





# **Audemat DAB Probe**

# QoS Monitoring. Measurements. Analysis.

The Audemat DAB Probe is a complete DAB radio monitoring solution to perform advanced signal analysis, on-site and of broadcast coverage area.

Designed to be installed in **SFN or MFN networks** (Single or Multiple Frequency Networks), the Audemat DAB Probe is feature-packed with a user-friendly web interface, alarm notification by email or SNMP traps, and is equipped with telemetry board (via ScriptEasy) and audio output connectors. The advanced software tools provide

a deep signal and content analysis with impulse response representation, TII, audio streaming, ETI recording, and more. Also designed for optimal monitoring of the user experience, Audemat DAB Probe includes visual slide-shows, DLS and services display to enable users to hear and see in real-time the same content as their audience of listeners.











#### Audemat DAB Probe benefits:



#### **Monitoring Expertise**

Audemat DAB Probe is the result of the company's 25 years of expertise developing analog and digital signal monitoring solutions for radio & TV. The Audemat range is recognized worldwide for its level of quality, accuracy, and reliability.



#### **Time & Operational Cost Saving**

Users benefit from standard tools to remotely control the quality of their DAB broadcast as well as the good operating conditions of their facility.



#### **Comprehensive & Scalable Platform**

Designed to meet market needs after extensive customer feedback, Audemat DAB Probe is a feature-rich hardware platform that is ready for optimal performance of monitoring, measurement, and analysis. Highly scalable, it can be enhanced with new software versions or options through a simple, remote upgrade.



# **Engineered for:**

#### **Service Operator**

- -- Ensure the conformity with the broadcasting rules
- --- Ensure the quality and the continuity of the RF signals
- --> Remotely control the facility and do the first troubleshooting

#### **Content Providers**

- --- Monitor the quality of the broadcast services
- --- Confirm their programs are ON-AIR 100% of the time
- --- Check the audio presence and level
- --- Verify the PAD/Audio association

#### **Detect** BROADCAST CHANNELS

A quick DAB band scan is available to visualize the DAB spectrum. It also can be used to facilitate the monitoring configuration.



Scan

#### **Qualify** THE MUX RECEPTION QUALITY

The advanced measurements and relevant parameter values are represented graphically. Trends can be consulted over 3 rolling months.



RF Measurements

### **Monitor** AN SFN NETWORK

To detect any failure or variation, the decoding of the TII enable transmitter identification and transmitter peaks (up to 5) to be evaluated by time and levels.

#### **Analyze the CONTENT**

In addition to decoding of the FIG tables, the details of each service are clearly displayed including the real audio and PAD bitrates.

#### **Alarm notification & USER MANAGEMENT**

Several user accounts can be created with personal access levels and rights. Depending on the user access level and rights configuration, an alarm notification can be sent to 1 or several users, by E-mail or SNMP, to the network management system(s).

#### Consult the TRENDS

The unit stores the RF measurements over 3 sliding months in the  $\mu SD$  card provided in standard. The graphical representation allows the identification of trends. The 10000 last events including the alarms can also be consulted and filters are possible to find out relevant information.

This data can be exported in CSV file format.

#### Stream the service / ON-AIR VERIFICATION

Following an alarm, on-air verification is possible. Users can remotely stream the audio, in compressed or in native format, and visual the associated DSL and MOT (slide).



Audio Streaming

#### **On-site FACILITY MANAGEMENT**

Using the physical inputs/outputs or SNMP commands, it is possible to monitor and control almost all the devices or sensors to combine the information and verify the status of the entire transmitter site.

