



# SEFRAM 7866HDT2

## 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 MPEG4-H264
- Full measurements DVB-T2, DVB-T/H, DVB-C, DVB-S and DVB-S2
- Full measurements for MPEG-2 and MPEG-4
- Ultra fast spectrum analysis and expert spectrum analysis
- Checksat mode with NIT (satellite recognition)
- Real time echoes and pre-echoes measurement with zoom
- Constellation diagram with zoom
- OSD TV, PID audio and video, impulse response
- ASI TS input and output
- GPS module for mapping signals
- Graphical display of measurements
- 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 7866HDT2 provides all necessary measurements for DVB-T2, 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, Checksat mode, autoset, real time echoes, constellation diagram, impulse response, MER versus carrier (DVB-T and T2), complete OSD the SEFRAM 7866HDT2 will save your precious time during antenna setup. The SEFRAM 7866HDT2 includes a GPS function for mapping the signal parameters.

### Easy to use

Direct access to functions makes the SEFRAM 7866HDT2 intuitive and very easy to use. Getting started with the TV meter is like a game !

### Optimized design for your safety

With only 2,1kg, the SEFRAM 7866HDT2 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 with all digital sounds decoding

The new SEFRAM 7866HD displays high definition TV programs (MPEG4-H264) with the **decoding of all digital sounds in standard**, including Dolby, Dolby Digital, AAC and HE-AAC.

	7861HDT2	7862HDT2	7865HDT2	7866HDT2
Frequency Band	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 45-865MHz Satellite 950-2150MHz	Terrestrial 5-865MHz Satellite 950-2150MHz	Terrestrial 5-865MHz Satellite 950-2150MHz
DVB-T/H	✓	✓	✓	✓
DVB-S, DVB-S2	✓	✓	✓	✓
DVB-C		✓ (45-865MHz)	✓	✓
TV MPEG2 display	✓	✓	✓	✓
TV MPEG4 - H264 display (HD TV)	✓	✓	✓	✓
Fast spectrum analysis	✓	✓	✓	✓
Check sat mode with NIT	✓	✓	✓	✓
Constellation diagram with zoom		✓	✓	✓
Graphical display of measurements			✓	✓
OSD, Audio & video PID			✓	✓
TS-ASI Input/Output			✓	✓
GPS			✓	✓

