

Modulation Analyzer

The Test & Measurement Standard for FM

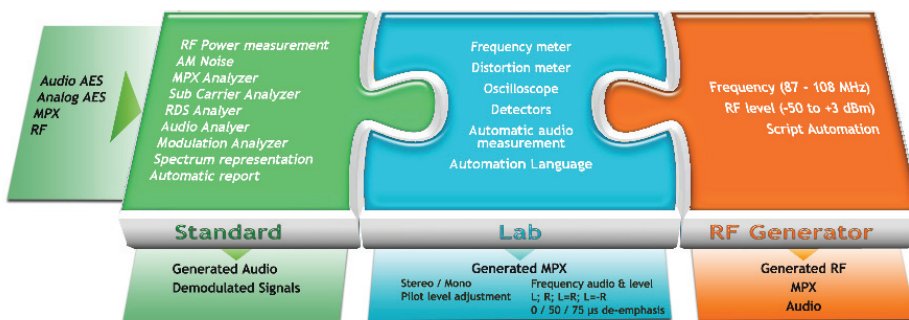


The Modulation Analyzer is a complete Test and Measurement tool, incorporating a multitude of innovative features such as a digital FM demodulator, RF spectrum analyzer, oscilloscope, dual channel audio generator, distortion meter, MPX and RDS analyzers and now, also an inbuilt RF Generator.

The inclusion of an RF Generator creates a unique platform that provides all the tools required for commissioning and testing an FM Transmitter in a single 3U box. Any FM signal can be simulated and then fed back into the software suite of the Modulation Analyzer for comprehensive and indepth measurement and analysis.

The Modulation Analyzer can also be used for the control of transmitters, transmitter lines or dedicated FM equipment such as a rebroadcast receiver or encoder.

The unit is available in 3 versions. The **Standard version** which is supplied either in a sturdy and easily transportable flight case or as a rack mountable unit. The standard version provides the basic measurement tools needed for a precise analysis of the FM signal.



High Precision Measurement

- All tools and features necessary for the control & measurement of all FM radio broadcasting networks
- «All in One» product incorporates an audio analyzer, a distortion meter, a frequency meter, an RDS analyzer and an audio signal generator all in one unit
- 100% digital technology
- Simultaneous & highly precise measurements
- Multiple inputs and outputs: RF, MPX, analog audio, AES/EBU, 10 MHz synchronization input
- All the required inputs and outputs are present on the unit: RF, base band, analog and digital audio

Lab Tools Version

The enhanced functionality of the Lab tools version offers:

- RF frequency meter, AF distortion meter, AF frequency meter, Pilot frequency meter, RDS frequency meter
- Measurement of Crosstalk, Bandwidth, SNR & THDN Test signal generator, Oscilloscope and Remote access ('automation')

RF Generator Version

The optional RF Generator turns the Modulation Analyzer into a full service platform enabling both the simulation AND measurement of FM signals. The test engineer can select the RF Level, frequency, MPX signal with pre-emphasis and audio sine wave of the signal to be injected into the equipment under test. The analyzer will then conduct a wealth of measurements.

This unique 'one box' approach eases the burden for the technician in the field both figuratively and literally. With just one unit to operate, the training requirements and the likelihood of compatibility issues are greatly reduced and, with just one 3U box to carry, the engineer enjoys a smaller and lighter load!

Measurement Display & Reports

- Main information in text or graphic format on front touchscreen panel and on remote PC application
- Excellent reproducibility of measurements
- Automatic measurement reports for analysis
- Calibration only required every 3 years



A variety of reports are available: RDS, audio, spectrum and MPX power analysis reports as well as automatic measurement reports

For Broadcasters - Enabling the detection of disturbances in a measurement chain.

- Verify installations
- Establish optimum settings
- Diagnose maintenance issues
- Ensure transmitters & sound processors comply with standards and regulations
- Portable for measurement in-field & site to site transportation

For FM Transmitter manufacturers - Enabling Quality Control on the Assembly Line.

- Reduce time spent in controls with automatic reports
- Avoid human errors related to configuration and settings
- Ensure measurement reproducibility with 100% digital components
- Synchronize measurements to an external reference signal for integration into an FM measurement bench (Lab tools version only)

For R&D Departments - Enabling unequalled precision in equipment design.

- Verify a dedicated FM product such as transmitter, receivers, stereo encoder/decoder, RDS encoders or audio devices

For all customers - Audemat can also provide custom scripts which, when used with our powerful Modulation Analyzer Automation software, enable complex routine tests to be performed at the touch of button.