Fte maximal ®

Serie **mini** mediaMAX

Ch.: C54 BG
738.00MHz
80 dBuV
20MHz   P 65.6 dBuV   1

Field Signal Meters – MediaMAX MINI Families

Field Meters Family

One need, one solution!

mini S mediaMAX	DVB-S
mini T mediaMAX	DVB-T
mini S2 mediaMAX	DVB-S, S2
mini ST mediaMAX	DVB-S, T
mini S2T mediaMAX	DVB-S, S2, T
mini S2 CT mediaMAX	DVB-S, S2, C, T
mini S2T HD mediaMAX	DVB-S, S2, T MPEG4 decoding
mini S2 CT HD mediaMAX	DVB-S, S2, C, T MPEG4 decoding

- Compact and light, with dimensions 270 x 170 x 70 mm and weight 1,8 Kg
- Extremely intuitive. Very easy to use
- Provides all the measurements in a unique window
- Advanced Data-logger
- PRO 200 - PRO 201 functionality (Genius Series)
- MAP function (Meter Aided Programming) for transmodulators 310 series
- High Resolution Spectrum with horizontal sweep and logarithmic amplitude
- Battery Duration: 2,5 hours (without LNC feeding)
- TFT 5" (MINI + option: 6" HQ)
- Auto Reference Level in spectrum
- Digital Picture in MPEG-2 and MPEG-4 HD (mediaMAX MINI HD)
- Satellite Identifier
- NOISE MARGIN function
- DiSEqC motors control
- Auto identifier of the Digital carriers
- Real measurements of BER
- Simple and fast upgrading through USB 2.0
- Data transfer to the PC through USB 2.0 memories
- SatCR compatible
- Wide connectivity: USB 2.0, RS-232, A/V IN, A/V OUT, HDMI (in mediaMAX MINI HD)
- HDTV measures
- Constellation diagram

Individual detailed Specs

	MINI S	MINI S2	MINI T	MINI ST	MINI S2T	MINI S2CT
Band [MHz]	900-2150	900-2150	47-862	47-862 900-2150	47-862 900-2150	5-862 900-2150
COFDM	NO	NO	YES	YES	YES	YES
QPSK / 8PSK	YES/NO	YES/ YES	NO	YES/NO	YES/YES	YES/YES
QAM	NO	NO	NO	NO	NO	YES
RESOLUTION FILTERS	1MHz	1MHz	1MHz	1MHz	1MHz	300KHz
FREQUENCY RESPONSE DVB-T	NO	NO	YES	YES	YES	YES
EDM FUNCTION DVB-T	NO	NO	YES	YES	YES	YES
MAX HOLD	NO	NO	NO	NO	YES	YES
CONSTELLATION DVB-S/S2	NO	YES	NO	NO	YES	YES
CONSTELLATION DVB-T	NO	NO	NO	NO	YES	YES
CONSTELLATION DVB-C	NO	NO	NO	NO	NO	YES
TS RECORDING	NO	NO	NO	NO	YES	YES
DOUBLE MARKER	NO	NO	NO	NO	YES	YES
FULL DATA LOGGER	NO	NO	NO	NO	YES	YES
SAT AUTO SR	YES	YES	NO	YES	YES	YES

Simple to use

Fast navigation buttons:

- 1. Favourite Button (analog/dig. by default)
- 4. Navigation via freq. or channel
- 7. Switch between band (sat/cable/terr)
- "*autoscan*" → Detects program or reception

Cursor buttons:

