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**Sefram**  
Sefram

# SEFRAM 7861

**State-of-art specifications  
with unique design**

## Capabilities

- Panoramic 7 inch LCD coloured screen
- Weight: 2,1kg only
- Display free to air programs for digital terrestrial and satellite
- Convenient checksat mode
- Full measurements DVB-T, DVB-S and **DVB-S2**
- Battery with 1 hour charging time
- Rugged carrying bag
- Water proof front panel with sensitive buttons
- Wi-fi networks measurements\*
- Simplified procedure to update internal software:  
USB memory stick

## All digital measurements

The SEFRAM 7861 provides all necessary measurements for DVB-T (COFDM), DVB-S and DVB-S2 (QPSK/8PSK). The panoramic display will show all parameters for the selected channel

## Specific features to save time

With its ultra fast spectrum, NIT, Cell-ID, impulse response, check-sat mode and autose, the SEFRAM 7861 will save your precious time during antennas setup.

## Easy to use

Direct access to functions makes the SEFRAM 7861 very easy to use. Getting started with this TV Meter will be like a game!



SEFRAM 7861

## Optimized design for your safety

With only 2,1kg, the SEFRAM 7861 will be your ideal companion for all your measurements on the field. Its compact size will provide better safety and makes your work.

## Panoramic display

With its panoramic 7 inch LCD screen (16:9), the reading of measurements will be easier than any other product available on the market.

## PC software: common for all SEFRAM TV meters

All SEFRAM TV Meters use the same PC software: TR7836 KITR7836 (P/N 978551000) includes the USB cable and the software CD-ROM. To get the best from your instrument, we recommend to order this kit with your TV Meter.

## Selection guide

	SEFRAM 7861	SEFRAM 7862	SEFRAM 7863	SEFRAM 7865	SEFRAM 7856
Frequency range	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 45-865MHz Satellite 950-2150MHz	Cable/Terrestrial 5-865MHz	Terrestrial 5-865MHz Satellite 950-2150MHz	Terrestrial 5-865MHz Satellite 950-2150MHz
DVB-T / COFDM	✓	✓		✓	✓
DVB-S, DVB-S2 / 8PSK-QPSK	✓	✓		✓	✓
DVB-C / QAM		✓, (45-865 MHz)	✓	✓	✓
DVB-C / QAM with return path			✓		
TV pictures MPEG-2	✓	✓	✓	✓	✓
Fast spectrum analysis	✓	✓	✓	✓	✓
Check sat mode	✓	✓		✓	✓
Constellation pattern, audio/video PID				✓	✓
Graphical display of measurements				✓	✓
DiSEqC 1.2	✓	✓		✓, full	✓, full
GPS and ASI output					✓
Wi-fi measurements	✓*	✓*		✓*	✓*

