

## MOSAIQ Portable Field Strength Meter

### THE POWER OF USER EXPERIENCE



**MOSAIQ6 IS A NEW HIGH-PERFORMANCE PORTABLE METER EQUIPPED WITH ADVANCED FUNCTIONS AND A HIGH MEASURING ACCURACY.**

All of it in the most automated and intuitive way available in the market, thanks to the tactile interface and the gesture commands.

MOSAIQ6 provides technicians with a powerful tool, capable of measuring, analysing, and diagnosing return channel, radio, DAB and DAB+, television, optical fibre, Wi-Fi or IPTV signals, no matter how complex the scenario.

MOSAIQ6 is equipped with an ultra-fast high-resolution spectrum analyser, which, together with the echo-analysis functionalities, allows the display of any significant aspect of the signal.

#### ULTRA-FAST SPECTRUM ANALYSER

Professional spectrum analyser with ultra-fast digital processing (sweep time < 10 ms) and high dynamic range (> 50 dB). Equipped with advanced functions for the detection and analysis of signals in the 5 MHz to 3,300 MHz (waterfall, event triggers, markers, user configurable RBW and VBW, etc.).

#### MOSAIQ6 MAKES IT POSSIBLE TO CAPTURE INTERFERING SIGNALS, AS FAST AS THEY MAY BE

#### CONSTELLATION AND ECHOES

A single meter is capable of analysing and measuring analogue and digital signals, both on the terrestrial and the satellite bands (FM, IPTV, optical fibre, Wi-Fi, DVB-T/T2, DVB-C Annex A, B, and C, and DVB-S/S2/S2X). Furthermore, the DAB and DAB+ analysis can be included as an option.

#### WATERFALL

Signal graphic display in both time and frequency. Signal levels turn into colours and are represented on the time axis (see figure). The perfect tool for short signal interference or fading analysis, which observation would be difficult by only resorting to the spectrum.

#### MULTISTANDARD

These are definitely two essential tools to ensure the correct reception of a signal. The constellation diagram is essential to help detect the presence of noise, phase jitter, interference and other potential problems that could impact the signal quality by reducing MER. The echo graphic display allows echo detection in DVB-T/T2 terrestrial signal reception, which could severely degrade BER measurement.

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### ADVANCED FUNCTIONALITY

#### LTE CHECK



It analyses the impact of the LTE signal on the DTT channels, and detects whether the use of filters is required. Furthermore, it allows spectrum simulation upon the introduction of the LTE filter recommended by the meter itself. A list of filters is displayed for the user to choose the one that best fits his/her requirements.

#### OPTICAL MEASUREMENTS



Once the optical fibre input enabled, and thanks to the optical receiver (whether selective or not), optical attenuation measuring can proceed for three wavelengths (1310 nm, 1490 nm, and 1550nm) and their powers, as does RfOG installation analysis.

#### IPTV

Allows the demodulation and analysis of IPTV streams (both Unicast and Multicast), not only through video display but also by displaying the total bit rate and the relevant information for each service: SID, VPID, AID, video profile, bit rate for both audio and video. In addition, specific protocol measurements are also analysed, such as *UDP Payload Bitrate*, *IP payload bitrate*, and *Packet arrival minimum*.

#### GPS OPTION FOR COVERAGE ANALYSIS



Ref. 596201 (optional). With the GPS option, measurements can be displayed on a map at the very same spot where they were actually taken, thus facilitating coverage analysis. Accessing the details is as easy as double-clicking on each image.

### EFFICIENT MANAGEMENT

#### WEB INTERFACE, BOTH LOCALLY AND REMOTELY ACCESSIBLE:

This web tool allows the management of MOSAIQ6 using a PC: managing the performed measurements, modifying areas and channel plans, editing quality profiles, changing SCR lists, and executing clones.

#### CLOUD:

This tool allows equipment to be registered and quickly updated.

#### REMOTE CONTROL:

By using VNC, the free remote desktop software program, the meter's tactile functionalities are easily accessible through the PC mouse. The MOSAIQ6 measurement parameters can be remotely displayed and managed, as easily as on-site. No missing details for the measured installation! The connection is established using the IP address on any of the communication interfaces (Ethernet or Wi-Fi); it also allows access to the web interface. Through the meter's internal website, the user can have a quick access to the remote control by using the menu on the left side.

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### AUTONOMY

#### LONG-LASTING BATTERY:

The high-quality Li-Ion battery provides an average range up to 4 hours.

#### ALWAYS READY:

For the meter to run out of battery is no longer a problem; it will always be ready thanks to the **field replaceable battery**.

Furthermore, with just two batteries the meter will have enough autonomy during long working hours.