- Changes SPAN ↔
- Changes REF Level ↕
- Navigation inside menus
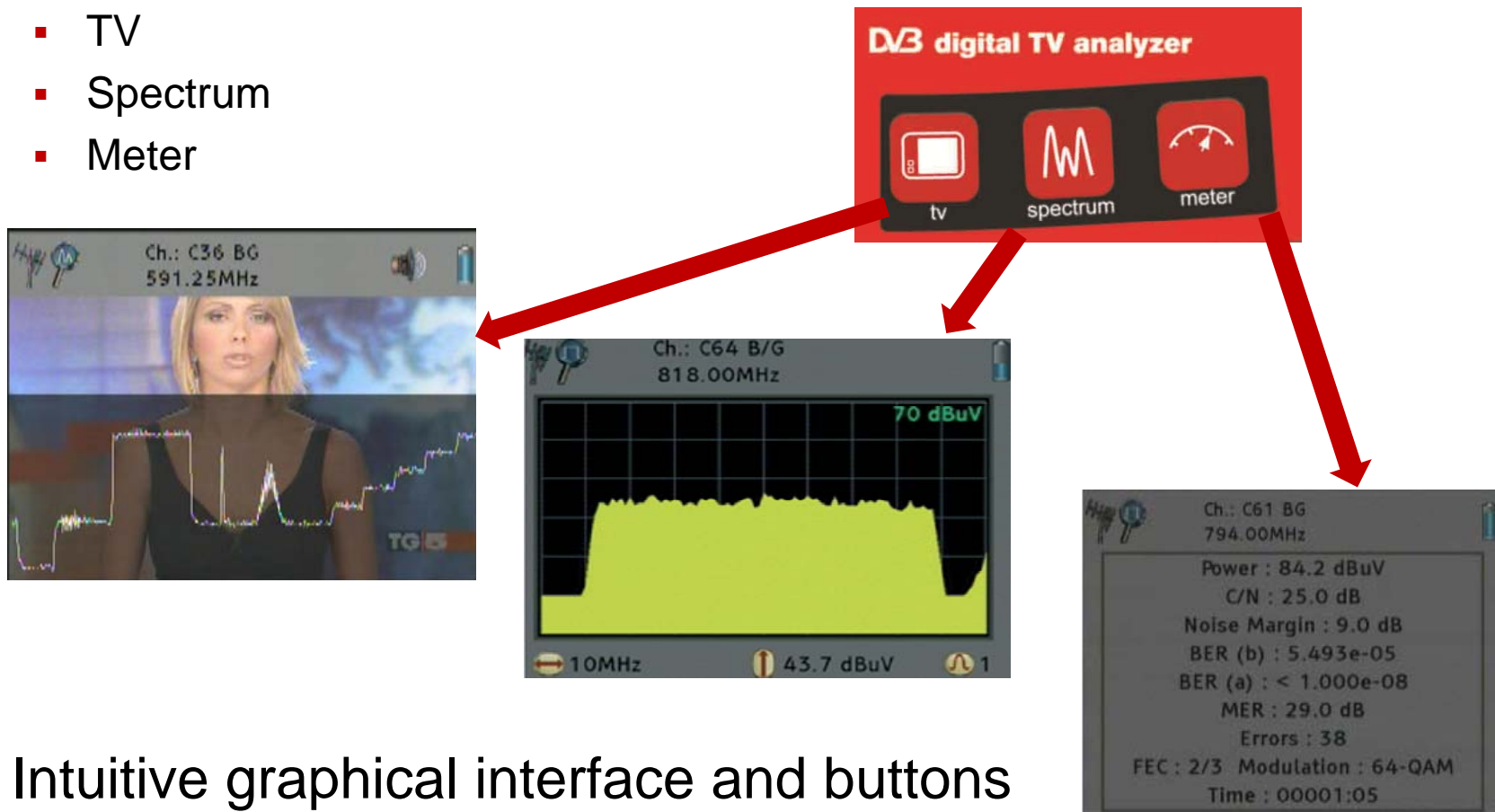- Change Program inside one TP/MUX

Back and Confirmation orders

Wheel. Increase/decrease & confirmation

Fast change of mode

- The Signal meter has 3 working modes:

  - TV

  - Spectrum

  - Meter

- Intuitive graphical interface and buttons

Simple to use

Fte maximal®

Cable band (5 - 862 MHz)

Terr. band (47- 862 MHz.)

Sat band. (950 - 2150MHz.)

