



A NEW STANDARD IN FIELD STRENGTH METERS

# TV, CABLE, SATELLITE & WIFI ANALYSER

## RANGER*Neo* +



### EASY OPERATION

Hybrid user interface  
(touch + keyboard)



### HEVC H.265

High Efficiency Video  
Codec



### WIFI ANALYSER

Dual display:  
SPECTRUM and DATA



### WIDEBAND LNB

The entire SAT band  
on a single SPAN

The future today

## HEVC H.265 DECODING

High Efficiency Video Codec

**RANGER Neo** + is the new industry-standard in field strength meters and TV analysers. It is capable to offer HEVC signal demodulation compatible with the new DVB-T2 broadcast signals.



**LIGHT WEIGHT**

**1,9 KG**



**TRIPLE SPLIT  
DISPLAY**



**ULTRA FAST  
SPECTRUM**

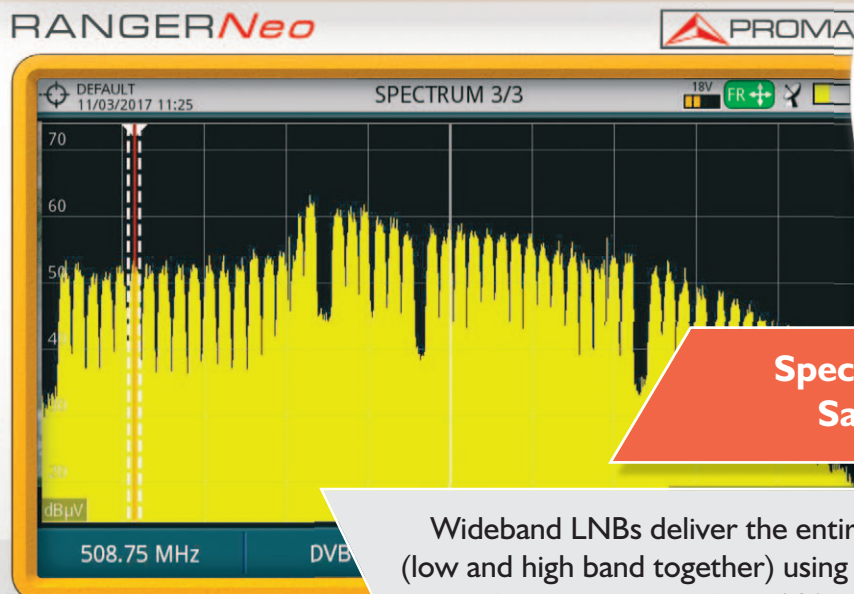


**FREE FIRMWARE  
UPDATES**



## Field strength meter for the HDTV era

### wbLNB COMPATIBLE



**Spectrum analyser from 5 to 2500 MHz**  
**Satellite band from 250 to 2350 MHz**

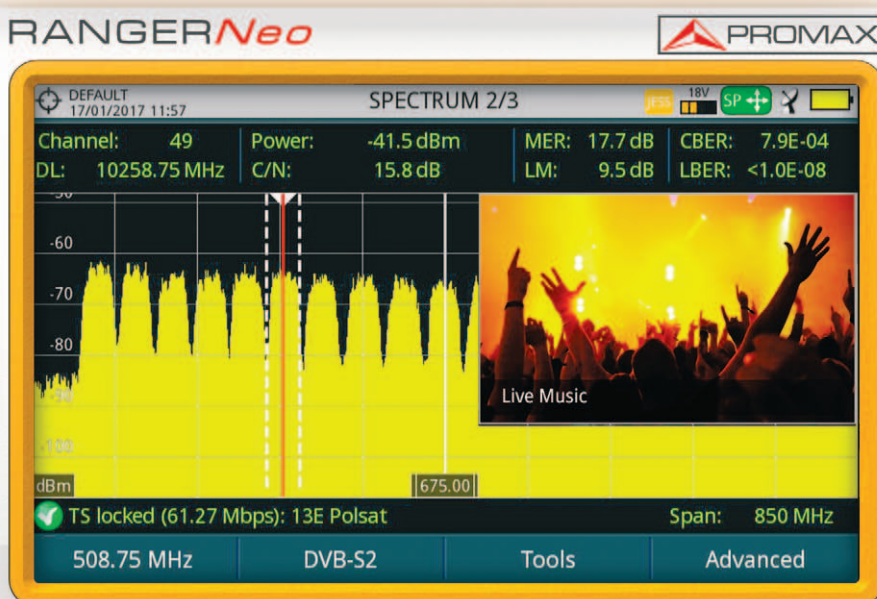
Wideband LNBs deliver the entire Vertical and Horizontal satellite polarities (low and high band together) using two separate RF cables and an extended IF frequency range from 290 to 2,340 MHz. **Is your analyser prepared?**

### DCSS LNBS

Digital Channel Stacking Switch satellite LNB

Digital Channel Stacking Switch LNB can support several users on a single cable distribution system by allocating specific user bands for each of them. It is not possible to work with this type of LNB unless your field strength meter can communicate using EN50494 and EN50607 standard protocols.

This is the case of **RANGER Neo +** which also covers JESS and SATCR.



