



Multi-Purpose FM Measurement Equipment



POWERFUL PERFORMANCE

- High-accuracy audio and FM measurements
- Measurement reproducibility through fully digital platform
- Compliant with the latest measurement standards



POWERFUL CONTROL

- Multi-program on-field measurements with RF coverage analysis
- Automation capabilities with dedicated scripting API
- Bench measurements and RF Drive Testing records



POWERFUL SAVINGS

- Rich set of built-in generators and analyzers for analog radio
- Simultaneous measurements of audio, composite and RF signal
- Time-saving automatic generation of reports

Applications

AUDEMAT FM MC5 is **the most comprehensive and versatile measurement platform** available for FM in the world today

The system offers both mobile RF coverage measurement and extensive modulation analysis in a single comprehensive system.

The fully portable AUDEMAT FM MC5 includes the most complete list of measurement tools ever included in a single platform. Based on fully digital technology, it offers test and measurement class accuracy.



Signal conformity check

Generate and measure the audio, composite or RF signal at the Device Under Test output and ensure the conformity with standards and regulations either on bench test or in-field operations



Band scanning

Scan the FM frequency range and analyze the inband frequency occupation



FM Drive Testing

Carry-out in-car measurements to draw a map of FM transmitter coverage for one or multiple frequencies at a time and provide objective signal quality indicators based on market-proof technology - GoldenEar



Fully digital measurements

The AUDEMAT FM MC5 provides highly accurate and reproducible measurement as a result of its fully digital design and its digital calculation methods



Automatic measurement

Reduce time spent measuring crosstalk, bandwidth, signal noise ratio and THDN through the inbuilt standard functionality or customize measurement through the scripting API



Automatic reports

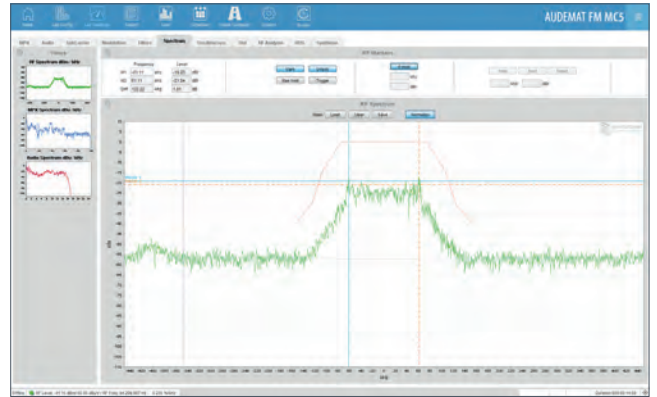
Generate customized reports once the measurement done and save time collecting data from various measurement generators and analyzers

