



RANGER Neo RACK

PROWATCH Neo

**POINTING THE DISH HAS
NEVER BEEN EASIER**
**RACK MOUNTED
SPECTRUM ANALYZERS
FOR OB VANS**

**4K
ULTRAHD**

RANGER NEO RACK

- Professional spectrum analyzer
- Optimum antenna aiming
- RF measurements
- MPEG-2, MPEG-4 and H.265 image decoding
- TS analysis and recording: Tables and bitrates
- Continuous monitoring
- Remote control
- Several versions available

PROWATCH NEO

Centralized integrated system for telecommunications signals monitoring with SNMP databases connection.



FAST AND ACCURATE ANTENNA POINTING

Designed for its installation and integration in rack systems of OB vans, **RANGER Neo** rack and **PROWATCH Neo** systems are the solution needed by any professional involved in the reception and retransmission of satellite signals.

Including 24/7 permanent monitoring of satellite feeds, continuous evaluation of the transmission quality, system performance tracking... PROMAX systems feature remote control, webserver, SNMP compatibility, video streaming and alarms management.



Proven technology. PROMAX expertise.

FOR AIMING AND ANALYSIS



RANGER Neo
Signal analysis.
Antenna pointing.
In field or remote control.

FOR 24/7 MONITORING



PROWATCH Neo
24/7 monitoring.
Signal tracking.
Internet remote control.



SNG, VSAT and mobile satellite antennas (flyaway) alignment



Mobile satellite antennas pointing and signal monitoring



Teleport 24/7 monitoring



Government and military SATCOM



Oil rig & maritime satellite communications



Beacon, TT&C (Telemetry, Tracking, and Command) signal location and monitoring



Satellite, TV and CATV entertainment systems



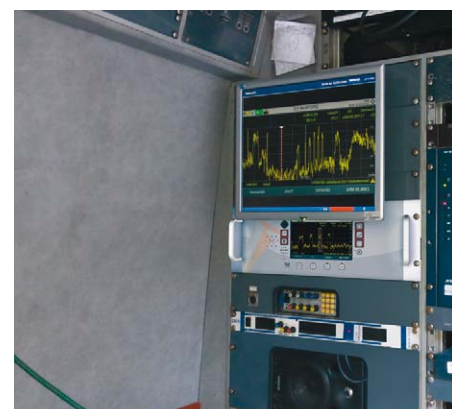
VSAT system on-site and remote commissioning