Be ready for the future

# 2.4 GHz WiFi ANALYSER

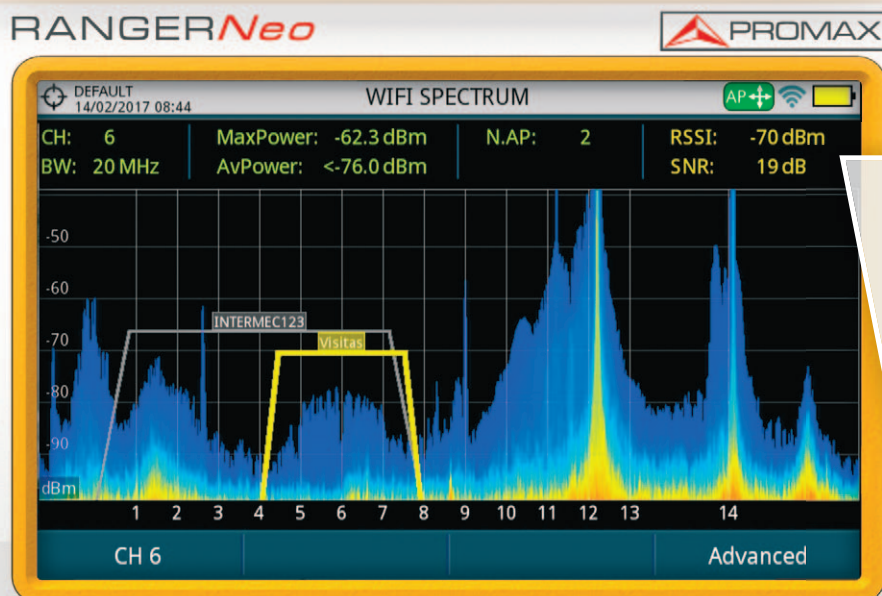
Improve your network performance





## Your analyser for the new world

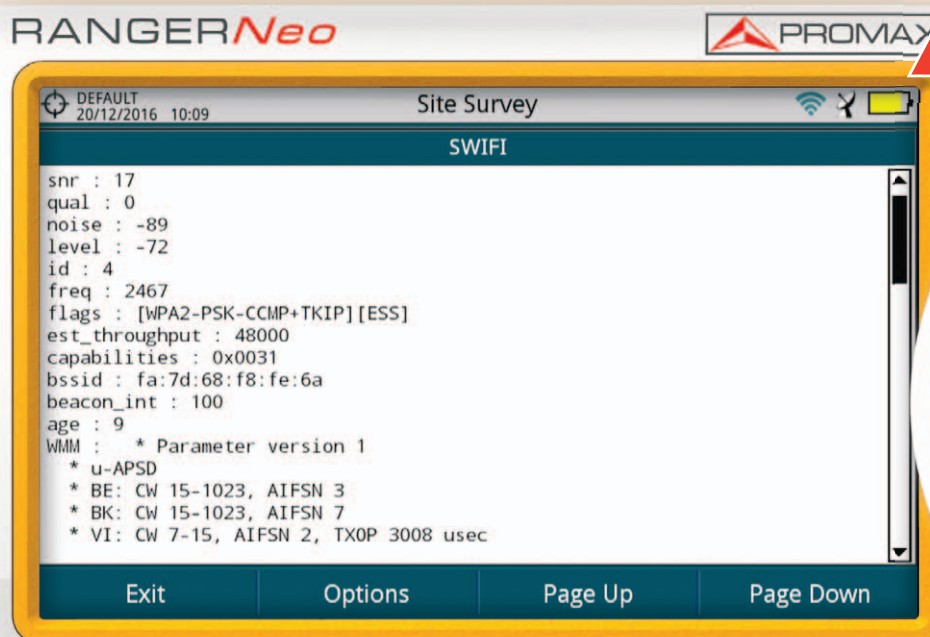
# 2.4 GHz WiFi ANALYSER Improve your network performance



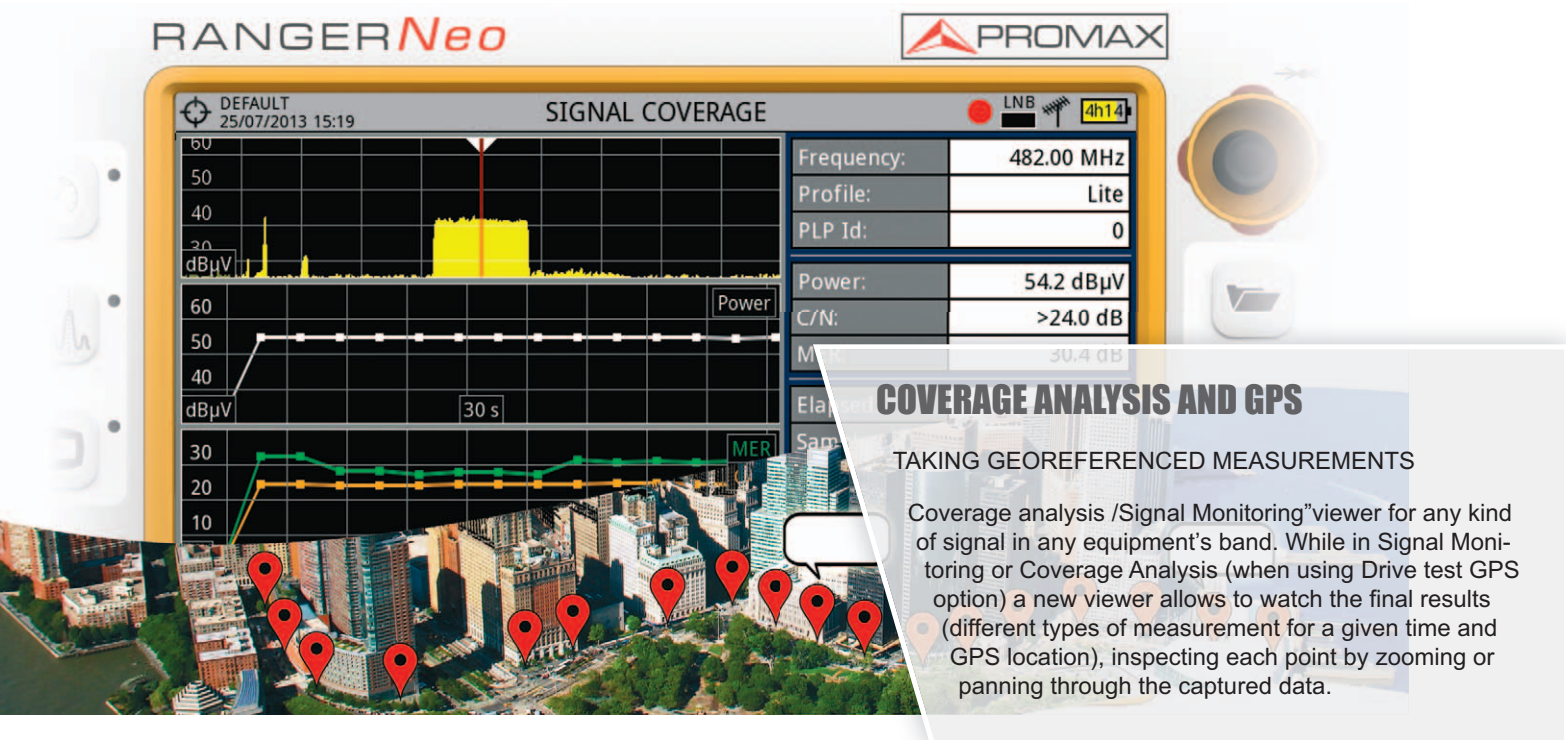
### Simultaneous real spectrum analyser information + WiFi access point data