\* with optional adapter





# SEFRAM 7866HDT2

Panoramic TV Meter

## Specifications **Terrestrial band** **Satellite band**

<b>Frequency</b>	5-865 MHz		950-2150 MHz	
Range	measure 25 kHz, display 1 kHz		measure 25 kHz, display 1 kHz	
<b>Level measurements</b>	20-120 dBµV (30-120 dBµV for 5-45MHz)		30-110 dBµV	
Dynamic range	5dBµV typical		5dBµV typical	
Noise floor level	dBµV, dBmV, dBm, V		dBµV, dBmV, dBm, V	
Units	±2dB +/- 0.05dB/°C		±2dB +/- 0.05dB/°C	
Accuracy	0,1dB		0,1dB	
Resolution	automatic with selected standard 100 - 300 kHz		1MHz	
Filters	B, G, D, K, I, L, M, N, FM, carrier, DVB-C, MCNS, DVB-T/H, DVB-T2'		PAL, SECAM, NTSC, DVB-S, DVB-S2, DSS	
Standards	V, C/N, Noise margin, V/A1, V/A2 according to selected standard		RF, C/N, link margin	
Measurements	<b>DVB-T/H</b>		<b>DVB-S</b>	
<b>Digital measurements</b>	<b>DVB-T2</b>		<b>DVB-S2</b>	
Bit Error Rate (BER)	CBER (before Viterbi) VBER (after viterbi) UNC (lost packets)	LDPC, BCH, FER (frame error)	BER (before Reed Solomon) UNC (lost packets)	CBER, VBER, UNC LDPC, BCH, PER
Modulation Error Rate (MER)	5 - 35dB	5 - 35dB	20 - 40dB	0-20dB
Symbol rate	-	-	1 to 7.224 Ms/s (J.83A) 1 to 5.563 Ms/s (J.83B)	1 to 45Ms/s
Bandwidth	6MHz, 7 MHz, 8 MHz	5MHz, 6MHz, 7 MHz, 8 MHz	-	-
Mode	-	SISO, MISO, single and multi PLP	-	-
FFT size	2k and 8k, auto and manual	1k, 2k, 4k, 8k, 16k and 32k + bandwidth extension, auto	-	-
Constellation	QPSK, 16 and 64QAM, auto	QPSK, 16, 64 and 256QAM auto	16, 32, 64, 128 and 256QAM	QPSK and 8PSK
Code rate	1/2, 2/3, 3/4, 5/6, 7/8 (auto)	1/2, 3/5, 2/3, 3/4, 4/5, 5/6 (auto)	-	QPSK DVB-S: 1/2, 2/3, 3/4, 5/6, 6/7, 7/8 (auto) QPSK DVB-S2: 2/5, 1/2, 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (auto) 8PSK DVB-S2: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (auto)
Guard interval	Automatic and manual	Automatic	-	-
Inverted spectrum	Manual	Automatic	-	-
Standard	ETS 301-701	ETS 302-755	ITU J83-Appendix A and B	ETS 300-421 ETS 302-307
<b>Pre-echoes / Echoes / Impulse response</b>	30 dB, 75km (in 8k)		50 dB, -75km +75km (in 8k)	
Dynamic range	µs, km, miles		µs, km, miles	
Units	-		-	
<b>NICAM</b>	45-865MHz / Level measurement		-	
Frequency	B, G, D, K, I, L		-	
Standard	-		-	
<b>Fast spectrum analysis</b>	100 ms typ. (10 times/s)		350 ms typ. (10 times/s)	
Ultra fast mode	yes, with all measurements information in the spectrum		yes, with all measurements information in the spectrum	
Expert mode	100kHz, 300kHz, 1 MHz		1MHz, 3MHz, 10MHz	
Filters (automatic with selected span)	automatic with selected frequency (0 to 50 dB with 10 dB steps)		automatic (0 to 50 dB with 10 dB steps)	
Attenuator	60 dB (10 dB/div)		60 dB (10 dB/div)	
Dynamic (display)	5 MHz to full span in 1, 2, 5 steps		5 MHz to full span in 1, 2, 5 steps	
Span	-		-	
<b>Measurement map</b>	scrolling 11 programs		-	
Capacity	graphical (bargraph)		-	
Display	-		fast search of satellite, single or double LNC, with NIT 30 satellites typical, with European database loaded 4 transponders per satellite, can be modified by user	
<b>Check sat mode</b>	-		-	
<b>Memory</b>	Saving internal, non volatile memory, USB stick (not supplied with)		-	
Saving	places, measure (level, BER/MER, frequency map, Spectre,...)		-	
Data	320 Ko (1000 files max or folders)		-	
Capacity	-		-	
<b>TV picture and sounds</b>	yes (PAL, SECAM, NTSC)		-	
Analogue programs	(free to air) SD (standard definition MPEG2) and HD (high definition MPEG4 / H.264)		-	
Digital programs	analogue, MPEG-1, MPEG-2, AAC, HE AAC, Dolby® Digital, Dolby® Digital Plus		-	
Sounds	yes		yes	
Digital programs (*)	-		-	
<b>RF input</b>	75 Ohm, F and BNC with adaptor supplied		-	
Input	80 V DC, 80 V rms/50Hz		-	
Max permissive voltage	-		-	
<b>Auxiliary inputs and outputs</b>	2 x USB (A and mini B), 10baseT Ethernet (RJ45)		-	
Interfaces	jack 5,5 mm, 15 V max, 5 A max		-	
Power supply input	Input/Output audio (0dBm) and video (1Vrms)		-	
Audio / Video	yes, 2 x BNC on the upper panel		-	
ASI TS input/output	-		-	
<b>Remote supply and control</b>	5V/13V/18 V/24V, 500 mA max (300mA for 24V)		13/18 V, 500 mA max	
Voltage	-		DiSEqC 1.2, dish rotor control, committed & uncommitted switches	
DiSEqC	-		22 kHz, ToneBurst	
Mini DiSEqC	-		DiSEqC protocol extension, control of 8 slots max.	
SatCR	-		-	

## General Specifications

Display	LCD TFT Couloured 7 inch (178mm) 16/9, backlighted, 800x480 dots (W-VGA)	<b>GPS module (USB)</b>
Power supply	main adaptor 110/230 VAC, jack 5,5mm, 15 V 5 A	Frequency : L1 Code C/A (standard positioning service)
Battery (non removable)	LiOn battery 70Wh	Channels : 20 channels
Autonomy	3 hours typical	Position accuracy : 15 meter (CEP) 50% without scrambling
Built-in charger	1 hour charging time for 80% capacity	Geodesic datum : WGS84 (default)
Operating temperature	-5°C to 45°C	Acquisition time : 38s typ. (130s typ. At first power-on)
Storage temperature	-10°C to 60°C	Acquisition time after signal lost : <1s
EMC and safety	EN 55022-A2 / EN 61326-1 / EN 61010-1	Antenna : included in GPS module
Dimensions	210 x 90 x 297 mm	
Weight	2,1 kg (including battery and pouch)	

**Supplied with :** main adaptor (90-245V with European plug), user's manual on CD ROM, F/F and F/BNC adaptor, a rugged carrying pouch for accessories, GPS module (USB)

**Optional accessories :** Pouch for accessories: P/N 978656500  
KitTR7836: kit with TR7836 software (CD-ROM) and USB cable  
Car cigarette lighter power supply: P/N 978361000

(\*) : 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.

FT7866HDT2A01- Specifications can be updated without notice



## For assistance and ordering



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