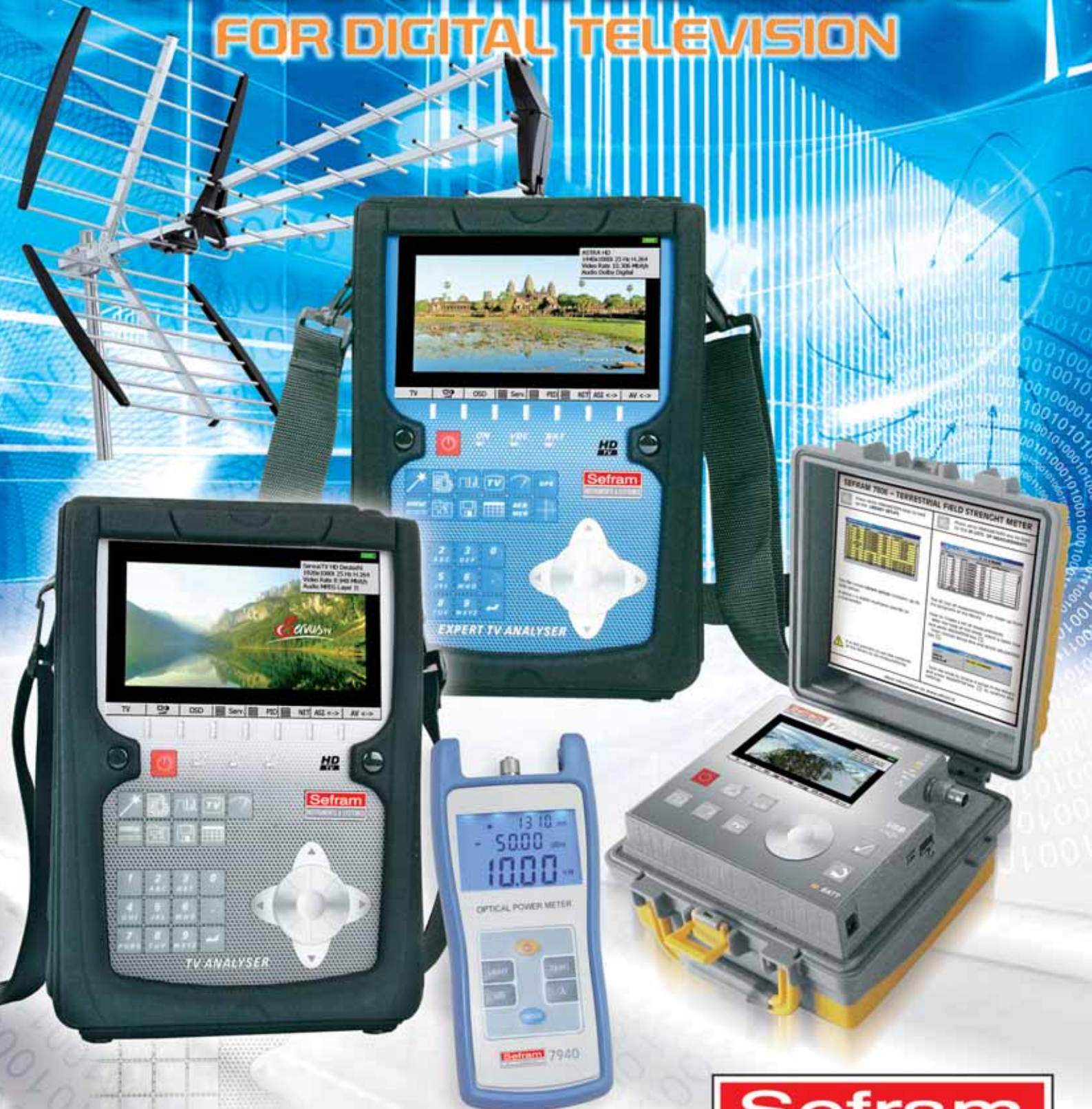


# TV Meters

## 2011-2012 Catalogue

### INNOVATIVE SOLUTIONS FOR DIGITAL TELEVISION



SEFRAM TV Meters are designed and manufactured in our plant of Saint-Etienne (France)