Switch band button

Working channel or freq. **To change nav mode:**

•**Status about audio**

•**USB connected**

•**Battery Status**

C47 / 682.00 Mhz A
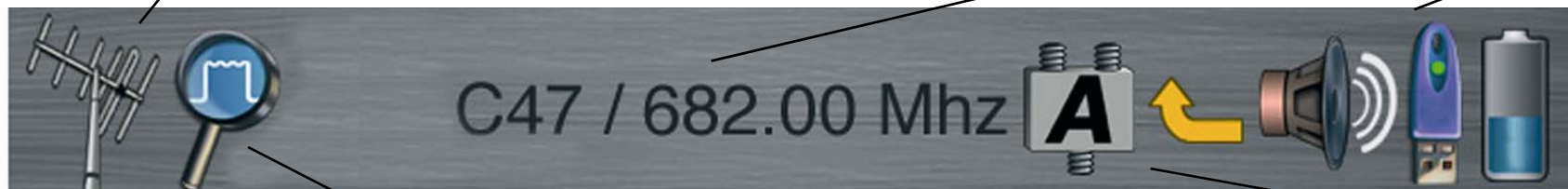
Analogic Mode

Digital Mode

Analogic Locked

Digital Locked

Switch button

A Diseqc A

B Diseqc B

C Diseqc C

D Diseqc D

Feed button

↑ Vert. High

↓ Vert. Low

↰ Hor. High

↳ Hor. Low

- # MediaMAX MINI

Power DC 20V

RS232-C Port

USB2.0 Port

Mini jack A/V Output

Mini jack A/V Input
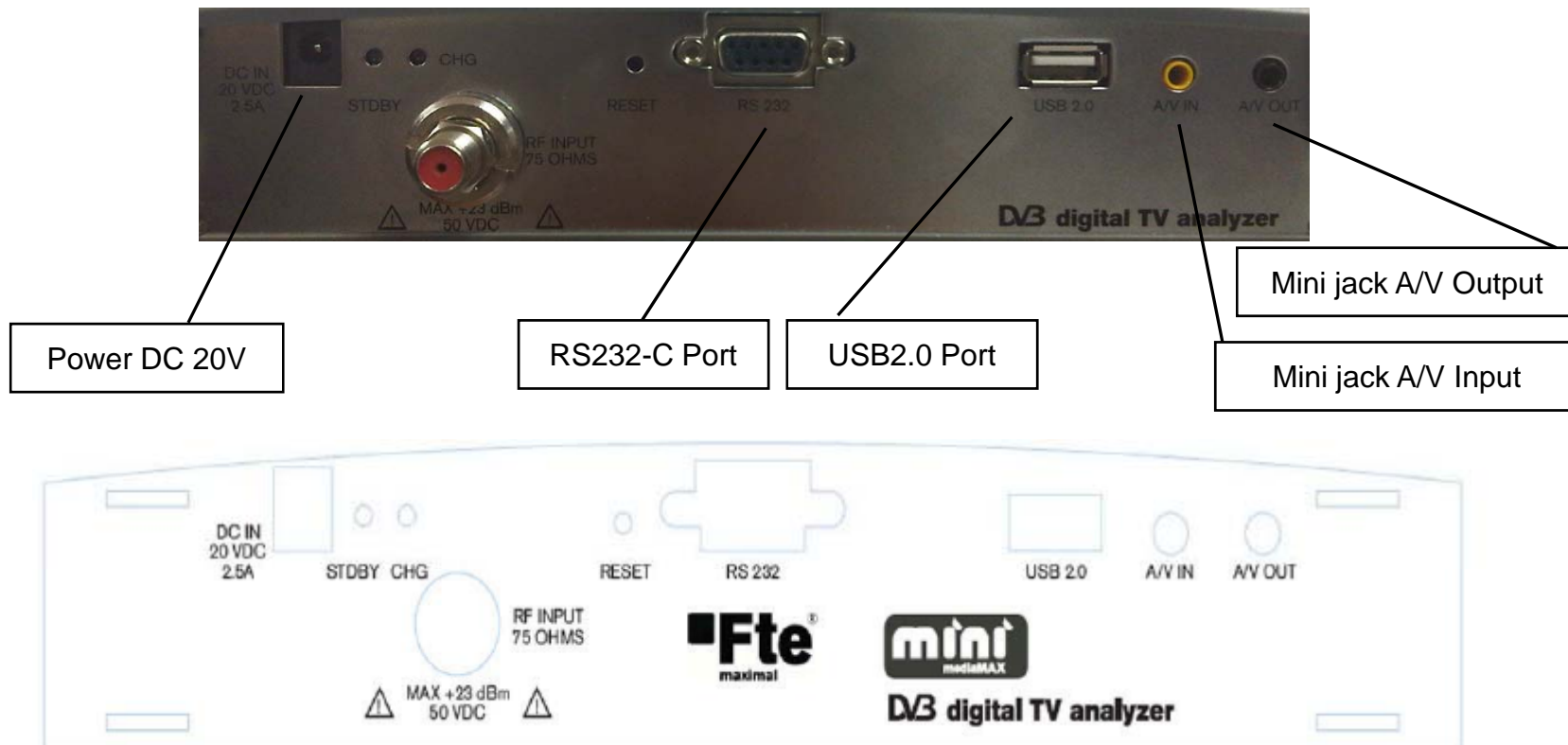
- # MediaMAX MINI xxxx **HD** → With **HDMI** connector