WiFi signals can be disturbed by interference from other WIFI stations, for example other access points, but also from non-WIFI signals such as wireless CCTV cameras or, like in the picture, a microwave oven! **RANGER Neo +** can display both simultaneously.

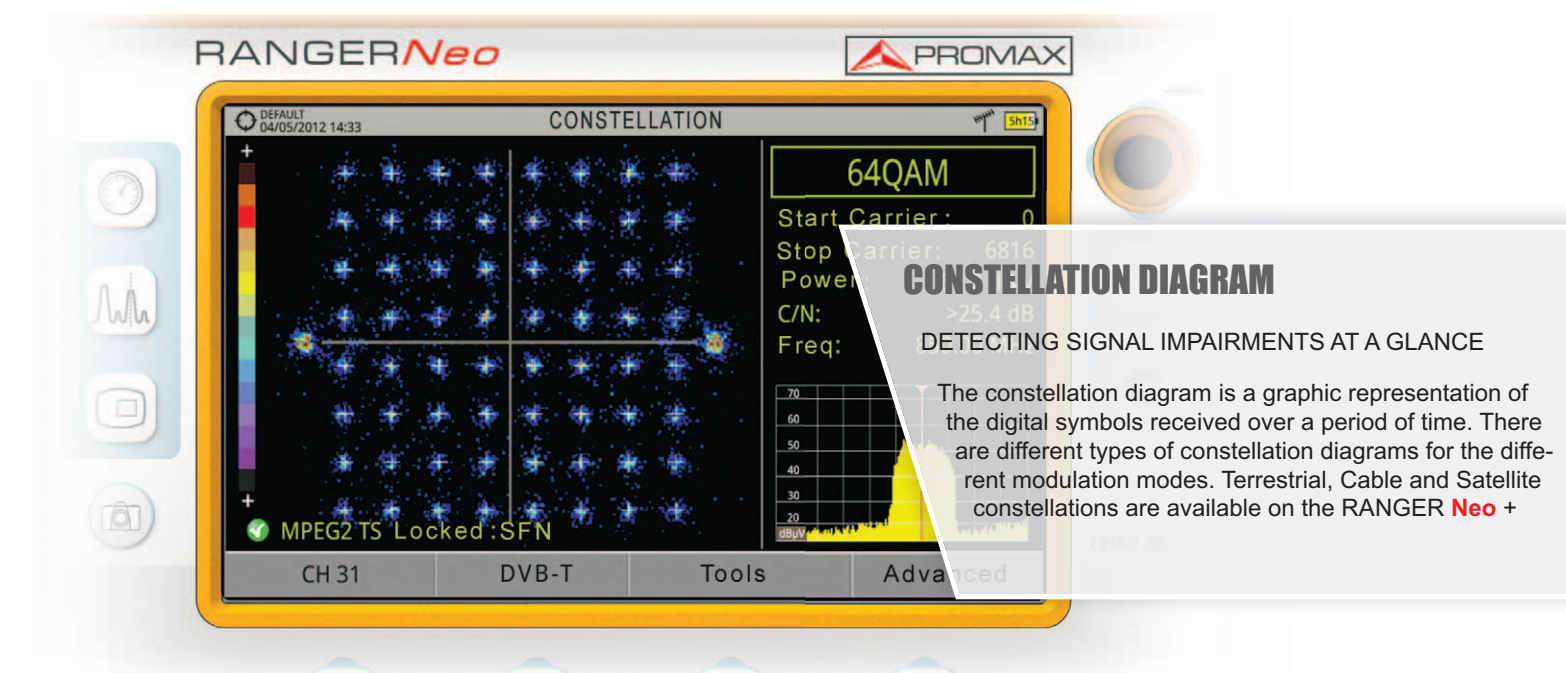
**RANGER Neo +** shows convenient information from the access points such as SSID, RSSI, SNR, security information, etc. It also indicates the number of access points per channel.