**Sefram**  
INSTRUMENTS & SYSTEMES

# SEFRAM

## SD and HD TV : all measurements without compromise

INNOVATIONS



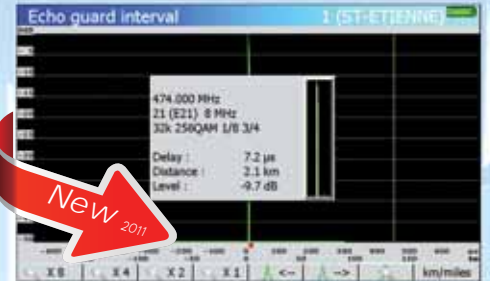
### TV picture :

the high quality LCD screen is used to provide TV pictures, SD or HD TV programs, for terrestrial, cable and satellite.



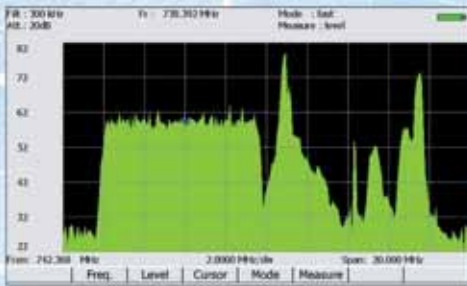
### Easy-to-use :

setup, frequency maps, recorded data can be saved or downloaded from a USB memory stick.



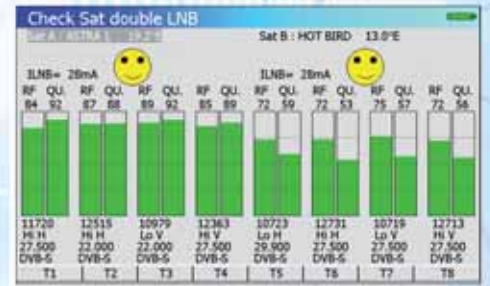
### Echoes and pre-echoes measurements :

real time measurement up to 75km, with guard interval display and zoom capability.



### Spectrum analysis :

the fast spectrum analysis is a very useful tool for adjacent channels and spurious investigations.



### Checksat mode :

- o Fast alignment of dish antenna
- o Use the NIT to display satellite name



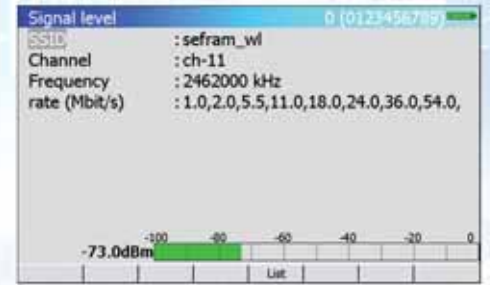
### Dish Alignment:

This very powerful tool provides the parameters for the dish (Elevation, azimuth and polarization)

#	freq.	sat	PWR	C/N	LDPC	BOH	PER	MER
4	11824.000	DVB-S	74.8	17.3	<1E-7	<5E-9	<9E-4	15.9
5	11548.000	DVB-S	78.9	9.7	<1E-7	<5E-9	<9E-4	17.2
6	11537.000	DVB-S	79.4	13.6	<1E-7	<5E-9	<9E-4	17.2
7	10832.000	DVB-S	73.1	15.5	<1E-7	<5E-9	<9E-4	15.3
8	11817.000	DVB-S	77.5	15.3	<1E-7	<5E-9	<9E-4	15.0
9	11770.000	DVB-S	78.7	16.0	<1E-7	<5E-9	<9E-4	16.6
10	11954.000	DVB-S	74.8	16.0	<1E-7	<5E-9	<9E-4	14.9
11	12148.000	DVB-S	78.4	15.1	<1E-7	<5E-9	<9E-4	15.7
12	11856.000	DVB-S	76.9	14.1	<1E-7	<5E-9	<9E-4	15.9

