PROMAX

PROWATCH*Neo* monitoring system

PROWATCH*Neo*

SNMP

SNMP COMPATIBLE

Easily scalable

WEB SERVER

WEB SERVER CONTROL

Total flexibility

H.265

HEVC H.265

High Effciency Video Codec

4K ULTRAHD

4 K

High Definition

PROWATCH*Neo* monitoring system

Remote monitoring system

After more than 50 years of experience in test and measurement solutions, PROMAX is proposing the **PROWATCH*Neo***, oriented to supervise radio and TV broadcasting, cable TV and satellite TV networks, in the 5 to 2500 MHz frequency band. It also monitors IPTV, TS (over ASI) or WiFi signals in the 2.4 GHz and 5.7 GHz ranges. It is possible to survey digital terrestrial transmissions in DVB-T, DVB-T2, ATSC, ISDB-T/TB and J.83B, Cable TV in QAM and DVB-C2 and satellite in DSS, DVB-S and DVB-S2.

PROWATCH*Neo* provides full remote control for the different parameters in all the sites to warrant quality of the complete network.

DVB T/T2

DVB C/C2

DVB S/S2

ISDB-T/TB

ip:tv

ATSC

J.83 B

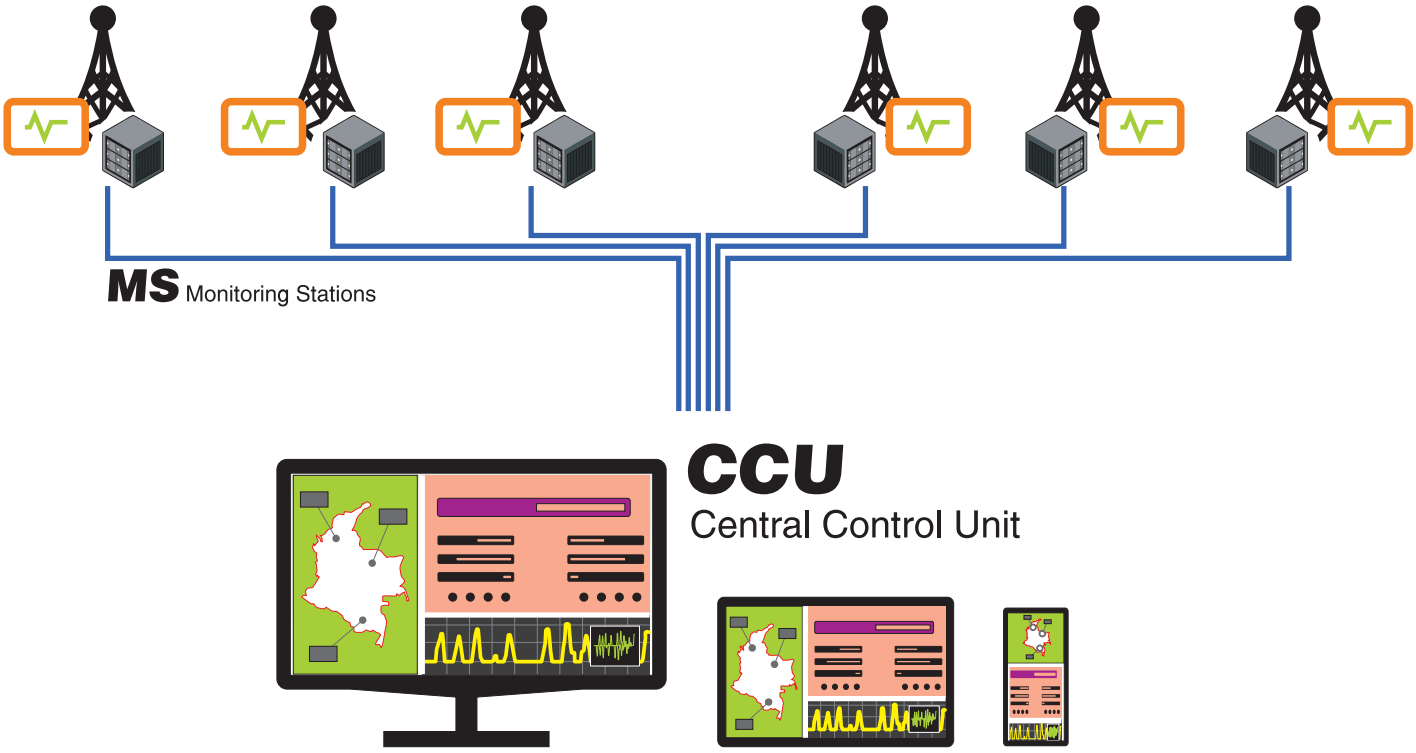
ASI-TS IN&OUT

WiFi

PROWATCH*Neo* monitoring system

PROWATCH*Neo* remote access

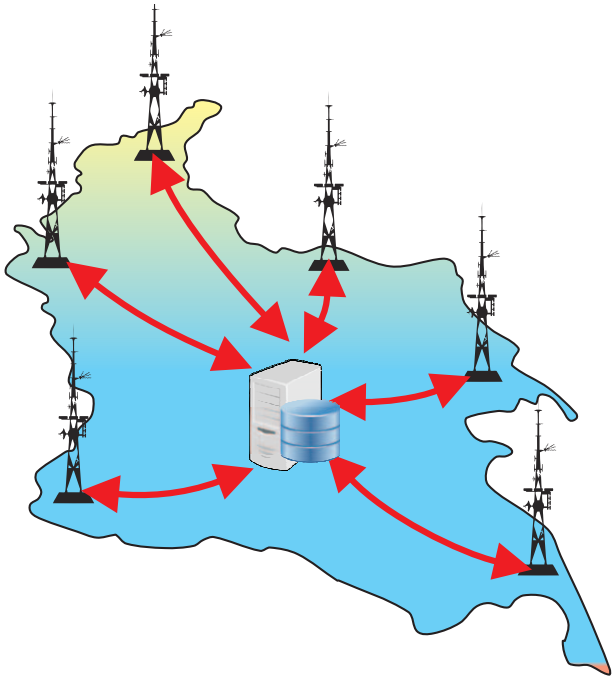
Each measurement unit features a built-in webserver which can be accessed from any PC, tablet or cellphone through their respective internet browsers. **PROWATCH*Neo*** offers Ethernet connectivity in order to communicate directly with other network devices.



