

## DCS Series

### DCS-7040

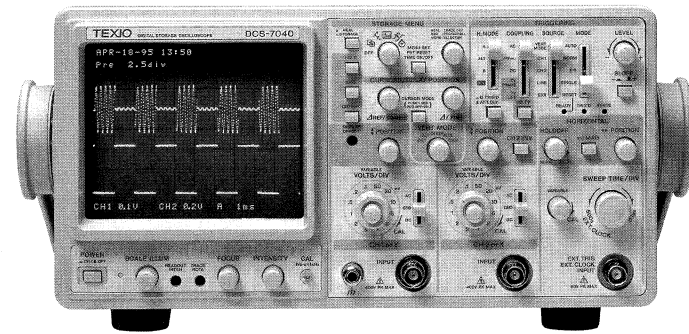
50MHz Real 40MS/s, 2ch Digital Storage Oscilloscope

### DCS-7020

50MHz Real 20MS/s, 2ch Digital Storage Oscilloscope

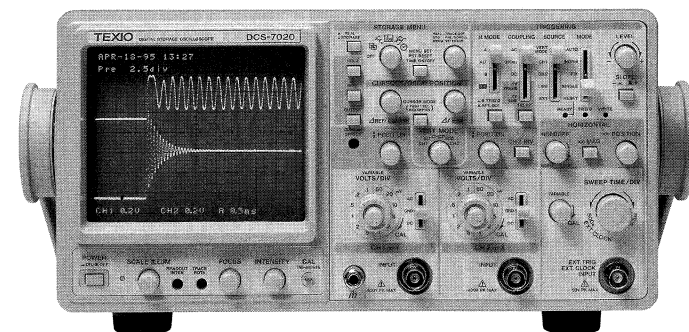
- Maximum sampling rate of 40 MS/s (DCS-7040; 20 MS/s with the DCS-7020) allows advanced waveform observations.
- 4K-word acquisition memories and 2K-word reference memories (backed up by a built-in battery) are provided.
- The peak detector function can detect glitch with pulse duration of 25 ns or more.
- The overwriting function makes for easy measurements of jitter, voltage variation, etc.
- The external clock input can be used to sample asynchronous low-speed signals as required.
- The pre-triggering for storage includes the waveform before the triggered point of up to 20 div.
- DCS-7000 series can be added optionally with GP-IB (IF-10) or RS-232C (IF-20R) interface card.

40MS/s 2 Acquisition 50MHz 2-channel



GP-IB OPTION RS-232C OPTION CE

20MS/s 2 Acquisition 50MHz 2-channel



GP-IB OPTION RS-232C OPTION CE

### DCS-7040/7020 Specifications

#### Real-time mode

Model	DCS-7040	DCS-7020
<b>CRT</b>		
Acceleration voltage	Approx. 12kV	
<b>Vertical axis</b>		
Attenuator	5mV/div. to 5V/div. ±3% 1mV, 2mV/div. ±5%	
Frequency response (DC)	DC to 50MHz(-3dB)(5mV/div. to 5V/div.) DC to 20MHz(-3dB)(1mV/div., 2mV/div.)	
Rise time	7ns max. (5mV/div. to 5V/div.) 17.5ns max. (1mV/div., 2mV/div.)	
Operation modes	CH1, CH2, ADD, ALT, CHOP	
<b>Horizontal axis</b>		
Frequency response (DC)	DC to 1MHz (-3dB)	
<b>Sweep</b>		
Sweep time	A	0.5s/div. to 0.1μs/div. ± 3%
	B	50ms/div. to 0.1μs/div. ± 3%
<b>Triggering</b>		
Triggering modes	AUTO, NORM, FIX, SINGLE	
Coupling	AC, HFrj, DC, TV-FRAME, TV-LINE	

#### Digital storage mode

<b>Vertical axis</b>		
Vertical resolution	8bit (25 dots/div.)	
Dynamic range	± 5div.	
Effective storage frequencies (DC)	DC to 16MHz (sine interpolation)	DC to 8MHz (sine interpolation)
<b>Memory capacity</b>		
NORM	Display memory (data)	2Kword/CH (200dots/div.)
	Acquisition memory	4Kword/CH
Roll	Display memory (data)	2Kword/CH (200dots/div.)
	Acquisition memory	4Kword/CH
<b>Sweep time / display modes</b>		
NORM sampling	0.1ms/div. to 500s/div. (0.1ms/div. to 2 ms [5 ms] /div. in the MAG range) (Max. sampling speed) *1	
	Max. sampling rate 40MS/s	Max. sampling rate 20MS/s
Peak detector	10ms/div. to 500s/div.	20ms/div. to 500s/div.
Roll mode	0.2s/div. to 500s/div.	
<b>Storage mode</b>		
NORM	Data is updated every time when a trigger signal is input	
SINGLE	Data is stored with the first acceptable triggering	
AVE	Average of 4, 16 or 64 times	
PEAK	25ns glitch detection	50ns glitch detection
ROLL	NORM: Continuous recording and updating of data on the CRT SINGLE: After receiving the trigger, the pre-triggering data is updated and the data is stored	
<b>Trigger</b>		
Pre-trigger	NORM: 0 to 20div. (in 2.5div. steps) ROLL-SINGLE: After receiving the trigger, the pre-triggering data is updated and the data is stored	

#### Other

Physical dimension-Figures in parentheses ( ) include protrusions		
Dimensions (W × H × D) mm	300 (347) × 150 (165) × 400 (457.5)	
Weight (kg)	Approx. 9.6	
Environment for guaranteed specification	10°C to 35°C, 85% max. humidity	

\*1 Figures inside [ ] are for the DCS-7020.