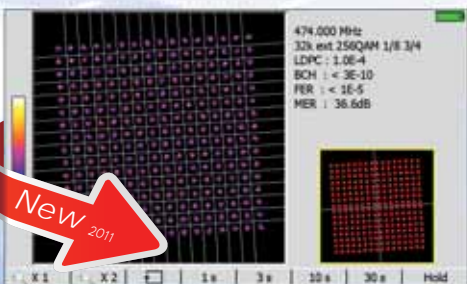
### Frequency map:

Display and record of all measurements in DVB-T, DVB-T2, DVB-S, DVB-S2 and DVB-C.



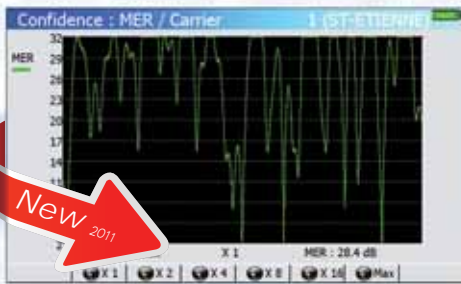
### Wifi measurements :

With this option, you can perform measurements on Wifi networks.



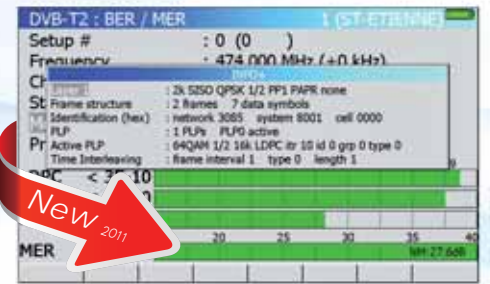
### Constellation pattern :

The real time constellation diagram is provided in DVB-T, DVB-T2, DVB-S, DVB-S2 and DVB-C. It includes a zoom and the refresh period is programmable.



### MER versus carrier (DVB-T / DVB-T2) :

Graphical display with zoom capability.



### Complete measurements in DVB-T2 :

Errors rates for a defined PLP. User can select each PLP (Physical Layer Pipe).

# SEFRAM 7861, 7861HD-T2 and 7862HD-T2

For all your terrestrial, cable and satellite applications, analog and digital  
Fully compatible DVB-T, DVB-T2, DVB-C, DVB-S and DVB-S2

DVB-T2

2 YEARS warranty

## Sefram 7861, 7861HD-T2 and 7862HD-T2 :

- Frequency range : 45MHz to 2150MHz
- Full measurements for all modulations : QPSK, 8PSK, C-OFDM, MPEG-2 and MPEG-4
- Power, BER, MER for digital terrestrial TV, starting at 35dBμV

## Sefram 7861HD-T2 Sefram 7862HD-T2

- MER versus carrier
- Echoes and pre-echoes
- Display HD TV programs for all standards.

New 2011

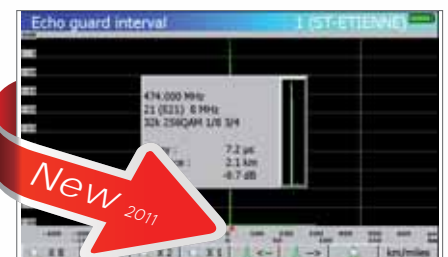
Panoramic display (7")

Waterproof keypad

Enforced housing for extensive field use.

