



Audemat FM MC5

The Most Complete FM Test & Measurement Platform

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.

Based on fully digital technology, it offers exceptional test and measurement accuracy.

The Audemat FM MC5 is unique on the market; not only thanks to its unmatched level of versatility and accuracy, but also in terms of its design. Fully portable and lightweight, it radically simplifies on-site commissioning and drive tests.



Digital

Control

Time saving

Audemat FM MC5 benefits:



All-In-One Equipment

Highly versatile and multifunction, this all-in-one solution includes FM drive tests, a signal test generator, modulation analyzer, and measurement commissioning... Practical, this single unit can replace multiple, often bulky equipment.



High Measurement Accuracy & Reproducibility

Fully digital, the Audemat FM MC5 provides high-accuracy measurement & offers user-customizable measurement reports. Its market-leading reproducibility performance enables unmatched levels of precision thanks to its incredible -100dB noise floor and its completely mathematical signal demodulation.



Time-Saving Built-In Tools

Users benefit from built-in tools such as an easy-to-use Graphic User Interface and the automatic generation of measurement reports. The Audemat FM MC5 also performs simultaneous measurement and provide a proprietary API for automation sequence measurement.



Engineered for :

Broadcasters & Operators

- ➔ Optimize the service to your listeners & customers
- ➔ Reduce costs for metering & commissioning

Regulation Authorities

- ➔ Optimize FM occupancy & deliver new frequencies
- ➔ Save time performing FM measurements
- ➔ Control FM signal without access to transmitter site

Manufacturers

- ➔ Save time & money to perform Factory Acceptance Tests
- ➔ Reduce the stock of measurement equipment and calibration fees



Applications

On-Site MEASUREMENT

- ➔ Scan the FM band
- ➔ Analyse deeply the FM signal
- ➔ Ensure compliance with Regulation Authority

On-Site COMMISSIONING

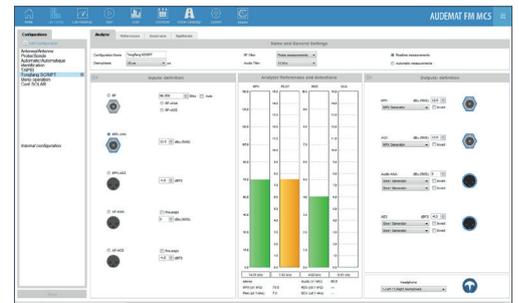
- ➔ Check audio and FM equipment
- ➔ Simplify daily measurement with scheduler feature
- ➔ Generate Measurement reports within minutes

Drive TEST

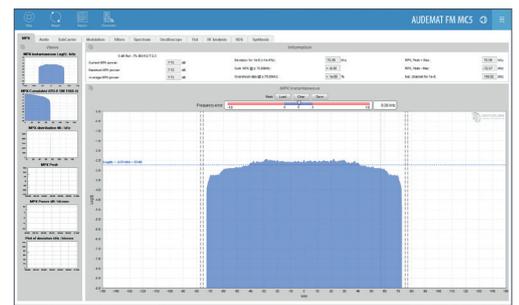
- ➔ Create real-world map coverage of your program
- ➔ Verify the good operation of your broadcast chain
- ➔ Control the RDS retuning
- ➔ Measure the FM Reception quality - GoldenEar

Factory TEST

- ➔ Perform automatic measurements via a dedicated API
- ➔ Provide Factory Acceptance Test for audio and FM equipment



Generate & analyse audio and FM signal



Simplify the measurement with user friendly displays



Quality Reception Analysis

GoldenEar is an algorithm providing a mathematical & objective quality rating of the FM signal received during drive test.

Used by major broadcasters and regulators for decades, this technology complements the drive test feature, simplifying the analysis and reporting.



A Spectrum of Services For Optimal Performance

To ensure you benefit from all the help, support, and information you need to make sure your system continues running at optimal performance and with all the latest upgrades, it is accompanied with a mandatory 3-year service agreement, available in Standard and Premium levels.



