SPECIFICATIONS

All the specifications in this section are :

1) applicable to the both units of the SS-5706A and the SS-5705A unless otherwise specified.
2) valid within +10°C to +35°C, unless otherwise specified.
3) valid after 30-minute warm-up time.

ELECTRICAL SPECIFICATIONS

Vertical deflection system (Y axis)

Mode: CH1, CH2, ADD
DUAL/TRI (ALT, CHOP), X-Y
CHOP switching frequency: 128 kHz ±1%

CH1 and CH2

Deflection factor: 5 mV/div to 10 V/div in a 1-2-5 sequence of 11 steps
5 mV/div to 25 V/div (continuously variable with VARIABLE)
1 mV/div (PULL x5 MAG)
Accuracy:
5 mV/div to 10 V/div ±2%
1 mV/div ±3%

Frequency response: SS-5706A
5mV/div to 2V/div; DC to 30 MHz; −3dB
1mV/div to 2mV/div; DC to 15 MHz; −3dB
< Note >
• The lower cutoff frequency (−3dB) at AC coupling is 4 Hz.

SS-5705A
5mV/div to 2V/div; DC to 40 MHz; −3dB
1mV/div to 2mV/div; DC to 20 MHz; −3dB
< Note >
• The lower cutoff frequency (−3dB) at AC coupling is 4 Hz.

Rise time: 11.6 ns (SS-5706A)
8.75 ns (SS-5705A)
(Rise time is calculated from "Bandwidth x Rise time = 0.35")

Pulse response: At 5 mV/div
Overshoot : 7%
Sag (at 1kHz) : 2%
Other distortion : 5%

Signal delay: By internal delay cable (only for SS-5705A)

Input coupling: AC, DC, GND

Input RC: 1 MΩ ±2% // 32pF ± 2pF (without probe)
10 MΩ ±2% // Approx. 23pF (with SS-0060 (x10) probe)

Maximum input voltage:
±400V MAX (without probe)
±600V MAX (with SS-0060 (x10) probe)

Drift: 0.5 div/hour (at 5mV/div) or 2.5 div/hour (at 1mV/div) after 30 - minute warmup (typical value)

Common mode rejection ratio:

At 5 mV/div

40: 1 (1 kHz sine wave)

15: 1 (5 MHz sine wave)

Polarity: CH2 only

CH3

Deflection factor: 0.1V/div

Accuracy: ±3%

Frequency response: SS-5706A

DC to 30 MHz; −3dB

< Note >

- The lower cutoff frequency (−3dB) at AC coupling is 4 Hz.

SS-5705A

DC to 40 MHz; −3dB

< Note >

- The lower cutoff frequency (−3dB) at AC coupling is 4 Hz.

Pulse response: Overshoot : 9.0%

Sag (at 1 kHz) : 2.5%

Other distortion : 8.0%

Input coupling: AC, DC

Input RC: 1 MΩ ±2% // 32pF ± 8pF (without probe)

10 MΩ ±2% // Approx. 23pF (with SS-0060 (x10) probe)

Maximum input voltage:

±400V MAX (without probe)

±600V MAX (with SS-0060 (x10) probe)

Triggering

Trigger sensitivity: The value parenthesized is for SS-5705A.

Frequency range	Maximum sensitivity	
	CH1, CH2	CH3
DC to 5 MHz	A : 0.5 div B : 0.7 div	A : 1.0 div B : 1.5 div
5 MHz to 30 (40) MHz	A : 1.5 div B : 2.0 div	A : 3.0 div B : 4.0 div

< Note >

- FIX (only for SS-5705A) is;

1.0 div at 100 Hz to 5 MHz (B: 1.5 div)

2.0 div at 5 MHz to 20 MHz (B: 2.5 div)

- For the trigger level of TV-V and TV-H, the trigger pulse of the synthetic video signal is 1 div. or more. However, it is true when the synthetic signals in a ratio of 7:3 between video signals and trigger signals are entered.
- The trigger signals is attenuated at the frequency of.
  AC : 10 Hz or lower
  HF REJ : 10 kHz or higher
- The lower limit frequency at AUTO mode is 50 Hz.