New 2011

Selection guide	Sefram 7861	Sefram 7861HD-T2	Sefram 7862HD-T2
<b>DVB-T, DVB-T2 (C-OFDM). Full measurement</b>	DVB-T only	✓	✓
DVB-S / DVB-S2 (QPSK/8PSK). Full measurement	✓	✓	✓
DVB-C (QAM)-Full measurement 45-865 MHz	-	-	✓
Autoset mode	✓	✓	✓
Fast spectrum analysis	✓	✓	✓
Satellite identification on spectrum	✓	✓	✓
Display HD TV programs for terrestrial and satellite *	-	✓	✓
Display TV programs for DVB-S and DVB-S2 free TV	✓	✓	✓
Display encrypted programs DVB-T, DVB-S and DVB-S2*	-	-	✓
<b>MER versus carrier measurement</b>	-	✓	✓
<b>Impulse response, echos and pre-echoes analysis</b>	Echos	✓	✓
Display link margin and noise margin	✓	✓	✓
Cell ID	✓	✓	✓
NIT (Network Identification Table)	✓	✓	✓
<b>Constellation pattern for DVB-T, DVB-T2, DVB-S and DVB-S2</b>	-	✓	✓
Checksat Mode with satellite recognition	✓	✓	✓
DISEqC 1.2 and SatCR	✓	✓	✓
Audio / video Input and Output	✓	✓	✓
Wi-fi networks measurements	option	option	option



Echo guard interval :  
Display of echoes, pre-echoes, guard interval with zoom capability.



Carrying pouch for accessories  
P/N: 978656500  
Option for 7861, 7861HD-T2 and 7862HD-T2  
Supplied with 7865HD-T2 and 7866HD-T2

\* user must have a valid subscription and encryption type must be compatible (check with our sales department).

The most complete TV Meters available on the market fully compatible with all standards.

DVB-T/H, DVB-T2, DVB-S, DVB-S2, DVB-C

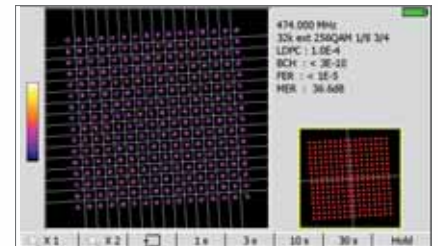


DVB-T2

2 YEARS warranty

Sefram 7865HD-T2, Sefram 7866HD-T2:

- Frequency range: 5MHz to 2150MHz. Full measurements for all modulations: QPSK, 8PSK, C-OFDM, MPEG-2 and MPEG-4
- Power, BER, MER for digital terrestrial TV, starting at 35dBμV
- Constellation pattern and OSD



Constellation pattern in DVB-T2

Sensitive keypad

Sensitive encoding wheel



MER versus carrier (real time)



Spectrum analysis in "expert" mode for adjacent channels investigations.



GPS function For 7866HD-T2, to map your measurements.

### Selection guide

	Sefram 7865HD-T2	Sefram 7866HD-T2
<b>DVB-T, DVB-T2 (C-OFDM). Full measurement</b>	✓	✓
DVB-S / DVB-S2 (QPSK/8PSK). Full measurement	✓	✓
DVB-C (QAM)-Full measurement including return path	✓	✓
Fast spectrum analysis	✓	✓
Spectrum analysis with expert mode	✓	✓
Satellite identification on spectrum	✓	✓
Display HD TV programs for terrestrial and satellite *	✓	✓
Display TV programs for DVB-S and DVB-S2 free TV	✓	✓
Display encrypted programs DVB-T, DVB-S and DVB-S2*	✓	✓
Full OSD TV (On Screen Display)	✓	✓
Audio & video PID information	✓	✓
Measurement monitoring (graphical) with datalogger	✓	✓
<b>MER versus carrier measurement</b>	✓	✓
<b>Impulse response, echos and pre-echoes analysis</b>	✓	✓
Cell ID	✓	✓
NIT (Network Identification Table)	✓	✓
Constellation pattern for DVB-T, DVB-T2, DVB-C, DVB-S and DVB-S2	✓	✓
Link margin / Noise margin calculation	✓	✓
Checksat Mode with satellite recognition	✓	✓
DISEqC 1.2 and SatCR	✓	✓
Audio / Video input and output	✓	✓
GPS	-	✓
ASI-TS input/ output	✓	✓
Wi-fi networks measurements	option	option

\* user must have a valid subscription and encryption type must be compatible (check with our sales department).

