

SEFRAM 78824K

State-of-Art specifications
for Ultra High Definition TV
4K HDR decoding



NEW



Capabilities

- Panoramic LCD touch screen: **10.1 inches (16:9)**
- Display free to air programs for digital terrestrial, cable and satellite
- Wideband : 5 MHz-2400 MHz
- Display High Definition TV programs MPEG4-H264 and **HEVC (H.265 4K HDR)**
- Display analog TV programs
- All measurements for **DVB-T/T2, DVB-C (J83-A and B), DVB-S, DVB-S2, DVB-S2X (option), Wi-Fi**
- MER per carrier
- **IPTV** measurements and decoding
- Ultra fast spectrum analysis and expert spectrum analysis
- Checksat mode with NIT (satellite recognition)
- LTE function to help the diagnostic of filter
- Real time echoes and pre-echoes measurement with zoom
- Constellation diagram with zoom
- Three in one display : measurement, TV picture, mini spectrum
- Graphical display of measurements
- ASI TS input and output and HDMI interface
- Analog input and output
- **Multistream** capability
- Memorize and export/import data with USB memory stick
- Battery with 1 hour charging time and 4 hours autonomy
- Supplied with **carrying bag and protection pouch**
- Weight: 2,8kg

The most complete TV Meter of the market

Time is money! With its fast and expert spectrum analysis, the checksat mode with electronic compass and NIT, the Cell ID function, real time echoes and pre-echoes, the MER per carrier, the constellation diagram, the fast Auto-set, Multistream capability, the LTE function to help the diagnostic of spurious filtering, no doubt that you can setup a TV receiving system in record time.

Easy to use

Direct access to function from the touch screen is like a game: dedicated icons, special "home" function to go back to main menu, virtual keyboard to enter your specific data, possibility to export / import file on USB memory stick,... Getting started with the new SEFRAM 78824K is fast and easy.

A new design optimized for your safety

To protect your TV meter, we have design a robust metal housing with a protective pouch. For your safety, we supplied an ingenious system of belts and clip and a light transportation bag.

Panoramic touch screen

With the largest and brightest LCD of the market, using the new TV meter is possible in all conditions of light, including in sunny environment. With the 10.1" touch screen, you will use your new TV meter like a smartphone or a tablet: no need to worry where and which button to push, everything is displayed on the large screen in a clear and easy way. Incredibly user friendly!



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Ultra High Definition TV 4K HDR decoding

