



- **Basic functions and performance combined with simple operation and setting**
- **2-channel digital storage with real-time oscilloscope**
  - DC-60 MHz (DS-8607A) /100 MHz (DS-8608A) + 20 MS/s, 8 bits
  - 2-channel simultaneous operation
- **4096-word display of stored waveforms**

**DC – 100 MHz, 2 CH, 20 MS/s (DS-8608A)**  
**DC – 60 MHz, 2 CH, 20 MS/s (DS-8607A)**

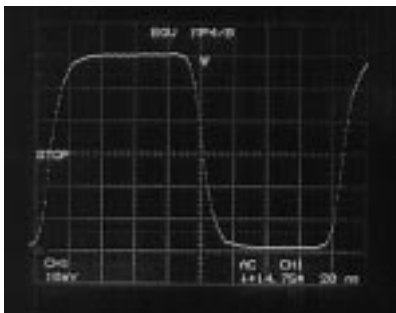
■ **Easy operation/setting, 2-channel digital storage scope with real-time capability**

■ **High-speed auto set-up**

Just pressing the AUTO SET key displays a waveform in the optimum size and position on the CRT screen.

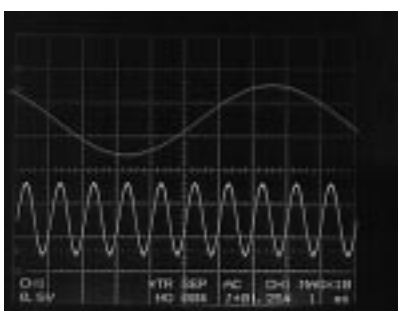
■ **Equivalent sampling of 60 MHz (DS-8607A)/100 MHz (DS-8608A)**

Using the random sampling method, the time resolution is 200 ps (equivalent to 5 GS/s). Also, waveforms before triggering can be observed.



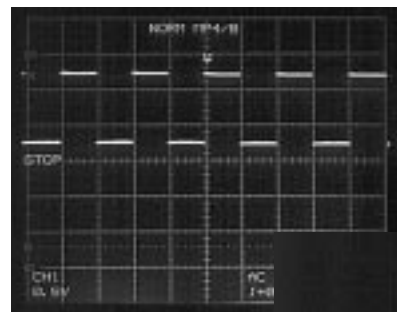
■ **Three levels of magnification (x10, x20, x50)**

With ALT Sweep, simultaneous observation of a x1 and a magnified waveforms is possible.

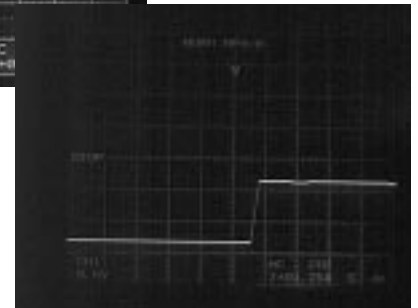


■ **4096 words/ch memory length**

Each channel has a 4096-word acquisition memory, allowing for the observation of waveforms requiring a large memory capacity.



Magnified display



■ **Automatic acquisition mode selection depending on the sweep range**

■ **Automatic sweep mode selection (with 2-ch measurement in real mode)**

■ **CH1 ± CH2 waveform arithmetic operation**

Allows for CH1 + CH2 and CH1 – CH2 arithmetical operations on stored waveforms.

■ **Convenient cursor measurement**

Using two cursors (2 vertical or 2 horizontal), the voltage difference ( $\Delta t$ ), time difference ( $\Delta t$ ) and frequency ( $1/\Delta t$ ) of a specific waveform can be measured.