#### STAND-ALONE CHARGING:

Thanks to its stand-alone charger, the battery can be charged without being connected to the meter. Work can thus proceed anywhere while the backup battery is charging.

### CONVENIENCE

#### ERGONOMY:

With a sleek design and adequate dimensions (220 mm x 260 mm x 65mm), the meter provides an optimum way to maximize movement efficiency by allowing menu and button access with a single hand.

#### EASY TO CARRY:

Thanks to its unique carrying bag, the meter can be easily carried around. It is equipped with a strap that can be adapted to multiple lengths, and several internal compartments to store a replaceable battery, for example.

#### SELF-SUPPORTING:

To make fieldwork easier, the meter is compatible with a standard tripod: it is equipped with a universal 1/4" threaded port on the back side.



### MAXIMUM PROTECTION

#### ROBUSTNESS:

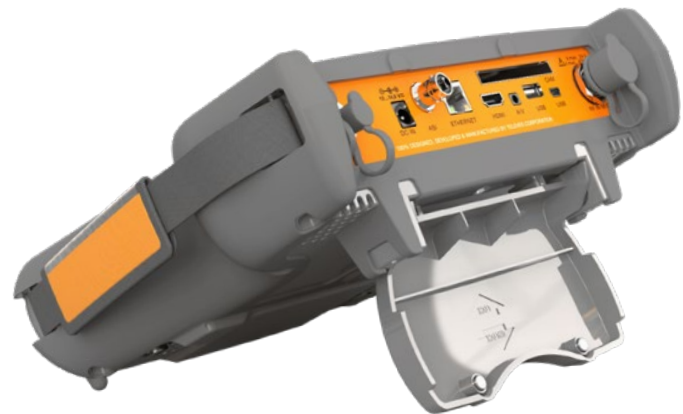
Its double-injection polycarbonate plastic rubber casing provides an outstanding impact resistance, while minimizing the falling risks.

#### WEATHER RESISTANT:

Thanks to the high-quality materials and the water-proof screen, the meter is prepared to withstand adverse weather conditions.

#### PROTECTED TERMINATION:

Signal inputs are equipped with a cap, while the other central connectors and the power supply are protected with a cover, also used as a support when the meter is used on a flat surface.



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## TECHNICAL SPECIFICATIONS

### GENERAL INFORMATION

Screen	8" TFT touch screen 1024x768 Full Color	Range	> 4 hours
Weight	2,150 (without the cover)	Interfaces	ETH, USB, HDMI, audio output (Jack), FC/APC optical fibre connector, GPS antenna connector
Dimensions	250 mm * 210 mm * 60 mm	Storage capacity	32 Gb
Battery	Li-ion (7.2 VDC, 9,000 mAh) swappable in the field		

### TECHNICAL SPECIFICATIONS

FREQUENCY		QAM DIGITAL MEASUREMENTS [ANNEX A/B/C]	
Resolution	1 KHz	Modulations	4 QAM, 16 QAM, 32.64 QAM, and 256 QAM
Tuning	Frequency or channel	Power	From 20 dBµV to 128 dBµV
SPECTRUM ANALYSER		BER	1.E-3 - 1.0E-8
Span	100 KHz, 1 MHz, 5MHz, 10 MHz, 20 MHz, 50 MHz, 100 MHz, 200 MHz, 500 MHz, 1.0 GHz, 2.0 GHz, 3.3 GHz, and an additional value (any value between 100 KHz and 3.3 GHz)	MER	Up to 40 dB
RBW	500 Hz, 1 KHz, 3 KHz, 5 KHz, 10 KHz, 30 KHz, 50 KHz, 100 KHz, 300 KHz, 500 KHz, 1 MHz, 3 MHz, 5 MHz	C/N	Up to 52 dB
Markers	Up to 4, with delta function	Constellation	✓
Event trigger	✓	Error packets	✓
Waterfall	✓	TILT	✓
Traces	Maxima, minima	Attenuation	✓
Reference level	Automatic and manual	DVB-S DIGITAL MEASUREMENTS	
DVB-T DIGITAL MEASUREMENTS		Power	From 20 dBµV to 128 dBµV
Modulations	COFDM [ QPSK, 16 QAM, 64 QAM]	CBER	9.9 E-2 - 1.0 E-6
Power	From 20 dBµV to 128 dBµV	VBER	1.0 E-4 - 1.0 E-8
CBER	9.9 E-2 - 1.0 E-6	MER	Up to 20 dB
VBER	1.0 E-3 - 1.0 E-8	C/N	Up to 30 dB
MER	Up to 40 dB	Constellation	✓
C/N	Up to 52 dB	Error packets	✓
Echoes	✓	TILT	✓
MER per carrier	✓	Attenuation	✓
Constellation	✓	DVB-S2X DIGITAL MEASUREMENTS	
Error packets	✓	Modulations	QPSK, 8PSK, 8APSK, 16 APSK and 32 APSK
TILT	✓	Power	From 20 dBµV to 128 dBµV
Attenuation	✓	Link Margin	Up to 10 dB
DVB-T2 DIGITAL MEASUREMENTS		MER	Up to 20 dB
Modulations	COFDM [ QPSK, 16 QAM, 64 QAM y 256 QAM]	C/N	Up to 30 dB
Power	From 20 dBµV to 128 dBµV	LDPCBER	9.9 E-2 - 1.0 E-6
LDPCBER	9.9 E-2 - 1.0 E-6	BCHBER	9.9 E-2 - 1.0 E-8
BCHBER	1.0 E-3 - 1.0 E-8	Constellation	✓
Link Margin	Up to 30 dB	Error packets	✓
MER	Up to 40 dB	TILT	✓
C/N	Up to 52 dB	Attenuation	✓
Echoes	✓	Multi TS	✓
MER per carrier	✓	PLS scrambling	✓
Constellation	✓	DVB-S2 DIGITAL MEASUREMENTS	
Error packets	✓	Modulations	QPSK, 8PSK, 8APSK, 16 APSK and 32 APSK
TILT	✓	Power	From 20 dBµV to 128 dBµV
Attenuation	✓	Link Margin	Up to 10 dB
Multiple PLP	✓	MER	Up to 20 dB
		C/N	Up to 30 dB
		LDPCBER	9.9 E-2 - 1.0 E-6
		BCHBER	9.9 E-2 - 1.0 E-8
		Constellation	✓
		Error packets	✓
		TILT	✓
		Attenuation	✓

