MG 1-00 DVB-TV Meter



- ✔ Easy start thanks to DVB-T2 and SAT wizard, intuitive operation
- ✔ Ideal for use by installers, electricians and on the construction site
- ✔ 7-inch high-resolution touch display (800 × 480 px)
- ✔ Including display of the TV picture by MPEG4 decoder (H.264)
- ✔ Very good legibility even in poor lighting conditions
- ✔ Measuring ranges DVB-T/-T2/-T2 Lite, DVB-C/-C2 and DVB-S/-S2 (incl. UNICABLE I and II as well as Wideband)
- ✔ Extendable to DVB-S2X with software extension MGS 1-00
- ✔ Frequency range SAT 200 … 2400 MHz (Wideband)
- ✔ Frequency range DVB-T/T2/CATV 5 … 1005 MHz
- ✔ Import of an individual frequency plan possible
- ✔ Level measuring range 20 … 120 dBµV
- ✔ Measurements: level (also analogue), BER, MER, packet error (PER), link margin, constellation diagram
- ✔ Including spectrum analyser with full-band display or stepwise adjustment of the span
- ✔ DiSEqC Version 1.2
- ✔ Supply voltages 13/18 V for SAT, 5/13/18/24 V for DVB-T2 and CATV
- ✔ Network interface RJ45 (10/100baseT), USB
- ✔ Compact design, stable housing with robust bumpers
- ✔ Built-in lithium-ion battery with 94 Wh for up to 5 hours operating time (depending on the use and a remote power supply for LNB or antenna)
- ✔ Incl. F/F-adapter, charging unit, USB flash drive and carrying bag MGZ 1-00
- ✔ User-friendly generation of measurement protocols thanks to the AXING-MCombiner software tool included in delivery

Order information

Type	MG 1-00
Order no.	MG00100
GTIN	7611682007916
PE	1
VE	1
EU customs tariff number	85043180

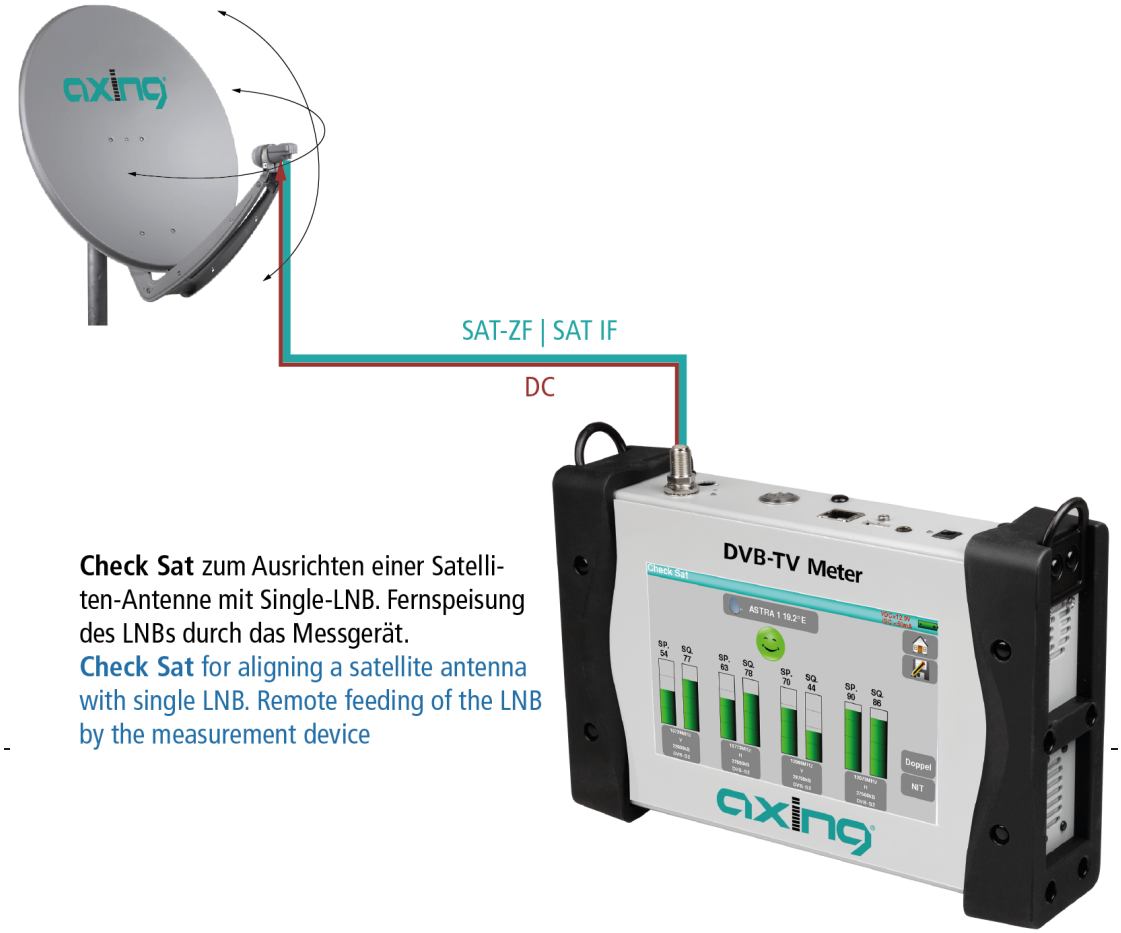
DVB T DVB T2 DVB C DVB C2 DVB S DVB S2 Wide Band approved - 2.4 GHz

