HD FIELD STRENGTH METER

HD RANGER *Eco*

Field strength meter for the High Definition Television

DVB T2/C2/S2

6th generation of TV & Satellite analysers

- ✓ Triple split display: 3 functions in a single screen.
- ✓ Fast and accurate spectrum analyser.
- ✓ StealthID: Identifying the tuning parameters.
- ✓ Advanced satellite functions.
- ✓ Powerful datalogger and installation menu.
- ✓ USB PC Connection.
- ✓ Constellation diagram.
- ✓ Dynamic echoes analysis.

The ***HD*** **RANGER** ***Eco*** is a universal field strength meter that covers a comprehensive mix of broadcast standards around the globe. The latest developments in broadcast technology such as DVB-T/C/S/S2 with MPEG-2 as well as MPEG-4 video are managed effortlessly within the product.

One of the most noticeable and stunning features on the new ***HD*** **RANGER** ***Eco*** product is the ultra fast spectrum analyser. As soon as you use the analyser you will experience this outstanding feature as one of the major changes we have adopted in the new product allowing you to sweep faster and more accurately.

The introduction of the latest technology within the product allows you to display multiple screens either overlapped together or in a split screen format.

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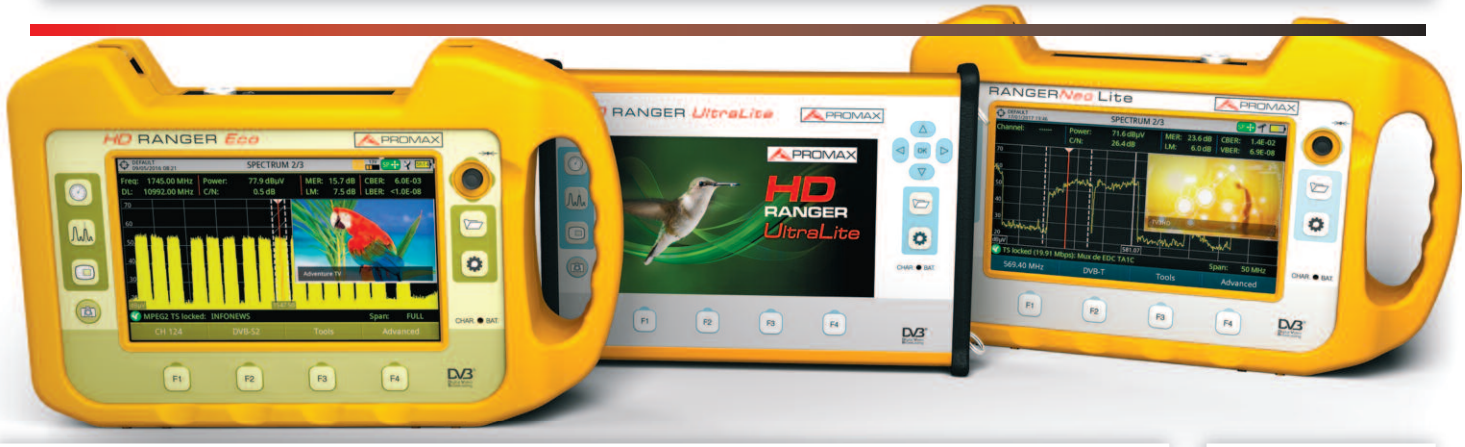
SPECIFICATIONS	*HD* RANGER *Eco*
GENERAL	
Inputs and outputs	
RF input	F-type male, 75 Ω
USB Interface	Mini-USB. Mass storage host, Serial port emulation, USB CDC “Communications Device Class”
Video/Audio input	Jack multipole connector
Monitor Display	7" TFT, 16:9
Ext. Unit Power (through RF input connector)	
Terrestrial Supply	External, 5, 12 and 24 V
Satellite Supply	External, 13 V, 15 V, 18 V
22 kHz signal	Selectable in Satellite band
DiSEqC Generator	According to DiSEqC 1.2 standard (1)
Dimensions & Weight	290 (W.) x 185 (H.) x 65 (D.) mm. 1.6 kg.
Battery Operation Time	> 2 hours in continuous mode
Included Accesories	Connection USB Cable On-the-go (A) Male – Mini USB (B) Male, USB Cable (A) Female – Mini USB (A) Male, Car lighter charger, External DC charger, F/H adapters to BNC/H / DIN/H / F/H, Mains cord, Transport belt, Carrying bag, Quick Reference Guide
MEASUREMENT MODE	Displayed data: Numeric and Level bar
Tuning range	From 5 to 1000 MHz (Terrestrial), 950 to 2150 MHz (Satellite)
DVB-T COFDM	From 35 dBµV to 115 dBµV
Measures	Power, CBER, VBER, MER, C/N and Link margin
DVB-T2 Base and Lite COFDM	From 35 dBµV to 115 dBµV
Measures	Power, CBER, C/N, LBER, MER, BCH ESR, LDP Iterations, Link Margin and Wrong packets
DVB-C QAM, J83 Annex C QAM	From 45 dBµV to 115 dBµV
Measures	Power, BER, MER, C/N and Link margin
DVB-C2 COFDM	From 45 dBµV to 115 dBµV
Measures	Power, CBER, MER, C/N, LBER, BCH ESR, LDP Iterations, Link Margin and Wrong packets
Analogue TV PAL, SECAM and NTSC	
Standard supported	M, N, B, G, I, D, K and L
FM radio	
Measures	Level
DVB-S QPSK	From 35 dBµV to 115 dBµV
Measures	Power, CBER, MER, C/N and Link Margin
DVB-S2 QPSK, 8PSK, 16APSK, 32APSK	From 35 dBµV to 115 dBµV
Measures	Power, CBER, LBER, MER, C/N, BCH ESR, Wrong Packets and Link Margin
DSS QPSK	From 35 dBµV to 115 dBµV
Measures	Power, CBER, VBER, MER, C/N, Link Margin and Noise Margin
SPECTRUM ANALYSER MODE	
Tuning range	From 5 to 1000 MHz (Terrestrial), 950 to 2150 MHz (Satellite)
Reference Level	From 70 dBµV to 120 dBµV (Adjustable in steps of 5 dB)
Span	Full span / 500 MHz / 200 MHz / 100 MHz / 50 MHz / 20 MHz / 10 MHz
Measurement range	From 20 to 120 dBµV
Measurement bandwidth	100 kHz
VIDEO	
Codecs	MPEG-1, MPEG-2, MPEG-4 AVC H.264
Maximum Image Size	1920x1080x60i; 1280x720x60p/50p
AUDIO CODECS	MPEG-1, MPEG-2, HE-AAC, Dolby Digital Plus
TOOLS	Constellation diagram, Dynamic echoes, Attenuation Test (2), Datalogger (3), PLS indicator, ISI filtering, Screen capture Key, Signal monitoring, Field strength, Task planner, H.265 detection