SNMP compatible and easily scalable

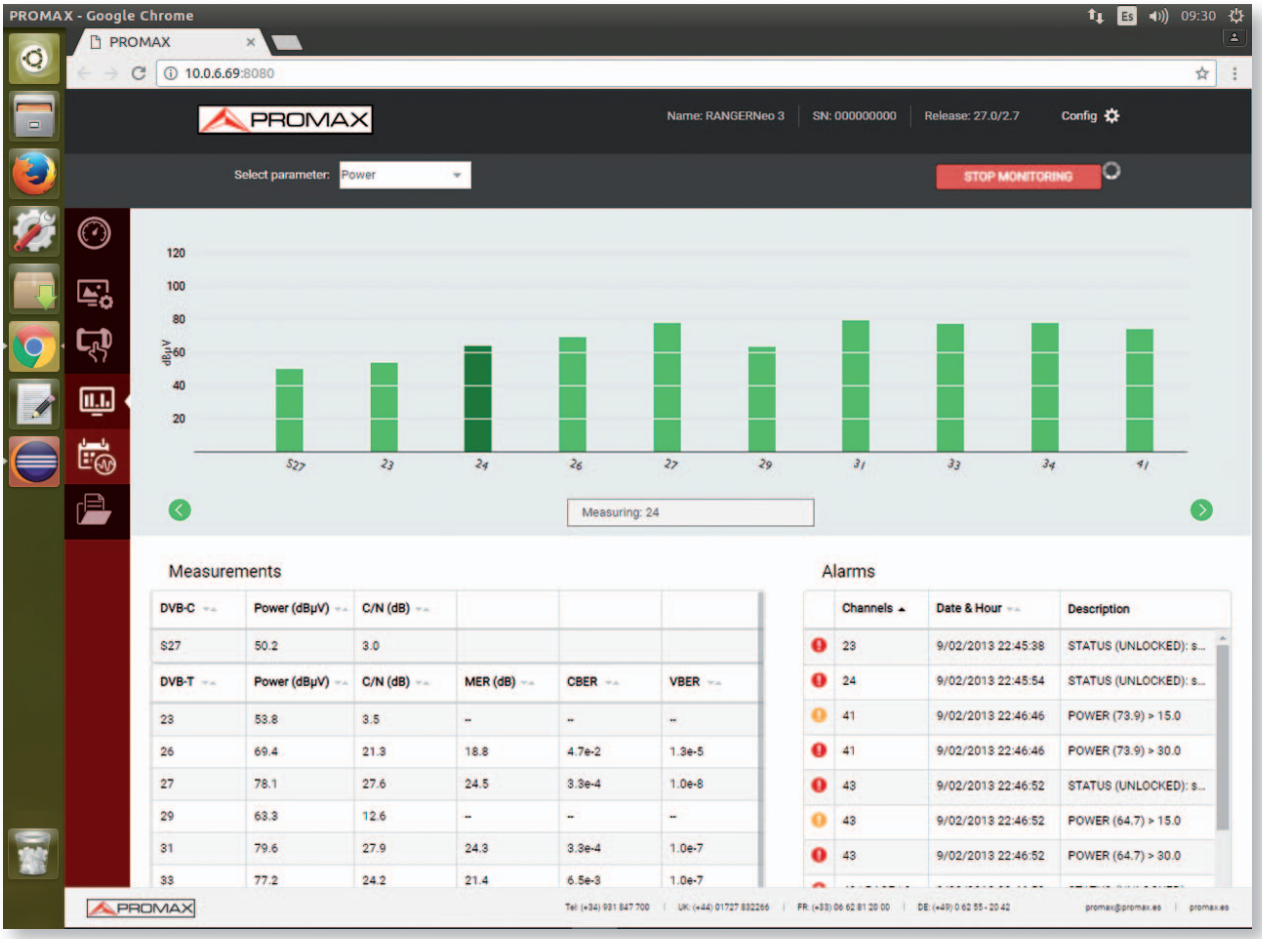
PROWATCH*Neo* is SNMP compatible, letting it be part of any SNMP manager system already in use by the network operator. Building a monitoring network with the **PROWATCH*Neo***, it's as easy: just adding as many remote stations as required.