**metrix**  
electronics

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Technical Specifications	Terrestrial Band	Satellite Band
<b>Frequency</b>		
Range	45-865 MHz	950-2150 MHz
Resolution	measure 25 kHz, display 1 kHz	measure 25 kHz, display 1 kHzHz
<b>Level measurements</b>		
Dynamic range	20-120 dB $\mu$ V	30-110 dB $\mu$ V
Noise floor level	5dB $\mu$ V typical	
Units	dB $\mu$ V, dBmV, dBm, V	dB $\mu$ V, dBmV, dBm, V
Accuracy	$\pm 2$ dB $\pm 0.05$ dB/°C	$\pm 3$ dB $\pm 0.05$ dB/°C
Resolution	0,1dB	0,1dB
Filters	automatic with selected standard 100 - 300 kHz	
Input	BNC 75 Ohm	BNC 75 Ohm
Max. permissible voltage	80 V DC, 80 Vrms/50Hz	80 V DC, 80 Vrms/50Hz
Standards	B, G, D, K, I, L, M, N, FM, carrier, C-OFDM	PAL, SECAM, NTSC, DVB-S, DVB-S2, DSS
Measurements	V, C/N, V/A1, V/A2 according to selected standard	RF, C/N
<b>Ultra fast spectrum analysis</b>		
Sweep time	100 ms typ. (10 times/s)	100 ms typ. (10 times/s)
Filters	automatic with selected span (100, 300, 1000 kHz)	1MHz
Attenuator	automatic with selected frequency(0 to 60 dB, 5 dB steps)	automatic (0 to 60 dB, 5 dB steps)
Dynamic	60 dB (10 dB/div), 30 dB (5dB/div)	60 dB (10 dB/div), 30 dB (5dB/div)
Span	10 MHz to full span with 1, 2, 5 steps	50 MHz to full span with 1, 2, 5 steps
<b>Measurement map</b>		
Capacity	scrolling of 12 programs	
Display	graphical or text	
<b>Checksat mode</b>		
	-	fast search of satellite, simple or double LNC
	-	30 satellites typical, with European database loaded
	-	4 transponders per satellite, can be modified by user
<b>Memory</b>		
Saving	internal, non volatile memory	
Data	places, measure (level, BER/MER, Frequency map, Spectrum,...)	
Capacity	512 Ko (max. 1000 files or folders)	
<b>Auxiliary Inputs and Outputs</b>		
USB interface	mini USB connector	
Power supply	jack 5,5 mm, 15 Vmax. 5A max	
<b>Remote supply and control</b>		
Voltage	5/13/18 V, 500 mA max	13/18 V, 500 mA max
DiSEqC		DiSEqC 1.2
22 kHz		22 kHz, MiniDiSEqC, ToneBurst
<b>Digital measurements</b>	<b>C-OFDM</b>	<b>DVB-S</b> <b>DVB-S2</b>
Bit Error Ratio	CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)	CBER, VBER, UNC      LDPC, BCH, PER
Modulation Error Ratio (MER)	5-35dB	0-20dB
Symbol rate	-	1-45Ms/s
Bandwidth	6MHz, 7 MHz, 8 MHz	-
Constellation	automatic	QPSK and 8PSK
Viterbi rate	automatic	1/2, 2/3, 3/4, 5/6, 7/8, 8/9, 9/10 (auto)
Standards	EN 300-744	EN 300-421      EN302 307
<b>Impulse response</b>		
Dynamic	20 dB	-
Units	$\mu$ s, km, miles	-
<b>NICAM</b>		
Frequency	45-865MHz	
Standard	B, G, D, K, I, L	
Error measurement	BER (parity)	
Symbol rate	728 kbits/s	
Standards	EN 300-163	
<b>TV picture display</b>		
Analogue programs	yes	-
Digital programs (free to air)	yes, C-OFDM	yes

General specifications	
Display	LCD TFT Coloured 7 inch 16/9, backlighted, 800x480 dots (wide VGA)
Interface	2x USB (A and mini B) and ethernet
Power supply	main adaptor 110/230 VAC, jack 5.5mm, 15 V 4.5A
Battery	LiOn battery 70W
Autonomy	3 hours typical
Built-in charger	1 hour for 80% capacity
Operating temperature	0°C to 40°C
Storage Temperature	-10°C to 60°C
EMC and Safety	NF-EN 61362-1 / NF-EN 61326-3 / NF-EN 61010-1
Dimensions	205 x 90 x 290 mm
Weight	2,1 kg (including battery and pouch)

**Supplied with :** main adaptor (90-245V), a rugged carrying pouch, F/BNC adaptor, a user manual

**Optional accessories :** Pouch for accessories: P/N 978656500  
 Wi-fi adaptor: P/N 978651000  
 KitTR7836: USB cable + TR7836 software (CD-ROM) for Windows®

Car cigarette lighter power supply (P/N 978361000)  
 F/BNC adaptor: P/N 213200011  
 BNC / TV adaptor: P/N 213200010

TR7836 software is common for all SEFRAM TV Meters

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

Specifications subject to change without notice- - FT7861 A00

**For assistance and ordering**