(1) DiSEqC™ is a trademark of EUTELSAT.
(2) Attenuation Test function designed to be used with **RP-110** multiple pilot generator.
(3) Using NetUpdate software application under Windows PC platform.

HD FIELD STRENGTH METER



5 GOLDEN RULES to choose your next FIELD STRENGTH METER

- Professional
- Power
- Battery life
- Ergonomics
- Functions

SCAN for more info

	HD RANGER Eco	HD RANGER UltraLite	RANGER Neo Lite
Digital inputs	DVB T/C/S, DVB T2/C2/S2, DOLBY DIGITAL PLUS	DVB T/C/S, DVB T2/C2/S2, DOLBY DIGITAL PLUS	DVB T/C/S, DVB T2/C2/S2, DOLBY DIGITAL PLUS
H.265 HEVC			✓
H.264 MPEG-4 MPEG-2	✓	✓	✓
Touch screen			✓
LCD size	7”	7”	7”
Wideband LNB			✓
2.4 GHz WiFi analyser			✓
Datalogger	✓	✓	✓
Ultra fast spectrum	✓	✓	✓
Triple split display	✓	✓	✓
Constellation diagram	✓	✓	✓
Dynamic echoes analysis	✓	✓	✓
HDMI output			✓
Video input	✓	✓	✓

OPTIONAL

INCLUDED

Applications

- Aerials, residential, MDUs, FSM, LTE interference
- DTH, VSAT, TI, TVRO, earth station
- Outside broadcasting (OB Vans), SNG, Flyaway
- CABLE — Headend and network installation. Subscriber outlet test.
- Wi Fi — Home network, commercial, point to point

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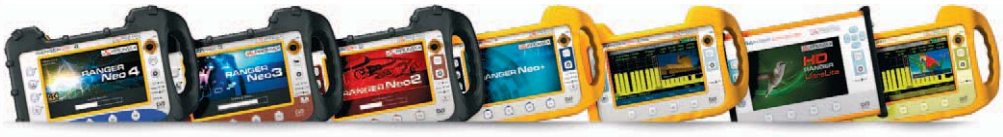
PROMAX

RANGERNeo TV analyzers

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 4	RANGER Neo 3	RANGER Neo 2	RANGER Neo +	RANGER Neo Lite	HD RANGER UltraLite	HD RANGER Eco
4K decoder	✓						
HEVC H.265 decod. + 4K Frame Grabber	✓	✓	✓	✓	✓		
MPEG-2 and MPEG-4 H.264 decoder	✓	✓	✓	✓	✓	✓	✓
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	2x Type A	1x Mini USB	1x Mini USB
Battery time	> 4 hours	> 4 hours	> 4 hours	> 4 hours	> 2 hours	> 2 hours	> 2 hours
Resolution filter 100 kHz	✓	✓	✓	✓	✓	✓	✓
Resolution filters 200 kHz, 1 MHz	✓	✓	✓	✓		✓	
Resolution filters 2, 10, 20, 30, 40 kHz	✓	✓	✓				
Echoes analysis	✓	✓	✓	✓	✓	✓	✓
Constellation diagram	✓	✓	✓	✓	✓	✓	✓
Web server and Vídeo/Audio Streaming	✓	✓	✓	✓			
Spectrogram and Merogram	✓	✓	✓	✓			
MER by carrier	✓	✓	✓	✓			
SCAN + TILT	✓	✓	✓	✓			
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 RF in	⊙	⊙	⊙	⊙			
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			✓				