	MINI S	MINI S2	MINI T	MINI ST	MINI S2T	MINI S2CT
Analogue Measures	Level, V/A, C/N	Level, V/A, C/N	Level, V/A, C/N	Level, V/A, C/N, Video Line	Level, V/A, C/N, Video Line	Level, V/A, C/N, Video Line
Digital Measures	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin, EDM	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin, EDM	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin, EDM	Power, C/N, BER(b), BER(a), Total Errors, MER, Quality, Noise Margin, EDM
Analogue Picture	-	-	Terrestrial	Terrestrial	Terrestrial	Terrestrial
Digital Picture	QPSK	QPSK	COFDM	QPSK/COFDM	QPSK/COFDM	QPSK/COFDM /QAM

MER (Modulatio Error Rate) [dB]
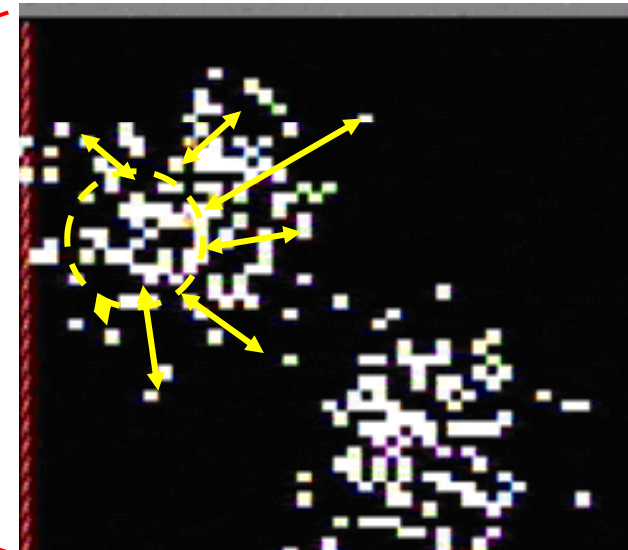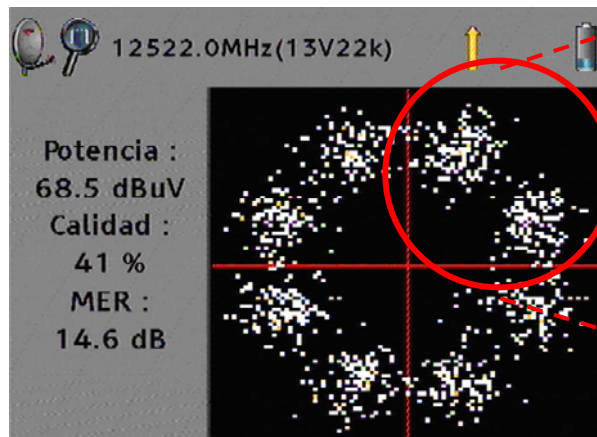
- The MER also measures the **QUALITY** of the received signal.
- The idea is to measure the distance between the theorical symbol position, and the real received symbol position. The difference, is the error which hapened during the transmission.
- The MER is quite similar (and in many cases the same) as the C/N value.