# Solutions for fiber networks

## SEFRAM 7940

### Optical power meter

- Optical power measurement in dBm or mW
- 5 wavelengths available: 850nm, 980nm, 1300nm and 1550nm
- Insertion loss measurement
- Panoramic LCD with backlight
- Auto power-off



Specifications	SEFRAM 7940
Display	graphical LCD with backlight
Wavelength	850, 980, 1300, 1550 nm
Dynamic	-50 to +26dBm
Accuracy	linear: 0.1% - non linear: 0.01dBm

**Supplied with :** batteries, manual, protective holster, carrying pouch, connectors.

## SEFRAM 7951

### Optical light source

- Provides 4 wavelengths for single mode or multimode fiber
- Output modulated
- Compact housing with protective holster
- Easy-to-use



Specifications	SEFRAM 7951
Display	graphical LCD with backlight
Wavelength	850, 1310, 1490, 1550 nm
Output power	-7dBm

**Supplied with :** batteries, manual, protective holster, carrying pouch, connectors.

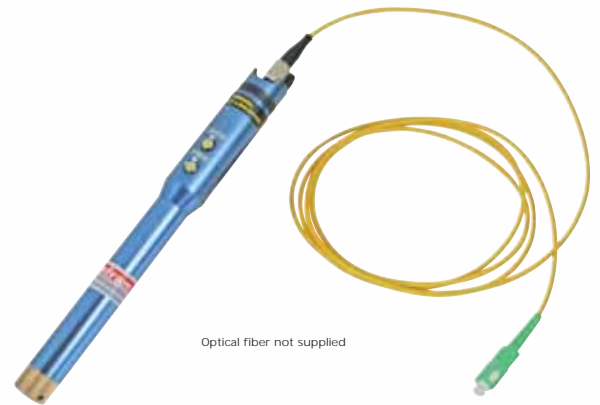
## SEFRAM 7950

### Visual fault finder

- Low cost solution for testing the continuity of fibers
- Laser source with 650nm (visible)
- CW or pulse mode
- Robust metal case

Specifications	SEFRAM 7950
Output wavelength	650 ± 10nm
Output power	3mW
Pulse mode	2-3 Hz

**Supplied with :** batteries, manual, carrying pouch



Optical fiber not supplied

## Recommended accessories for 786X series



Car cigarette lighter  
P/N : 978361000



Deluxe carrying pouch  
P/N : 978360000



Pouch for accessories  
P/N : 978656500

### KIT TR7836 : Application software for TV Meters

SEFRAM 7861, 7861HD-T2, 7862HD-T2, 7865HD-T2, 7866HD-T2, 7803B, 7804B, 7805B

P/N : TR7836

### Wi-fi networks measurement

With the optional adaptor dedicated to 786X series, you can easily control the Wi-fi networks.

#### Measurements provided :

- Wi-fi channel
- Frequency
- Maximum symbol rate of the network
- Power measurement (dBm)

P/N : 978651000

# SEFRAM 7846 : TV Meter for digital terrestrial TV and digital satellite TV



Display free-to-air HD TV programs

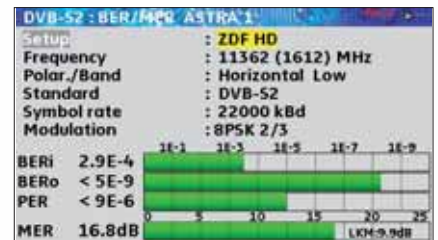
Sensitive encoding wheel

Sensitive keypad

Enforced housing for extensive field use.



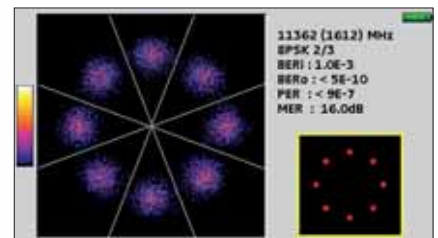
All measurements can be stored on a USB memory stick.