Standard

- Calibration every 3 years
- Software upgrade
- Priority support
- Video training



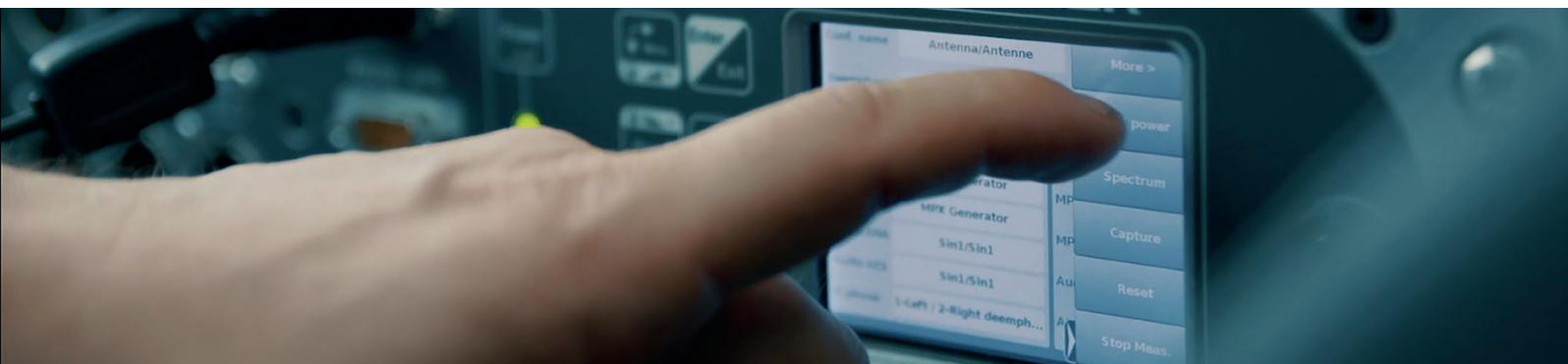
Premium

- Free warranty extension
- Includes standard services
- On-site calibration by certified technician
- Loaner during repair & calibration
- Individual training

“ One of our company’s strategic pillars is to operate more efficiently. The FM MC5 provides this in more ways than one and in our opinion, its best features are its all-in-one versatility, drive-by test capability, and automatic reports functionality which has massively simplified things for us ”

Danie Liebenberg, SENTECH

(National Public Broadcaster in South Africa)





AUDEMAT FM MC5	
FEATURES	
RF / MPX / Audio spectrum analyser	✓
RF / Pilot / RDS / AF Frequency meter	✓
MPX & AF Peaks recorder	✓
Pilot / RDS synchronization & Phase	✓
MPX power meter	✓
Deviation meter	✓
RF, L & R, L+R, L-R Level measurement	✓
MPX & AF distortion meter	✓
RDS Analyser	✓
Oscilloscope	✓
Vector scope & Loudness	✓
Automatic sequence measurement	✓
Drive Test	✓
Band scanner	✓
Scheduler	✓
Automatic measurement reports	✓
FM generator	✓
MPX generator with RDS	✓
Audio test signal generator	✓
INPUTS / OUTPUTS	
RF	Input: N type, 50Ω – Output: BNC type, 50Ω
Analog MPX	Input & output: BNC type, unbalanced, 10kΩ
Digital MPX over AES, Analog and Digital Audio	1 Digital input & output: XLR type, balanced 2 Analog input & output: XLR type, balanced
GPS Receiver input	USB input
AUX output	Output: BNC type, unbalanced
10MHz input	Input: BNC type
Headphone output	Jack 6.35mm female, Unbalanced (floating ground)
Ethernet port input	RJ45 port
DETECTOR	
Audio filter	15kHz / 20kHz / 25kHz,
Audio detector	AF Peak ± Peak/2 detector & AF RMS detector
Additional detector / filter	CCIR 468-4 detector / filter
STANDARDS & RECOMMENDATIONS	
Frequency deviation measurement	ITU-R SM.1268-4
FM Broadcasting measurement	ITU BS412-9
Audio Loudness	ITU-R BS.1770-4 & EBU TECH 3341
RDS	IEC 62106
MEASUREMENT SPECIFICATIONS	
Frequency Range	87 - 108 MHz
Power measurement between -50 & +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	
Dimensions (W x L x H)	48 x 27,5 x 13 cm - 19 x 11 x 5 in
Weight	4.45 kg - 9.8 lbs
Power Supply	100-240 Vac / 12 Vdc
Operating temperature	0°C à 40°C / 32°F to 113°F
Storage Temperature	-20°C à 70°C / -4°F to 158°F
Humidity	10-95% non-condensing relative humidity



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 + 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

Order information

REF	DESCRIPTION
TF00421-B1	AUDEMAT FM MC5
Software Option	
CD01019	Drive Test Measurement
CD01020	Spectrum Analyzer
CD01021	Measurement reporting
CD01022	Generators
CD01023	Automatic Measurement
CD00159_2	GOLDENEAR
Services	
SU-MC5-PRM	PREMIUM Service Level Agreement
SU-MC5-STD	STANDARD Service Level Agreement

Technical specifications are subject to change without prior notice - For projects, WorldCast Systems may offer distinct specifications. Specifications in the offer prevail over those in this document.

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