

SPECIFICATIONS	RANGERNeo Lite	RANGERNeo +	RANGERNeo 2	RANGERNeo 3
DIGITAL BROADCAST STANDARDS	DVB-T, DVB-T2, DVB-T2 lite DVB-C, DVB-C2 DVB-S, DVB-S2 DVB-S2 Multistream DSS, ACM / VCM / CCM	Same as RANGERNeo Lite, plus: DAB, DAB+ (optional)	Same as RANGERNeo +, plus: MPEG-TS	Same as RANGERNeo 2, plus: DVB-T2-MI DAB, DAB+
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 - 2xUSB (Type-A) for data transferring	Same as RANGERNeo Lite	Same as RANGERNeo +, plus: - ASI-TS input and output (BNC Female, 75 Ω) - IPTV multicast input (UDP / RTP, RJ45) - Common Interface slot	Same as RANGERNeo 2, plus: - 1 pps input
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 meas. and decoding - Screenshots and Datalogger for meas.reports - Beacon-Flyaways SNG and VSAT - Wideband LNB - WiFi 2.4 GHz - LTE 1.8 GHz - OTT - Service Recording - Field strength measurement - Task planner	Same as RANGERNeo Lite, plus: - Merogram - Spectrogram - Signal monitoring - Remote control (webserver) - MER by carrier - GPS coverage analysis (optional)	Same as RANGERNeo +, plus: - TS recording - TS analysis - IPTV multicast measurement and decoding - Shoulder attenuation	Same as RANGERNeo 2, plus: - Network delay - DVB-T2-MI analysis
SPECTRUM ANALYZER Frequency Margin Measurement range Span Resolution bandwidths	From 5 - 1000 MHz (Terrestrial) From 250 - 2500 MHz (Satellite) From 10 - 130 dB μ V Full / 500 / 200 / 100 / 50 / 20 / 10 MHz			
	100 kHz	100, 200 kHz 1 MHz	2 kHz (terrestrial) 10, 20, 40, 100, 200 kHz 1 MHz	2 kHz (terrestrial) 10, 20, 40, 100, 200 kHz 1 MHz
MEASUREMENT MODE (please refer to STANDARDS section) 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 μ V), CBER, VBER, MER, C/N, Link margin Power (35 to 115 dB μ V), CBER, C/N, LBER, MER, Link Margin, BCH ESR, LDP iterations, Wrong packets Power (45 to 115 dB μ V), BER, MER, C/N, Link margin Power (45 to 115 dB μ V), CBER, MER, C/N, LBER, BCH ESR, LDP iterations, wrong packets M, N, B, G, I, D, K and L Level measurement Power (35 to 115 dB μ V), CBER, MER, C/N, Link Margin Power (35 to 115 dB μ V), CBER, LBER, MER, C/N, BCH ESR, Wrong packets, Link Margin Power (35 to 115 dB μ V), CBER, VBER, MER, C/N, Link margin			
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 + User customised channel plans + Measurement reports and screenshots			
GENERAL	Hybrid operation: Touch screen (7") or conventional keyboard DiSEqC 2.x generator (DiSEqC 1.2 commands implemented) dCSS / SCD 2 (EN50607) and SATCR/SCD (EN50494)			
BATTERY	> 2h	> 4 h (smart battery)	> 4 h (smart battery)	> 4 h (smart battery)
HARD CASE	Optional	Included	Included	Included

OPTIONS	RANGERNeo +	RANGERNeo 2	RANGERNeo 3
DAB, DAB+	Available	Available	Included
GPS Coverage Analysis	Available	Available	Included
Rack assembly	Available	Available	Available
OPM + Optical-to-RF converter + WiFi 5 GHz + LTE 2.6 GHz + 6 GHz RF input	Available	Available	Available
WiFi 5 GHz + LTE 2.6 GHz + 6 GHz RF input	Available	Available	Available

A new breed of analyzers for a new world

- ✓ Included
○ Optional

- ALL VERSIONS
■ DVB MODELS ONLY
■ ISDB-T MODELS ONLY
■ ATSC MODELS ONLY



RANGER
Neo 3



RANGER
Neo 2



RANGER
Neo +



RANGER
Neo Lite



HD RANGER
UltraLite



HD RANGER
Eco

HEVC H.265 decod. + 4K Frame Grabber	✓	✓	✓	✓		
MPEG-2 and MPEG-4 H.264 decoding	✓	✓	✓	✓	✓	✓
Touch screen	✓	✓	✓	✓		
Wide band LNB Compatibility (wbLNB)	✓	✓	✓	✓		
2.4 GHz Wi-Fi analyzer	✓	✓	✓	✓		
1.8 GHz LTE	✓	✓	✓	✓		
OTT	✓	✓	✓	✓		
Service recording	✓	✓	✓	✓	✓	
HDMI output	✓	✓	✓	✓		
Video/Audio input	✓	✓	✓	✓	✓	✓
USB interface	2x Type A	2x Type A	2x Type A	2x Type A	1x Mini USB	1x Mini USB
Battery time	> 4 hours	> 4 hours	> 4 hours	> 2 hours	> 2 hours	> 2 hours
Resolution filter 100 kHz	✓	✓	✓	✓	✓	✓
Resolution filter 200 kHz, 1 MHz	✓	✓	✓		✓	
Resolution filter 2, 10, 20, 40 kHz	✓	✓				
Echoes analysis	✓	✓	✓	✓	✓	✓
Constellation diagram	✓	✓	✓	✓	✓	✓
Web server	✓	✓	✓			
Spectrogram	✓	✓	✓			
MER by carrier	✓	✓	✓			
Merogram	✓	✓	✓			
IPTV analyzer	✓	✓				
TS-ASI input and output	✓	✓				
TS analysis and recording	✓	✓				
Common Interface (encrypted channels)	✓	✓				
Shoulder attenuation measurement	✓	✓				
T2-MI	✓					
Network delay Margin	✓					
GPS for drive test	✓	○	○			
DAB/DAB+ digital radio	✓	○	○			
5 GHz WiFi + 2.6 GHz LTE + 6 GHz RFin	○	○	○			
Optical measurements and optical to RF converter	○	○	○			
ATSC standard		✓	✓	✓		
ISDB-T standard		✓	✓	✓		
DVB-T/T2 standard	✓	✓	✓	✓	✓	✓
DVB-S/S2, DSS and ACM/VCM standards	✓	✓	✓	✓	✓	✓
DVB-C standard	✓	✓	✓	✓	✓	✓
DVB-C2 standard	✓	✓	✓	✓	✓	✓
QAM annex B standard		✓	✓	✓		
PSIP analysis		✓				
Closed Caption		✓				