# **SPECIFICATIONS**

## Cathode Ray Tube

Type:

C5S106P31B

Acceleration voltage:

2 kV

Scale:

8 div  $\times$  10 div (1 div = 9.5 mm)

## Vertical Amplifier (for Both CH1 and CH2)

#### **Deflection Factor:**

5 mV/div to 20V/div +5%

#### Attenuator:

5 mV/div to 20V/div, 1-2-5 sequence Precisely adjustable in all 12 ranges. Sensitivity error between ranges is ±5%.

#### Input impedance:

1 M $\Omega$  ±2%

### Input capacitance:

Approx. 27 pF

## Frequency response:

DC DC to 20 MHz (less than -3 dB) [5 mV/div  $\sim 10$ V/div]

AC 2 Hz to 20 MHz (less than -3 dB)  $[5 \text{ mV/div}] \sim 10 \text{V/div}$ 

#### Risetime:

Less than 17.5 nsec.

### Overshoot:

Less than 3% (at 100 kHz square wave)

### Cross-talk:

ALT Less than -60 dB CHOP Less than -50 dB

## Operating modes:

CH1 CH1 only CH2 CH2 only

ALT 2-channel with ALT (alternate sweep)

CHOP 2-channel with CHOP

ADD 2-channel algebraic sum (CH1 + CH2)

### **CHOP** frequency:

Approx. 200 kHz

### Maximum input voltage:

600 Vp-p or 300V (DC + AC peak)

#### Invert polarity:

CH2 only

## Sweep Circuit

## Sweep system:

Triggering sweep and auto sweep (free-running sweep at no-signal time)

### Sweep time:

 $0.5\mu s/div$  to .5s/div  $\pm 5\%$  and X-Y, 1-2-5 sequence

Fine adjustment in all 19 ranges

### Magnification:

10 times  $\pm 5\%$  (PULL  $\times$  10 MAG)

#### Linearity:

Better than 3% (2  $\mu$ s/div to 0.5s/div) Better than 5% (0.5  $\mu$ s/div to 1  $\mu$ s/div) Better than 10% (  $\times$  10 MAG)

## Triggering

### Source:

INT. CH1. CH2. LINE. EXT

### Slope:

NORM Positive and negative

VIDEO Positive and negative (LINE and FRAME automatically selected by SWEEP TIME/DIV)

LINE (TV-line): 0.5  $\mu$ s/Div to 50

us/div

FRAME (TV-Frame): 0.1 ms/div to 0.5s/div

### Sensitivity:

Trigger Type	Bandwidth	Minimum Sync Voltage	
		INT	EXT
NOR	50 Hz∼15 MHz 20 Hz∼20 MHz	0.5 div 1.0 div	0.5 Vp-p 1.0 Vp-p
AUTO	50 Hz∼15 MHz 20 Hz∼20 MHz	0.5 div 1.0 div	0.5 Vp-p 1.0 Vp-p
VIDEO	VIDEO signal	1.0 div	1.0 Vp-p

## External triggering input voltage:

50V (DC + AC peak)

## Horizontal Amplifier (CH2 input)

## Operating modes: (Except × 10 MAG)

X-Y mode is selected by SWEEP TIME/DIV.

CH1: Y axis CH2: X axis

#### **Deflection Factor:**

Same as CH1 (5 mV/div to 20V/div  $\pm$ 5%)

## Frequency response:

DC DC to 2 MHz (less than -3 dB) AC 2 Hz to 2 MHz (less than -3 dB)

### Input impedance:

Same as CH1 (1 M $\Omega$  ±2%)

### Input capacitance:

Same as CH1 Approx. 27 pF

## X-Y phase difference:

Less than 3° at 70 kHz

Calibrating Voltage	Dimensions		
0.1V ±3% (at reference level OV)	Width:		
1 kHz ±3% (square wave, positive)	260 mm (277 mm)		
Intensity Modulation	Height:		
Input voltage:	190 mm (204 mm)		
TTL level	Depth:		
Input impedance:	328 mm (393 mm)		
15 kΩ ±20%	Figures in ( ) show maximum sizes.		
Bandwidth:	Weight:		
DC to 5 MHz	8.4 kg		
Maximum input voltage:			
50V (DC $+$ AC peak)	Accessories		
Trace Rotation  Trace angle is adjustable by panel surface adjustor.	Probe (PC-22)		
Power Requirements	Input capacitance: Less than 18 pF		
Power supply voltage: 100/120/220/240V ±10%, 50/60 Hz	Instruction manual		
Power consumption: 47W	0.5A		