Noise margin [dB]

- Noise Margin indicates how far the signal is from the limit of "bad reception".
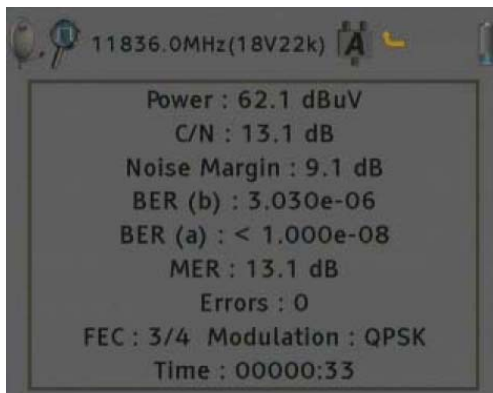
Satellite
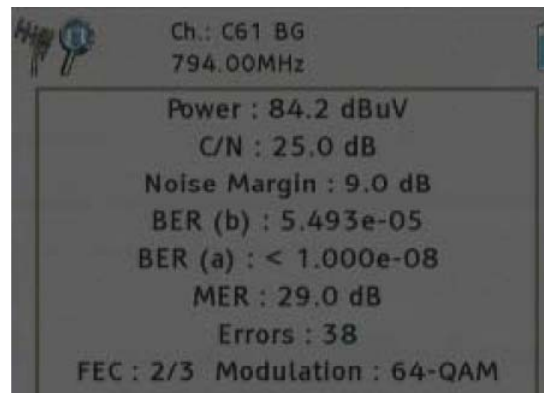
Terrestrial
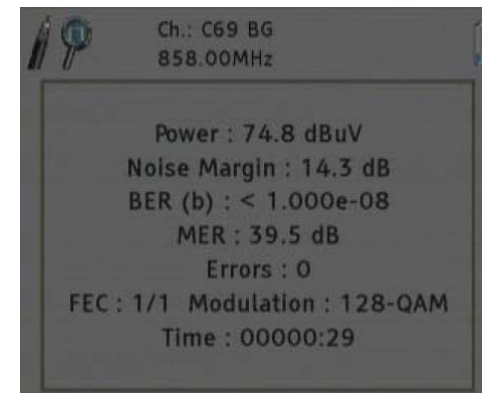
Cable

Quality [%]

- The Quality is a parameter which gives us a fast idea about the Quality of the Signal, in a more visual way.

- It is always related to the BER BEFORE CORRECTIONS (how good or bad is the signal in reception).

EDM Echo Disturbance Measure [%]

- In DVB-T transmissions it indicates how much the signal is suffering from undesired echoes.
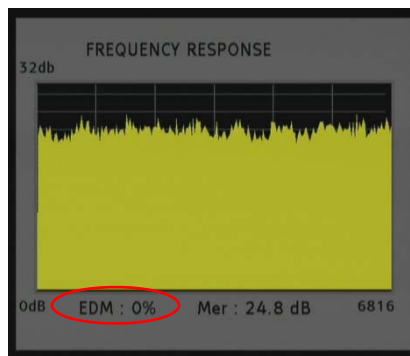
Good Reception
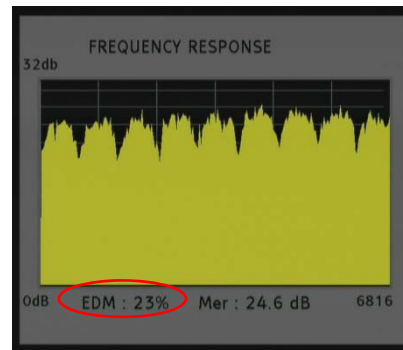
Worse Reception