PROWATCH*Neo* monitoring system

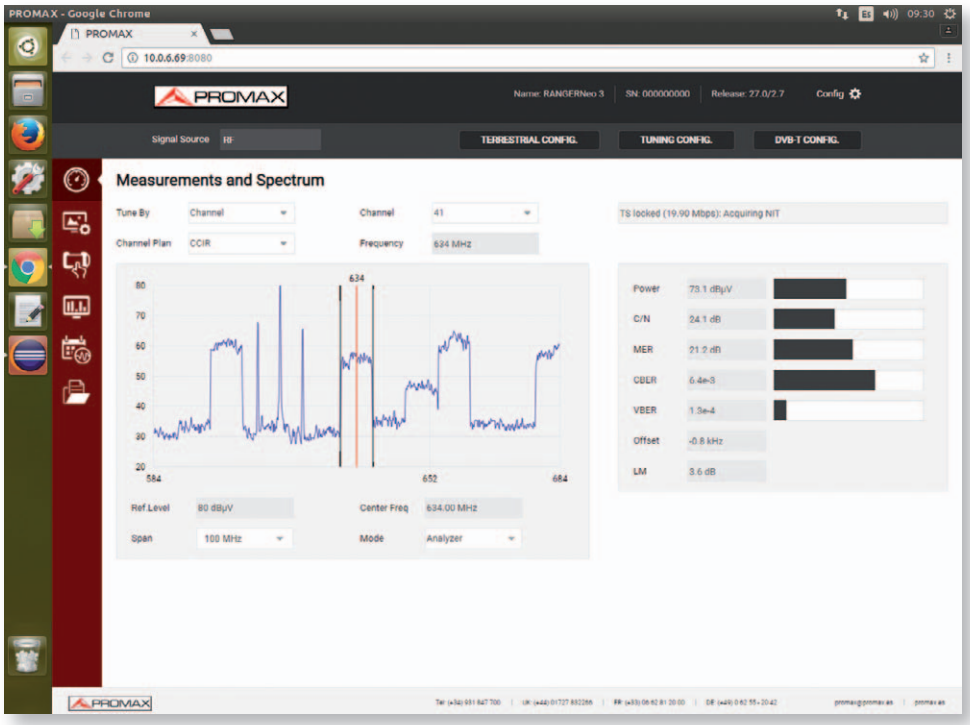


Efficient and hassle-free monitoring solution

Each measurement station can be set up to carry out tasks autonomously. Through its straightforward interface, it is possible to choose the channels or frequencies that are to be monitored as well as the threshold values and alarms.



