

# SPECIFICATIONS

## Cathode Ray Tube

Type:	140CGB31 (Rectangular CRT, internal graticule)
Accelerating voltage:	Approx. 6kV
Scale:	8 div x 10 div (1 div = 9.5mm)

## Vertical Amplifiers (for both CH1 and CH2)

Deflection Factor:	2mV/div - 10V/div $\pm 3\%$ , at 10 - 30°C, $\pm 5\%$ , at 0-40°C
Attenuator:	2 mV/div to 10V/div in 12 calibrated ranges in 1-2-5 sequence. Variable between ranges, $\pm 5\%$ on all ranges
Input impedance:	1M $\Omega$ $\pm 2\%$ Approx. 22pF
Frequency response:	DC DC-35MHz (-3dB) AC 5Hz-35MHz (-3dB)
Risetime:	Less than 10 nsec.
Over-shoot:	Less than 3% (at 100kHz square wave)
Cross-talk:	ALT: -60dB CHOP: -40dB } (at 1 kHz)
Operating modes:	CH1 CH1 only CH2 CH2 only DUAL 2-channel ADD CH1 + CH2 X-Y X axis: CH2 Y axis: CH1

**Dual-trace changeover:** ALT is effected when TRIG SOURCE is in ALT or NORM-CHOP is in NORM and SWEEP TIME/DIV is 0.5ms/div - 0.1 $\mu$ s/div. CHOP is effected (about 350kHz switching) in other modes.  
CH2 only

**Invert polarity:**  
**Maximum input voltage:** 500Vp-p or 250V (DC + AC peak)  
**Signal delay time:** Approx. 10 nsec. (on CRT screen)

## Horizontal Amplifier (CH2 input)

**Operating modes:** X-Y changeover with vertical MODE switch  
CH1 Y axis  
CH2 X axis

**Deflection Factor:** Same as vertical (CH1)  
**Input impedance:** Same as vertical (CH1)  
**Frequency response:** DC DC-2MHz (-3dB), 3MHz (-6dB)  
AC 5Hz-2MHz (-3dB), 3MHz (-6dB)

**X-Y phase difference:** Less than 3° at 100kHz

## Sweep Circuit

Sweep system:	SINGLE	Single sweep
	NOR	Triggering sweep
	AUTO	Triggering sweep and auto free-run sweep at no-signal time.
	FIX	Automatically fixes levels at center of trigger signal.
Sweep time:	0.1 $\mu$ s/div to 0.5 s/div in 21 calibrated ranges, in 1-2-5 sequence. Variable between ranges. Sweep time accuracy: $\pm 3\%$	
Magnifier:	5 times $\pm 5\%$	
Linearity:	Better than $\pm 3\%$ (10% at X5 MAG)	

## Triggering

Source (Internal):	ALT CH1 CH2
Source (External):	EXT 1/10 EXT 1
External triggering input voltage:	50V (DC+AC peak)
Type:	SINGLE, NORM, AUTO Manual sync FIX Auto sync
Slope:	Positive or negative
Coupling:	AC, LF REJ, HF REJ, VIDEO, DC LINE and FRAME are automatically switched by SWEEP TIME/DIV LINE (VIDEO—Line): 0.1 $\mu$ s/div $\sim$ 50 $\mu$ s/div FRAME (VIDEO—Frame): 0.1ms/div $\sim$ 0.5s/div

## Sensitivity:

### Triggering Mode in SINGLE or NORM

Coupling	Bandwidth (Hz)	Minimum Sync Voltage		
		INT (div)	EXT 1/10 (Vp-p)	EXT1 (Vp-p)
AC	50 ~ 15M	0.5	3	0.3
	10 ~ 40M	0.8	3	0.3
VIDEO	VIDEO	1	5	0.5
DC	DC ~ 15M	0.5	3	0.3
	DC ~ 40M	0.8	3	0.3

HF REJ: Attenuate above 100 kHz

LF REJ: Attenuate below 10 kHz

TRIGGERING MODE	Bandwidth (Hz)	Minimum Sync Voltage		
		INT (div)	EXT 1/10 (Vp-p)	EXT1 (Vp-p)
AUTO	100 ~ 15M	0.5	3	0.3
	50 ~ 40M	0.8	3	0.3
FIX	100 ~ 15M	0.5	3	0.3
	50 ~ 40M	0.8	3	0.3

**HOLDOFF:** NORM-MAX (Continuous variability more than ten times)

**Calibrating voltage:** 0.1Vp-p  $\pm 3\%$ , positive polarity, reference level 0V (1kHz  $\pm 3\%$ )

## Intensity Modulation

Input voltage:	TTL level (more than 2.5Vp-p)
Input impedance:	12k $\Omega$
Bandwidth:	DC-5MHz
Maximum input voltage:	50V (DC+AC peak)

**Trace rotation:** Trace angle is adjustable by panel surface adjuster.

## Power Requirements

Power supply voltage:	AC 100/117/220/240V $\pm 10\%$ , 50/60Hz
Power consumption:	Less than 45W

## Dimensions:

CS-1577A

Width	260mm (277mm)
Height	190mm (204mm)
Depth	375mm (440mm)
Width	260mm (260mm)

**Weight:** CS-1577A ..... 9.1kg

## Accessories:

Probe (PC-22)	..... 2
Attenuation 1/10	
Input impedance 10M $\Omega$ , 18pF or less	
Instruction manual	..... 1
Replacement fuse:	
0.5A	..... 2
0.8A	..... 2