## Specifications

■ <b>Display</b>			
<b>CRT</b>	6-inch rectangular, internal graticule (with scale illumination)		
<b>Accelerating voltage</b>	approx. 16 kV		
■ <b>Vertical deflection system (common to CH1 and CH2)</b>			
<b>Sensitivity</b>	5 mV/div – 5 V/div 10 steps (1-2-5) 5 mV/div – 12.5 V/div (with variable)		
<b>Accuracy (at real mode)</b>	5 mV/div – 5 V/div $\pm 3\%$		
<b>Accuracy (storage mode)</b>	$\pm(3\% + 1/32 \text{ div})$		
<b>Frequency bandwidth</b>	In the envelope mode, add 3.5% DC – 100 MHz (*60 MHz), –3 dB		
<b>Rise time</b>	3.5 nsec or less (*<5.8 nsec)		
<b>Input coupling</b>	AC, DC, GND		
<b>Input RC</b>	1 M $\Omega$ $\pm 1.5\%$ // 25 pF $\pm 2$ pF (direct) 10 M $\Omega$ $\pm 3\%$ // 13 pF $\pm 2$ pF (using SS-0120 probe)		
<b>Max. input</b>	direct; 400 V (DC + AC peak) using SS-0120; 600 V (DC + AC peak)		
<b>Mode</b>	CH1, ADD, CH2, X-Y (real mode)		
<b>ALT</b>	0.5 msec/div – 20 nsec/div		
<b>CHOP</b>	0.2 sec/div – 1 msec/div		
<b>Signal delay</b>	30 nsec (displayed on CRT, real mode)		
<b>Polarity switching</b>	Possible only for CH2 (real mode)		
<b>CMRR</b>			
<b>1 kHz sine wave</b>	50:1 (at 5 mV/div, real mode)		
<b>20 MHz sine wave</b>	15:1 (at 5 mV/div, real mode)		
■ <b>Triggering</b>			
<b>Source</b>	CH1, CH2, EXT, LINE		
<b>Coupling</b>	AC, DC, HF REJ (>10 kHz), LF REJ, TV-V		
<b>Polarity</b>	+, –		
<b>EXT input</b>			
<b>Level</b>	DC – 10 MHz: 0.1 V 10 MHz – 100 MHz (*60 MHz): 0.25 V		
<b>Input RC</b>	1 M $\Omega$ $\pm 5\%$ // 25 pF $\pm 3$ pF		
<b>Max. input</b>	direct; 400 V (DC + AC peak)		
■ <b>Horizontal deflection system</b>			
<b>Mode</b>	AUTO, NORM, SINGLE		
<b>Sweep system</b>	Normal, magnified (x10, 20, 50), alternate		
<b>Sweep time</b>			
<b>Real mode</b>	20 ns/div – 0.2 s/div 22 steps (1-2-5) 20 ns/div – 5 s/div (with variable)		
<b>Accuracy (real mode)</b>	20 ns/div – 0.2 s/div $\pm 3\%$		
<b>Storage mode</b>	20 ns/div – 5 s/div 27 steps (1-2-5)		
<b>Magnifier</b>	10, 20 or 50 times, selectable		
<b>Fastest sweep</b>	2 ns/div		
<b>Hold-off time</b>	Variable		
■ <b>X-Y operation</b>			
<b>Real mode</b>			
<b>Operating channels</b>	CH1: X, CH2: Y		
<b>Sensitivity</b>	Same as CH1 and CH2		
<b>Bandwidth</b>	DC – 2 MHz, –3 dB		
<b>Phase difference</b>	3° or less through DC – 100 kHz only available for DS-8608A		
<b>Storage mode</b>			
■ <b>CRT read-out</b>			
<b>Read-out</b>	Sensitivity (range, variable) sweep time magnification value value at cursor comment message, etc.		
<b>Cursor measurement</b>	$\Delta V$ (voltage measurement) $\Delta T$ (time measurement) 1/ $\Delta T$		
<b>Comment input</b>	Number of characters: up to 40 characters		
■ <b>Storage mode</b>			
