

MOSAIQ₆



THE POWER OF USER EXPERIENCE

HIGH-PERFORMANCE, HIGH-ACCURACY PORTABLE FIELD STRENGTH METER
FOR PROFESSIONAL USERS



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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.



 en.teledes.com/mosaiq6

AN ACTUAL TOUCH SCREEN

This new interface was designed and programmed to take full advantage of the touch gestures (tap, double-tap, long press, swipe, drag, pinch or spread). The only means to work as easily with a very high-performance meter.

HIGH-PERFORMANCE, HIGH-ACCURACY PORTABLE FIELD STRENGTH METER FOR PROFESSIONAL USERS



TAP
(TAP):
Perform a quick tap with one finger



DOUBLE-TAP
(DOUBLE TAP):
Perform two quick consecutive taps with one finger



DRAG
(DRAG):
Drag (long slide) with a single finger



SWIPE
(SWIPE):
Short slide with a single finger



PINCH
(PINCH/SPREAD):
Pinch/spread two fingers on the screen



LONG PRESS + DRAG
(LONG PRESS + DRAG):
Hold and drag from one side to another

CUSTOM DISPLAY

MOSAIC MODE DISPLAY



USER CONFIGURABLE WIDGETS

- TV*

Displays the contents of the channel being demodulated.
- SERVICES*

Displays the transponder or MUX services' occupancy in graphical format, as a pie chart.
- MEASUREMENTS*

Displays measurements' information. Furthermore, the letter "i" is superimposed in the title, to display information about the parameters.
- SPECTRUM*

Displays the signal's spectrum (20 MHz for terrestrial, 50 MHz for satellite) with automatic parameters (attenuation, RBW, etc.)
- CONSTELLATION***

Displays signal's constellation.
- ECHOES**

Displays the echo response for the demodulated channel
- MER/CARRIER**

Displays MER as a function of frequency.
- ERROR PACKETS*

Measures the number of error packets and displays temporal information about the periods when errors appeared.

6 WIDGETS ON 1 SCREEN:

The equipment allows the configuration of the measurement screens to display.

This not only makes all the information available to fully characterize a TV channel, but allows the user to decide which information is most relevant.

Modifying the widgets displayed on the screen is as easy as clicking on the orange arrow on the top right side and select the desired functionality on the drop-down menu.

Accessing the details is as easy as double-clicking on each image.

* All standards ** Only DVB-T and DVB-T2 ***All standards except for DAB and DAB+

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SIMULTANEOUS DISPLAY OF ALL CHANNELS:



4 WIDGETS ON 1 SCREEN:

Perfect for channel's spectrum representation at the bottom section.

The configuration of spectrum functionalities, echoes and MER/carrier can be performed in this area. Besides TV representation, this display mode is used in the **radio analyser, both for FM and DAB/DAB+ signals.**

All channels in the spectrum can be measured on the same screen (frequency, power, C/N) with additional parameters such as TILT or attenuation. Furthermore, the *Learning Plan* function can be accessed for automatic channel generation.



ADVANCED FUNCTIONALITY

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



MULTISTANDARD

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.

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NETWORK TOOLS

This functionality offers several control utilities and network monitoring, which can be displayed in mosaic mode. All network information at the same time, on a single screen (IP, DNS, gateway, connection mode...).

These tools allow you to recognize a network by auditing the response time (latency or ping) and the connection speed (speed test, upload/download).

In addition, they also make easier the detection of connectivity problems by scanning connected equipment (ARP scan) and mapping their ports, whether open or closed, to determine their accessibility (NMAP).



CONSTELLATION AND ECHOES

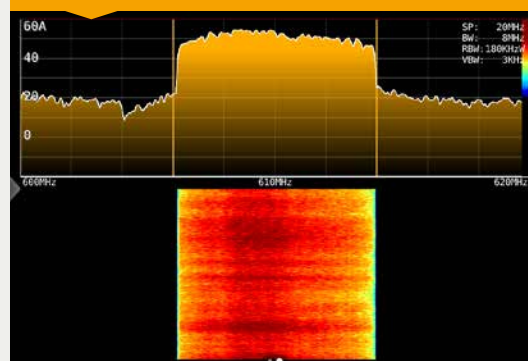


These are definitely two essential tools to ensure the correct reception of a signal.

