

## 10. SPECIFICATIONS

### CRT

#### Type

6" screen with internal graticule

Approximate 2kV acceleration potential

#### Phosphor

P31 standard

#### Graticule

8 × 10 div (div = 10 mm)

Internal graticule

#### Focussing

Possible

#### Trace rotation

Provided

#### Brightness adjustment

Possible

### Z-AXIS INPUT (INTENSITY MODULATION)

DC-coupled, positive-going signal decreases intensity:  
5Vp-p signal causes noticeable modulation at normal  
intensity: DC to 2MHz

**Input impedance** 47 kohm (typ.)  
**Maximum input voltage** 30 V(DC +peak AC)

### **VERTICAL DEFLECTION SYSTEM (2 identical channels)**

#### **Bandwidth and rise time**

DC to at least 20 MHz and rise time 17.5 ns or less DC to at least 7 MHz and rise time 50 ns or less at magnifier extends. The AC coupled lower -3dB point is 10 Hz or less.

#### **Deflection factor**

5mV/div to 5V/div in 10 calibrated steps in a 1-2-5 sequence. Uncalibrated continuous control extends deflection factor to at least 12.5 Volts per division in the 5 Volts/div position. x5 magnifier increases sensitivity of each deflection factor setting to 1mV/div.

#### **Accuracy**

±3%  
Additional error for magnifier ±2%.

#### **Display modes**

CH1, CH2 (normal or invert), Alternate, Chopped (approximate 250kHz), Added

#### **Input impedance**

Approximately 1 MΩ in parallel with 25 pF

#### **Maximum input voltage**

300V (DC + peak AC) or 500 Vp-p AC at 1kHz or less

#### **Input coupling**

AC, GND, DC

### **HORIZONTAL DEFLECTION SYSTEM**

#### **Time base**

0.2μs/div to 0.2s/div in 19 calibrated steps in a 1-2-5 sequence. Uncalibrated continuous control extends deflection factor to at least 0.5 seconds per division in the 0.2 sec/div position. x10 mag extends maximum sweep rate to 100 ns/div.

#### **Accuracy**

±3%  
Additional error for magnifier ±2%

### **TRIGGERING SYSTEM**

#### **Trigger modes**

Automatic, Normal, TV (TV-H or TV-V)

**Trigger source**

V-212 : Internal (Ch1, Ch2, V-MODE), Line, External

V-211 : Internal, Line, External, EXT-H

**Trigger slope**

+, -

**TV sync polarity**

TV (-)

**Triggering sensitivity and frequency**

Frequency	Internal (V-MODE)	External
20 Hz – 2 MHz	0.5div (2.0 div)	200 mV
2 MHz – 20 MHz	1.5 div (3.0 div)	800 mV

(V. MODE): V-212 only

TV-V sensitivity: SYNC section less than 1 div or 1V

AUTO low band: Approximately 25 Hz

**Trigger coupling**

AC : 20 Hz to full bandwidth

**External trigger input impedance**

Approximately 1 M $\Omega$  in parallel with 25 pF  
[X-Y ; about 100 k $\Omega$  (V-211 only)]

**Maximum input voltage**

300V (DC + peak AC)

**X-Y OPERATION (CH1 ; Horiz, CH2; Vert)****Deflection factor**

Same as vertical deflection [X-axis : about 200 mV/div]

**X-bandwidth**

DC to at least 500kHz

**Phase error**

3° or less from DC to 50kHz [ DC to 10 kHz ]

**CALIBRATOR**

An approximate 1kHz 0.5V  $\pm 3\%$  square wave

**SIGNAL OUTPUT****CH1 VERT SIGNAL OUTPUT**

Output voltage is at least 20 mV/div into a 50 ohm load.  
Bandwidth is 50 Hz to at least 5 MHz.

**POWER SUPPLY**

Approx. 6 kg (13.5 lbs)

VOLTAGE (50/60Hz)	FUSE
100 V ( 90 – 110 V)	2A
120 V (108 – 132 V)	2A
220 V (199– 242 V)	1A
240 V (216– 264 V)	1A

**Power supply frequency:** 50, 60, 400 Hz**Power consumption:**      Approx. 30W  
   Max. 40W at 120V 60Hz**ENVIRONMENT**

Limit of operation temperature	0 to +40°C (32 to 104°F)
Limit of operation humidity	35 to 85%
Rated range of use temperature	+10 to +35°C (50 to 95°F)
Rated range of use humidity	45 to 85%
Storage and transport temperature	-20 to +70°C (-4 to +158°F)

**DIMENSIONS AND WEIGHT**

Approx.    310(W) × 130(H) × 370(D) mm  
              (12.4(W) × 5.2(H) × 14.8(D) inches)