

EC-800 BASIC RF TRAINER

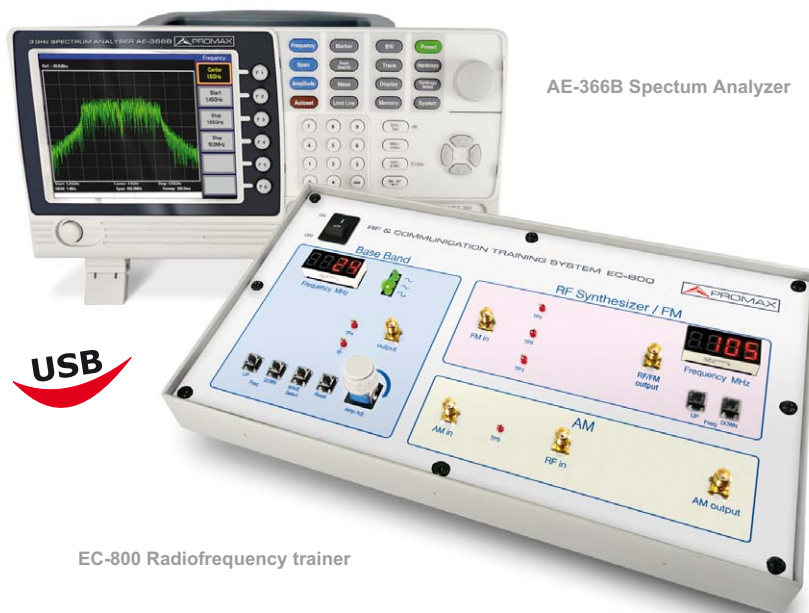
RF Trainer

The **EC-800** basic radio frequency trainer from PROMAX is a valuable addition to our telecommunications education equipment.

Designed as a compact, all-in-one desktop unit, it allows students to explore essential AM and FM modulation parameters through practical exercises.

The working frequencies of the carriers reach up to 920 MHz and can be modulated by sinusoidal, square, or triangular signals of up to 3 MHz.

The trainer's diverse practical applications offer the student a comprehensive array of possibilities for manipulating and measuring basic modulation circuits.

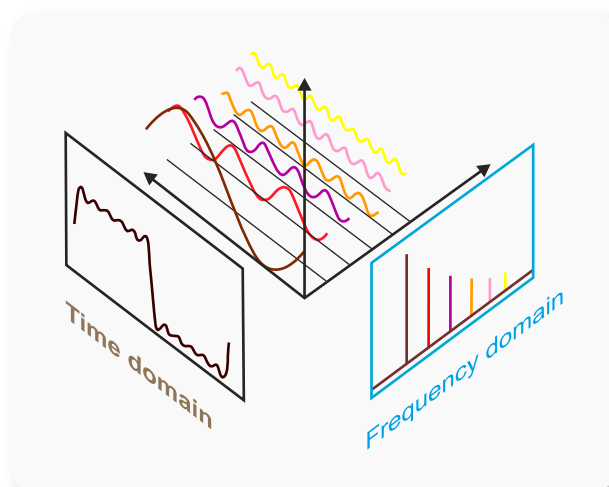


- ✓ **Intended for Vocational Training Programs in Telecommunications at both Intermediate and Advanced Levels.**
- ✓ **Electronic Maintenance Training.**
- ✓ **Application of the Spectrum Analyzer within a communication system.**
- ✓ **Production line applications. (Enable remote Pass/Fail test result acquisition, optimizing Spectrum Analyzer usage.)**

For radio frequency work, the essential tool is a Spectrum Analyzer. The **EC-800** works in tandem with PROMAX's new, affordable spectrum analyzer, the **AE-366B**. For the design of the practical exercises, we utilized this analyzer, which offers a range up to 3 GHz and is particularly suitable for educational settings due to its user-friendly interface and excellent price-performance ratio.

Thus, the **EC-800** together with the **AE-366 B** analyzer form an RF educational environment well suited for **Intermediate and Advanced Vocational Training in Telecommunications**, as well as **Electronic Maintenance Training**, which requires a minimum understanding of very diverse disciplines, including RF.

The equipment comes with a student and teacher practice manual, focusing particularly on the essential theory for working with high-frequency signals.



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RF Communication and Exercises

EXERCISE 1

Spectrum Analyzer: Basic operations

EXERCISE 2

Baseband waveform measurement

EXERCISE 3

Various Baseband waveforms and their Harmonics

EXERCISE 4

RF carrier measurement

EXERCISE 5

AM signal measurement

EXERCISE 6

FM signal measurement

EXERCISE 7

Using the Spectrum Analyzer in a communications system

EXERCISE 8

Measures in everyday equipment

Measuring signals from common devices that use RF and wireless technology such as Bluetooth, Wifi, etc. Examples include: Mobile Phones, Remote Controls, Mice, and more.

EXERCISE 9

Production lines applications

Strengthening the use of the Spectrum Analyzer in a production line pass/fail test simulation, using remote control commands.

SPECIFICATIONS	EC-800
Base band Waveforms Frequency margin Amplitude Harmonic distortion	Sine, Square and Triangular 0.1~3 MHz (Triangular -0.1 ~1 MHz) in 10 kHz steps ≥ 1.5 Vpp ≤ -30 dB
FM / RF analysis Frequency accuracy Adjustable margin Power margin	± 0.15 Vpp ≥ 45 MHz (870 M ~ 920 M) in 1 MHz steps ≥ -15 dBm
FM Maximum frequency deviation	>3 MHz
AM Peak difference	≥ -18 dBm
Included accessories RF cable RF cable Antenna Mains cable Adapter CD-ROM	2 x 100 mm 1 x 800 mm 1 de 800 MHz a 1000 MHz 100-240 V ~ 50-60 Hz N-SMA Student practices manual Teacher instruction manual

Note: AE-366B spectrum analyzer not included