# DRIVE TEST GPS - OPTION



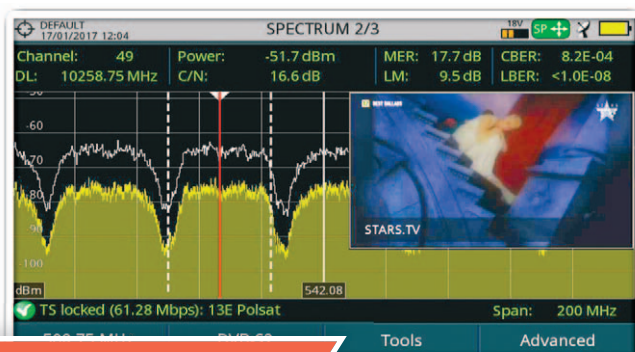
# CONSTELLATION DIAGRAM





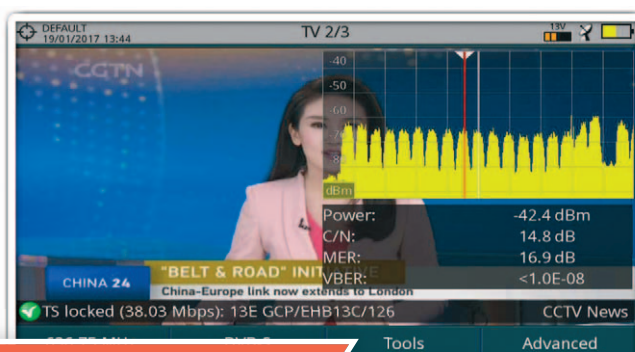
## Fast and accurate spectrum analyser

# PROFESSIONAL SPECTRUM ANALYSER



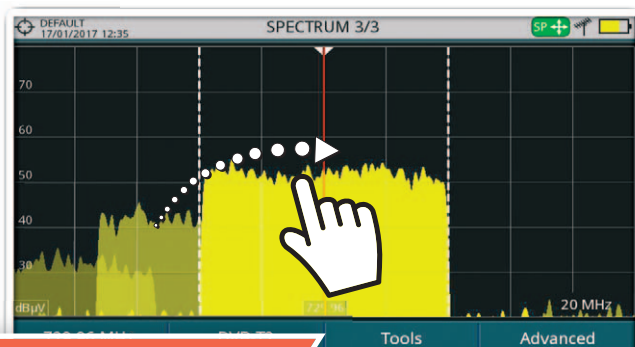
### Reference traces

Freeze the spectrum graph and compare it with the running trace.



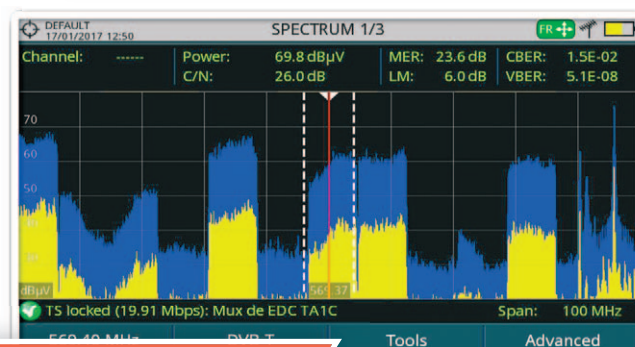
### Triple split display

Say goodbye to switching between TV, measurements and spectrum modes.



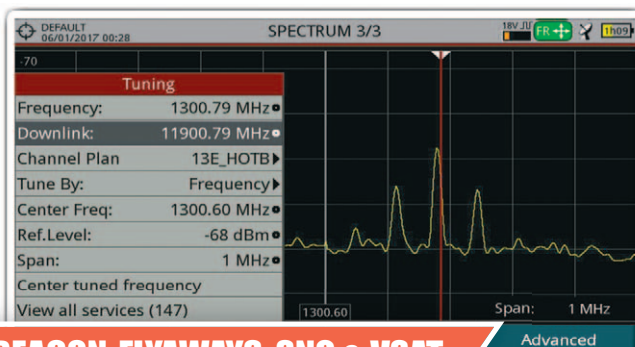
### Touch screen

Place the marker on any channel and move the trace using your finger.



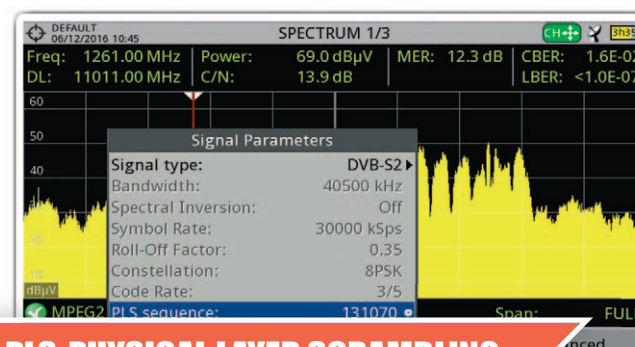
### MIN and MAX hold

Display them separately or simultaneously along with the current spectrum trace.



### BEACON-FLYAWAYS, SNG & VSAT

Satellite BEACON signals can be clearly seen thanks to the 1 MHz SPAN and 10 kHz resolution filters.