Technical data

Input	
Frequency range	5 … 1005 MHz @ CATV / TERR 200 … 2400 MHz @ SAT
LNB-Type	C | Ku | Ku WIDEBAND (LO adjustable)
Level measurement	
Range	20 … 120 dBµV
Units	dBµV | dBmV | dBm
Accuracy	± 2 dB ± 0.05 dB/°C
Resolution	0.1 dB
Standards	DVB-T/T2/T2Lite | DVB-C/C2 | BG | DK | I | L | MN | DAB | FM carrier @ CATV / TERR DVB-S/S2/S2X* | PAL | SECAM | NTSC carrier @ SAT
Digital measurements	
Packet errors and link margin (LKM)	Yes
Modulation Error Rate (MER)	15 … 35 dB @ DVB-T 15 … 35 dB @ DVB-T2/T2lite 20 … 40 dB @ DVB-C (J83.A) 25 … 35 dB @ DVB-C2 0 … 20 dB @ DVB-S 0 … 20 dB @ DVB-S2 0 … 20 dB @ DVB-S2X*
Sensitivity	35 dBµV @ DVB-T 35 dBµV @ DVB-T2/T2lite < 55 dBµV @ DVB-C (J83.A) < 55 dBµV @ DVB-C2 47 dBµV @ DVB-S 47 dBµV @ DVB-S2 47 dBµV @ DVB-S2X*
Bandwidth	6 | 7 | 8 MHz @ DVB-T 1.7 | 5 | 6 | 7 | 8 MHz @ DVB-T2/T2lite 6 | 8 MHz @ DVB-C2
Mode	PLP and data slice, simple or multiple @ DVB-C2
FFT	2k | 8k @ DVB-T 1k | 2k | 4k | 8k | 16k | 32k + Band Extension @ DVB-T2/T2lite