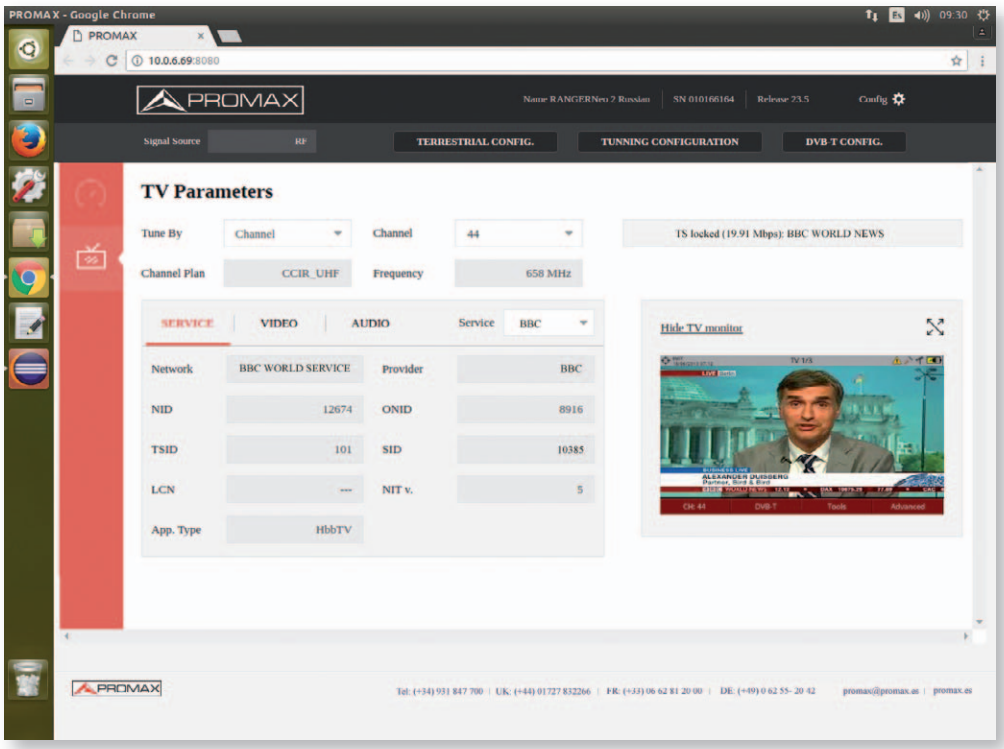
Including RANGER*Neo* hardware power



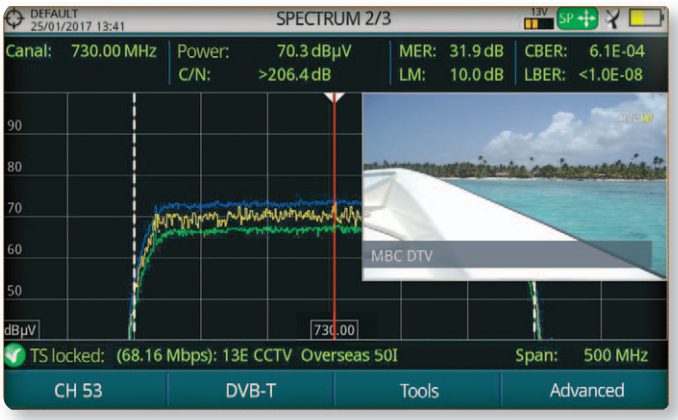
Just like being there

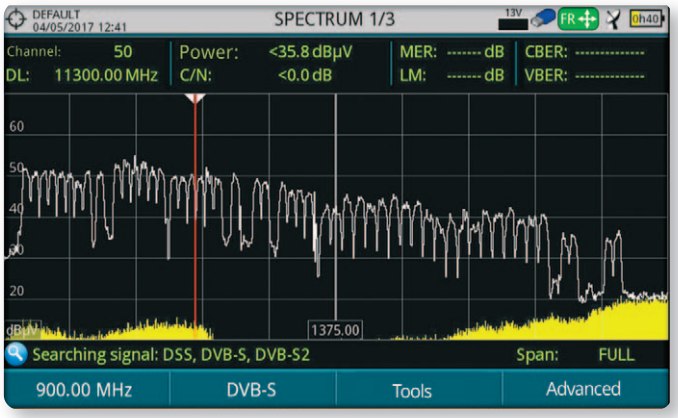
All features available in the **RANGER** ***Neo*** field use instruments have been implemented for remote access.

Whenever an alarm is switched on, the signal quality can be analysed in full details, using all the features of the instrument.