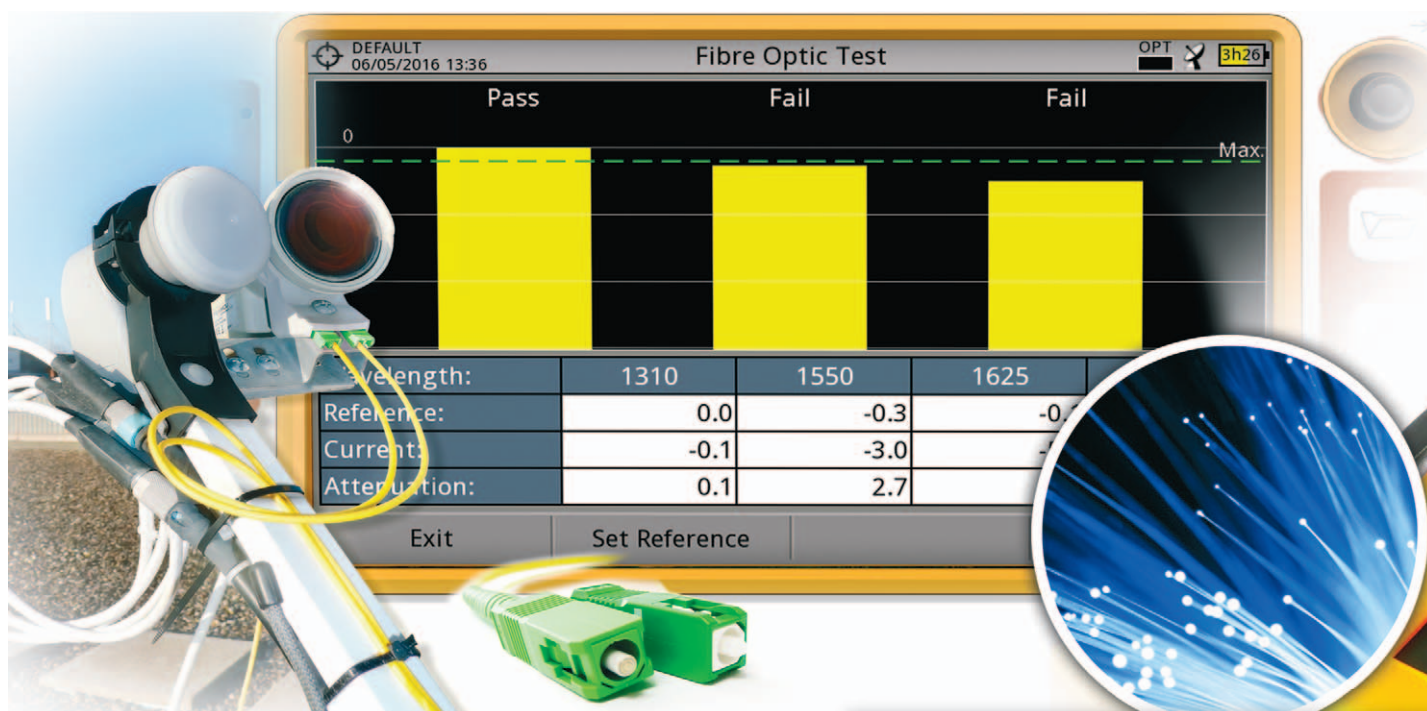


### PLS-PHYSICAL LAYER SCRAMBLING

PLS is a number generated by the broadcaster that must be properly decoded by the customer so that demodulation is possible.

Enjoy a wide variety of functions

## OPTICAL MEASUREMENTS-OPTION



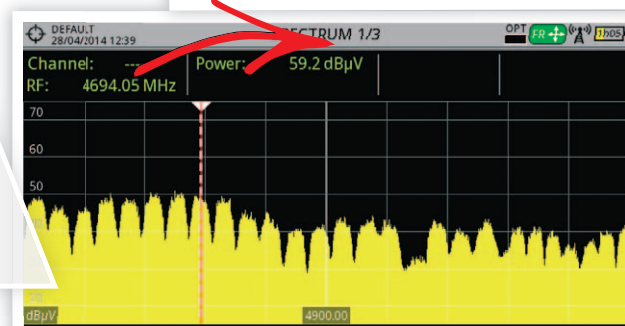
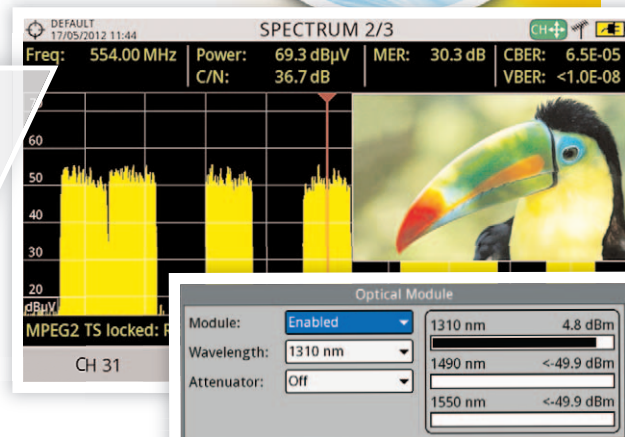
### Selective Optical-to-RF converter

RFoG (Radiofrequency-over-Glass), as well as optical TV&SAT distribution, is used more and more by operators because it allows them to benefit from the advantages of fibre optics to compete with FTTH service providers. The RF signal at the converter output can be analyzed, measured and decoded by the meter as one would usually do with any signal over copper wires.

### 6 GHz RF Auxiliary input

The RANGER**Neo** + optical fibre option comes along with 6 GHz RF auxiliary input which can be used among other applications for direct connection to **wholeband LNB's** with **5.4 GHz** RF output. This auxiliary input covers three bands:

- Band I From 2000 MHz to 3000 MHz
- Band II From 3400 MHz to 4400 MHz
- Band III From 4400 MHz to 6000 MHz