Worst Reception


```
MONITOR MODE

Power : 69.9 dBuV
C/N : 24.6 db
Freq : 474.05 MHz
Quality : 76 % FEC : 2/3
Guard interval : 1/4
Mode : 8K  Modulation : 64-QAM
Mer : 24.6 dB Bandwidth 8MHz
HRCH : Alpha none  Cell Id : 0xAB00
Time : 00037:55
```
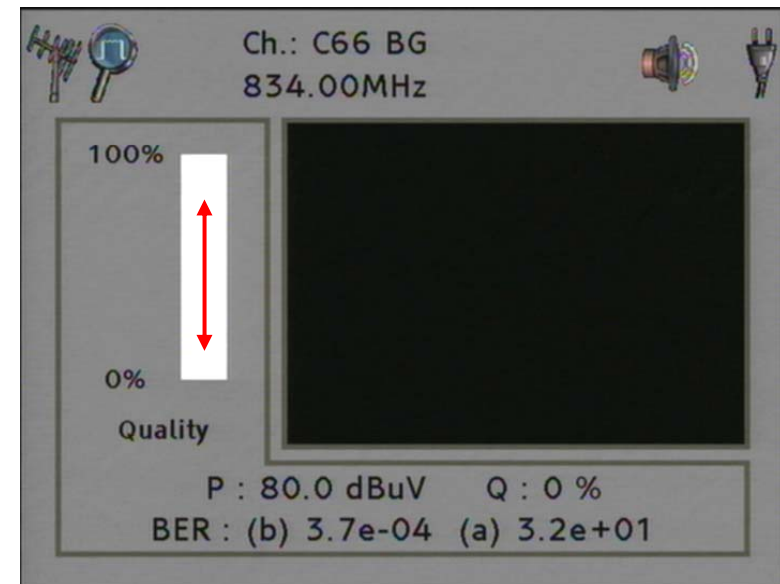


```
MONITOR MODE

Power : 70.8 dBuV
C/N : 24.6 db
Freq : 474.05 MHz
Quality : 76 % FEC : 2/3
Guard interval : 1/4
Mode : 8K  Modulation : 64-QAM
Mer : 24.6 dB Bandwidth 8MHz
HRCH : Alpha none  Cell Id : 0xAB00
Time : 00008:42
```



```
MONITOR MODE

Power : 68.4 dBuV
C/N : 23.8 db
Freq : 474.05 MHz
Quality : 68 % FEC : 2/3
Guard interval : 1/4
Mode : 8K  Modulation : 64-QAM
Mer : 23.8 dB Bandwidth 8MHz
HRCH : Alpha none  Cell Id : 0xAB00
Time : 00010:59
```

Datalogger function

Report all the measures in one installation in a easy way

- With the **EVOSOFT** Software it is possible:
  - Creating working channels (groups), channels, and measurement points.
  - Acquire all the measures from the meter.
  - Read/load data through USB memory stick.
  - See the acquired measures/image/spectrum/line.
  - Spectrum at peak or average measure.
  - Create final installation reports.
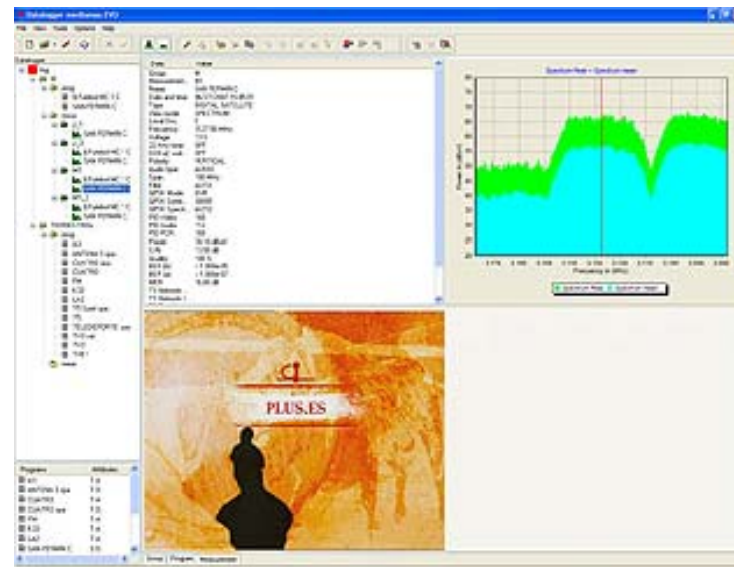
Satellite Finder