<b>Fastest sampling speed</b>	20 MS/s, simultaneous at both channels		
<b>Vertical resolution</b>	8 bits, 32 points/div, 256 points/8 div		
<b>Memory length</b>	Acquisition memory: 4 kW/ch Display memory: 4 kW/ch x 4		
<b>Frequency bandwidth</b>	EQU: DC – 100 MHz (*DC – 60 MHz), –3 dB (automatically switchable)		
<b>Acquisition mode</b>			
<b>Equivalent sampling</b>	20 ns/div – 10 ms/div		
<b>Sampling method</b>	Random sampling		
<b>Normal sampling</b>	20 $\mu$ s/div – 0.2 s/div		
<b>Roll mode</b>	0.5 s/div – 50 s/div		
<b>Envelope (DS-8608A CH1)</b>	50 $\mu$ s/div – 50 s/div		
<b>Waveform magnification after freeze</b>	Horizontal: x1 – x100 times Mag. point: 0/8 – 7/8 in 10 div, 1/8 step		
<b>Trigger point</b>	0/4 – 3/4 in 10 div, 1/4 step		
<b>Arithmetic function</b>	CH1 +CH2, CH1–CH2 between 20 ns/div – 0.2 s/div		
<b>Averaging</b>	8, 16, 32, 64 or 128 times between 20 $\mu$ s/div – 0.2 s/div		
<b>Max. hold</b>	16, 32, 64, 128 or $\infty$ between 20 ms/div – 0.2 s/div		
<b>Interpolation</b>	LINEAR (at magnifying)		
<b>Save/Recall</b>	Setup: 2 kinds, data: 2 kinds (REF 1, 2)		
■ <b>CH1 signal output</b>			
<b>Output voltage</b>	25 mV/div $\pm 20\%$ (with load of 50 $\Omega$ )		
<b>Frequency bandwidth</b>	DC – 50 MHz, –3 dB (with load of 50 $\Omega$ )		
<b>Output resistance</b>	50 $\Omega$ $\pm 20\%$		
■ <b>Calibrator</b>			
<b>Waveform</b>	Square-wave (duty ratio 49% – 51%)		
<b>Frequency</b>	1 kHz $\pm 5\%$		
<b>Voltage</b>	0.6 Vp-p $\pm 2\%$		
■ <b>Z-axis input (real mode)</b>			
<b>Bandwidth</b>	DC – 1 MHz		
<b>Max. input</b>	50 V peak		
<b>Input resistance</b>	10 k $\Omega$ $\pm 10\%$		
■ <b>Options (factory option)</b>			
<b>Interface DS-520 for GP-IB &amp; RS-232-C</b>	GP-IB (IEEE488.1 – 1987 or compatible) RS-232-C (EIA-232-D or compatible)		
<b>Interface DS-521 for GP-IB &amp; PRINTER</b>	GP-IB (IEEE488.1 – 1987 or compatible) PRINTER (ESC/P or compatible)		
■ <b>Power supply</b>			
<b>Voltage range</b>	AC 90 V – 250 V		
<b>Frequency range</b>	48 Hz – 440 Hz		
<b>Power consumption</b>	MAX 80 watts (operating at AC 100 V)		
■ <b>Dimensions and weight</b>			
<b>Dimensions</b>	Approx. 330(W) x 132(H) x 365(L) mm		
<b>Weight</b>	Approx. 6.8 kg (w/o accessory)		
■ <b>Accessories</b>	Power cord (x1), SS-0120 probe (x2), Fuse (x2), Operational manual (x1), Accessory bag (x1)		
■ <b>Environmental conditions</b>			
<b>Operating temperature</b>	0°C – +40°C		
<b>Performance guaranteed</b>	+10°C – +35°C		
<b>Operating humidity</b>	40°C/90% RH		
<b>Storage temperature</b>	–20°C – +70°C		
<b>Storage humidity</b>	70°C/80% RH		
<b>Pre-heat time</b>	Accuracy is guaranteed after 30 min. since power is on.		

\* for DS-8607A