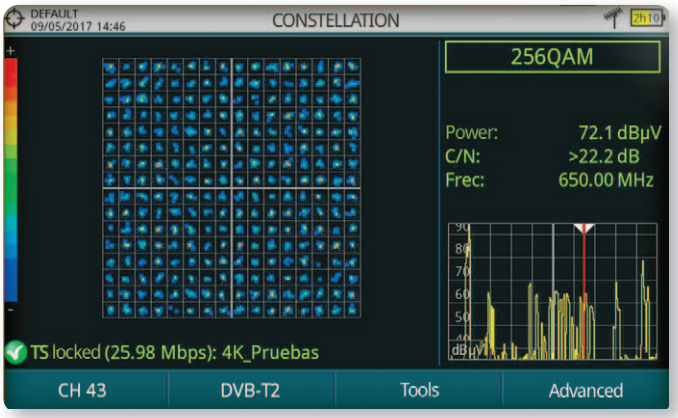


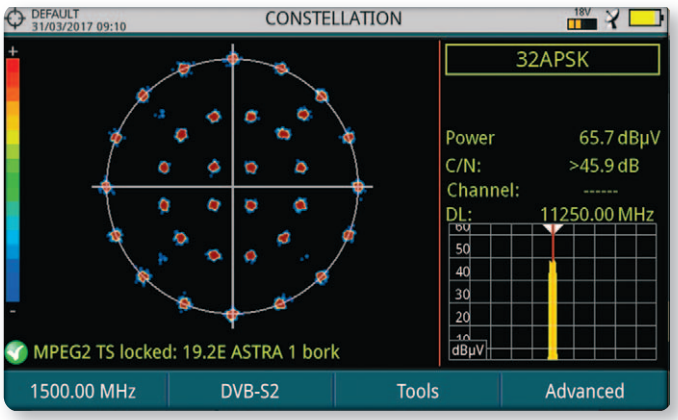
Including RANGER*Neo* hardware power



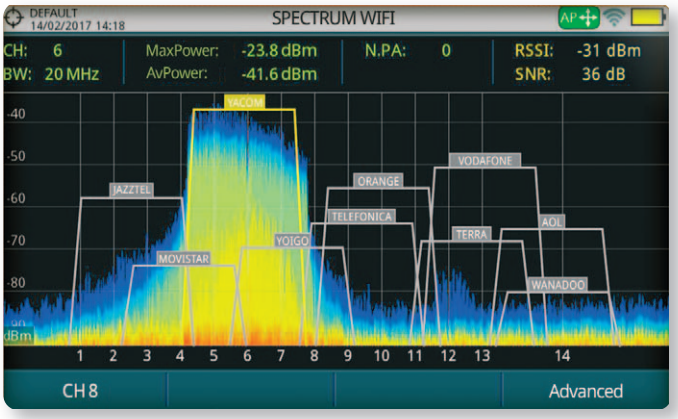


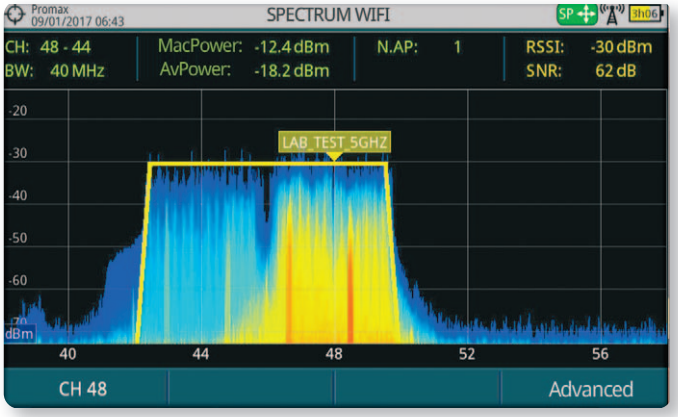
Freeze the spectrum graph and compare it with the running trace. Save that information and use it to identify satellites based on their spectrum footprint.





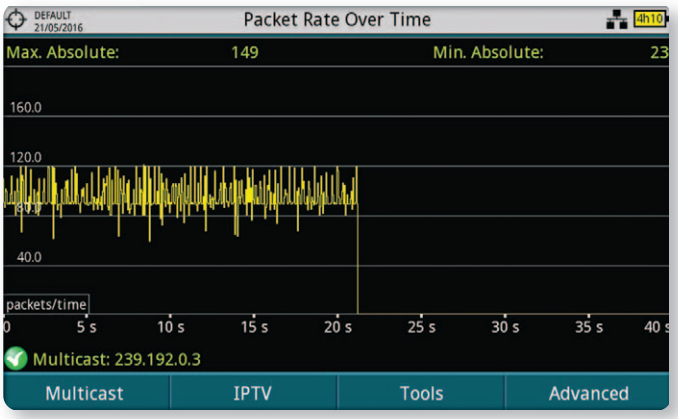
The fastest way to identify signal impairments. There are different types of constellation diagrams for the different modulation modes.



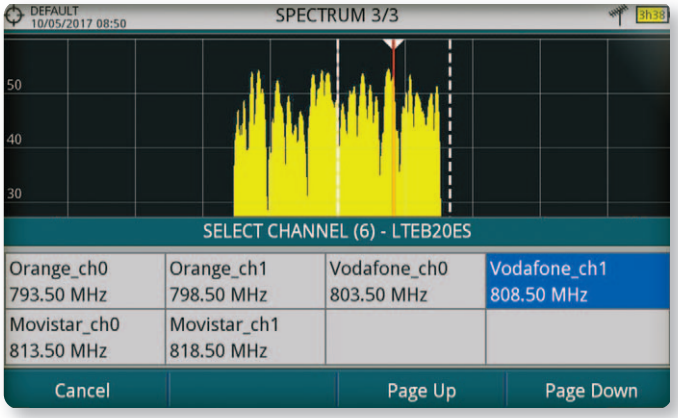


2.4 & 5.7 GHz WiFi analyzer. Simultaneous real spectrum analyzer information + WiFi access point data.