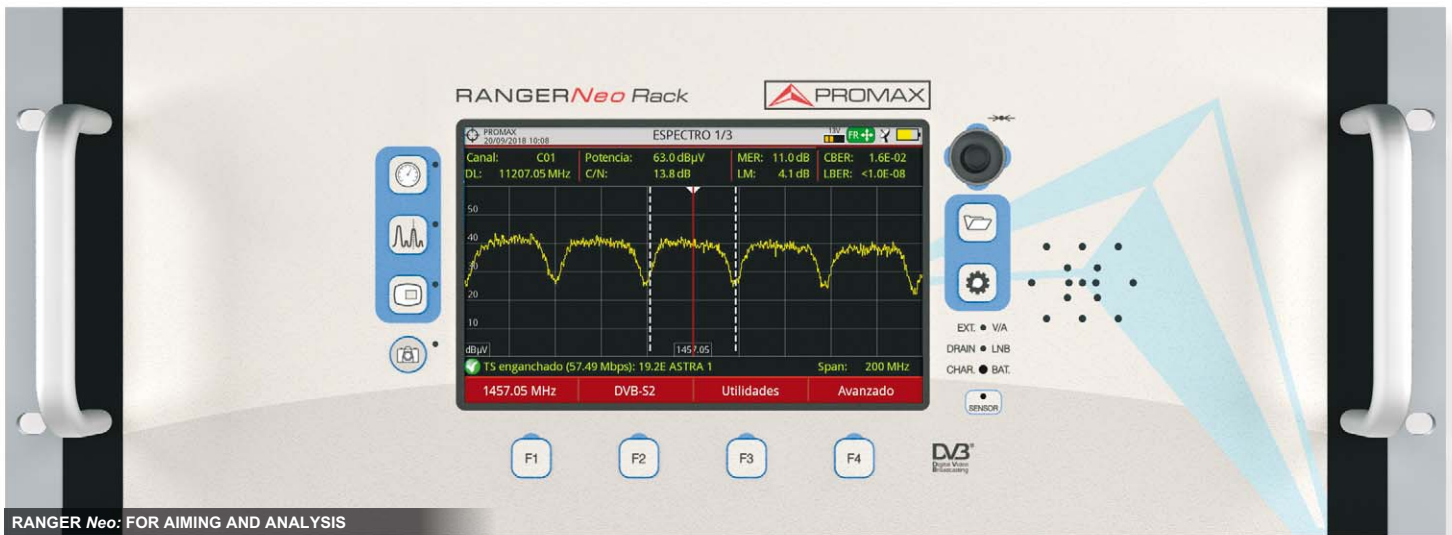


PERFECT FOR ANTENNA ADJUSTMENTS IN C-BAND AND KU/KA BAND

The spectrum analyzer covers the Satellite FI band (L band) to analyze signals coming from satellites in Ku/Ka and C bands.

But **RANGER Neo** rack and **PROWATCH Neo** are more than just spectrum analyzers! They are truly multifunctional tools with features such as resolution bandwidths between 10 kHz and 1 MHz, high frequency accuracy, screen captures, datalogger and 24/7 signal monitoring. They are also SNMP compatible.

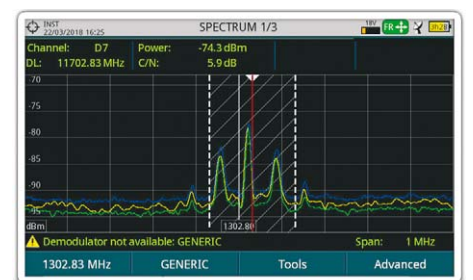




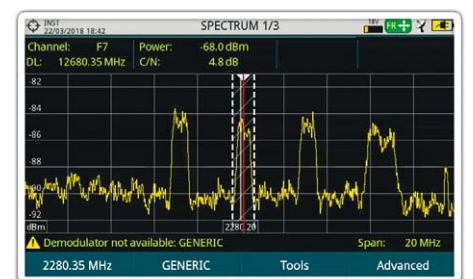
RANGER Neo: FOR AIMING AND ANALYSIS



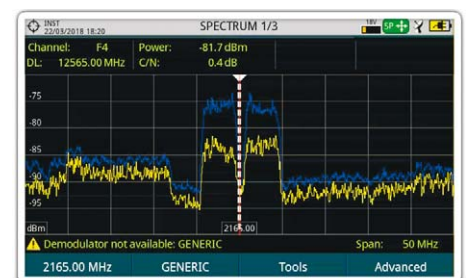
PROWATCH Neo: FOR 24/7 MONITORING



Satellite beacon with Max and Min hold



Satellite modems



2.1 GHz Terrestrial Interference from mobile phone base station

SPECIFICATIONS

Frequency margin
From 5 to 2500 MHz
(expandable up to 6 GHz)

Input margin
From -90 to 20 dBm
(20 to 130 dBμV approx.)

Resolution filters
10, 20, 30, 40,
100, 200 kHz, 1 MHz

Span: Full, 1500, 1265,
850, 500, 250, 200, 100,
50, 20, 10, 2, 1 MHz

Fast sweep time
70 ms depending
on span/RBw

Amplitude sensitivity
1, 2, 5, 10 dB/DIV

Advanced features
Markers, Max/Min hold,
Persistence, RMS/PEAK,
Trace averaging,
SAT IRG descriptor