Technical specifications		Terrestrial band				Satellite band			
Frequency Range	5-1005 MHz				900-2400 MHz				
Resolution	measurement: 50 kHz, display: 1 kHz				measurement: 1MHz, display: 1MHz				
Level measurements									
Dynamic range	20-120 dB μ V				20-120 dB μ V				
Units	dB μ V, dBmV, dBm				dB μ V, dBmV, dBm				
Accuracy	± 2 dB ± 0.05 dB/ $^{\circ}$ C				± 2 dB ± 0.05 dB/ $^{\circ}$ C				
Resolution	0,1 dB				0,1 dB				
Measurement filters	25 kHz				125 kHz				
Standards	BG, DK, I, L, MN, FM, DAB/DAB+, Carrier, DVB-T/T2/T2lite, DVB-C/C2, J83B				PAL, SECAM, NTSC, Carrier, DVB-S/S2/S2X, DSS				
Measurements	RF, C/N, V/A				RF, C/N				
Digital measurement	DVB-T/H	DVB-T2/T2lite	DVB-C	DVB-C2	J83B	DVB-S, DSS	DVB-S2	DVB-S2X	
Bit Error Rate (BER)	CBER (before Viterbi BER) VBER (after Viterbi BER) UNC (lost packets PER) Noise margin	LDPC (BERi) BCH (BERo) FER (frame error PER) Noise margin	BER (before Reed Solomon BERi) UNC (lost packets PER) Noise margin	BER (before Reed Solomon BERi) UNC (lost packets PER) Noise margin	BER (after Reed Solomon BERo) UNC (lost packets PER) Noise margin	CBER (before Viterbi BERi) VBER (after Viterbi BERo) UNC (lost packets PER) Link margin	LDPC (BERi) BCH (BERo) PER Link margin	BERi (before LDPC BERo (before BCH) PER (lost packets) MER LKM (Link Margin)	
Modulation Error Rate (MER)	5 - 35 dB	5 - 35 dB	20 - 40 dB	20 - 40 dB	20 - 35 dB	0-20 dB		0-20 dB	
Sensitivity	47 dB μ V								
MER per carrier	yes	yes	-	yes	-				
Symbol rate	-	-	1 to 7,224 Ms/s (J.83A)	-	1 to 5,563 Ms/s	1 to 45 Ms/s	1 to 45 Ms/s	1 to 50 Ms/s	
Bandwidth	5, 6, 7, 8 MHz	1,7, 5, 6, 7, 8 MHz	-	6, 8 MHz	-	-	-	-	
Mode	-	SISO, MISO, PLP simple or multiple	-	PLP simple or multiple data slice	-	-	-	-	
FFT size	2k and 8k, auto and manual	1k, 2k, 4k, 8k, 16k and 32k + bandwidth extension, auto	-	4k	-	-	-	-	
Constellation	QPSK, 16 and 64 QAM, auto	QPSK, 16, 64 and 256 QAM auto	16, 32, 64, 128 and 256 QAM	16, 64, 256, 1024, 4096 QAM	64, 256 QAM	QPSK	QPSK, 8PSK, 16 APSK, 32 APSK	QPSK, 8PSK, 8/16/32 APSK-L	
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)	-	2/3, 3/4, 4/5, 5/6, 8/9, 9/10	-	1/2, 2/3, 3/4, 5/6, 6/7, 7/8 (auto)	2/5, 1/2, 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (auto)	-	
Guard interval	auto and manual	auto	-	auto	-	-	-	-	
Roll-off	-	-	-	-	-	-	-	0,05 - 0,35	
Inverted spectrum	auto	auto	auto	auto	auto	auto	auto	auto	
Viterbi	-	-	-	-	-	-	-	auto	
HP/LP	yes	-	-	-	-	-	-	-	
PLP choice	-	yes	-	yes	-	-	-	-	
Multistream	-	-	-	-	-	-	yes, PL descrambling	stream selction 0 - 255 (ISI) PLS descrambling (Gold code)	
Standards	ETS 301-701	ETS 302-755	ITU J83-AppendixA	ETS 302-769	ETS 302-769	ETS 300-421	ETS 302-307	ETS 302 307 part 2	
Pre-echoes /Echoes / Impulse response									
Dynamic range	30 dB, 75km (in 8k)	50 dB, -75km +75km (in 8k)	50 dB, -5km +5km	-	-	-	-	-	
Units	μ s, km, miles	μ s, km, miles	μ s, km, miles	μ s, km, miles	-	-	-	-	
Constellation diagram									
	yes	yes	yes	yes	yes	yes	yes	yes	
Spectrum analysis									
Span	1MHz to full span in 1, 2, 5 sequences								
sweep time	100ms mini, 500 ms maxi								
Filters (automatic with selected span)	1,25 kHz, 2,5 kHz, 6,25 kHz, 12,5 kHz, 25 kHz, 62,5 kHz, 125 kHz, 250 kHz, 625 kHz, 1,25 MHz, 2,5 MHz								
Attenuator	automatic or manual (0 to 50 dB with 10 dB steps)								
Dynamic (display)	60 dB (10 dB/div)								
With NIT(OSD) and TV picture	yes								
Measurement map									
Capacity	scrolling of 100 programs maximum								
Display	graphical (bargraph), tilt measurement								
Antenna Check mode									
Goal	fast antenna pointing				fast antenna pointing, single or double LNB				
Places/Satellites	10 places				30 satellites, with European database loaded				
NIT	yes				check 4 channels per place, can be modified by user				yes
									check 4 transponders per satellite, can be modified by user
Signal Monitoring									
measurements	all, level and digital measurements								
duration	10mn, 60mn, 8h, 24h, 7d								
Memory									
Saving	internal non volatile memory, or USB memory stick (not supplied)								
Data	places, measure (level, BER/MER, frequency map, spectrums,...)								
Capacity	512 Kb (1000 files or folders max.)								