Including RANGER*Neo* hardware power

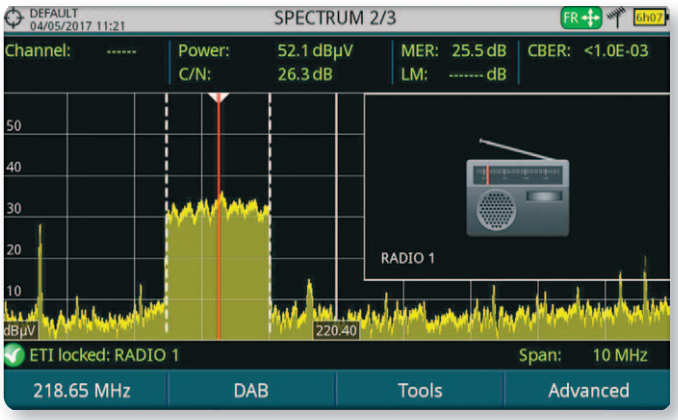


PING, Trace, Average packet delay and IPDV identify the reasons for communication problems, from complete service interruptions to uncontrolled delays.

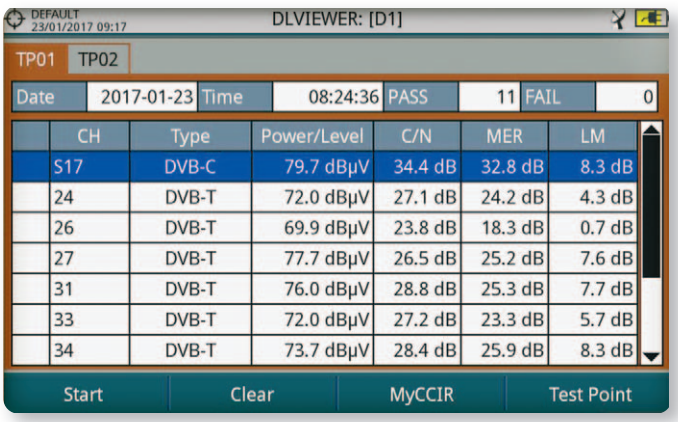


The use of smart phones is widespread worldwide. Identify operators quickly and easily.

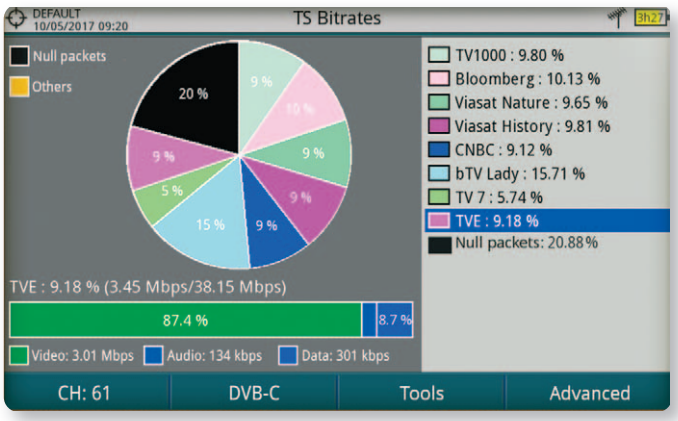
Dynamic echoes analyzer, a must-have utility for testing DVB-T, DVB-T2 and DVB-C2 networks.



The DAB+ includes Reed-Solomon error correction algorithm which makes it more robust against transmission impairments.



Powerful Datalogger and Task Planner.



The bitrate analysis shows on a pie chart the real-time bitrate used by each one of the services in a transport stream.