Trigger source: CH1, CH2, CH3, LINE
(For external trigger, turn the SOURCE switch to CH3.)
Coupling: AC, DC, HF REJ, TV (A Sweep: TV-V, B Sweep. TV-H)
Polarity: Positive (+), negative (—)

Horizontal deflection system (X axis)
Horizontal display: A, A INTEN, B (DLY'D), ALT (SS-5705A only)
A time base
Sweep mode: AUTO, NORM, SINGLE
Sweep rate: 0.1 μs/div to 0.5 s/div in a 1-2-5 sequence of 21 steps
0.1 μs/div to 1.25 s/div (continuously variable with VARIABLE)
Accuracy I : (over center 8 divisions)
±2%
Accuracy II : (over any 2 divisions within center 8 divisions)
±5%
Holdoff time: Variable by the regulator
B time base
Delay: Continuous delay (RUNS AFT DLY) or triggered delay (TRIG'D)
Sweep rate: 0.1 μs/div to 50 ms/div in a 1-2-5 sequence of 18 steps
Accuracy : (over center 8 divisions)
±3%
Delay jitter: 1/20,000 or less
Sweep magnification: 5 times (max. sweep rate: 20 ns/div) (SS-5706A)
10 times (max. sweep rate: 10 ns/div) (SS-5705A)
SS-5706A
Accuracy I : (over center 8 divisions)
±4% at 20 ns/div to 0.1 s/div
Accuracy II : (over any 2 divisions within center 8 divisions)
±9% at 20 ns/div to 0.1 μs/div
±5% at 0.2 μs/div to 0.1s/div
< Note >
- The first 40 ns and the last 40 ns of the sweep are not valid for this specification.

SS-5705A
Accuracy I : (over center 8 divisions)
±4% at 10 ns/div to 50 ms/div

Accuracy II : (over any 2 divisions within center 8 divisions)
±9% at 10 ns/div to 50 ns/div
±5% at 100 ns/div to 50 ms/div
< Note >
- The first 20 ns and the last 20 ns of the sweep are not valid for this specification.

X-Y operation

Input:	X axis: CH1, Y axis: CH2
X axis	
Deflection factor:	Same as CH1
	Accuracy: ±5%
Frequency response:	DC to 2 MHz; −3dB
Input RC:	Same as CH1
Max. input voltage:	Same as CH1
Y axis:	Same as CH2
Phase difference:	Within 3° (at DC to 50 kHz)

External intensity modulation (Z axis)

Min. modulation voltage:	3 Vp-p
Polarity:	Positive-going signal decreases intensity, and negative-going signal increases intensity.
Frequency range:	DC to 3 MHz
Input impedance:	9 kΩ ± 10%
Max. input voltage:	±50V MAX

Signal output

Calibrator	
Waveform:	Square wave
Repetition rate:	1 kHz
	Accuracy: ±1%
Duty ratio:	40% to 60%
Output voltage:	0.3V
	Accuracy: ±1%
CH1 signal output	
Output voltage:	±20% at 50 mV/div (at 50 Ω load)
Bandwidth:	DC to 10 MHz; −3dB (SS-5706A)
	DC to 20 MHz; −3dB (SS-5705A)
Output impedance.	Approx. 50 Ω
CRT	
Shape:	Rectangular, 6 inches

Display area:	8 div x 10 div (1 div = 10 mm) Non-parallax internal graticule with scale illumination
Phosphor:	B31
Accelerating voltage:	Approx. 12 kV

Power supply

Voltage range:	90 to 110/103 to 128/195 to 242/207 to 250V AC Any one of above ranges can be selected by the voltage selector plugs (A, B, C and D).
Frequency range:	50 Hz to 440 Hz
Power consumption:	Approx. 48W (at 100V AC)

WEIGHT AND DIMENSIONS

Weight:	Approx. 7 kg
Size:	(282 ±2) W x (152 ±2) H x (403 ±2) L [mm]

ENVIRONMENTAL CHARACTERISTICS

Operating temperature:	0°C to +40°C
Operating humidity:	90% at 40°C (relative humidity)
Storage temperature:	−20°C to +70°C
Storage humidity:	80% at 70°C (relative humidity)
Altitude:	Operating : 5,000 m, barometric pressure of 405 mmHg Non-operating : 15,000 m, barometric pressure of 90 mmHg
Vibration test:	Start from 10 Hz to 55 Hz and back in one minute. Peak-to-peak amplitude 0.67 mm; for 15 minutes each in vertical, horizontal, and longitudinal directions for a total of 45 minutes.
Shock test:	Raise one side by 10 cm and let it fall onto a piece of a hard wood; 4 times for each side.
Drop test:	Pack the instrument in the transportation corton and drop it from the height of 90 cm.
Warm-up time:	The specifications for SS-5705A/5706A are assured after 30 minutes of warm-up time.

Appearance