LNA/LNB power
5/13/15/18 VDC, 22 kHz,
DiSEqC, SATCR, dCSS

Remote control
Ethernet port,
webserver, SNMP

Display
7" colour TFT

Operation
Touch screen and
conventional
keypad

SPECIFICATIONS	RANGER <i>Neo Rack Lite</i>	RANGER <i>Neo Rack +</i> PROWATCH <i>Neo +</i>	RANGER <i>Neo Rack 2</i> PROWATCH <i>Neo 2</i>	RANGER <i>Neo Rack 3</i>
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 dBuV Full / 500 / 200 / 100 / 50 / 20 / 10 MHz			
	100 kHz	100, 200 kHz 1 MHz	2 kHz (terrestrial) 10, 20, 30, 40, 100, 200 kHz 1 MHz	
DIGITAL BROADCAST STANDARDS (ATSC VERSION AVAILABLE)	DVB-T/T2, DVB-T2 lite DVB-C/C2 DVB-S/S2 DVB-S2 Multistream ISDB-T/TB DSS, ACM / VCM / CCM		... Also includes: MPEG-TS	... Also includes: DVB-T2-MI
AUDIO CODECS	MPEG-1, MPEG-2, AAC, HE-AAC, Dolby Digital, Dolby Digital Plus			
VIDEO CODECS	MPEG-2, MPEG-4 / H.264, HEVC / H.265			
INPUTS AND OUTPUTS	- Universal RF inputs 75 Ω / 50 Ω - HDMI™ output - IP interface for remote control - Analogue Video/Audio input - 2xUSB (Type-A) for data transferring		... Also includes: - ASI-TS input and output (BNC Female, 75 Ω) - IPTV multicast input (UDP / RTP, RJ45) - Slot Common Interface	... Also includes: - 1 pps input
COMMON FUNCTIONS	- Constellation diagram - LTE ingress test - Dynamic echoes analysis - PLS (Physical Layer Scrambling) - 4K detection	- StealthID (instant identification of tuning parameters) - Ultra fast spectrum analyzer (70 ms sweep) - 4K Frame grabber	- MAX and MIN hold - FM RDS radio measurement and decoding - Wideband LNB - Screenshots and Datalogger for measurement reports	- Beacon-Flyaways for SNG and VSAT - WiFi 2.4 GHz - LTE 1.8 GHz - OTT - Service Recording - Field strength measurement - Task planner - HbbTV information - DAB+ channel plan included
ADDITIONAL FUNCTIONS		- Merogram - Spectrogram - Signal monitoring - Remote control (webControl) - MER by carrier - Video/Audio Streaming - SCAN + TILT - Shoulder attenuation	... Also includes: - TS recording - TS analysis - IPTV multicast measurement and decoding	... Also includes: - Network delay (DVB) - DVB-T2-MI analysis
LNB SUPPLY	5 V, 12 V, 24 V (terrestrial band); 5 V, 13 V, 15 V, 18 V + 22 kHz (satellite band)			
DIMENSIONS RANGER Neo Rack (4U height) PROWATCH Neo (1U height)	482 (W) x 177.6 (H) x 238.7 (D) mm 482 (W) x 44.5 (H) x 381 (D) mm			

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGES WITHOUT PRIOR NOTICE 09-25

OPTIONS	RANGER <i>Neo Rack +</i>	RANGER <i>Neo Rack 2</i>	RANGER <i>Neo Rack 3</i>
Advanced DAB/DAB+ analyzer Advanced FM analyzer 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 + Entrada RF 6 GHz	Available Available Available Available Available	Available Available Available Available Available	Available Available Included Available Available

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PROWATCH Neo: For 24/7 MONITORING

This evolution of **RANGER Neo** hardware, in addition to signal analysis, is optimized for 24/7 signal monitoring. It allows its integration in systems using SNMP protocol.



PORTABLE VERSION AVAILABLE

The **RANGER Neo** are available as a **portable platform** with the same features found in their rack versions. With a 7" touch screen and **more than 4 hours of battery operation time**, as well as all the functions of the rack versions in a very compact and light tool (about 2 kg) that is shock protected. Perfect for the field work.