



DS-203- 20MHz DIGITAL STORAGE OSCILLOSCOPE



20 Mhz. Digital Storage Oscilloscope

- * MAX. SAMPLING RATE 1000MHz/SEC.
- * FULL RANGE DSO TIMEBASE(0.5S/DIV TO 0.1US/DIV)
- * SLOW MAG. (x100) MAX. 50S/DIV.
- * EQUIVALENT MODE BANDWIDTH 20MHz
- * PRE-TRIGGER 0%, 25%, 50%, 75%.
- * MEMORY 2x2048x8 BIT.
- * ROLL, SINGLE, X-Y OPERATION.

CATHODE RAY TUBE

6 inch diagonal, rectangular screen with internal graticule 8 x 10 DIV (1 DIV = 1 cm). P31 phosphor, 2.1kV accel voltage.

VERTICAL AMPLIFIERS (CH 1 and CH 2)

Sensitivity:

5 mV / div to 5 V / div (X1 mode).

1 mV / div to 1 V / div (X5 mode).

1-2-5 sequence, 10 step attenuator. Vernier control provides fully adjustable attenuation between steps.

Accuracy: ± 3% (X1 mode). ± 5% (X5 mode).

Input Resistance: 1 M Ω [± 2 %

Input Capacitance: 25 pF ± 10 pF

Frequency Response:

5 mV to 5 V / div (CAL.): DC to 20 MHz (-3dB).

1 mV / div (CAL.): DC to 5 MHz (-3dB).

Rise Time: Approximately 17.5ns.

Operating Modes : CH 1. CH 2. ALT. CHOP. ADD.

Polarity Reversal (Invert): CH 2 only.

Maximum Input Voltage: 400 V dc + ac peak.

Maximum Undisturbed Amplitude

DC-to-20- MHz: 4 divisions.

DC-to-10- MHz: 8 divisions.

HORIZONTAL AMPLIFIER

(Input through channel input)

X-Y mode: switch selectable using X-Y switch.

CH 1: X axis.

CH 2: Y axis.

Sensitivity: 1mv/div to 5v/div

Accuracy's-Axis: ± 3%, X-Axis: ± 6%

Input Impedance: 1M Ω // 25PF



Frequency Response:DC to 1 MHz typical (-3dB).

X-Y Phase Difference:Approximately 3° at 50 KHz.

Maximum Input Voltage:400Vdc+ac peak

SWEEP SYSTEM

Sweep Speed:

0.1 μ s / div to 0.5 s / div in 1-2-5 sequence, 21 steps.

Vernier control provides fully adjustable sweep time between steps.

Accuracy: $\pm 3\%$

Sweep Magnification:

10x, $\pm 6\%$ (0.1 μ s and 0.2 μ s ranges uncelebrated when

X10 is engaged).

Holdoff:

Continuously adjustable from NORM to 5 times normal.

TRIGGERING

Trigger Modes:AUTO (free run) or NORM

Trigger Source:CH 1, CH 2, ALT, EXT, LINE.

Maximum External Trigger Voltage:300 V dc + ac Peak

Trigger Coupling:

AUTO(AC):30 Hz to 30 MHz

TV-H(AC):Used for triggering from horizontal sync pulses.

TV-V(DC): Used for triggering from vertical sync pulses.

DIGITAL STORAGE FACILITIES

Memory:2K words per channel(2 x 2048 x 8 bit)

Maximum Sampling Rate:1000MHz/sec

(Equivalent 0.1"fs/div)

Vertical Resolution:8 Bit (25 Levels/div)

Vertical Accuracy:5mV/div - 5V/div: $\pm 3\%$

1mV/div: $\pm 5\%$

Horizontal Resolution:

2048 points for 10 div.

DSO Timebase:0.1 μ s/div to 0.5s/div(21 Range).

Accuracy: $\pm 3\%$ (0.1 μ s and 0.2 μ s range Uncalibrated)

Slow:x100.10ms/div ~ 0.5s/div (6 Range). extern to 50s/div.

Equivalent Mode Range:50 μ s/div to 0.1us/div (9 Range).

Equivalent Mode Bandwidth:20 MHz (-3dB)

Roll Mode Range:

0.5s/div to 10 ms/div (6 Range).x 100 extend to 50s/div.

Real Time Sampling Rate: 10 MHz/sec.

Operating Mode:

Roll. Save ALL. Save CH 2. X-Y. Single.

Pre-Trig(0%.25%.50%.75%) Plot out.

CH1 out put : 0.2 V/div

CH2 out put: 0.2V/div

Plot: 1 / 10 of time/div setting.

Trace Rotation

Electrical, front panel adjustable.

Power Requirements:

115/230VAC $\pm 10\%$, 50 / 60 Hz,approximately 60 W.

Dimensions:324 x 132 x 398 mm(12.8 x 5.2 x 15.6").

Weight:Approximately 8.5kg (18.7 lbs).

C E STANDARD:

E.M.C. Regulations-1992 (E.C.Directive 89/336/EEC)

EN 50081-1 Emissions.

EN 50082-1 Immunity.