update Rate	80,000 waveforms per second, maximum
Display Graticule	8 × 10 divisions
<b>Interface</b>	
RS-232C	DB-9 male connector X1
USB Port	USB 2.0 host port x 2, USB 2.0 device port x 1: full speed, CDC-ACM
Ethernet Port (option)	RJ-45 connector, IEEE802.3 10/100Mbps with Auto-MDIX
Go-NoGo BNC	5V Max/10mA TTL open collector output
SVGA Video (option)	SVGA output
GP-IB (option)	GP-IB module, IEEE488.2 Compatible
Kensington Style Lock	Rear-panel security slot connects to standard Kensington-style lock.
<b>Logic Analyzer (Option)</b>	
Sample Rate	500MSa/s
Bandwidth	200MHz
Record Length	2M max/ch
Input Channels	16 Digital (D15 - D0) or 8 Digital (D7~D0)
Trigger type	Edge, Pattern, Pulse Width, Serial bus (I2C, SPI, UART)
Thresholds	Quad-D0-D3, D4-D7... Thresholds
Threshold selections	TTL, CMOS, ECL, PECL, User Defined
User-defined Threshold Range	±10V
Maximum Input Voltage	±40V
Minimum Voltage Swing	±500mV
Vertical Resolution	1 bit
<b>General / Others</b>	
Multi-language menu	Available
Time clock	Time and Date, Provide the Date/Time for saved data
Dimensions	380mmX220mmX145mm
Weight	4.2kg
Accessory	AC Power cord x1, Probe x4 or x2, ACCESSORY CD-ROM x1, USING THE PRODUCT SAFETY x1
<b>Options</b>	
DS2-LAN	Ethernet & SVGA output
DS2-GPIB	GP-IB Interface
DS2-FGN	DDS Function Generator
DS2-08LA	8-Channel Logic Analyzer with 8-channel Logic Analyzer Testing Probe
DS2-16LA	16-Channel Logic Analyzer with 16-channel Logic Analyzer Testing Probe

# TEXIO

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