Complete digital measurements (BER, MER) in DVB-T, DVB-S, DVB-S2.



Fast spectrum analysis : a powerful tool for adjacent channels and spurious investigations.

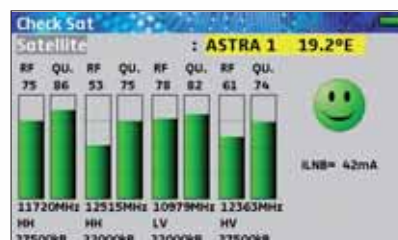


Constellation pattern in DVB-T, DVB-S, DVB-S2.

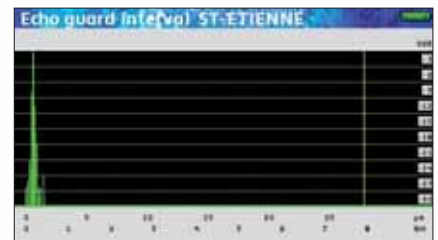
Selection guide	Sefram 7846
DVB-T (C-OFDM). Full measurement	✓
DVB-S / DVB-S2 (QPSK/8PSK). Full measurement	✓
NIT (Network Identification Table)	✓
Cell ID	✓
Checksat Mode with satellite recognition	✓
Display free to air HD and SD TV programs for terrestrial	✓
Display free to air HD and SD TV programs for satellite	✓
Impulse response, echoes in DVB-T	✓
Constellation pattern in DVB-T, DVB-S, DVB-S2	✓
DISEqC 1.2 and SatCR	✓
Remote supply 5V/13V/18V/24V	✓
Link margin / noise margin display	✓
USB interface	✓
Memorize all measurements on USB stick	✓
Free software update	✓

#	name	place	frequency	configuration
163	R1 CH.PU	ST-ETIENNE	E50	...
164	R2 L.P.B	ST-ETIENNE	E23	...
165	R3 CANAL	ST-ETIENNE	E39	...
166	R4 M6 AB	ST-ETIENNE	E54	...
167	R5 HD	ST-ETIENNE	E29	...
168	R6 TFI N	ST-ETIENNE	E26	...
0	DIGITAL+	ASTRA 1	10720 VL	...
1	ARD	ASTRA 1	10743 HL	...
2	SKY D	ASTRA 1	10773 HL	...

Frequency map with capability to record terrestrial (DVB-T) and satellite (DVB-S or DVB-S2) at the same time.



Checksat mode with NIT. The satellite identification makes the alignment of dishes free of error.

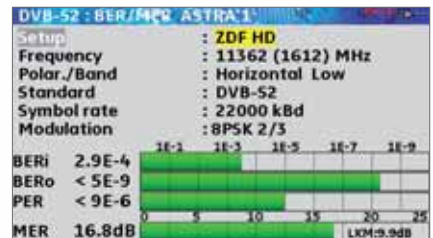


Echoes in DVB-T with zoom and guard interval display.

SEFRAM 7806 : for digital terrestrial TV (DVB-T)  
 SEFRAM 7807 : for digital cable TV (DVB-C)  
 SEFRAM 7808 : for digital satellite TV (DVB-S and DVB-S2)



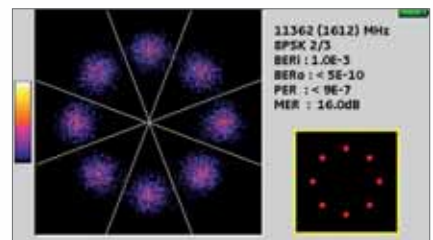
All measurements can be stored on a USB memory stick.



Complete digital measurements (BER, MER) in DVB-T (7806), DVB-S, DVB-S2 (7808) and DVB-C (7807).



Fast spectrum analysis : a powerful tool for adjacent channels and spurious investigations.