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.

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.

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



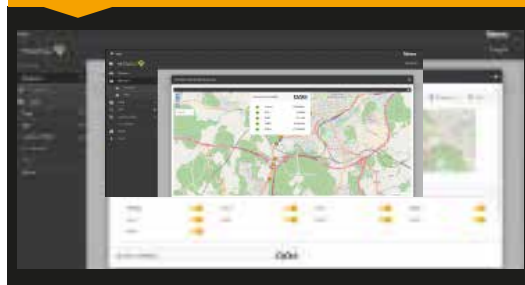
Once the optical fibre input enabled, and thanks to the optical receiver (whether selective or not), optical attenuation measuring can proceed for three wavelengths (1310 nm, 1490 nm, and 1550nm) and their powers, as does RFoG installation analysis.

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.

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WIFI ANALYZER 2.4/5GHz



This functionality performs a comprehensive analysis of the entire Wi-Fi band (2.4 and 5 GHz), to find, identify and measure all available Wi-Fi networks. For this, MOSAIQ6 offers 4 different analysis functions:

- **Wi-Fi List:** shows a list of all detected networks and for each one identifies: SSID, BSSID, channel, frequency, encryption mode and power of the access point.
- **Wi-Fi measures:** for a specific network, shows the current power value of the access point and a graph of its variation during a selectable time interval.
- **Time graph:** offers a time graph with the history of power measurements of all detected Wi-Fi networks.
- **Channel map:** shows a graph with the channel distribution of the detected Wi-Fi networks.

4K UHD



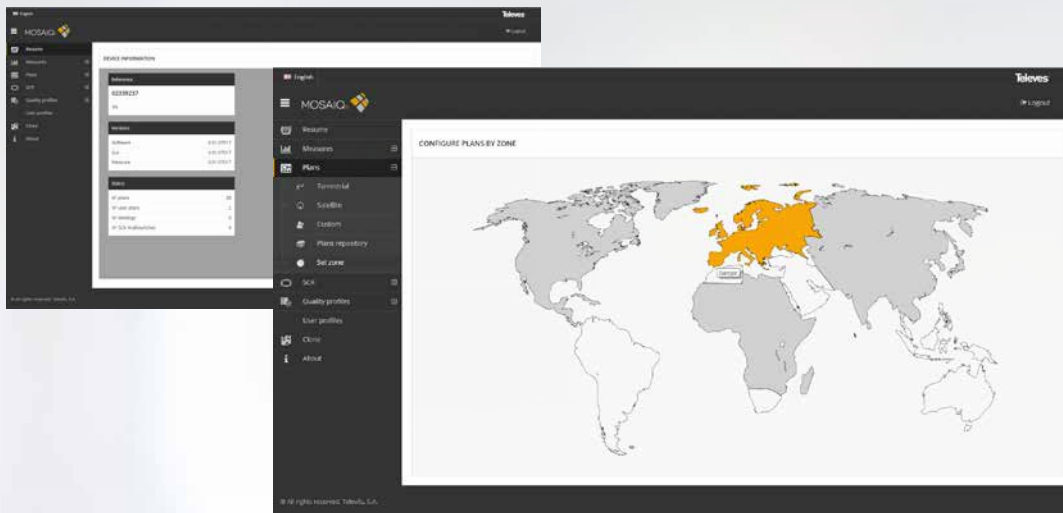
The MOSAIQ6 supports the HVEC H.265 video compression format with a maximum resolution of 4K - UHD (3840x2160) as well as the HDR colour coding standards.



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.



