

Sefram
Sefram

SEFRAM 7866

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, cable and satellite
- Full measurements DVB-T, DVB-C, DVB-S and **DVB-S2**
- Ultra fast spectrum analysis and expert spectrum analysis
- OSD, PID audio and video, impulse response
- ASI output
- GPS for mapping signals
- Checksat function
- Battery with 1 hour charging time
- Rugged carrying bag
- Water proof front panel with sensitive button
- Simplified procedure to update internal software : USB memory stick
- Wi-fi networks measurements*



SEFRAM 7866

All digital measurements

The SEFRAM 7866 provides all necessary measurements for DVB-T (COFDM), DVB-C (QAM), 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, checksat mode and auto-set, the SEFRAM 7866 will save your precious time during antennas setup. ASI output and GPS module make the 7866 expert for mapping signals and for fine analysis of MPEG stream.

Easy to use

Direct access to functions makes the SEFRAM 7866 very easy to use. Getting started with this TV Meter will be like a game!

Optimized design for your safety

With only 2,1kg, the SEFRAM 7866 will be your ideal companion for all your measurements on the field. Its compact size will provide better safety and makes your work easier

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	✓*	✓*		✓*	✓*

Technical Specifications	Terrestrial Band	Satellite Band
Frequency	5-865 MHz	950-2150 MHz
Range	measure 25 kHz, display 1 kHz	measure 25 kHz, display 1 kHz
Resolution		
Level measurements		
Dynamic range	20-120 dB μ V	30-110 dB μ V
Noise floor level	5dB μ V typical	
Units	dB μ V, dBmV, dBm, V	dB μ V, dBmV, dBm, V
Accuracy	± 2 dB ± 0.05 dB/ $^{\circ}$ C	± 3 dB ± 0.05 dB/ $^{\circ}$ 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, QAM	PAL, SECAM, NTSC, DVB-S, DVB-S2, DSS
Measurements	V, C/N, V/A1, V/A2 according to selected standard	RF, C/N
Spectrum analysis		
Ultra fast mode	100 ms typ. (10 times/s)	100 ms typ. (10 times/s)
Expert mode	yes, with all measurement information	yes, with all measurement information
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	10 MHz to full span with 1, 2, 5 steps
Measurement map		
Capacity	scrolling of 12 programs	
Display	graphical or text	
Checksat mode		
	-	fast search of satellite, simple or double LNC
	-	30 satellites typical, with European database loaded
	-	4 transponders per satellite, can be modified by user
Memory		
Saving	internal, non volatile memory	
Data	s, measure (level, BER/MER, Frequency map, Spectrum,...)	
Capacity	512 Ko (max 1000 files or folders)	
Auxiliary inputs and Outputs		
USB interface	mini USB connector	
Power supply	jack 5,5 mm, 15 Vmax. 5A max	
Video input	yes, with RCA connector	
Audio / Video output	yes, with RCA connector	
ASI output	yes, 2 output with BNC connector	
Remote supply and control		
Voltage	5/13/18 V, 500 mA max	13/18 V, 500 mA max
DiSEqC	-	DiSEqC 1.2 (full)
22 kHz	-	22 kHz, MiniDiSEqC, ToneBurst
Digital measurements	C-OFDM	QAM
Bit Error Ratio	CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)	BER (before Reed Solomon) UNC (lost packets)
Modulation Error Ratio (MER)	5-35dB	20 to 40dB
Symbol rate	-	5 to 7 Ms/s
Bandwidth	6MHz, 7 MHz, 8 MHz	
Constellation	automatic	automatic
Viterbi rate	automatic	-
Audio and video PID	yes	yes
Standards	EN 300-744	ITU J83-Appendix A and B
	NICAM	
FFrequency	45-865MHz	
Standard	B, G, D, K, I, L	
Error measurement	BER (parity)	
Symbol rate	728 kbits/s	
Standards	EN 300-163	
Impulse response		
Dynamic	20 dB	
Units	μ s, km, miles	
TV picture display		
Analogue programs	yes	-
Digital programs (free to air)	yes, C-OFDM and QAM	yes
Digital programs (*)		yes

General specifications	GPS module (USB)
Display	LCD TFT Coloured 7 inch 16/9, backlighted, 800x480 dots (wide VGA)
Interface	2 x USB (A and mini B) and Ethernet
Power supply	main adaptor 110/230 VAC, jack 5.5mm, 15 V 4.5A
Battery	LiIon battery 70Wh
Autonomy	3 hours typical
Built-in charger	1 hour for 80% capacity
Operating temperature	0 $^{\circ}$ C to 40 $^{\circ}$ C
Storage temperature	-10 $^{\circ}$ C to 60 $^{\circ}$ 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)
Frequency :	L1 Code C/A (standard positioning service)
Channels :	20 channels
Position accuracy :	15 meters (CEP) 50% without scrambling
Geodesic Datum :	WGS84 (default)
Acquisition time :	38s typ. (130s typ. At first power-on)
Aquisition time after signal lost :	<1s
Antenna :	included in GPS module

(*) the display of digital programs (encrypted) is possible if user has a valid user card and if the encryption type supported by the TV Meter - Please check with our sales department when ordering

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 - FT7866A00

For assistance and ordering