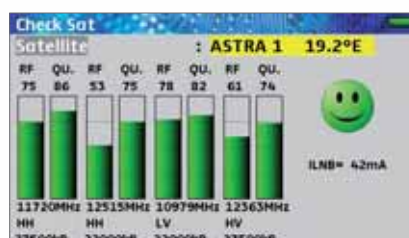


Constellation pattern in DVB-T (7806), DVB-S, DVB-S2 (7808) and DVB-C (7807).

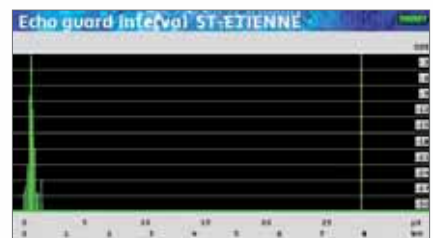
Selection guide	Sefram 7806	Sefram 7807	Sefram 7808
DVB-T (C-OFDM). Full measurement	✓	-	-
DVB-S / DVB-S2 (QPSK/8PSK). Full measurement	-	-	✓
DVB-C. Complete measurements including return path	-	✓	-
NIT (Network Identification Table)	-	-	✓
Cell ID	✓	-	-
Checksat Mode with satellite recognition	-	-	✓
Display free to air HD and SD TV programs for terrestrial	✓	-	-
Display free to air HD and SD TV programs for satellite	-	-	✓
Display free to air HD and SD TV programs for cable	-	✓	-
Impulse response, echoes in DVB-T	✓	-	-
Constellation pattern	✓	✓	✓
DISEqC 1.2 and SatCR	-	-	✓
Remote supply 5V/13V/18V/24V	✓	✓	✓
Link margin / noise margin display	✓	✓	✓
USB interface	✓	✓	✓
Memorize all measurements on USB stick	✓	✓	✓
Free software update	✓	✓	✓



Frequency map with capability to record terrestrial (DVB-T) and satellite (DVB-S or DVB-S2) at the same time.



7808: Checksat mode with NIT. The satellite identification makes the alignment of dishes free of error.



Echoes/ Impulse response in DVB-T (7806) with zoom and guard interval display.

# Robust, Easy to use and accurate for all your digital applications

## Commun features :

- New shockproof housing for extensive field use
- Easy-to-use with direct access to functions
- Record of measurements, frequency maps and programs
- USB interface
- Supplied with a NiMH pack (installed), mains adaptor, BNC and F adaptors, shoulder belt



## Dedicated to terrestrial : TV/DVB-T

SEFRAM 7803B	
Frequency band	45 MHz to 865 MHz
Dynamic range	20dB $\mu$ V to 120 dB $\mu$ V
C-BER / V-BER	yes
MER	yes
Spectrum	yes
Constellation	yes
Autonomy	3 hours
Remote supply	order 7803BT

- Analog and digital terrestrial TV measurements
- MPEG-2 and MPEG-4 stream measurements
- Spectrum analysis and constellation pattern
- USB interface



## Dedicated to cable : TV/DVB-C and internet application J83-A and J83-B standard

SEFRAM 7804B	
Frequency band	5 MHz to 865 MHz
Dynamic range	20dB $\mu$ V to 120 dB $\mu$ V
C/N measurement	yes
BER, MER	yes
Spectrum	yes
Constellation	yes
Autonomy	3 hours
Remote supply	order 7804BT

- Analog and digital TV measurements for QAM & COFDM
- Fully compatible with J83-A and J83-B standard
- Spectrum analysis and constellation pattern
- USB interface

## Dedicated to satellite : TV/DVB-S and DVB-S2

SEFRAM 7805B	
Frequency band	900 MHz to 2150 MHz
Dynamic range	30dB $\mu$ V to 110 dB $\mu$ V
C/N measurement	yes
BER, MER	yes
Spectrum	yes
Checksat mode	yes
Autonomy	3 hours
Remote supply	yes

- Fully compatible with DVB-S and DVB-S2
- BER, MER measurement in QPSK and 8PSK
- Spectrum analysis
- USB interface
- DISEqC 1.2

FTMESCH2011UK - Specifications can be updated without notice



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