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# SEFRAM 7866HD

## State-of-Art Specifications for High Definition TV

### Capabilities

- Panoramic 7 inch LCD coloured screen
- Weight: 2,1kg
- Display free to air programs for digital terrestrial, cable and satellite
- Display **High Definition TV programs**
- Full measurements DVB-T/H, DVB-C, DVB-S et DVB-S2
- Full measurements for MPEG-2 and MPEG-4
- Ultra fast spectrum analysis and expert spectrum analysis
- Satcheck mode with NIT (satellite recognition)
- Real time echoes measurement with zoom
- Constellation diagram with zoom
- OSD TV, PID audio and video, impulse response
- ASI TS output
- GPS module for mapping signals
- Graphical display of measurements
- Very high sensitivity in terrestrial band
- Memorise and export/import data with USB memory stick
- Battery with 1 hour charging time and 4 hours autonomy
- Rugged carrying case
- Water proof front panel with sensitive button
- Optional PC software to create reports

### All digital measurements

The SEFRAM 7866HD provides all necessary measurements for DVB-T/H, DVB-C, DVB-S and DVB-S2. The panoramic TFT display will show all parameters and measurements for the selected channel.

### Specific features to save time

Time is money! With the ultra fast spectrum analysis, NIT, Check sat mode, autose, real time echoes, constellation diagram with zoom, impulse response, complete OSD the SEFRAM 7866HD will save your precious time during antenna setup. The SEFRAM 7866HD includes a GPS function for mapping the signal parameter.

### Easy to use

Direct access to functions makes the SEFRAM 7866HD very easy to use. Getting started with the TV meter is like a game!



**SEFRAM 7866HD**

### Optimized design for your safety

With only 2,1kg, the SEFRAM 7866HD will be the 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

### HD TV display

The new SEFRAM 7866HD displays **high definition TV** programs (MPEG4-H264 free to air) with the decoding of all digital sounds.

### Selection guide

	7861	7861HD	7862	7862HD	7863HD	7865HD	7866HD
Frequency Band	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 5-865MHz	Terrestrial 5-865MHz Satellite 950-2150MHz	Terrestrial 5-865MHz Satellite 950-2150MHz
DVB-T/H	✓	✓	✓	✓		✓	✓
DVB-S, DVB-S2	✓	✓	✓	✓		✓	✓
DVB-C			✓ (45-865MHz)	✓ (45-865MHz)	✓	✓	✓
TV MPEG2 display	✓	✓	✓	✓	✓	✓	✓
TV MPEG4 - H264 display (HD TV)		✓	✓	✓	✓	✓	✓
Fast spectrum analysis	✓	✓	✓	✓	✓	✓	✓
Check sat mode	✓	✓	✓	✓		✓	✓
Constellation diagram with zoom			✓	✓	✓	✓	✓
Graphical display of measurements					✓	✓	✓
Wifi measurements *	✓*	✓*	✓*	✓*		✓*	✓*
GPS							✓
TS-ASI Output						✓	✓

\* with optional adapter.





# SEFRAM 7866HD

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	F or BNC 75 Ohms		F or BNC 75 Ohms	
Max permissible voltage	80 V DC, 80 V rms/50Hz		80 V DC, 80 V rms/50Hz	
Standards	B, C, D, K, I, L, M, N, FM, carrier, QAM, 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>Fast spectrum analysis</b>				
Ultra fast mode	100 ms typ. (10 times/s)		100 ms typ. (10 times/s)	
Expert mode	yes, with all measurements information in the spectrum		yes, with all measurements information in the spectrum	
Filters	automatic with selected span (100, 300, 1000 kHz)		1MHz	
Attenuator	automatic with selected frequency (0 to 60 dB with 5 dB steps)		automatic (0 to 60 dB with 5 dB steps)	
Dynamic (display)	60 dB (10 dB/div), 30 dB (5dB/div)		60 dB (10 dB/div), 30 dB (5dB/div)	
Span	10 MHz to full span in 1, 2, 5 steps		10 MHz to full span in 1, 2, 5 steps	
<b>Measurement map</b>				
Capacity			scrolling 12 programs	
Display			graphical (bargraph)	
Check sat 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	
<b>Memory</b>				
Saving	internal, non volatile memory, USB stick (not supplied with)			
Data	places, measure (level, BER/MER, frequency map, Spectre,...)			
Capacity	320 ko (1000 files max or folders)			
<b>Auxiliary inputs and outputs</b>				
Interfaces	2 x USB (A and mini B), Ethernet 10baseT			
Power supply input	jack 3,5 mm, 15 V max, 6 A max			
Audio / Video	Input/Output audio and video			
ASI TS output	yes, BNC on the upper panel			
<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>Bit Error Rate (BER)</b>	<b>DVB-T/H</b> CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)		<b>DVB-C</b> BER (before Reed Solomon) UNC (lost packets)	
	5-35dB		20 to 40dB	
<b>Modulation Error Rate (MER)</b>	-		0-20dB	
Symbol rate	-		DVB-S-1-45Ms/s DVB-S2: 1-36Ms/s 8PSK: 1-31Ms/s	
Bandwidth	5MHz, 6MHz, 7 MHz, 8 MHz		-	
Constellation	automatic		QPSK and 8PSK	
Viterbi rate	-		1/2, 2/3, 3/4, 5/6, 7/8, 8/9, 9/10 (auto)	
Guard interval	Automatic and manual		-	
Inverted spectrum	Manual		-	
Standard	EN 300-744		ITU J83-Appendix A and B	
	EN 300-421		EN302 307	
<b>NICAM</b>				
Frequency	45-865MHz		-	
Standard	B, C, D, K, I, L		-	
Level measurements	yes		-	
<b>Echoes / Impulse response</b>				
Dynamic range	30 dB, 67km (en 8k)		-	
Units	µs, km, miles		-	
<b>TV picture and sounds</b>				
Analogue programs	yes		-	
Digital programs (free to air)	SD (standard definition) and HD (high definition)		SD (standard definition) and HD (high definition)	
Sounds	analogue, MPEG-1, MPEG-2, AAC, HE AAC, Dolby® Digital, Dolby® Digital Plus		-	
Digital programs (*)	yes		yes	

## General Specifications

Display	LCD TFT Couloured 7 inch 16/9, backlighted, 800x480 dot (W-VGA)	
Power supply	main adaptor 110/230 VAC, jack 3,5mm, 15 V 6 A	
Battery	LiOn battery 70Wh	
Autonomy	4 hours typical	
Built-in charger	1 hour charging time 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 with European plug), user's manual, F/F or F/BNC adaptor, a rugged carrying pouch for accessories, GPS module (USB)

<b>Optional accessories :</b>	Wifi adaptor : P/N 978651000	<b>GPS module (USB)</b>	Frequency :	L1 code C/A standard positioning service)
	Pouch for accessories : P/N 978656500		Channels :	20 channels
	Kit TR7836 , kit with TR7836 software (CD-ROM) and USB cable		Position accuracy :	15 meters (CEP) 50% without scrambling
	Car cigarette lighter power supply : P/N 978361000		Geodesic Datum :	WGS84 (default)
	BNC/TV adaptor : P/N 213200010		Acquisition time :	38s typ. (130s typ. At first power-on)
			Acquisition time after signal lost :	<1s
			Antenna :	included in GPS module

TR7836 software is common for all SEFRAM TV Meters

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

FT7866HD A00 - Specifications can be updated without notice



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