Ultra High Definition TV 4K HDR decoding

Technical specifications	Terrestrial band	Satellite band
TV picture and sounds		
Analog programs	PAL, SECAM, NTSC	
Digital programs	MPEG2, MPEG4, HEVC, SD and HD definition	
Sounds	MPEG-1, MPEG-2, AAC, HE AAC, Dolby® Digital, Dolby® Digital Plus	
Encrypted programs (*)	yes	
RF input		
Input	75 Ohm, F and BNC with adapter supplied	
Max permissive voltage	50 Veff. /50Hz	
Remote supply and control		
Voltage	5 V/13 V/18 V/24 V, 500 mA max (300mA for 24V)	13/18 V, 500 mA max
DiSEqC	-	DiSEqC 1.2, dish rotor control, committed & uncommitted switches
Mini DiSEqC (22kHz)	-	22 kHz, ToneBurst
SatCR	-	DiSEqC protocol extension, control of 8 slots max.
DCSS	-	SatCR protocol extension, control of 32 slots max.
Aux input/output		
Interfaces	USB A, Ethernet 10/100baseT (RJ45)	
Power supply input	jack 5.5 mm, 15 V max, 5 A max	
Audio/Video	HDMI output 720p, A/V jack for analog video input and earphones output	
CAM DVB-CI module	1 slot for CAM DVB-CI module (contact us for compatibility)	
ASI		
Functions	ASI input and output TS MPEG	
Frequency	270 MHz, 188/204 bytes, débit 70Mbit/s max	
Connector	BNC 75 Ohms	
5GHz input		
Functions	all level and digital measurements	
Connector	SMA 50 Ohms	
Remote supply	6,2 V, 250mA	
Wi-Fi		
Functions	Wi-Fi network level measurement, SSID	
Frequency	2,4GHz	
WiFi antenna input	SMA (50 Ohms)	
IPTV		
Functions	Streaming TV, network measurement (IAT,...)	
Connector	RJ45 Ethernet 10/100/1000 Mbps	
Protocol	UDP/RTP protocol	
Transmission	Multicast, IGMP, SMPTE-2022	
General Specifications		
Display	10.1 inches color LCD 16/9, backlight 500 cd/m², 1024x600 dots, capacitive touch pad	
Power supply	main adapter 110/230 VAC, jack with 5,5mm diameter, 15 V/5 A	
Battery (non removable)	LiOn battery 100Wh	
Autonomy	4 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	NF-EN 61362-1 / NF-EN 61326-3 / NF-EN 61010-1	
Dimensions	310 x 210 x 80 mm	
Weight	2,8 kg (battery and pouch included)	
Warranty	2 years	

(*): 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.

Supplied with: main adapter (90-245V with European plug), F/F and F/BNC adapter, carrying protective pouch, belt clip, transportation pouch. The instruction manual is available directly on our website www.sefram.com

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■ Accessories



Carrying bag (provided in standard) - P/N: 978851000



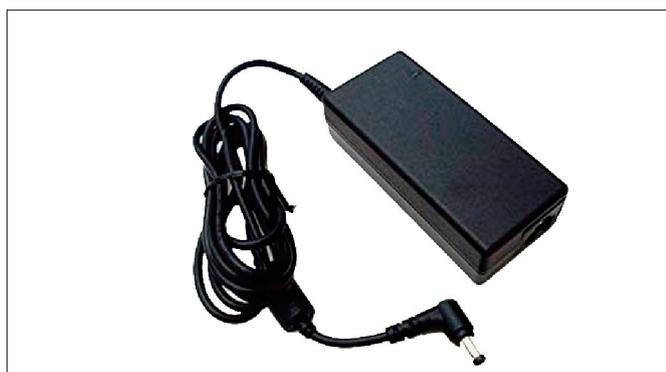
Carrying case - P/N: 978852000



A/V external video cable - P/N: 978853000



Car cigar lighter adapter: - P/N: 978361000



Main power supply adapter (provided in standard):
P/N: 978553000

For assistance and ordering



FT78824K A 00 - Specifications can be updated without notice