DVB Sat Signal Meter

MSK 130 · MSK 130/O

KATHREIN
Antennen · Electronic

Signal Meter SAT/TV/FM/Optical

MSK 130   21710045

MSK 130/O   21710046 (including optics)

CE

- Level measurement of analogue and digital TV signals (DVB-S/DVB-S2, DVB-C, DVB-H/DVB-T/DVB-T2, TV, FM) incl. return path
- Optical measurement (MSK 130/O)
- Video display of analogue and digital TV signals
- Measurement and display of BER/MER
- Display of constallation diagram
- 9" touch TFT colour display (800 x 480 pixels), splash-proof
- Battery life at least three hours
- Spectrum display
- Sat finder function (Sat Expert)
- Simultaneous display of 2 x LNB alignment (multi-feed reception)
- Acoustic signalling to facilitate antenna aligment
- Level display: either in dBµV, dBmV or dBm
- Automatic measurement range selection
- Direct frequency and channel entry
- Measurement and display of remote feed current drain
- Audio carrier measurement (TV)
- Audio control with built-in loudspeakers
- Stereo headphone jack
- Return path measurement
- DiSEqC™1.2 control signal
- SCR/SCD2 single-cable system commands
- IP test: Ping test
- Data rate measurement of services in the DVB transport stream
- Memory for signal meter settings
- Measured values and software updates can be saved over the universal USB interface
- Data logging
- TV output HDMI, analogue audio-video in/out
- Mains or battery operation

The MSK 130 has been designed as a portable multiple standard selective signal meter for the digital standards DVB-S/-S2, DVB-C, DVB-T/DVB-T2, DAB, analogue TV and FM radio including the return path. The MSK 130/O additionally features an optical test input. The unit is equipped with a high-quality 9" TFT colour touch screen which allows video display of MPEG-2 and MPEG-4 in the very highest quality. The built-in CI slot allows display of encrypted programmes [1]. Measured values can be saved on a USB stick.

[1] No CI modules in the delivery scope

Type		MSK 130 / MSK 130 O
Order no.		21710045 / 21710046
RF section		
Frequency range DVB-C/DVB-C2/DVB-T/DVB-T2, DAB, TV, FM	MHz	4-1,010
Frequency range DVB-S/DVB-S2	MHz	930-2,250
Frequency resolution	kHz	Cable/TV/FM: 50, Sat: 100
Transmission standards		B/G, I, D/K, M, N
Digital satellite receiver DVB-S/DVB-S2		
Modulation type		QPSK, 8PSK
Code rate (FEC) DVB-S		1/2, 2/3, 3/4, 5/6, 7/8
Code rate (FEC) DVB-S2		1/2, 2/3, 3/4, 5/6, 8/9, 9/10, 2/5, 3/5
Input symbol rate	MS/s	1-45 (DVB-S), 2-45 (DVB-S2)
BER		1E-6 ... 2E-2 (pre Viterbi)
MER	dB	25
Digital terrestrial TV receiver DVB-T/DVB-T2/DVB-H		
DVB-T modulation		QPSK, 16/64 QAM
DVB-T2 modulation		QPSK, 16/64/256 QAM
FFT mode DVB-T		2k, 8k
FFT mode DVB-T2		1k, 2k, 4k, 8k, 16k, 32k
Guard interval DVB-T		1/4, 1/8, 1/16, 1/32
Guard interval DVB-T2		1/4, 1/8, 1/16, 1/32, 1/128, 19/128, 19/256
Code rate (FEC) DVB-T		1/2, 2/3, 3/4, 5/6, 7/8
Code rate (FEC) DVB-T2		1/2, 2/3, 3/4, 5/6, 7/8, 3/5, 4/5
Channel bandwidth	MHz	6, 7, 8
BER		1E-6 ... 2E-2 (pre Viterbi)
MER	dB	40
Digital CATV receiver DVB-C (J83 A)		
DVB-C modulation		16/32/64/128/256 QAM
Input symbol rate	MS/s	2-6.999
BER		1E-9 ... 1E-2 (pre RS)
MER	dB	40
TV system standards		
Colour standards		PAL, SECAM, NTSC
Audio		FM, NICAM and AM audio
Digital video decoding		MPEG-2; MPEG-4/AVC

Type		MSK 130 / MSK 130/O
Level measurement section		
Level measurement range	dBµV	30 ... 120
Measurement accuracy	dB	Typ. ± 1
Detector analogue		TV: peak value; Sat/FM: mean value
Detector digital		Mean value
Display		
Monitor		9" touch TFT colour display (800 x 480 pixels)
Sat finder (acoustical)		Level-dependent tone
Power supply		
Li-Ion accumulator		4.8 Ah
Mains (plug-in power supply unit)	V	100-240
DC external	V	12
Remote feeding		
Remote feed voltage supply	V	5/13/18
Remote feed current	mA	Max. 500
Control signals		22 kHz, DiSEqC™ 1.2, SCR/SCD2 single-cable system
Connections		
RF input (impedance)	Ω	75 (F-type coaxial socket)
TV output		HDMI, analogue video
Headphone socket	mm	Jack, 3.5
USB port		2 x ports, USB 2.0
LAN interface		RJ 45, 100 MBit/s
CI interface		CAM module
DC voltage supply 12 V		DC plug adapter 2.5/5.5 mm
General		
Safety standards		Protection category II (AC/DC power supply unit), VDE EN 61010
Dimensions (W x H x D)	mm	295 x 172 x 55
Weight	kg	Approx. 2.2

Optical receiver MSK 130/O		
Inputs		FC, CLIK! (adapter)
Wave lengths	nm	1,310-1,550
Input level range	dBm	-40 to +10
Measurement accuracy	dBm	± 0.5
RF frequency range	MHz	5-2,250

Delivery scope:
Carry case for MSK 130 and accessories, carrying strap, power supply unit, test cable with F-type adapters, USB cable, USB stick. The delivery scope of the MSK 130/O includes an FC/Clik! adapter cable

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