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REMOTE CONTROL:

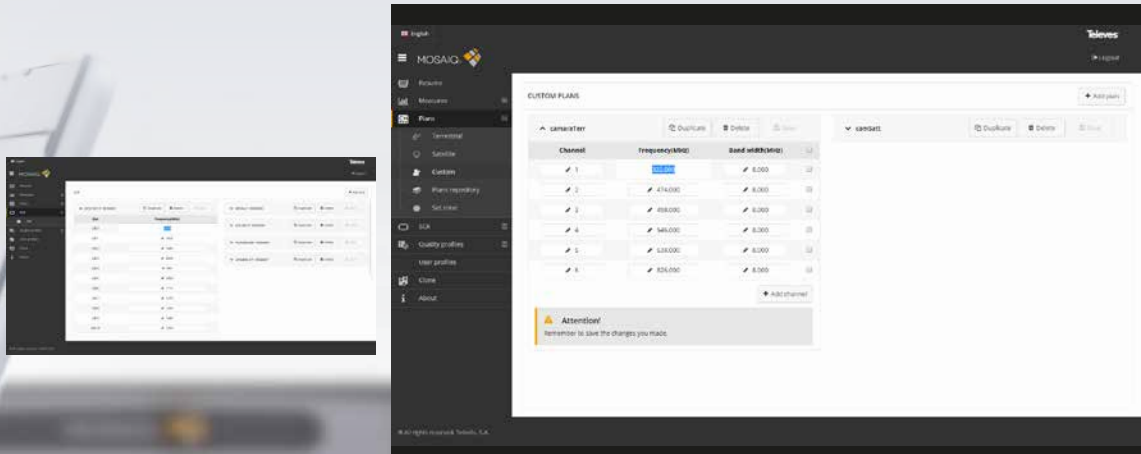
By using VNC, the free remote desktop software program, the meter's tactile functionalities are easily accessible through the PC mouse. The MOSAIQ6 measurement parameters can be remotely displayed and managed, as easily as on-site. No missing details for the measured installation!

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.

CLOUD:

This tool allows equipment to be registered and quickly updated.



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.

VERSATILITY



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ON THE FIELD



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.

In addition, for the most demanding users, a screen protector made of tempered glass is included, that offers a perfect protection, avoiding bursts or scratches on the meter display.

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.



TECHNICAL SPECIFICATIONS

GENERAL INFORMATION

Screen	8" TFT touch screen 1024x768 Full Color
Weight	2,150 g (without the cover)
Dimensions	250 mm * 210 mm * 60 mm
Battery	Li-ion (7.2 VDC, 9,000 mAh) swappable in the field

Range	> 4 hours
Interfaces	ETH, USB, HDMI, audio output (Jack), FC/APC optical fibre connector, GPS antenna connector
Storage capacity	32 Gb

TECHNICAL SPECIFICATIONS

FREQUENCY	
Resolution	1 KHz
Tuning	Frequency or channel
SPECTRUM ANALYSER	
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)
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
Markers	Up to 4, with delta function
Event trigger	✓
Waterfall	✓
Traces	Maximum, minimum
Reference level	Automatic and manual
DVB-T DIGITAL MEASUREMENTS	
Modulations	COFDM (QPSK, 16 QAM, 64 QAM)
Power	From 20 dBµV to 128 dBµV
CBER	9.9 E-2 – 1.0 E-6
VBER	1.0 E-3 – 1.0 E-8
MER	Up to 40 dB
C/N	Up to 52 dB
Echoes	✓
MER per carrier	✓
Constellation	✓
Error packets	✓
TILT	✓
Attenuation	✓
DVB-T2 DIGITAL MEASUREMENTS	
Modulations	COFDM (QPSK, 16 QAM, 64 QAM y 256 QAM)
Power	From 20 dBµV to 128 dBµV
LDPCBER	9.9 E-2 – 1.0 E-6
BCHBER	1.0 E-3 – 1.0 E-8
Link Margin	Up to 30 dB
MER	Up to 40 dB
C/N	Up to 52 dB
Echoes	✓
MER per carrier	✓
Constellation	✓
Error packets	✓
TILT	✓
Attenuation	✓
Multiple PLP	✓