SPECIFICATIONS	PROWATCH*Neo* +	PROWATCH*Neo* 2
DIGITAL BROADCAST STANDARDS	DVB-T, DVB-T2, DVB-T2 lite, ATSC, ISDB-T/TB, J.83B DVB-C, DVB-C2 DVB-S, DVB-S2 DVB-S2 Multistream DSS, ACM / VCM / CCM DAB, DAB+ (optional)	DVB-T, DVB-T2, DVB-T2 lite, ATSC, ISDB-T/TB, J.83B DVB-C, DVB-C2 DVB-S, DVB-S2 DVB-S2 Multistream DSS, ACM / VCM / CCM DAB, DAB+ (optional) MPEG-TS
AUDIO CODECS	MPEG-1, MPEG-2, HE-AAC, Dolby Digital, Dolby Digital Plus	
VIDEO CODECS	MPEG-2, MPEG-4 / H.264, HEVC / H.265	
INPUTS AND OUTPUTS	Universal RF input 75 Ω HDMI output IP input for remote control Analogue Video/Audio input 2 x USB (Type-A) for data transfering	Universal RF input 75 Ω HDMI output IP input for remote control Analogue Video/Audio input 2 x USB (Type-A) for data transfering ASI-TS input and output (BNC Female, 75 Ω) IPTV multicast input (UDP / RTP, RJ45) Slot *Common Interface*
FUNCTIONS	Constellation diagram LTE ingress test Dynamic echoes analysis StealthID (instant identification of tuning parameters) PLS (Physical Layer Scrambling) Ultra fast spectrum analyzer (70 ms sweep time) MAX and MIN hold FM RDS radio measurement and decoding Screenshots and Datalogger for measurement reports Beacon-Flyaways SNG and VSAT Wideband LNB WiFi 2.4 GHz LTE 1.8 GHz OTT Service Recording Field strength measurement Task planner Merogram Spectrogram Signal Monitoring Remote control (web server) MER by carrier GPS coverage analysis (optional) Channel Monitoring	Constellation diagram LTE ingress test Dynamic echoes analysis StealthID (instant identification of tuning parameters) PLS (Physical Layer Scrambling) Ultra fast spectrum analyzer (70 ms sweep time) MAX and MIN hold Descodificación y medida de radio FM RDS Screenshots and Datalogger for measurement reports Beacon-Flyaways SNG and VSAT Wideband LNB WiFi 2.4 GHz LTE 1.8 GHz OTT Service Recording Field strength measurement Task planner Merogram Spectrogram Signal Monitoring Remote control (web server) MER by carrier GPS coverage analysis (optional) TS recording TS Analysis IPTV multicast measurement and decoding *Shoulder attenuation* Channel Monitoring
SPECTRUM ANALYZER Frequency Margin Measurement range Span Resolution bandwidths	From 5 to 1000 MHz (Terrestrial) ; From 250 to 2500 MHz (Satellite) From 10 to 130 dBµV Full / 500 / 200 / 100 / 50 / 20 / 10 MHz 100, 200 kHz, 1 MHz	2 kHz (Terrestrial) 10, 20, 40, 100, 200 kHz 1 MHz
MEASUREMENT MODE **(According to standards)** Frequency Margin DVB-T COFDM DVB-T2 Base and Lite COFDM DVB-C QAM DVB-C2 COFDM PAL, SECAM and NTSC analogue TV FM radio DVB-S QPSK DVB-S2 QPSK, 8PSK, 16APSK, 32APSK DSS QPSK	From 5 to 1000 MHz (Terrestrial); From 250 to 2350 MHz (Satellite) Power (35 to 115 dBµV), CBER, VBER, MER, C/N, Link margin Power (35 to 115 dBµV), CBER, C/N, LBER, MER, Link Margin, BCH ESR, Iterations LDP, Wrong packets Power (45 to 115 dBµV), BER, MER, C/N and Link margin Power (45 to 115 dBµV), CBER, MER, C/N, LBER, BCH ESR, Iterations LDP and Wrong packets M, N, B, G, I, D, K y L Level measurement Power (35 to 115 dBµV), CBER, MER, C/N y Link Margin Power (35 to 115 dBµV), CBER, LBER, MER, C/N, BCH ESR, Wrong packets and Link Margin Power (35 to 115 dBµV), CBER, VBER, MER, C/N and Link margin	
INTERNAL STORAGE	7 GB for measurement protocols, screenshots and transport stream recordings	
PC CONNECTION (via ethernet interface)	SNMP and WEB SERVER	
MECHANICAL FEATURES **Dimensions and Weight**	482.6 (W.) x 44.4 (H.) x 381 (D.) mm.; 2.9 kg	482.6 (W.) x 44.4 (H.) x 381 (D.) mm.; 3.5 kg
OPTIONS	DAB, DAB+; GPS Coverage Analysis ; OPM + Optical-to-RF converter + WiFi 5 GHz + LTE 2.6 GHz + 6 GHz RF input; WiFi 5 GHz; LTE 2.6 GHz + 6 GHz RF input	