





# **Audemat MC6**

# All-in-One DAB/DAB+/FM Test & Measurement Device

AUDEMAT MC6 is the most comprehensive and versatile measurement platform available for DAB+ and/or FM in the world today.

Its main function is to help broadcasters, operators, and regulation authorities ensure the best radio service is being offered to listeners while respecting all DAB+ and FM regulations. This all-in-one system offers both mobile RF coverage measurement and extensive modulation analysis in a single comprehensive system.

Based on a fully digital technology, the Audemat MC6 offers exceptional test and measurement accuracy, as well as multiple receivers for DAB+ and/or FM.

Unique on the market, the Audemat MC6 offers an unmatched level of versatility and accuracy as well as a smart and practical design.

Fully portable and lightweight, it radically simplifies on-site commissioning and drive tests.











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# **Audemat MC6** benefits:



#### **All-in-One Equipment**

DAB+/FM drive tests, modulation analyzer, DAB+/FM commissioning.



#### **High Measurement Accuracy & Reproducibility**

Fully digital, high-accuracy measurement, user-customizable measurement reports, market-leading reproducibility, unmatched levels of precision with its completely mathematical signal demodulation.



#### **Time-Saving Built-In Tools**

Intuitive and responsive web interface, automatic measurement reports, simultaneous measurement, multiple DAB+ and FM receivers.



# **Perfectly Engineered For Broadcasters and Regulators**

#### **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 DAB+ and/or FM measurements
- Control DAB+ and FM signal without access to transmitter site

## Scalable Solution. Powerful Features.

#### DAB+/FM BAND SCANNER

- Identify FM programs and DAB+ multiplexes to launch a measurement
- --- Recognize unauthorized stations on the field

#### DAB+ ANALYZER

- --- Check the key parameters during DAB+ transmitter installations
- --> Ensure the highest broadcasting quality (MER, Constellation, SFN, TII...)
- --- Analyze all DAB+ services

#### FM ANALYZER

- --- Check the key parameters during FM transmitter installations
- → Ensure a full compliance of the signals (frequency, deviation, MPX power, modulation, RDS...)
- --- Compare your program with the competition

#### **AUTOMATIC REPORTS**

→ Generate highly accurate and complete measurement report following DAB+ or FM transmitter installations and on a regular basis

#### DAB+/FM DRIVE TESTER

- --- Analyze your real coverage
- --> Identify potential issues
- --- Generate in-depth reports for FM or DAB+
- Reduce the drive time and costs thanks to multiple DAB+ and FM receivers on-board



DAB Module



DAB Services



FM Module





#### **Quality Reception Analysis**

GoldenEar is an algorithm providing a mathematical & objective quality rating of the DAB+ and FM signals received during a drive test.

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



# A Wide Scope 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:

- --- Factory calibration every 3 years
- --> Software upgrade
- ---> Priority support
- --> Free loan unit during repair
- --- Warranty with extension up to 10 years

We proudly introduce the Audemat MC6, a culmination of invaluable user feedback, our company's expertise, and numerous technological advancements. The result is a multi-receiver and multi-standard solution, housed within a more powerful, compact, robust, and highly scalable platform, surpassing its predecessors in every aspect.

> **Gregory Mercier** Director of Product Marketing

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# Audemat MC6 Technical Specifications (preliminary)



DAB MODULE		
Band scanner DAB, DAB+, DMB/Band III, Mode I		
Reception level		
Sync, CNR, SNR, MER		
Freq offset (internal reference)		
TII: Transmitter Identification Information		
Transmitter SFN freq Peaks		
Shoulders measurement, Link Margin		
MSC errors, RS errors		
Constellation, MER and QPSK per carrier		
Mode, service mode		
Protection info		
CU and address		
Ensemble label		
Country, language		
Service list & ID		
Dynamic label, PTY		
Bitrate		
FIG Tables		
Audio Mode and Level (L+R)		
Audio and PAD bitrates		
Audio streaming with Slide Show, DLS Native format or MP3 (8 to 320 kbps)		
FM MODULE		
Band scanner 87 - 108 MHz		
Reception level		
RF / MPX / Audio spectrum analyser		
RF / Pilot / RDS / AF Frequency meter		
MPX power meter		
Deviation meter		
RF, L & R, L+R, L-R Level measurement		
RDS Analyser		
REPORTS		
DAB Automatic Reports		
FM Automatic Reports		

DRIVE TESTS		
DAB Drive Test	Up to 2 frequencies with ETI recording, or more wihout recording (round robin)	
FM Drive Test	Up to 8 frequencies with audio recording, or more wihout recording (round robin)	
DAB+FM Drive Test	Up to 8 FM + 1 DAB frequencies with recording, or more wihout recording (round robin)	
INTERFACES		
RF	2 Inputs: N type, 50Ω	
Analog MPX (future use)	Input & output: BNC type, unbalanced, 10kΩ	
Digital MPX over AES or Digital Audio (future use)	1 Digital input & output: XLR type, balanced	
Analog Audio (future use)	2 Analog inputs & outputs: XLR type, balanced	
GPS input	Input: SMA type	
AUX output (future use)	Output: BNC type, unbalanced	
Headphone output	Jack 6.35mm female, Unbalanced (floating ground)	
Ethernet	2 RJ45 ports and WiFi	
Screen	For IP configuration, device information and status	
μSD card slot	For additional storage	
STANDARDS & RECOMMENDATIONS		
DAB Radio Broadcasting Systems	EN 300 401 version: 2.1.1, TS 101 756	
Audio Encoding	TS 102 563, TS 103 466	
Multimedia Object Transfer (MOT)	EN 301 234	
ETI Distribution interfaces	ETS 300 799, ITU -T G.703, ITU-T G.704	
Frequency deviation measurement	ITU-R SM.1268-5	
FM Broadcasting measurement	ITU BS412-9	
RDS	IEC 62106	
PHYSICAL SPECIFICATIONS		
Dimensions (W x L x H)	33 x 27 x 9 cm - 13 x 10,6 x 4,5 in	
Weight	< 4 kg / < 9 lbs	
Power Supply	Dual DC inputs 12VDC. One 100-240 VAC adaptor	
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	

Technical specifications are subject to change without prior notice - On project, WorldCast Systems may offer distinct specifications. Spécifications on the offer prevail those in this document.

### **Order** information

REF	DESCRIPTION	
TF01251	AUDEMAT MC6	
DAB Modules		
CD01050-DAB	DAB Module	
CD01045	Drive Test DAB	
CD01046	Drive Test DAB Dual Receivers	
FM Modules		
CD01050-FM	FM Module	
CD01043	Drive Test FM	
CD01044	Drive Test FM Multiple Receivers	
Software Options		
CD01042	Measurement Reports	
CD01049	GoldenEar	
CD01047	EDI and ETI inputs/outputs	
CD01048	Reference clocks (10MHz, 1pps)	
Services		
SU-MC6	Service contract	



# **Delivery with** flight case

Dimensions: (W x L x H) 820x560x320 mm - 32x22x12,5 in

Weight: 20 kg / 44 lbs

- 1 External 200 V/12 V power supply
- 1 Cigarette lighter cable (Drive test modules)
- 1 Ethernet cable
- 1 Male/male BNC cable + 1 N/BNC adapter
- 1 FM and/or DAB Antenna (FM or DAB modules)
- 1 GPS antenna (Drive Test modules)

#### **Headquarters**

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