Modulation type	QPSK, 16 - 64QAM @ DVB-T QPSK, 16 - 256QAM @ DVB-T2/T2lite 16, 32, 64, 128, 256QAM @ DVB-C (J83.A) 16, 64, 256, 1024, 4096QAM @ DVB-C2 QPSK @ DVB-S QPSK, 8PSK, 16, 32APSK @ DVB-S2 QPSK, 8PSK, 8, 16, 32APSK-L @ DVB-S2X*
Symbol rate	1 … 7.224 MS/s @ DVB-C (J83.A) 1 … 50 MS/s @ DVB-S 1 … 50 MS/s @ DVB-S2 1 … 50 MS/s @ DVB-S2X*
HP/LP – PLP – Data Slice	HP/LP @ DVB-T PLP @ DVB-T2/T2lite PLP + Data Slice @ DVB-C2
Multistream	Stream selection 0 … 255 (ISI) PLS descrambling (Gold code) @ DVB-S2 Stream selection 0 … 255 (ISI) PLS descrambling (Gold code) @ DVB-S2X*
Spectrum analysis	
Span	1 MHz to full span in 1, 2, 5 steps
Sweep	100 … 1000 ms
Filters	1.6 kHz | 3.2 kHz | 8 kHz | 16 kHz | 32 kHz | 80 kHz | 160 kHz | 320 kHz | 800 kHz | 1.6 MHz | 3.2 MHz
Attenuation	0 … 55 dB, in 5 dB steps (automatic)
Display range / dynamic	60 dB (10 dB/div)
Remote supply/control	
Supply	5/13/18/24 V | 500 mA max. (300 mA @ 24V) @ DVB-T/T2 13 / 18V | 500 mA max. @ DVB-S/S2
DiSEqC	DiSEqC 2.1 | Dish Rotor Control | committed & uncommitted Switches
DCSS	Max. 8 user bands @ EN 50494 (UNICABLE I) Max. 32 user bands @ EN 50607 (UNICABLE II)
Audio/Video	
Audiocodecs	MPEG-1 | MPEG-2 | AAC | HE AAC | Dolby® Digital | Dolby® Digital Plus
Videocodecs	MPEG-2 SD und MPEG-4 HD (H.264)
Service tables	SDT | LCN
Antenna check mode	
Memory	10 places/stations @ DVB-T/T2 30 satellites, with European database loaded @ DVB-S/S2
Check	4** channels @ DVB-T/T2 4** transponders @ DVB-S/S2
Interfaces	
Ethernet connectors	1 × RJ 45
Ethernet standards	IEEE 802.3 10/100 Base-T
USB	USB-A / V1.1 (Full Speed)
Connectors	
RF Input	F-male (F-female/-F-female adaptor mounted) | 75 Ohms
Max. permitted voltage	50 VDC, 33 Veff / 50 Hz
Analogue video input	Jack 3.5 mm | 4 contacts
Level	Video 1 Vpp max. / Audio 10 kOhm
Standards	PAL | SECAM | NTSC
Power supply	Jack 5.5 mm (max 1 A)
General	
Operating temperature range	-5 … +40 °C
Storage temperature range	-10 … +60 °C
Display	Color LCD TFT | 7 inches | 16:9 | backlight (500 cd/m2) | resolution 800 x 480 | capacitive touch screen
Operating voltage	15 VDC
Battery	Lithium Ion with 94 Wh (non-removable)***
Charging time	6:45 h:min 80% | 9:30 h:min 100%
Operating time	CATV/TERR: 5 h | SAT: 3 h (depending on use case)
Dimensions (W × H × D) appr.	280 x 300 x 70 mm
Weight	1.350 kg
External accessories	
Plug-in power supply	110/230 VAC | 15 VDC / 1 A
General	
Comments	* DVB-S2X only with software extension MGS 1-00 ** Can be changed by the user *** From serial number #6000 upwards

Example of use



Check Sat zum Ausrichten einer Satelliten-Antenne mit Single-LNB. Fernspeisung des LNBs durch das Messgerät.
Check Sat for aligning a satellite antenna with single LNB. Remote feeding of the LNB by the measurement device

Suitable products

MGS 1-00 Software extension for MG 1-00
MGZ 1-00 Carrying bag for MG 1-00
MGZ 1-01 Rain and sun protection kit for MG 1-00
MGZ 2-00 Car charger for MG 1-00
MGZ 2-01 Power bank for MG 1-00
MGZ 3-00 Measuring cable and adapter set for MG 1-00
MGK 1-00 Meter calibration for DVB-TV meter MG 1-00