Look for a satellite or make sure the pointed one is the right

- **Satellite Finder.** To use when pointing the dish to a specific satellite.

- **Satellite Identification.** To use when dish is pointed in order to search the pointed satellite from a list.
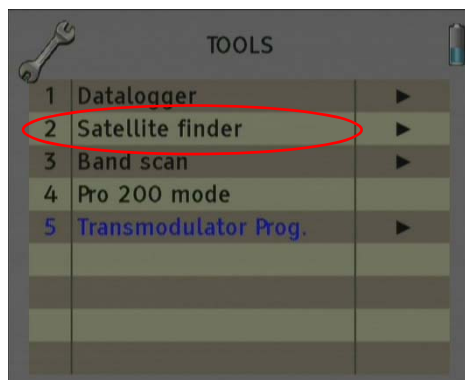
- **Mode Buzzer.** Also possible to point by power level.

Autoscan

For those who have not a second to miss

- With MediaMAX MINI meters is possible to:
    - **Carrier AUTOSCAN**
        - Lock channels (analogue or digital) with unknown modulation parameters immediately.
        - Just press autoscand button:

    - **Band AUTOSCAN**
        - This function allows to tune and memorize all channels (analogue and digital) in the band.
        - They are memorized automatically with following name:
            - Analogue → CH22_PALG
            - Digital → CH33_DVB
        - With the Scaned band is possible to create a group.
        - To make a Band AUTOSCAN, press button 8, tools   and "Band Scan".

Working with groups
To reduce working time

- It is possible to create a "*group*" (Group of typical channels received in a area).
- Group mode allows to tune existing channels when using the knob.
- To work in "*Group mode*", select "*Program Mode*" in the NAV button:
- To create a group:
  1. Press button 6 "*Programs*"
  2. New Group

MAP function

Programming 310 series transmodulators with MediaMAX

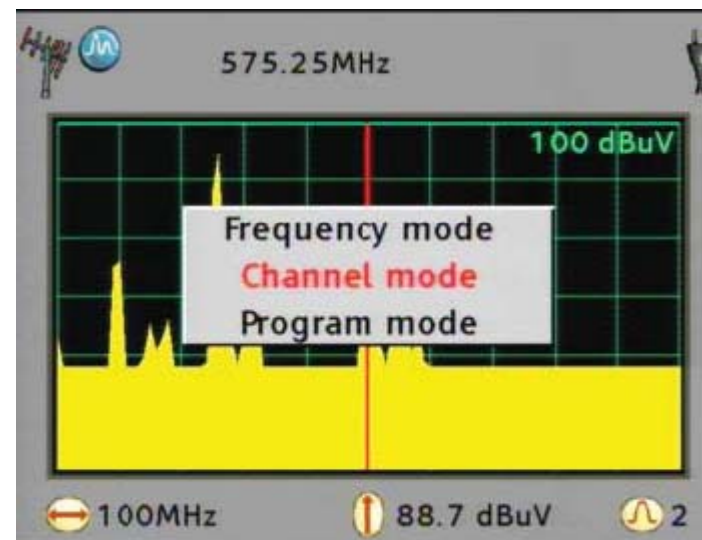- **Meter Aided Programming** function is an exclusive FTE tool that allows to program headend systems while measuring the signal in a very comfortable way.