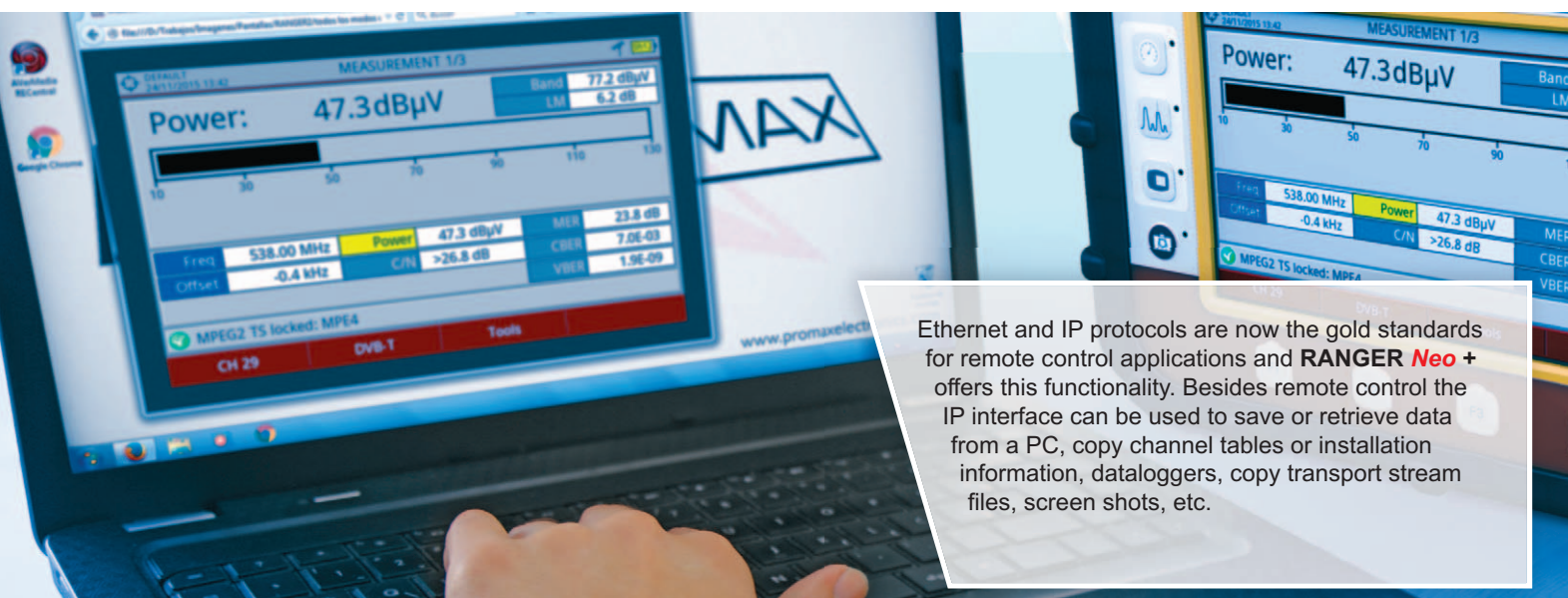




Enjoy a wide variety of functions

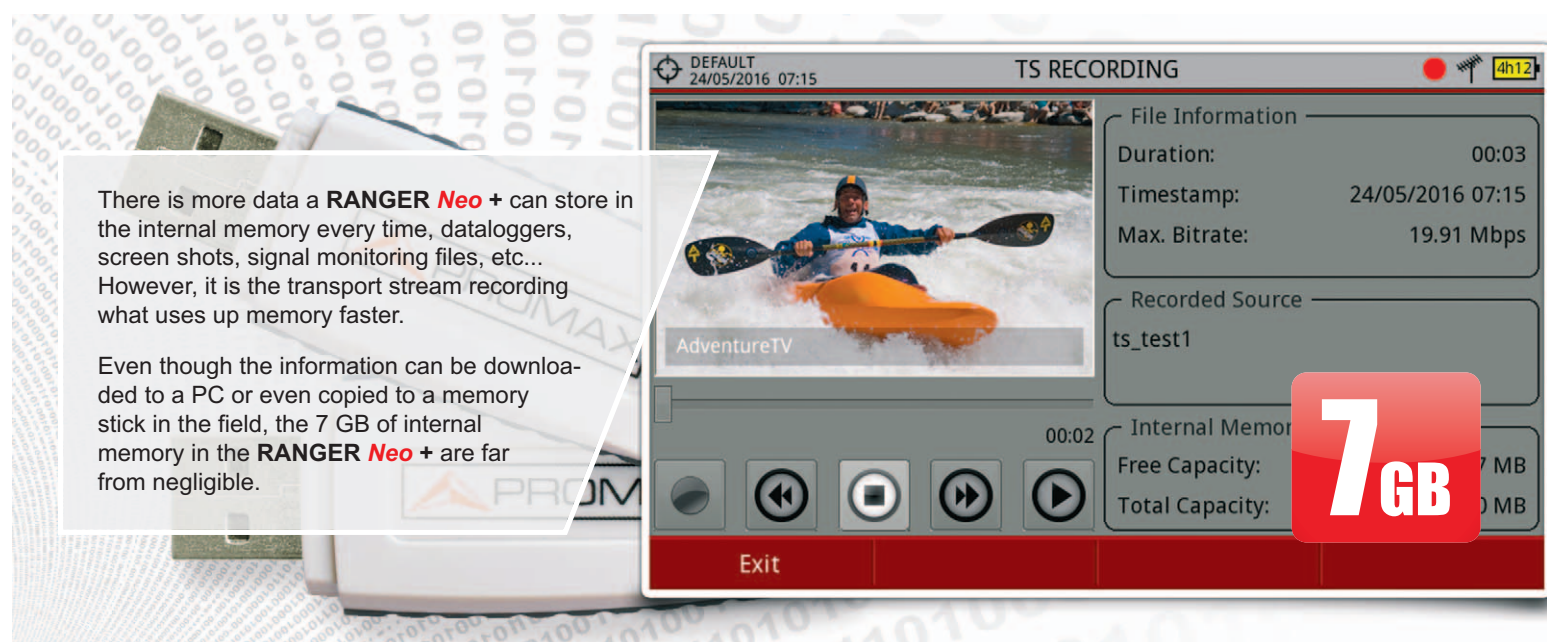
## ETHERNET CONNECTIVITY

remote control and web server



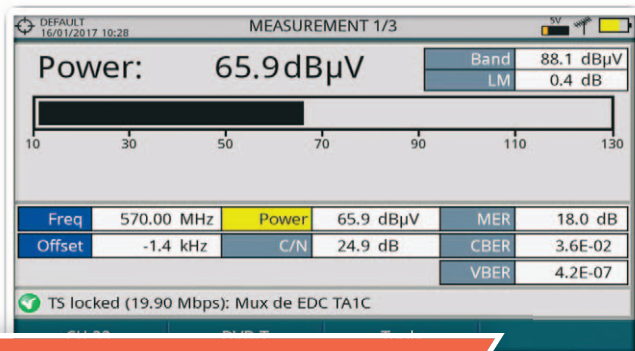
## MORE INTERNAL MEMORY

up 7 GB for user data



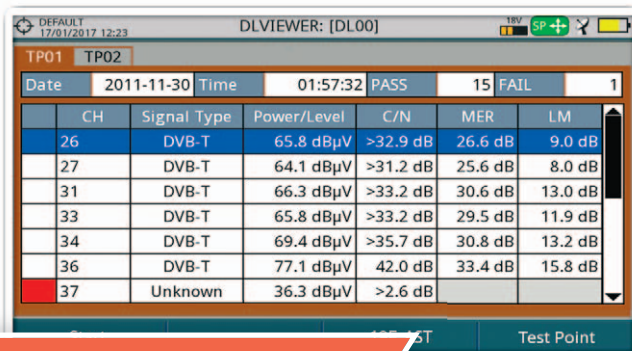
Enjoy a wide variety of functions

## MANY USEFUL FUNCTIONS



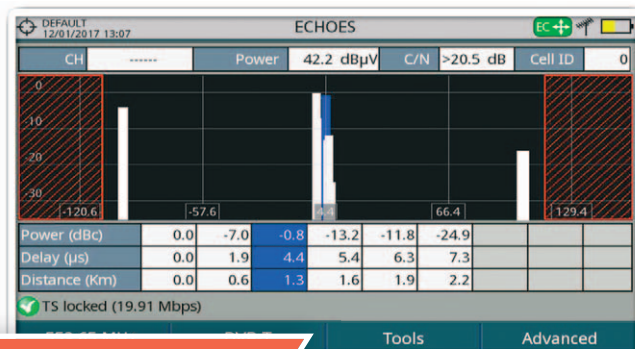
### Simultaneous measurements

More computing power for real-time measurements displayed on a single screen.



