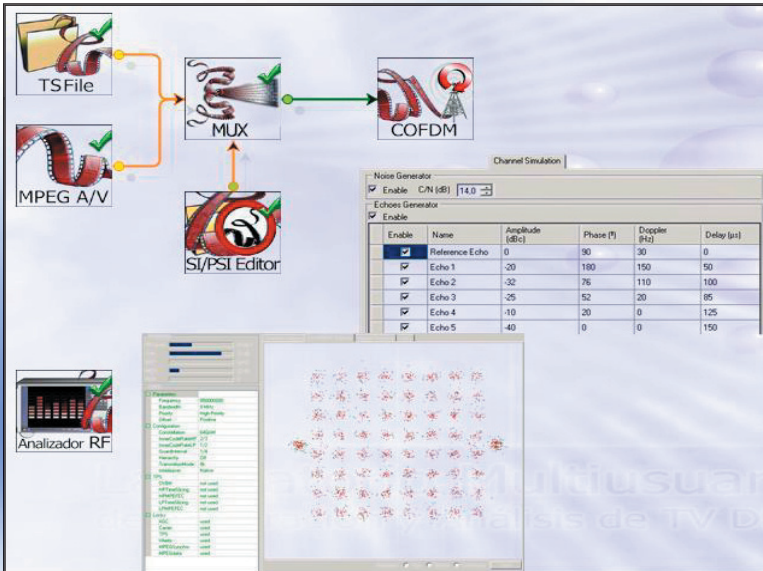


**LabMU-RF** allows RF analysis and recreation of conditions of terrestrial RF channels, thus focusing on the basis of RF DVB-T transmission and reception by experimenting with the different channel models, and observing the pros and cons of COFDM modulation. Ideal for understanding COFDM modulation techniques.

## Features

- Configuration of up to 6 paths for multipath reception simulation (simulation of Gaussian, Rice and Rayleigh channels).
- Selectable C/N at modulator RF output from 3 to 40 dB.
- DVB-T/H RF analysis with spectrum diagram, constellation diagram, impulse response, and visual receiver status indication.
- Level/quality indicators: Level, C/N, BER, MER, PER.
- 2RU chassis fits up to 6 independent RF DVB-T/H COFDM analyzers.
- Visual GUI controllable from LabMU Client application.



## Options

### LabMU-RF-CS

Simulation of real terrestrial channel conditions by addition of hostilities to the generated COFDM RF signal at modulation:

- Noise generation.
- Multipath simulation by generation of echoes with selectable amplitude, delay, phase, and doppler.

### LabMU-RFA

RF DVB-T/H analysis that enables to identify existing DVB-T/H multiplexes, and evaluation of the quality of the received DVB-T signal by using standard analysis tools, such as spectrum diagram, constellation diagrams, impulse response and level/quality indicators (C/N, BER, etc).



## Applications in LabMU

- DVB-T RF analysis of content transmission in faulty terrestrial channels.
- Education in COFDM modulation technique and selection of modulation parameters, depending on channel properties.
- Overview and in-depth analysis of DVB-T RF principles.
- Terrestrial transmission channel impulse response analysis.
- Hierarchical modulation display for educational/investigation purposes.
- RF equipment testing under hostile reception conditions.