

20MHz Dual Trace Oscilloscope



Features

- ★ DC - 20MHz Bandwidth
- ★ 1mV/div Sensitivity on Both Channels
- ★ CH1, CH2 (Independent Channels), CH1 & CH2 (Alternate / CHOP), CH2 INVT, ADD and SUBTRACT
- ★ X-Y Operation
- ★ 40ns/div to 0.2s/div Time Base
- ★ 140mm Rectangular CRT with Internal Graticule
- ★ Triggering to 40MHz
- ★ Z Modulation (TTL Level)
- ★ 8 x 10 cm Display
- ★ TV Triggering Frame (V) & Line (H)
- ★ Line Trigger
- ★ Component Tester

Specifications

VERTICAL DEFLECTION

Deflection Coefficient (CH1 & CH2)	: 1mV/div to 20V/div. 5mV/div to 20V/div in 12 calibrated steps in 1-2-5 sequence. x5 magnification increases sensitivity to 1mV/div and 2mV/div (LED indication).
Accuracy	: $\pm 3\%$.
Bandwidth	: DC - 20MHz (-3dB), dc coupled. 10Hz - 20MHz (-3dB), ac coupled. DC - 28MHz (-6dB).
Rise Time	: 17.5nsec or less.
Display Modes	: CH1, CH2, CH1 & CH2 Alternate or Chop mode & X-Y, CH1-Y, CH2-X, Algebraic ADD and SUBTRACT with CH2-INVT.
Input Impedance	: 1M ohms & 25pF (approx).

Maximum Input Voltage : 500 Volts (dc + peak ac).

Internal Trigger Signal : CH1 or CH2.

TIME BASE

Sweep Speed	: 18 calibrated steps. 0.5 μ S/div to 0.2S/div in 1, 2 & 5 sequence.
Sweep Magnifier	: x5 Magnification extends the sweep speed to 100nS/div. x5 Magnification indication with LED.
Accuracy Variable	: $\pm 3\%$. : Uncalibrated continuously variable control between steps, extends fastest sweep speed to 40nS/div (approx). (Uncal LED indication).

TRIGGER SYSTEM

Triggering Mode	: Automatic or Normal with Level Control.
Source	: CH1 / CH2 / LINE / EXT.
Slope	: Positive or Negative.
Coupling	: ac / dc / HF reject or TV Frame / TV Line.
Trigger Sensitivity	:
Internal	: AUTO 0.5 div 30Hz - 20MHz NORM 0.5 div 3Hz - 20MHz.
External	: AUTO 0.8V p-p 30Hz - 20MHz NORM 0.8V p-p 3Hz - 20MHz. (TYPICAL 40MHz).

HORIZONTAL DEFLECTION

Deflection	: Same as CH2.
Coefficient	
Bandwidth	: DC - 2.5MHz (-3dB). Phase shift <3 deg. at 60KHz.
Input Impedance	: 1M ohms and 25pF (approx.).

COMPONENT TESTER

Component Tester allows V-I characteristics of a Device - Under Test (D.U.T.).

Test Voltage	: 8.6 V r.m.s.
Test Current	: 28 mA max.
Test Frequency	: 50Hz or 60Hz (MAINS).

GENERAL INFORMATION

Cathode Ray Tube	: 140mm Rectangular screen, Internal Graticule, 8 x 10 cm, P43 phosphor. Accelerating potential : 2KV.
Trace Rotation	: Front Panel control, allows $\pm 5^\circ$ of trace adjustment.
Z - Modulation	: TTL level.
Calibrator	: Provides 0.2V $\pm 1\%$, 1KHz (approx) squarewave output for probe compensation.
Power Requirement	: 230V AC $\pm 10\%$, 47-65Hz, 40VA or 115V AC $\pm 10\%$ (on request).
Dimensions	: 165 (H) x 320 (W) x 420 (D) mm approx.
Weight	: 8 Kgs. approx.
Standard Accessories	: Instruction Manual - 1 No. Input Lead BNC to Crocodile - 2 Nos. Component Test Lead (Set) - 1 No.
Optional Accessories	: High impedance switch probe with x1 or x10 Attenuation (Model 306), Trolley (Model 304).
Environmental Specifications	: Normal : 10°C to 40°C RH 85%. Operational : 0°C to 50°C RH 85%.

WE PURSUE A POLICY OF CONTINUOUS DEVELOPMENT AND PRODUCT IMPROVEMENT. THUS THE SPECIFICATIONS IN THIS DOCUMENT AND THE LOCATION OF CONTROLS ON THE FRONT PANEL MAY BE CHANGED WITHOUT NOTICE.