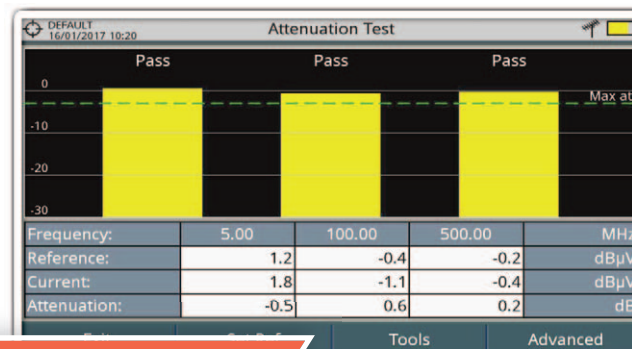
### Datalogger and Test&Go

Collect data for your reports faster and easier using the auto-setup Test&Go.



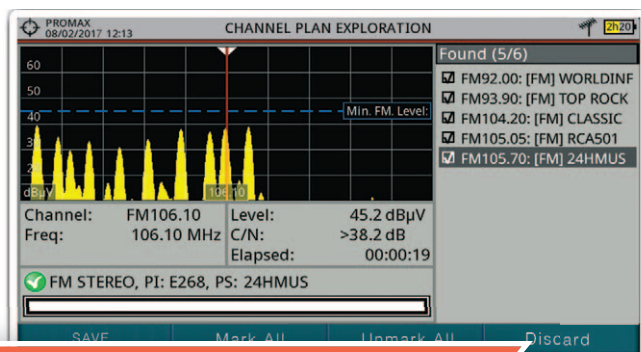
### Dynamic echoes

A must-have utility for testing DVB-T, DVB-T2 and DVB-C2 networks.



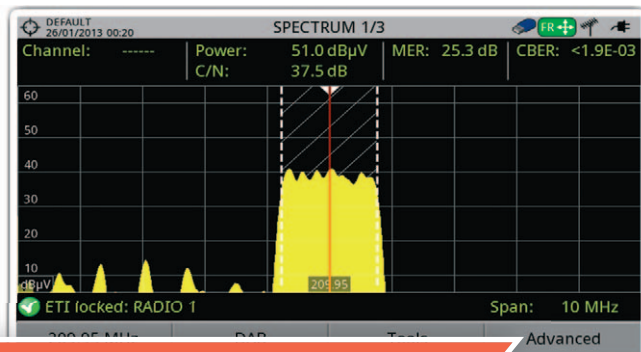
### Attenuation test

Test the frequency response of your installation using RP-050, RP-080, RP-110B signal generators.



