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U N A O H M

RB23

BER Estimation
for
DVB-T/S/C

Real Time Spectrum

With an overall 320 x 115 x 250 mm size (W x H x D) for this brand new analyser, the measuring world of UNAOHM is getting smaller, and lighter too, the unit weighing approximately 5 kg with a lead-acid battery fitted.
So much for the shrinkage.

As to performance, we have taken the opposite path expanding it to include easy access to the battery compartment.

As to pricing, this unit is bound to redefine the concept of price-to-quality ratio the market has come to expect of digital, entry-level analysers. A true price-to-quality breakthrough.

Have a look at the following features to start feeling what the unit can do for you:

- Analogue & digital Satellite, Terrestrial & Cable frequency range coverage.
- 5-65 MHz Return Path coverage, optional*.
- Estimated BER reading for digital Terrestrial, Satellite and Cable signals.
- Effective digital package for digital Terrestrial, Satellite and Cable signals consisting of: DCP (Digital Channel Power) measurement, C/N ratio, BER estimation.
- L.O., Local Oscillator feature.
- 100 program storage capabilities.
- Scart socket, optional*.
- RS232 port.
- DiSEqC 1.1.
- 12 V/3.3 Ah lead-acid battery.
- Sturdy bag with safety straps.
- Optional Ni-MH battery for over ½ kg saving in weight.

Local UNAOHM Dealer

RB23
Specs subject to change without notice

SPECIFICATIONS

UNAOHM

INPUT

Level
-VHF/UHF/SAT from 20 to 130 dBµV (-90...20dBm).
Unit of Measure
dB for ratios. dBµV, dBmV, dBm on 75 **Ù**, V for power and level measurements.
Attenuator
0 to 80 dB in 10 dB steps. Manual or autoranging.
Attenuator Accuracy
± 1.0 dB VHF/UHF.
± 1.5 dB SAT.
Measurement Technique
Switchable between peak and average. Reading to rms value for a CW sine carrier.
Measurement Bandwidth (@ -3 dB Measure and Spectrum)
100 kHz or 1 MHz, switchable. VHF/UHF/SAT
Input Impedance
75 ohm, unbalanced. See (1) under special features. Vdc component block.
Input Connection
BNC.
Maximum Applicable Voltage
±100 Vdc. 5Vrms RF.
CRT Indication
-Numeric via OSD, 0.1 dB resolution.
-Analogue for level and DCP by means of a bargraph against a 30 dB calibrated scale.
Aural Indication
-Aural tone with pitch proportional to signal strength.

FREQUENCY

Frequency Range
-45 to 900 MHz for VHF/UHF.
-900 to 2150 MHz for satellite band.
Frequency Response
± 2.0 dB from 45 to 2050 MHz.
± 2.5 dB from 2050 to 2150 MHz.
Tuning Selection
-Frequency. Continuous PLL frequency synthesis shaft encoder or direct frequency keying via keypad (50 kHz step resolution for terrestrial bands, 125 kHz steps for satellite.
-Channel. VHF/UHF/CATV channel recall to TV-standard of the country selected.
-Program. Recall of any program out of those stored, up to 100.
Storage Capacity
100 program.

SPECTRUM ANALYSER

Level
-VHF/UHF/SAT from 20 to 130 dBµV (-90...20dBm).
Presentation
Frequency on Y (vertical) axis, level on X (horizontal) axis. Real time.
Frequency Range

C	5 to 65 MHz.

45 to 2150 MHz in the following bands:

L	45 to 156 MHz.
M	156 to 454 MHz.
H	454 to 900 MHz.
SAT	900 to 2150 MHz.

Spectrum analysis
-Full panoramic spectrum of the band selected (L, M, H, SAT).
-8 step expansion of a portion of the band spectrum from 1% minimum to 1 to 5 carriers according to band selected. RBW: N (Narrow) & W (Wide).
Filtro Video
Switchable video filter.
Frequency Marker
Selectable throughout the entire frequency range, for frequency or level reading.

BER ESTIMATION

BER is estimated from C/N in strict correlation to response curves of DVB publications, for signals within the satellite, terrestrial and CATV ranges.

MONITOR

Screen
4½ " black & white CRT with brightness and contrast controls.
TV-Standard
PAL BG. See (2) under special features.
Function
-OSD against a black background, transparent, disengaged.
-Measurement: DCP (Digital Channel Power), level, C/N, V/A.
-TV-picture, full screen, for analogue signals.
-Display of a portion of an analogue TV-picture+level as a relative bargraph.
-Display of a portion of an analogue TV-picture + horizontal TV sync-pulse.
-Full spectrum with marker.
-Expanded (SPAN) spectrum with marker.
-Teletext.
-Video monitor (via optional SCART socket).

AUDIO

Demodulator
-AM/FM for VHF/UHF/CATV.
-FM for SAT.
Subcarrier Frequency
-Automatically selected in VHF/UHF/CATV bands to the TV-standard set.
-Adjustable from 5 to 9.99 MHz in 10 kHz PLL tuning steps for SAT. Selectable deemphasis (Flat, J17, 50**i** s, 75**i** s).

AUXILIARY INPUTS & OUTPUTS

DiSEqC*
1.1 protocol.
22 kHz Tone
0.6 Vpp on 18 **Ù,** 22 kHz ± 1kHz, square wave.
Power to LNB
13 or 18 V / 500 mA max sourced out from input connector. Self-protected.

SCART Socket (optional)**
Video/audio input (1 V-75 **Ù**); video/audio output (0.3 V-600 **Ù**).

POWER SUPPLY

Internal Vdc Power
12 V / 3.3 Ah sealed, rechargeable lead-acid battery (provided), or an optional 12 V / 3.8 Ah sealed, rechargeable Ni-MH battery pack. 1.5 hrs continuous run, typical.
External Vdc Power
External Power Supply/Charger-Adapter unit provided.
Battery Charger
External Power Supply/Charger-Adapter unit provided. Charging time:10 to 14 hrs.

Pilot Light Warning
An LED for charging, OSD for battery low warning.

MECHANICAL

Dimensions
(W x H x D) 320x105x250 mm.
Weight
4.1 kg with carrying case. 5.6 kg with carrying case and lead-acid battery fitted.
Finishing
The unit comes with a robust nylon carrying case with an accessories compartment and a straps for transport.

AMBIENT

Operating Temperature
5°C to 40°C.

SPECIAL FEATURES

(1) 50 ohm input impedance.
(2) Other TV-standards upon request (PAL-I, PAL-DK, PAL-N, SECAM-L).

STANDARD ACCESSORIES

• Power Supply/Charger-Adapter unit	BCH16/2.5
• Lead-acid battery	Pb12 V/3.3 Ah
• BNC/IEC Adapter	P80A
• BNC/F Adapter	P82
• Nylon carrying case	C25
• Instruction manual	

OPTIONS

• 5-65 MHz (30 to 130 dBµV) converter module**	
• BNC/DIN Adapter	P79 - P81
• High capacity 12 V/3.8 Ah Ni-MH battery pack kit	Ni-MH 12 V/3.8 Ah
• SCART socket**	

* DiSEqC is a trade mark of Eutelsat
** must be factory configured when the instrument is purchased. No later upgrading possible.

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