

Since 1935
at your service....

AP01 & AP01HD

DVB-S DVB-S2 / DVB-T DVB-H or DVB-S DVB-S2 / DVB-C
QPSK/8PSK and COFDM or QPSK/8PSK and QAM Demodulations

AP01 (MPEG 2 + N.I.T.)

AP01 (MPEG4 + MPEG2 + N.I.T.)
DVB-T2 (option)



MADE IN ITALY

EXAMPLE
SCREENSHOTS

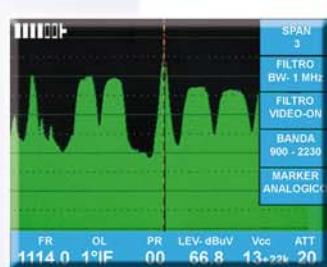
DVB
Digital Video
Broadcasting



Green: Analogue Terrestrial
Signal Analysis



Red: Digital Terrestrial
Signal Analysis



Cyan: Analogue Satellite
Signal Analysis



Blue: Digital Satellite Signal
Analysis

5.7" COLOUR MONITOR, HIGH RESOLUTION and HIGH BRIGHTNESS

DISPLAY IMAGES MPEG4 and MPEG2 and ANALOG CHANNELS TER./SAT.

**"AER" FUNCTION: ANALYSIS OF ECHOES on DVB-T SIGNALS through 67,6 km RANGE,
ANALYSIS OF ECHOES on DVB-T2 SIGNALS through 89,4 km RANGE**

**"CLC" FUNCTION: CABLE LENGTH CALCULATION (with NG 96F OPTION)
CONSTELLATION DIAGRAM**

"ACS" FUNCTION: AUTOMATIC CHANNEL SEARCH DIGITAL TERRESTRIAL or ANALOGUE

"TP-SAT" FUNCTION: PRE-STORED SATELLITES TABLE TO DIRECTLY RECALL TRANSPONDERS

BATTERY: LI-ION , MORE THAN 4h BATTERY OPERATIVE TIME. 4h CHARGING TIME

DATA-LOGGER with 50 PROGRAMS FOR EACH of 5 PLANS

**PC INTERFACE: RS232 and USB for CONNECTION by PC and with SOFTWARE
for REMOTE CONTROL**

Real Time Spectrum Analyzer

UNAOHM®

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Specifications

Specifications may be changed
without notice

AP01 & AP01 HD



GENERAL SPECIFICATIONS

Level

VHF/UHF/SAT Bands: 20dB μ V - 130dB μ V
5-65 MHz Band: 30dB μ V - 130dB μ V

Measurement Unit

dB μ V, dBmV, dBm, μ V

Attenuator

10dB steps, manual or automatic modes

Attenuator Accuracy

\pm 1.0dB VHF/UHF.
 \pm 1.5dB SAT.

Frequency Response (Measurement + Spectrum)

\pm 2.0dB from 45 to 2050MHz
 \pm 2.5dB from 2050 to 2150MHz

Reading

Digital on OSD (On Screen Display)
Level Resolution 0.1dB
Relative level bar, on display 30dB reading scale
Note: Acoustic; tonality proportional to measurement level

Measurement Bandwidth (-3dB Measurement + Spectrum)

VHF/UHF/CATV/SAT: 100kHz; 1.0MHz

Input Impedance

75 Ω unbalanced (1)

Maximum Voltage Applicable to Input

100VDC and/or 5 True RMS RF.

Input connector

BNC; BNC/IEC and BNC/F adapters as standard accessories

LNB Power Supply

13 – 15 – 18 – 24V / 500mA max from input connector
Overload and short-circuit protection with reading on OSD

DISEqC

1.1; 2.0 S.C.R.
1.2 for motorized dishes

Tuning

PLL continuous tuning
Direct frequency recall
Recalling channels referred to the TV standard
used VHF/UHF/CATV
Recalling stored programs

Storage Capacity

100 programs + 250 programs for Data Logger

SPECTRUM ANALYZER

Presentation

Level on Y (vertical) axis
Frequency on X (horizontal) axis
Real time response
30dB level dynamic range
Video filter, selectable On/Off

Frequency Range

5MHz to 2150MHz in 5 bands:
C Band 5 to 65MHz (as an option)
L Band 45 to 156MHz
M Band 156 to 470MHz
H Band 470 to 900MHz
SAT Band 900 to 2150MHz

Frequency Range Exploration

1% to 100% of the selected band
in 8 selectable expansion steps

Frequency Markers

Two markers to read frequency and level,
 Δ frequency and Δ level measurement between markers

Special Features

A.E.R. : analysis of echoes on DVB-T signals

through 67.6 km range;
analysis of echoes on DVB-T2 signals
through 89.4 km range

C.L.C. Estimation of the impedance mismatching distance
in the cable (shown in meters) by using the internal
noise generator (optional)

