

**Make sure to visit
our Website**
http://www.sefram.fr



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



SEFRAM 7866HDT2

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.

| | 7861 | 7861HDT2 | 7862HDT2 | 7865HDT2 | 7866HDT2 |
|-----------------------------------|--|--|--|---|---|
| Frequency Band | Terrestrial 45-865MHz Satellite 950-2150MHz | 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 | | | | ✓ | ✓ |
| Wifi measurements * | ✓* | ✓* | ✓* | ✓* | ✓* |
| TS-ASI Input/Output | | | | ✓ | ✓ |
| GPS | | | | | ✓ |

* with optional adapter





SEFRAM 7866HDT2

Panoramic TV Meter

| Specifications | Terrestrial band | | | Satellite band | |
|---|---|--|---|---|---------------------------------|
| Frequency | 5-865 MHz | | | 950-2150 MHz | |
| Resolution | measure 25 kHz, display 1 kHz | | | measure 25 kHz, display 1 kHz | |
| Level measurements | 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 | | | | | |
| Digital measurements | | | | | |
| Bit Error Rate (BER) | DVB-T/H CBER (before Viterbi) VBER (after viterbi) UNC (lost packets) | DVB-T2 LDPC, BCH, FER (frame error) | DVB-C BER (before Reed Solomon) UNC (lost packets) | DVB-S CBER, VBER, UNC | DVB-S2 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 |
| Pre-echoes / Echoes / Impulse response | | | | | |
| Dynamic range | 30 dB, 75km (in 8k) | 50 dB, -75km +75km (in 8k) | - | - | |
| Units | µs, km, miles | µs, km, miles | - | - | |
| | NICAM | | | | |
| Frequency | 45-865MHz / Level measurement | | | - | |
| Standard | B, G, D, K, I, L | | | - | |
| Fast spectrum analysis | | | | | |
| Ultra fast mode | 100 ms typ. (10 times/s) | | | 350 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) | 100kHz, 300kHz, 1 MHz | | | 1MHz, 3MHz, 10MHz | |
| Attenuator | automatic with selected frequency (0 to 50 dB with 10 dB steps) | | | automatic (0 to 50 dB with 10 dB steps) | |
| Dynamic (display) | 60 dB (10 dB/div) | | | 60 dB (10 dB/div) | |
| Span | 5 MHz to full span in 1, 2, 5 steps | | | 5 MHz to full span in 1, 2, 5 steps | |
| Measurement map | | | | | |
| Capacity | scrolling 11 programs | | | - | |
| Display | graphical (bargraph) | | | - | |
| Check sat mode | | | | 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 | |
| Memory | | | | | |
| Saving | 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) | | | - | |
| TV picture and sounds | | | | | |
| Analogue programs | yes (PAL, SECAM, NTSC) | | | - | |
| Digital programs | (free to air) SD (standard definition MPEG2) and HD (high definition MPEG4 / H.264) | | | - | |
| Sounds | analogue, MPEG-1, MPEG-2, AAC, HE AAC, Dolby® Digital, Dolby® Digital Plus | | | - | |
| Digital programs (*) | yes | | | yes | |
| RF input | | | | | |
| Input | 75 Ohm, F and BNC with adaptor supplied | | | - | |
| Max permissive voltage | 80 V DC, 80 V rms/50Hz | | | - | |
| Auxiliary inputs and outputs | | | | | |
| Interfaces | 2 x USB (A and mini B), 10baseT Ethernet (RJ45) | | | - | |
| Power supply input | jack 5,5 mm, 15 V max, 5 A max | | | - | |
| Audio / Video | Input/Output audio (0dBm) and video (1Vrms) | | | - | |
| ASI TS input/output | yes, 2 x BNC on the upper panel | | | - | |
| Remote supply and control | | | | | |
| Voltage | 5V/13V/18 V/24V, 500 mA max (300mA for 24V) | | | 13/18 V, 500 mA max | |
| DiSEqC | - | | | DiSEqC 1.2, dish rotor control, committed & uncommitted switches | |
| Mini DiSEqC | - | | | 22 kHz, toneBurst | |
| SatCR | - | | | DiSEqC protocol extension, control of 8 slots max. | |

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

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 : Wifi adaptor: P/N 978651000
 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.
 FT7866HDT2A00- Specifications can be updated without notice



32, rue Edouard Martel • B.P. 55 • 42009 - St Etienne cedex 2
 0.15€ TTC/min
0 825 56 50 50
 Fax. +33 (0).4.77.57.23.23
 Web : www.sefram.fr • e-mail : sales@sefram.fr

For assistance and ordering

Metrix Electronics Limited
 Minchens Court, Minchens Lane,
 Bramley, RG26 5BH, U.K.
 Tel:+44 (0)845 034 3234, Fax:+44 (0)845 034 3233
 E-mail: sales@metrix-electronics.com
 Web: www.metrix-electronics.com