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# SEFRAM 7865HD

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

### Capabilities

- Panoramic 7 inch LCD coloured screen
- Weight: 2,1kg
- Display TV 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 and input (1)
- 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 7865HD 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, autosect, real time echoes, constellation diagram with zoom, impulse response, complete OSD the SEFRAM 7865HD will save your precious time during antenna setup.

### Easy to use

Direct access to functions makes the SEFRAM 7865HD very easy to use. Getting started with the TV meter is like a game!



SEFRAM 7865HD

### Optimized design for your safety

With only 2,1kg, the SEFRAM 7865HD 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 7865HD 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			x (45-865MHz)	x (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/Input						✓(1)	✓(1)

\* with optional adapter.

(1): available June 2010. Cannot be retrofit on previous models.



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INSTRUMENTS & SYSTEMES

## 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 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 +/- 0.05dB/ $^{\circ}$ C	$\pm 3$ dB +/- 0.05dB/ $^{\circ}$ 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, G, 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 spec
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 range	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)
<b>Check sat 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, 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
AS-TS output/Input		yes, BNC on the upper panel (1)
<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>DVB-T/H</b>	<b>DVB-C</b>
Bit Error Rate (BER)	CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)	BER (before Reed Solomon) UNC (lost packets)
		<b>DVB-S</b>
		CBER, VBER, UNC
		<b>DVB-S2</b>
		LDPC, BCH, PER
Modulation Error Rate (MER)	5-35dB	20 to 40dB
Symbol rate	-	5 to 7 Ms/s
Bandwidth	5MHz, 6MHz, 7 MHz, 8 MHz	-
Constellation	automatic	16, 32, 64, 128, 256 - zoom
Viterbi rate	-	-
Guard interval	Automatic and manual	-
Inverted spectrum	Manual	-
Standard	EN 300-744	ITU J83-Appendix A and B
	<b>NICAM</b>	
Frequency	45-865MHz	-
Standard	B, G, D, K, I, L	-
Level measurements	yes	-
<b>Echoes / Impulse response</b>		
Dynamic range	30 dB, 67km (en 8k)	-
Units	$\mu$ s, 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 70W
Autonomy	4 hours typical
Built-in charger	1 hour charging time 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)

**Supplied with :** main adaptor (90-245V with European plug), user's manual, F/F or F/BNC adaptor

**Optional accessories :** Wifi adaptor : **P/N 978651000**  
 Pouch for accessories : **P/N 978656500**  
 Kit TR7836 : **kit with TR7836 software (CD-ROM) and USB cable**  
 Car cigarette lighter power supply : **P/N 978361000**  
 BNC/TV adaptor : **P/N 213200010**

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.

(1): available june 2010.

FT7865HD A00 - Specifications can be updated without notice



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For assistance and ordering

