Shielding Box MSB-0293

Application

The Shielding Box can be used for measurements and tests of electronic devices such as mobile phones, notebooks, evaluation boards etc. without electromagnetic disturbances from the environment.

Description

MTS Systemtechnik GmbH has developed a compact and movable EMC screened 'room', to fulfil multipurpose requirements. The stable construction of the Shielding Box series MSB is predestined for high test appearance due to the easy, single-handed open-close function. The test devices can be put simply into the Shielding Box. The operation of the test samples can be done directly through the built-in flexible wire mesh or by using the numerous included communication interfaces.

Characteristics

▶ Highest quality materials for extended life time and high test appearance

▶ Economical solution for high RF shielding levels and reproducible test scenarios to avoid time-consuming and expensive tests at EMC laboratories

▶ Usable for frequencies between 500 MHz to 6000 MHz, such as GSM / DCS / DECT / LTE+ / 5G / RFID / ZigBee / Bluetooth / Wi-Fi etc.

▶ USB 3.2 capable with up to 20 Gbit/s

▶ USB 3.1 capable with up to 10 Gbit/s

▶ LAN with up to 1 Gbit/s according PoE++

▶ Weight optimized structure improves the mobility

▶ Highest safety standards through increased slip resistance and gas prop cover holder

▶ A wide range of supply and communication interfaces are included as standard

▶ Optional interfaces and connectors to customers specifications

▶ Shielding Boxes with other dimensions can be designed according to customers individual requirements

Configuration:

4x N/SMA connections, 2x USB 3.2 (20 Gbit/s), 1x USB 3.1 (10 Gbit/s),
1x LAN (1 Gbit/s according PoE++) and 1x 230 V power plug

Technical data:

1   RF-specifications:

1.1	Impedance	50 Ω
1.2	Frequency range	500 MHz - 6000 MHz
1.3	Shielding @ closed cover (no mesh, no shielded window)	90 dB typ. @ 500 MHz – 2 GHz 70 dB typ. @ 2 GHz – 4 GHz 65 dB typ. @ 4 GHz – 5 GHz 55 dB typ. @ 5 GHz – 6 GHz

2   Connectors (outside / inside):

2.1	Antenna-interface @ left side	4x	N female / SMA female
2.2	USB-interface	2x	USB 3.2 type C female / type C female, 20 Gbit/s, ESD protection & filtered
2.3	USB-interface	1x	USB 3.1 type A female / type A female, 10 Gbit/s, ESD protection & filtered
2.4	LAN-interface	1x	RJ45 8-pole female / RJ45 8-pole female, 1 Gbit/s, filtered, according PoE++
2.5	Ground connection		Screw M4 outside
2.6	Mains voltage supply		Power plug (IEC 60320 C14) / 230 V AC power jack (CEE7/3), filtered

3   General specifications:

3.1	Power supply AC	100 V - 240 V AC, 50 Hz / 60 Hz, 1 A max. @ outlet
3.2	USB 3.2	20 V DC max., 5.0 A max.
3.3	USB 3.1	16 V DC max., 1.5 A max.
3.4	LAN according PoE++	60 V DC max., 1.5 A max.
3.5	Operating temperature	+0 °C - +50 °C The equipment should not be subjected to extreme temperatures and variations in temperature.
3.6	Reference temperature for specifications	+25 °C
3.7	Dimensions (without protruding parts, like handles, connectors, etc.)	Outside: 418 x 268 x 163 (L x W x H in mm) Inside: 402 x 252 x 113.5 (L x W x H in mm)
3.8	Field of vision	190 x 130 (L x W in mm)
3.9	Surface	Aluminum chem. nickel plated (20 - 25 μm)
3.10	Weight	10.2 kg

4   Delivery package:

Shielding Box MSB-0293, built-in flexible wire mesh

Closed cover

Mains cable

CD with operation manual and configuration sheet

5   Comments:

Warranty	12 months
RoHS-compliance	Yes

6   Recommended accessories:

USB 3.2 cable type A / type C or type C / type C

USB 3.1 cable type A / type A or type A / type C

Lighting bar

Several antennas

Measurement cable assemblies

Configuration:

4x N/SMA connections, 2x USB 3.2 (20 Gbit/s), 1x USB 3.1 (10 Gbit/s),
1x LAN (1 Gbit/s according PoE++) and 1x 230 V power plug

Technical data:

7   Possible options:

Additional or other RF connectors	Infrared window
VGA-interface	Ventilation (fan)
Audio-interface (XLR 3- or 5-pole or stereo jack 4-pole)	Locking (for padlock)
RF absorber mats	One or more pcs. of mobile smart phone attachment with or without Velcro® fastening
Ferrite absorber	One or more pcs. of integrated touchpanel operating stylus or field of vision or rounded field of vision

Views:

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Technical subject to change
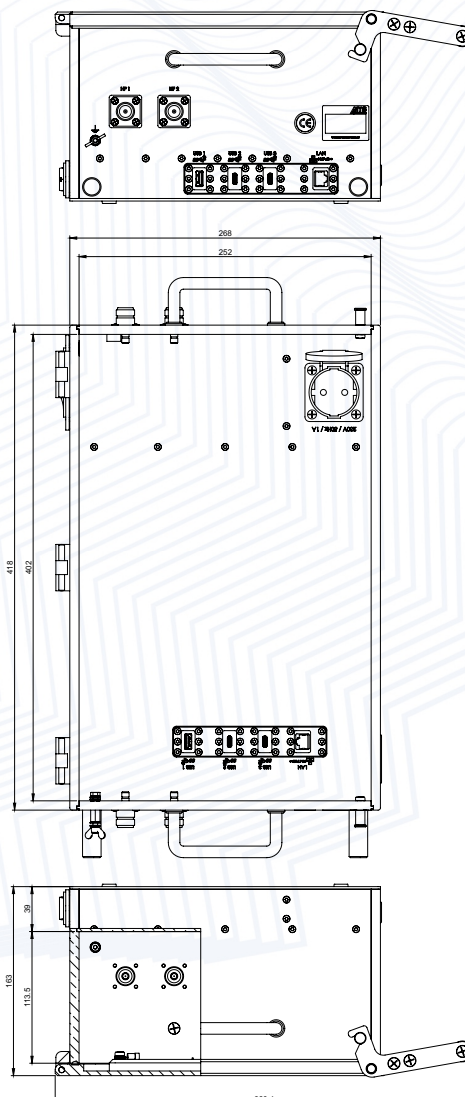
Shielding with closed cover (without flexible wire mesh, without shielded window):