Key Benefits

PERFORM DEEP AUDIO AND FM MEASUREMENTS WITH THE BUILT-IN AUDIO, COMPOSITE AND RF GENERATORS / ANALYZERS



Generate audio, MPX and RF signal



Analyze Quickly and easily the audio and FM signal

CONTROL THE ON-FIELD SIGNAL FOR MULTIPLE FREQUENCIES AT A SINGLE TIME



Perform local FM band scan



Carry out FM Drive Testing on single or multiple frequencies

SIMPLIFY THE MEASUREMENTS AND ANALYSIS WITH AUTOMATIC MEASUREMENTS AND REPORTS

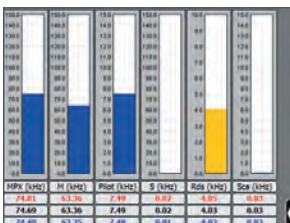


Schedule complete frequencies analysis

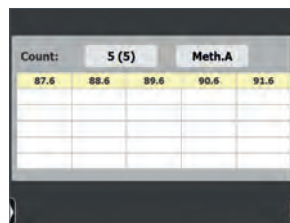


Verify in an at-a-glance view the validity of measurements

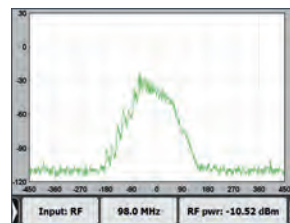
CHECK THE MEASUREMENTS DIRECTLY FROM THE FM-MCS TOUCH SCREEN



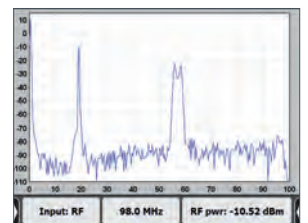
Modulation measurement



RDS AF list



RF spectrum



MPX spectrum

Technical Features

- AVAILABLE WITH BOTH AUDEMAT FM-MC5 & AUDEMAT FM MODULATION ANALYZER
- ONLY AVAILABLE WITH FM-MC5

MEASUREMENT	
RF, MPX, Audio spectrum analyzer	○
RF, Pilot, RDS, AF frequency meter	●
RF level measurement	○
AM noise	○
FM deviation measurement MPX, M, S, Pilot, RDS, Aux	○
MPX power measurement	○
MPX & AF peaks recorder	○
Pilot/RDS synchronization and phase	●
L & R, L+R & L-R levels measurement	○
MPX & AF distortion meter	●
RDS analyzer	○
Oscilloscope	●
Vectorscope & Loudness	●
Automatic Crosstalk measurement	●
Automatic Bandwidth measurement	●
Automatic SNR measurement	●
Automatic THDN measurement	●

INPUTS / OUTPUTS	
RF	○
MPX analog & AES digital	○
RF level measurement	○
Audio analog & AES digital	○
Ethernet network port Input	○
GPS Receiver Input	●
AUX output	○
Headset AF control output	○
GENERATOR	
FM generator	●
MPX generator with RDS	●
Test signal generator	●
DETECTORS	
15 kHz / 20 kHz / 25 kHz audio filter	○
AF peak ± peak/2 detector	○
AF RMS detector	○
CCIR 468-4 detector/filter	●

Technical specifications

Frequency Range	87 - 108 MHz
Power measurement between -50 dBm and +10 dBm	+/- 0.5 dB
MPX (absolute deviation measurement)	+/- 0.2 %
Stereo separation	> 65 dB
AF deviation (20 Hz – 15 kHz)	+/- 0.1 dB
THD	< 0.004%
SNR RMS	>92 dB

Physical specifications

External Dimensions (WxLxH)	48 x 27,5 x 13 cm - 19 x 11 x 5 in
Weight	4.45 kg - 9.8 lbs
Main Power Supply	100-240 Vac / 12 Vdc
Power Consumption	60 W
Operating temperature	0°C à 40°C / 32°F to 113°F
Storage Temperatures	-20°C à 70°C / -4°F to 158°F
Humidity	10-95% non-condensing relative humidity

Technical specification are subject to change without prior notice - 05/2018

Standard measurements

Frequency deviation measurement
ITU-R SM.1268-1/ ITU-R SM.1268-2 / ITU-R SM.1268-3 / ITU-R SM.1268-4
FM broadcasting measurement
ITU BS412-9
Audio loudness and true-peak audio level measurement
ITU-R BS.1770-4 & EBU TECH 3341

Order information

REF	DESCRIPTION
TF00421-B1	AUDEMAT FM MC5
TF00421-A1	AUDEMAT FM Modulation Analyzer
Software options	
CD00159	GOLDENEAR
Services	
07962	Training AUDEMAT FM Modulation Analyzer / FM MC5
06679	Calibration fee for Modulation Analyzer / FM MC5
7-07952	3 year services contract for metering products

Audemat FM MC5 Delivery with flight case

- 1 External 200 V/12 V power supply
- 1 Cigarette lighter cable (AUDEMAT FM MC5)
- 1 Ethernet cable
- 1 Male/male BNC cable ("N") + 1 N/BNC adapter
- 1 Antenna (AUDEMAT FM MC5)
- 1 External GPS (AUDEMAT FM MC5)
- 1 Folder including a CD-Rom, a quick start guide and a measurement synthesis report



HEAD OFFICE

WorldCast Systems S.A.S.
 20, av Neil Armstrong
 33700 Mérignac (Bordeaux Métropole) FRANCE
+33 557 928 928
contact@worldcastsystems.com

US OFFICE

WorldCast Systems Inc
 19595 NE 10th Avenue Suite A
 Miami, FL 33179 USA
+1 305 249 3110
ussales@worldcastsystems.com