### FM RADIO RECEIVER & ANALYZER

FM radio signals can be scanned, measured and demodulated



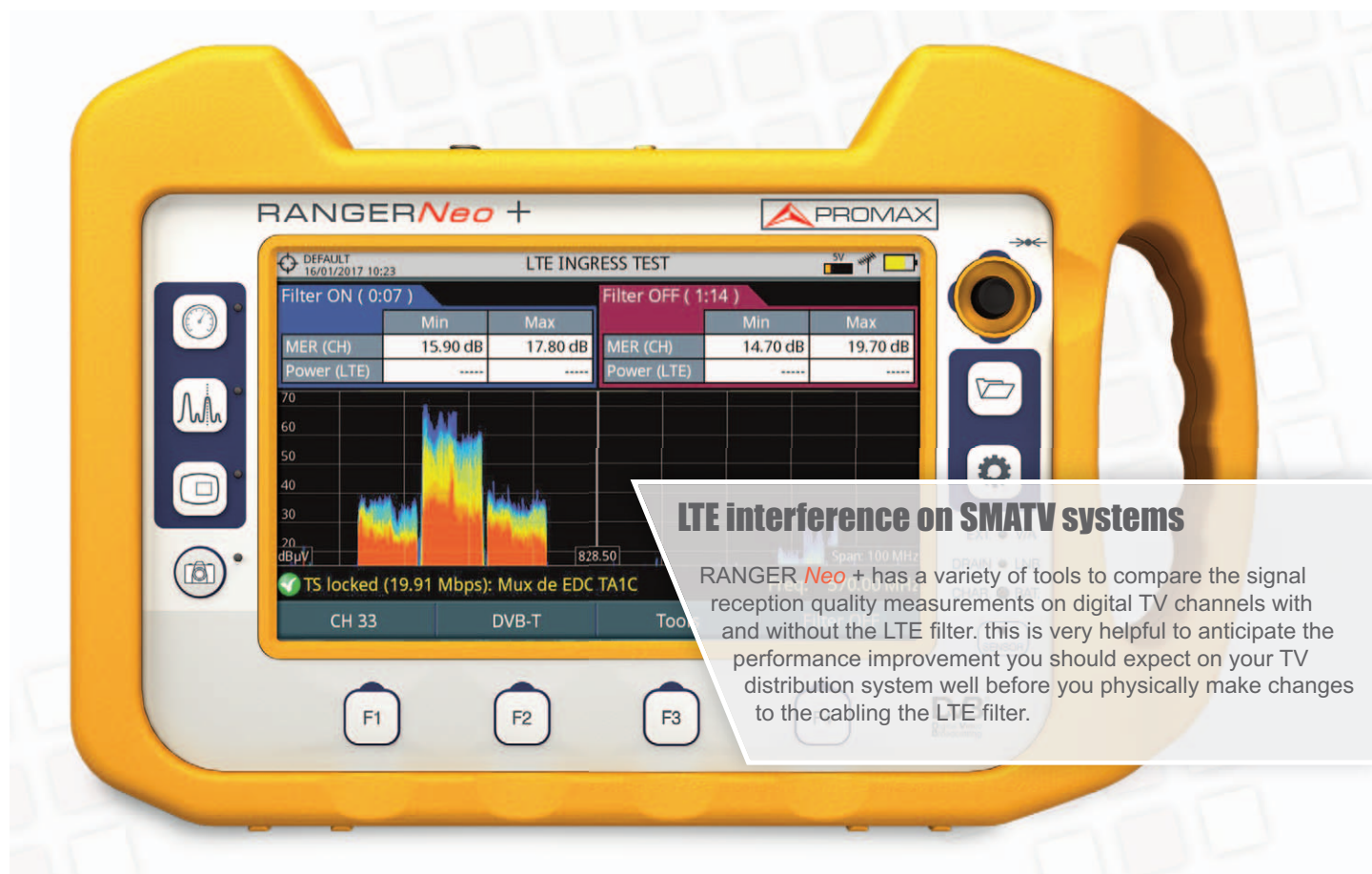
### OPTION FOR DAB AND DAB+

Standard radio services can be detected, measured, analysed and demodulated.



A new breed of analysers for a new world

## ■ LTE INGRESS TEST



**H.265**

H.265 HEVC analyser and decoder



Webserver control via Ethernet port

**DAB+**

DAB and DAB+ digital radio (optional)



Optical power meter and RF converter (optional)

**WiFi**

Home network, commercial, point to point

**7GB**

Fast-storage 7 GB capacity for user data



Digital Channel Stacking Switch LNB (dCSS)



GPS for signal coverage analysis (optional)

**6GHz**

5 GHz RF input (optional)

**USB**

2x USB ports



A NEW STANDARD IN FIELD STRENGTH METERS

# TV, CABLE, SATELLITE & WIFI ANALYSER

SPECIFICATIONS	RANGER <i>Neo</i> +		
DIGITAL STANDARDS	DVB-T, DVB-T2, DVB-T2 lite DVB-C, DVB-C2 DVB-S, DVB-S2, DVB-S2 Multistream, DSS, ACM / VCM		
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 connector 75 $\Omega$ HDMI output IP input for remote control Analogue Video/Audio input 2 USB connectors for data transferring and GPS module (Type A)		
FUNCTIONS	Merogram and Spectrogram Constellation diagram for all DVB standards StealthID (instant identification of tuning parameters) PLS (Physical Layer Scrambling) Ultra fast spectrum analyser (70 ms sweeping time) with max. and min. hold Screenshots and Datalogger for measurement reports Field strength Measurements Dynamic echoes analysis	Wideband LNB WiFi 2.4 GHz LTE 1.8 GHz LTE OTT FM RDS radio measurements and decoding DVB-S2 multistream GPS Coverage Analysis (option)	Resolution Bandwidth: 100, 200 kHz, 1 MHz Task planner Web server MER by Carrier Signal monitoring Service Recording Beacon-Flyaways SNG & VSAT
MEASUREMENT MODE 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 - 1000 MHz (Terrestrial) From 250 - 2350 MHz (Satellite) Power (35 to 115 dB $\mu$ V), CBER, VBER, MER, C/N, Link margin. Power (35 to 115 dB $\mu$ V), CBER, C/N, LBER, MER, Link Margin, BCH ESR, LDP iterations, wrong packets Power (45 to 115 dB $\mu$ V), BER, MER, C/N and Link margin Power (45 to 115 dB $\mu$ V), CBER, MER, C/N, LBER, BCH ESR, LDP iterations and wrong packets M, N, B, G, I, D, K and L Level measurement Power (35 to 115 dB $\mu$ V), CBER, MER, C/N and Link Margin Power (35 to 115 dB $\mu$ V), CBER, LBER, MER, C/N, BCH ESR, wrong packets and Link Margin Power (35 to 115 dB $\mu$ V), CBER, VBER, MER, C/N and Noise margin		
SPECTRUM ANALYZER Frequency Margin  Measurement range Span	From 5 - 1000 MHz (Terrestrial) From 250 - 2500 MHz (Satellite) From 10 - 130 dB $\mu$ V Full / 500 / 200 / 100 / 50 / 20 / 10 MHz		
OPTIONS OP-001-PS OP-001-WL OP-001-DAB+ OP-001-GPS OP-001-19	OPM & OPT to RF conv & WiFi 5 GHz & LTE 2.6 GHz WiFi 5 GHz & LTE 2.6 GHz DAB, DAB+ GPS Coverage Analysis For rack assembly		
INTERNAL STORAGE	7 GB for measurement protocols, screenshots and transport stream recordings		
PC CONNECTION (via ethernet interface)	NetUpdate 4 (free software); Free and automatic firmware updates; Remote control (webserver); User customised channel plans; Measurement reports and screenshot;		
GENERAL	Hybrid operation: Touch screen (7") or conventional keyboard Battery >4 h. in continuous mode DiSEqC 1.2 SATCR / SCD (EN50494) DCSS / SCD2 (EN50607)		