

**Sefram**

# SEFRAM 7856

## State-of-art specifications with unique design

### Capabilities

- Panoramic 6,5 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
- Very high sensitivity for terrestrial band
- Battery with 1 hour charging time
- Rugged carrying bag

### All digital measurements

The SEFRAM 7856 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 7856 will save your precious time during antennas setup. ASI output and GPS card inside make the 7856 expert for mapping signals and for fine analysis of MPEG stream.

### Easy to use

Direct access to functions makes the SEFRAM 7856 very easy to use. Getting started with this TV Meter will be like a game!



SEFRAM 7855

### Optimized design for your safety

With only 2,1kg, the SEFRAM 7856 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 6,5 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 7851	SEFRAM 7851C	SEFRAM 7853	SEFRAM 7855	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		✓	✓	✓	✓
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					✓





# SEFRAM 7856

**Panoramic TV Meter.**

Technical Specifications	Terrestrial Band	Satellite Band
<b>Frequency</b>		
Range	5-865 MHz	950-2150 MHz
Resolution	measure 25 kHz, display 1 kHz	measure 25 kHz, display 1 kHz
<b>Level measurements</b>		
Dynamic range	20-120 dBμV	30-110 dBμV
Noise floor level	5dBμV typical	
Units	dBμV, dBmV, dBm, V	dBμV, dBmV, dBm, V
Accuracy	±2dB ±0.05dB/°C	±3dB ±0.05dB/°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
<b>Spectrum analysis</b>		
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	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	s, 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	
Video input	yes, with RCA connector	
Audio / Video output	yes, with RCA connector	
ASI output	yes, 2 output with BNC connector	
<b>Remote supply and control</b>		
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
<b>Digital measurements</b>	<b>C-OFDM</b>	<b>QAM</b> <b>DVB-S</b> <b>DVB-S2</b>
Bit Error Ratio	CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)	BER (before Reed Solomon) UNC (lost packets) CBER, VBER, UNC LDPC, BCH, PER
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
	<b>NICAM</b>	EN 300-421   EN302 307
Frequency	45-865MHz	
Standard	B, G, D, K, I, L	
Error measurement	BER (parity)	
Symbol rate	728 kbits/s	
Standards	EN 300-163	
<b>Impulse response</b>		
Dynamic	20 dB	
Units	μs, km, miles	
<b>TV picture display</b>		
Analogue programs	yes	-
Digital programs (free to air)	yes, C-OFDM and QAM	yes
Digital programs (*)		yes

General specifications		GPS module
Display	LCD TFT Coloured 6,5 inch 16/9, backlighted, 400x254 dots	<b>Frequency :</b> L1 Code C/A (standard positioning service)
Power supply	main adaptor 110/230 VAC, jack 5.5mm, 15 V 4,5A	<b>Channels :</b> 8 channels, 32 correlators
Battery	LiOn battery 70Wh	<b>Position accuracy :</b> 25 meters (CEP) 50% without scrambling
Autonomy	3 hours typical	<b>Geodesic Datum :</b> choice of 180 datum, WGS84 (default)
Built-in charger	1 hour for 80% capacity	<b>Acquisition time :</b> 20s typ. (130s typ. At first power-on)
Operating emperature	0°C to 40°C	<b>Aquisition time after signal lost :</b> <2s
Storage temperature	-10°C to 60°C	<b>Antenna :</b> magnetic antenna with 5m length cable
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)	

(\*) 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 :** 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 - - FT7856A00



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**For assistance and ordering**