

Product Name :
Spectrum Analyzer Application Demonstration Trainer

Product Code :
NLAB-ELECTRONICSAB210023

Description :

Spectrum Analyzer Application Demonstration Trainer

Technical Specification :

The Trainer has been specially designed for learning how to use a Spectrum Analyzer for Frequency and Level Measurements and Tracking Generator applications like HF Filters and Amplifier Response, Channel Modulation, Mixers, study of Mobile and Cordless signals and study of Harmonics in sine, square & triangular waves. TV & FM transmitted signals can be analyzed on Spectrum Analyzer using this Trainer and audio output can be heard on the speaker mounted inside the trainer.

Technical Specifications

Housing :

All experiments are housed in a single attractive box which is self contained, ready to use having built- in DC power supplies.

Experiments :

The manual describes 18 experiments that can be performed with this trainer and Spectrum Analyzer.

Application I

Filter Responses : Four filters, very precisely designed for checking filter responses on Spectrum Analyzer.

Types of filters are :

1. Low pass Filter (Cut off 115 MHz approx.)

2. High pass Filter (Cut off 100 MHz approx.)
3. Wide Band pass Filter (Cut off 25 MHz - 280 MHz approx.)
4. Notch Filter or narrow band reject filter (Cut off 95 MHz-160 MHz approx.)

Application II

DC Amplifier Frequency Response : A well designed DC Amplifier having 3 dB cut off bandwidth of approx. 130 MHz

Application III

Harmonic Display & Analysis : A Function Generator of frequency range approx. 40 KHz - 400 KHz (Low) and 200 KHz - 2 MHz (High) having sine, square, & triangular output with frequency variation and output level variation (Max.1 V). Any one output can be given to Spectrum pp Analyzer for harmonic display.

Application IV

Cable TV application : Three channel modulator (channel 4, channel 8, & channel 12) & one mixer is cascaded. Channel modulations have Audio and Video inputs. The output of modulators and mixer can be seen on Spectrum Analyzer.

Application V

Live signal Application :

Four types of signal can be seen on Spectrum Analyzer

1. Mobile phone forward and reverse link frequency
2. Cordless phone Transmitting and receiving frequencies
3. FM Radio Reception (Demodulated Audio output)
4. TV signal Reception (Demodulated Audio output)

Demodulated output from Spectrum analyzer is given to the built- in speaker via Audio amplifier. A built in telescopic Antenna is provided with Spectrum Analyzer for catching signals

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

Power Consumption : 2 VA (approx.)

Included accessories : Telescopic Antenna 1 No. Patch Cord BNC Cable 2 Nos. Phono jack connector Manual

Mains Cord

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