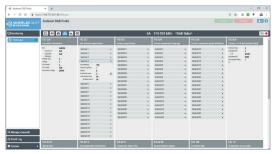


FIG Tables

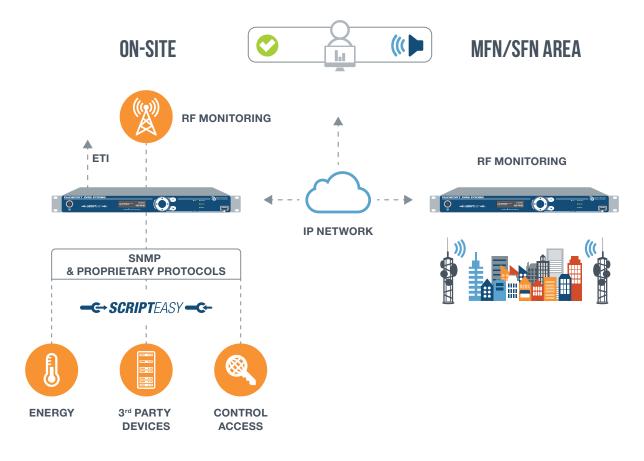




### **Advanced Telemetry & Facility Management**

ScriptEasy is a revolutionary facility control software for connected devices, enabling the automatic correction of any critical errors that may occur. Across its intuitive web interface, ScriptEasy includes management of the GPIO, serial communications, SNMP, logic operators, live user inputs, timers, and more. This enables the "scripting" of site operations for evaluating multiple parameters and automatically engaging back up systems, while simultaneously alerting relevant technical personnel. Integrated in the Audemat DAB Probe, ScriptEasy is the core technology used for the product's telemetry input-outputs.

#### **Example of installation configurations:**









Rear panel

	AUDEMAT DAB PROBE	
RF parameters	Measures	Monitoring
DAB, DAB+, DMB / Bande III, Mode I	Х	
Reception level	X	X
CNR, SNR, MER	X	X
Freq offset (internal reference)	Х	X
TII: Transmitter Identification Information	X	Х
Transmitter SFN freq Peak	Х	Х
Shoulders measurement <sup>1</sup> , Link Margin <sup>1</sup>	Х	X
Constellation	X	
Content parameters	Decoding	Monitoring
Mode, service mode	X	0
Protection info	X	0
CU and address	X	0
Ensemble label	X	0
Country, language	X	0
Service list & ID	X	0
Component list & ID	X	0
Dynamic label, PTY	X	0
Bitrate	Х	0
FIG Tables	X	
DAB, DAB+: Audio functions		
Audio Level (L+R)	X	X
Audio Bitrate	X	
Audio streaming with Slide Show, DLS Native format or MP3 (8 to 320 kbps)	X	
Recording and history		
ETI recording (data flow)	1 minute on request	
Readings with export in CSV format	24h in RAM and 3 months on supplied μSD card	
Event log with export in CSV format	10 000 last events with filters	

o : included	in the	ensemble	structure	monitoring

Interfaces	
RF inputs	1 to 3 depending on version <sup>1</sup> - BNC type (Max 2 for DAB, 1 for future use)
Audio outputs	
Analog	2 - XLR type / Left + Right
Digital	1 - XLR type / AES
Headphone	Professional Jack 6.35mm on front panel
μSD card slot	1 - For measurement history storage
Telemetry	Including ScriptEasy Software
Relays	8 - SPDT 1A-30V
Digital inputs	16 - Internal or external power supply (5-25VDC)
Metering inputs	4 - 0-50V (4 ranges-ADC: 10 bits)
Screen	OLED type  For network configuration and device information
LED indicators	4 - for alarm status and CPU operation
LAN ports	2 - RJ45 ports Base-T 10/100/1000M
Power Connector	1 - IEC type
ETI-NI (G703) output board	Optional. Factory mount. BNC connector.
1PPS/10MHz board	Optional <sup>1</sup> . Factory mount. BNC connector.

<sup>&</sup>lt;sup>1</sup> Ask for availability

MAIN characteristics		
Dimensions (I x h x d)	483(19") x 42 (1U) x 180mm	
Weight	2.35 kg	
Main power supply	100-240VAC / 50-60 Hz	
Power consumption	25 VA	
Temperature Working temperatures Storage	0°C - +50°C -30°C - +80°C	
Humidity	10-95% Non-condensing RH	

# **Order** information

REF	DESCRIPTION
TF01086	AUDEMAT DAB MONITOR - Standard version including ScriptEasy
SP02558	Optional ETI output board - Factory mount
CD01011	Optional dual-receiver
CD00039	3 <sup>rd</sup> party device driver with management from ScriptEasy
CD00064	ScriptEasy extension to manage 10 additional SNMP devices (1 license included by default)

This document is not contractual. All specifications are subject to change without notice

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