- Remember about the list of transmodulators:

MODEL	INPUT	OUTPUT	Scrambled?
TKQ 310	QPSK	QAM	FTA
TSQ 310	QPSK/8PSK	QAM	FTA
TSQ 310 CI	QPSK/8PSK	QAM	Scrambled
TKF 310	QPSK	COFDM	FTA
TSF 310	QPSK/8PSK	COFDM	FTA
TSF 310 CI	QPSK/8PSK	COFDM	Scrambled
TFF 310	COFDM	COFDM	FTA
TFF 310 CI	COFDM	COFDM	Scrambled
ETWF 310	2x A/V	COFDM	-

ANT IN

Programming headend

RF OUT
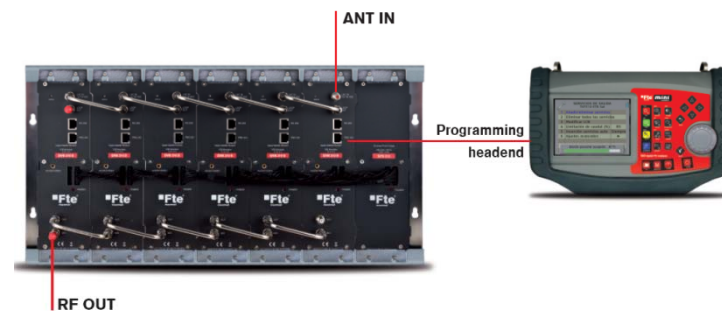
MAP function

Programming a 310 transmodulators with **MediaMAX**

- Input and output frequency parameters as well as other digital modulation and network configurations can be set through the step to step menus on the meter.

TOOLS

1	Datalogger	►
2	Satellite finder	►
3	Band scan	►
4	Pro 200 mode	
5	Transmodulator Prog.	►

TRANSMODULATOR PROG
TKF310-ETB Sat

1	Select device	
2	Device status	
3	Set front-end	►
4	Set modulator	►
5	Set output channel	►
6	System information	►
7	Save / recall	►
8	Set output services	►

Map Function

Upgrade your meter when have the need!

- It is possible to upgrade the meter by HardWare.
- Possible upgrades:

Update

	mini S2	mini ST	mini S2T	mini S2 CT	mini S2T HD	mini S2 CT HD
mini S	✓	✓	✓	✓	✓	✓
mini T	✗	✓	✓	✓	✓	✓
mini S2	✗	✗	✓	✓	✓	✓
mini ST	✗	✗	✓	✓	✓	✓
mini S2T	✗	✗	✗	✓	✓	✓
mini S2 CT	✗	✗	✗	✗	✗	✓
mini S2T HD	✗	✗	✗	✗	✗	✓

✗ It has no sense, since it does not mean an update of the product

MediaMAX MINI meters are provided with added values…

- Compact, light, intuitive, easy to use.
- Measurements in a single window.
- Autoscan (channel and band).
- Advanced Datalogger.
- Data transfer by USB.
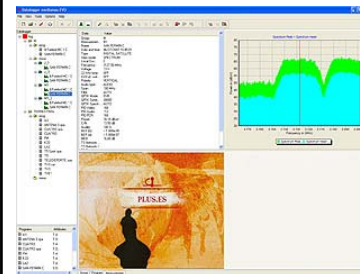- Easy upgrade by SW via USB. Very simple.
- Continuous SW upgrades.

>	mediaMAX MINI	**www.ftemaximal.com**		
	REF.	FIRMWARE	UPDATE MANUAL	INFO
	mediaMAX MINI	V.1.95 (10/03/2011)		

- Belt for handsfree working.

To take maximum advantage of your meter!

Working Bag
Code: 3002032

Car Charger
Code: 3002024

Evo SOFT
Code: 3001010

CPR-1
Code: 3002026

To program 310 headends from meters

CPR-2
Code: 3002028

To program Genius Amplifiers from meters