MONITOR

Screen

5.7" colour LCD
Resolution 320x240

TV Standard

BG – I – DK – M – N – L

Colour Standard

PAL - SECAM - NTSC

Functions

Full-screen analogue or digital TV-picture
"Three-in-One" display (picture + sync pulse + level bar graph)
Full frequency spectrum with two markers
Partial frequency spectrum (SPAN)
Video Monitor (via SCART socket) CVBS Signal
Graphic menus and submenus
Data Logger functions and measurements

AUDIO

Analog System

Demodulators

TV/AM/FM/NICAM

Subcarriers Frequency

VHF/UHF/CATV: automatically selected
with respect to the TV Standards
SAT: 5 to 9.99MHz through PLL frequency synthesis adjustable
by 10kHz steps
Selectable de-emphasis

Digital System

Selection options in the audio channel

DATA LOGGER

5 Plans Data Logger containing 50 programs each

1500 entries maximum

AUXILIARY INPUTS AND OUTPUTS

SCART Socket

INPUT:

Video (CVBS - 1Vpp-75 Ohm)
Audio (0.3V - 600 Ohm)

OUTPUT:

Video (RGB - 1Vpp - 75 Ohm)
Audio output (0.3V-600Ohm)

RS232 Serial Port

9 pole female "D" connector to exchange data with external PC,
printer and modem

USB

1.0standard; female B connector

POWER SUPPLY

AC: 90 to 260V 50-60Hz

Internal VDC

Li-Ion battery, 14.8V / 4.5Ah

Running time: >4:00 hours

Recharge time about 4h

Charge status and battery running monitor

Battery Indicators

Battery level on screen
Battery charge status: Green LED Charged - Red LED Charging

MECHANICAL

Dimensions

(WxHxD) 250 x 110 x 250 mm

Weight

3.5 Kg

AMBIENT

Operating Temperature

5° to 40°C

Operating Altitude

0 to 2000m

QPSK / 8PSK COMBINED CARD for DVB-S/S2

Frequency range:

950 to 2150MHz

Symbol rate:

1-45MS/s DVB-S (QPSK)
1-36MS/s DVB-S2 (QPSK)
1-30MS/s DVB-S2 (8PSK)

Code Rate

AUTO

CH BER

(pre-Viterbi). 6E-2 to 1E-6

PV BER

(post-Viterbi BER). 1E-2 to 1E-8

RU

Indicator of errors not corrected on output of
Reed Solomon stage

MER

5 to 20dB

CFO

AFC: +/-3MHz

NM:

Noise Margin

Real measure, showed in dB, of the security margin before
the signal declines reaching the deadline (UNLOCKED Status)

QAM CARD DVB-C

(optional and as an alternative to COFDM CARD)

Frequency Range

47 to 860MHz

Symbol Rate

2.5 to 7MS/s

Modulation

16; 64; 128; 256 QAM. Automatic selection

CH BER

(before Reed Solomon) 1 E-2 a 1 E-8

RU

Indicator of errors not corrected on output of
Reed Solomon stage

MER

Relative reading from 5 to 20dB

CFO

AFC: +/-0.5MHz

NM:

Noise Margin

Real measure, showed in dB, of the security margin before
the signal declines reaching the deadline (UNLOCKED Status)

COFDM CARD DVB-T / DVB-H

Frequency Range

50 to 860MHz

Modulation

16 QAM; 64 QAM; QPSK. Automatic

Code Rate

1/2, 2/3, 3/4, 5/6, 7/8, Automatic

Guard Interval

1/4, 1/8, 1/16, 1/32. Automatic

Bandwidth

7MHz; 8MHz

Hierarchy

Non-hierarchic

Operating Mode

2000; 8000 carriers

CH BER

(pre-Viterbi BER). 1E-2 to 1E-6

PV BER

(post-Viterbi BER). 1E-2 to 1E-8

RU

Errors not corrected on output of
Reed Solomon stage

MER

6 to 25dB (QPSK, 16 QAM)

NM:

Noise Margin

Real measure, showed in dB, of the security margin before
the signal declines reaching the deadline (UNLOCKED Status)

Cell ID:

Cell Identification

Identification of distribution's operator that is broadcasting
the signal

CSI:

Channel Status Information

Readout of the MER in percentage, lower value is better MER

MPEG 4 + MPEG 2 CARD

Standard

DVB Standard - compatible
MPEG4 / H264 + MPEG2 (AP01 HD)
MPEG2 (AP01)

SPECIAL DESIGNS

(1) Input impedance 50 Ohm

ACCESSORIES

BNC/DIN Adapters - "P80 – P82"

Li-Ion battery, 14.8V / 4.5Ah

User manual

Carrying bag with accessories compartment
and strap for easy transport

OPTIONS

- FCH 12 quick battery charger

- Noise generator (internal)

- QAM card as an alternative to COFDM;(the module can be only
assembled at the factory when purchased)

- 5-65 Converter (the module can be only assembled at the factory
when purchased)

- MPEG4 (for AP01)

- DVB-T2