QAM DIGITAL MEASUREMENTS (ANNEX A/B/C)	
Modulations	4 QAM, 16 QAM, 32.64 QAM, and 256 QAM
Power	From 20 dBµV to 128 dBµV
BER	1.E-3 – 1.0E-8
MER	Up to 40 dB
C/N	Up to 52 dB
Constellation	✓
Error packets	✓
TILT	✓
Attenuation	✓
DVB-S DIGITAL MEASUREMENTS	
Power	From 20 dBµV to 128 dBµV
CBER	9.9 E-2 – 1.0 E-6
VBER	1.0 E-4 – 1.0 E-8
MER	Up to 20 dB
C/N	Up to 30 dB
Constellation	✓
Error packets	✓
TILT	✓
Attenuation	✓
DVB-S2X DIGITAL MEASUREMENTS	
Modulations	QPSK, 8 PSK
Power	From 20 dBµV to 128 dBµV
Link Margin	Up to 10 dB
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	✓
Multi TS	✓
PLS scrambling	✓
DVB-S2 DIGITAL MEASUREMENTS	
Modulations	QPSK, 8 PSK, 8 APSK, 16 APSK, and 32 APSK
Power	From 20 dBµV to 128 dBµV
Link Margin	Up to 10 dB
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	✓

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FM	
Level	✓
C/N	Up to 52 dB
RDS	✓
DAB / DAB+ [* option ref. 596204]	
Power	From 20 dBµV to 128 dBµV
MER	Up to 20 dB
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

REMOTE POWER FEEDING	
Power supply pre-amplifiers	5 VDC, 13 VDC, 18 VDC, 24 VDC, and an additional value (any value between 5 V and 24 V)
Maximum power supplied	12 W
Maximum current supplied	900 mA
LNB tone	22 KHz
DiSEqC	✓
SCR dCSS (EN 50494 EN 50607)	✓

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

PRODUCT RANGE

	REF. No.	REF. REF.	DESCRIPTION	EAN13	
METERS	596101	MOSAIQ6	MOSAIQ6 : DVB-T/T2/S/S2/C + CI + F.O. (Carrying Bag included)	8424450191538	
	596111	MOSAIQ60	MOSAIQ6 : DVB-T/T2/S/S2/SX/C + CI + Selective F.O. (Carrying Bag included)	8424450191545	
	596102	MOSAIQ6-K	MOSAIQ6 : DVB-T/T2/S/S2/SX/C + CI + F.O. (Carrying Case included)	8424450208809	
	596112	MOSAIQ60-K	MOSAIQ6 : DVB-T/T2/S/S2/SX/C + CI + Selective F.O. (Carrying Case included)	8424450208816	
	596105	MOSAIQ6A	MOSAIQ6 Advance : DVB-T/T2/S/S2/SX/C + CI + F.O. + WiFi Analyzer + Analogue Measures + DAB/DAB+ (Carrying Bag included)	8424450223192	
	596115	MOSAIQ60A	MOSAIQ6 Advance : DVB-T/T2/S/S2/SX/C + CI + Selective F.O. + WiFi Analyzer + Analogue Measures + DAB/DAB+ (Carrying Bag included)	8424450223215	
OPTIONS	596201	M6-UP-GPS	MOSAIQ6 GPS DRIVE TEST OPTION	Measurements can be displayed on a map at the very same spot where they were actually taken, thus facilitating coverage analysis.	8424450193198
	596202	M6-UP-WIFI	MOSAIQ6 WIFI ANALYZER OPTION	This functionality performs a comprehensive analysis of the entire Wi-Fi band (2.4 and 5 GHz), to find, identify and measure all available Wi-Fi networks	8424450193204
	596203	M6-UP-ANA	MOSAIQ6 ANALOGUE MEASUREMENT OPTION	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	MOSAIQ6 DAB/DAB+ OPTION	It allows power measuring between 20 dBµV and 128 dBµV, standard C/N and MER .for this type of signal	8424450193228
ACCESSORIES	596210	M6-AKKU	Stand-alone, field replaceable battery	8424450196526	
	596211	M6-T	Carrying Bag	8424450202708	
	596213	M6-PZ	Screen Protector	8424450206454	
	596214	M6-K	Carrying Case	8424450208182	

More information in:
mosaiq6.televes.com

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