## MOSAIQ Portable Field Strength Meter

FM		REMOTE POWER FEEDING	
Level	✓	Power supply pre-amplifiers	5 VDC, 13 VDC, 18 VDC, 24 VDC, and an additional value (any value between 5 V and 24 V)
C/N	Up to 52 dB	Maximum power supplied	12 W
RDS	✓	Maximum current supplied	900 mA
DAB / DAB+ (* option ref. 596204)		LNB tone	22 KHz
Power	From 20 dBµV to 128 dBµV	DiSEqC	✓
MER	Up to 20 dB	SCR   dCSS [EN 50494   EN 50607]	✓
C/N	Up to 30 dB		
BER	9.9 E-2 – 1.0 E-6		
ANALOGUE TV (* option ref. 596203)			
Level	From 20 dBµV to 128 dBµV		
V/A	Up to 52 dB		
C/N	Up to 30 dB		

### HIGHLIGHTS

PASS/FAIL indicators	Automatic satellite identification
dCSS and SCR	Up to 4 markers on the spectrum
DiSEqC 1.1	Guided ICT report production
Generic TILT	Measurement memorizing using LOG and MacroLOG

### METERS

REF. NO.	REF. REF.	DESCRIPTION	EAN13
596101	MOSAIQ6	MOSAIQ6: DVB-T/T2/S/S2/C + CI + FO	8424450191538
596111	MOSAIQ60	MOSAIQ6: DVB-T/T2/S/S2/C + CI + FO SEL.	8424450191545

### OPTIONS

REF. NO.	REF. REF.	DESCRIPTION	EAN13
596201	M6-UP-GPS	<b>MOSAIQ6 GPS DRIVE TEST OPTION</b>	8424450193198
		Measurements can be displayed on a map at the very same spot where they were actually taken, thus facilitating coverage analysis.	
596202	M6-UP-Wi-Fi	<b>MOSAIQ6 Wi-Fi 5 GHz OPTION</b>	8424450193204
		The 5 GHz band is a much less congested frequency, which means much less interference.	
596203	M6-UP-ANA	<b>MOSAIQ6 ANALOGUE MEASUREMENT OPTION</b> It allows the measuring of signal levels between 20 dBµV and 128 dBµV, C/N up to 30 dB, and V/A up to 52 dB.	8424450193211
596204	M6-UP-DAB	<b>MOSAIQ6 DAB/DAB+ OPTION</b>	8424450193228
		It allows power measuring between 20 dBµV and 128 dBµV, standard C/N and MER for this type of signal	
596205	M6-UP-4K	<b>MOSAIQ6 4K UHD OPTION</b>	8424450193235
		Allows signal display with 4K resolution (3,840 x 2,160) and supports the new H.265 HEVC video compression format.	

### ACCESSORIES

REF. NO.	REF. REF.	DESCRIPTION	EAN13
596210	M6-AKKU	Stand-alone, field replaceable battery.	8424450196526