

Product Name :
Oscilloscope / Demonstrator Trainer

Product Code :
NLAB-ELECTRONICSAB210028

Description :

Oscilloscope / Demonstrator Trainer

Technical Specification :

Oscilloscope Demonstrator Trainer is specifically designed for the study of working of an oscilloscope in an open form. The Controls are placed actually at the place as they are in the layout schematic. Thus a trainee can easily locate any section, & components in the section and study it thoroughly. The function controls and the adjustment controls are fully accessible to the trainee to verify their effect on the working of the scope. Creation of Faults and rectification of faults are important exercise covered in the experiments. An illustrated Block and Circuit Schematic and the adjustment plan right in front of the trainee's eyes helps him to correlate each operation during the demonstration.

Oscilloscope in open form with all components and

controls placed on single PCB

Amplifier, Time base, Channel section signal available on test points

Separate sections for PS, EHT, VA, HA, TB &

Trigger for easy identification

Fault creation & rectification provided

Track printing with different colours on different sections on component board for easy circuit training

Legend Printing on PCB for easy identification of components

Can be used as a standard 20 MHz Dual Trace Oscilloscope

Technical Specifications

Operating Modes

Channel I, Channel II, Channel I & II Alternate or chopped, Controls provided on PCB. Channel selection signals available at Test points. X-Y operation 1:1

Vertical deflection (Y):

(Identical channels)

Bandwidth : DC-20 MHz (-3 dB)

Risetime : 17.5 ns (approx.)

Deflection coefficients : 12 calibrated steps 5 mV / cm - 20 V / cm (1-2-5 sequence)

Accuracy : ± 3 %

Input Impedance : 1 MW || 30 pF

Input coupling : DC - AC - GND

Maximum Input voltage : 350 V (DC + Peak AC) Pre-Amp, Final Amp Outputs at Test Points.

Timebase:

Time coefficients : 18 calibrated steps, 0.5 μ s / cm - 0.2 s / cm (1-2-5 sequence) with magnifier x 5 to 100 ns / cm, with variable control to 40 ns / cm

Accuracy : ± 3 % (in Cal position) TB generation at Test Points Sweep Output : 5 V (approx.)

Trigger System:

Modes : Automatic or Variable

Source : CH I, CH II, External

Slope : Positive or Negative

Coupling : AC, TV Frame

Sensitivity : Int 5 mm, Ext 1 V (approx.)

Trigger Bandwidth : 30 Mhz

Horizontal Deflection (X)

Bandwidth : DC - 2 MHz (-3 dB)

X - Y mode : Phase Shift $< 5^\circ$ at 50 KHz

Deflection coefficients : 12 calibrated steps 5 mV / cm - 20 V / cm (1-2-5 sequence)

Input Impedance : 1 MW || 30 pF

Component Tester :

Test Voltage : Max 8.6 V (Open) rms

Test Current : Max 8 mA (Shorted) rms

Test Frequency : 50 Hz, Test circuit grounded to chassis

General Information

Cathode Ray Tube : 140 mm Rectangular medium short persistence (P31)

Accelerating potential : 1.9 KV (approx.)

Display : 8 x10 cm

Calibrator : Square Wave generator 1 KHz (approx.), 0.2 V \pm 1% for probe compensation

Z Modulation : TTL level

Stabilized Power Supply : All operating voltages including the EHT

Power Supply : 220 V \pm 10 %, 50 Hz / 60 Hz on request

Power Consumption : 40 VA (approx.)

Operating Temp. : 0-40°, 95 % RH

Finish : Off white with side handle

Fault Simulation : Total 15 Faults included

Included Accessories :

DMM 1 No., Manual 1 No., Student manual 1 No., BNC-BNC Cable 1 No.,

BNC - Probe tip Cable 1 No., Test Prods 1 pair., Additional Jumpers 10

Optional Accessories : Switchable Probe X 1 - X 10

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