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 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 >10 Gbit/s

- ▶ USB 3.1 capable with up to 10 Gbit/s

- ▶ LAN with 10/100/1000 Mbit/s according PoE++

- ▶ An ergonomic position of the user is achieved by front side opening

- ▶ Weight optimized structure improves the mobility

- ▶ 19″ rack mount case with 11 HU and front door (opening on the right-hand side on request)

- ▶ Additional absorber lining for interior reflection reduction (exclusive door, top and back sides)

- ▶ Shelf consisting of one layer

- ▶ Cover locking (by padlock)

- ▶ Air circulation is given by the integrated fan and honeycomb vents

- ▶ 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:

10x N/SMA connections, 10x USB 3.2 (>10 Gbit/s), 2x USB 3.1 (10 Gbit/s), 1x LAN (10/100/1000 Mbit/s, according PoE++)
and 1x 230 V power plug as well as 1x integrated fan with switch and 2x honeycomb vent, cover locking for padlock
as well as additional absorber lining (exclusive door, top and back sides, flat laminate absorber) and shelf consisting of one layer

Technical data:

1   RF-specifications:

1.1	Frequency range	500 MHz - 6000 MHz
1.2	Shielding	85 dB typ.

2   Connectors (outside / **inside**):

2.1	Antenna-interface	10x N female / SMA female
2.2	USB-interface	10x USB 3.2 type C female / type C female, >10 Gbit/s, ESD protection & filtered
2.3	USB-interface	2x 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, 10/100/1000 Mbit/s, according PoE++, filtered
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, 3 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	Internal power consumption	50 mA max. @ 230 V AC
3.6	Operating temperature	+0 °C - +50 °C The equipment should not be subjected to extreme temperatures and variations in temperature.
3.7	Reference temperature for specifications	+25 °C
3.8	Dimensions (without protruding parts, like handles, connectors, etc.)	Outside (with / without modules): 531 / 500 x 482.6 (19'') x 488.1 (11 HU) (L x W x H in mm) Inside: 471 x 326 x 385.8 (H is divided by shelf to 167.5 down and 212.4 upper) (L x W x H in mm with absorber) Door opening: 325 x 358 (W x H in mm)
3.9	Surface	Aluminum chem. nickel plated (20 - 25 µm)
3.10	Weight	31.6 kg

4   Delivery package:

Shielding Box MSB-0081-FAN-FLABS

Shelf consisting of one layer

Mains cable

CD with operation manual and configuration sheet

5   Comments:

Warranty	12 months
RoHS-compliance	Yes

6   Recommended accessories:

Guiding rails for mounting

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

Lighting bar

Several antennas

Measurement cable assemblies

Configuration:

10x N/SMA connections, 10x USB 3.2 (>10 Gbit/s), 2x USB 3.1 (10 Gbit/s), 1x LAN (10/100/1000 Mbit/s, according PoE++)
and 1x 230 V power plug as well as 1x integrated fan with switch and 2x honeycomb vent, cover locking for padlock
as well as additional absorber lining (exclusive door, top and back sides, flat laminate absorber) and shelf consisting of one layer

Technical data:

7 Possible options:

Additional or other RF connectors

VGA-interface

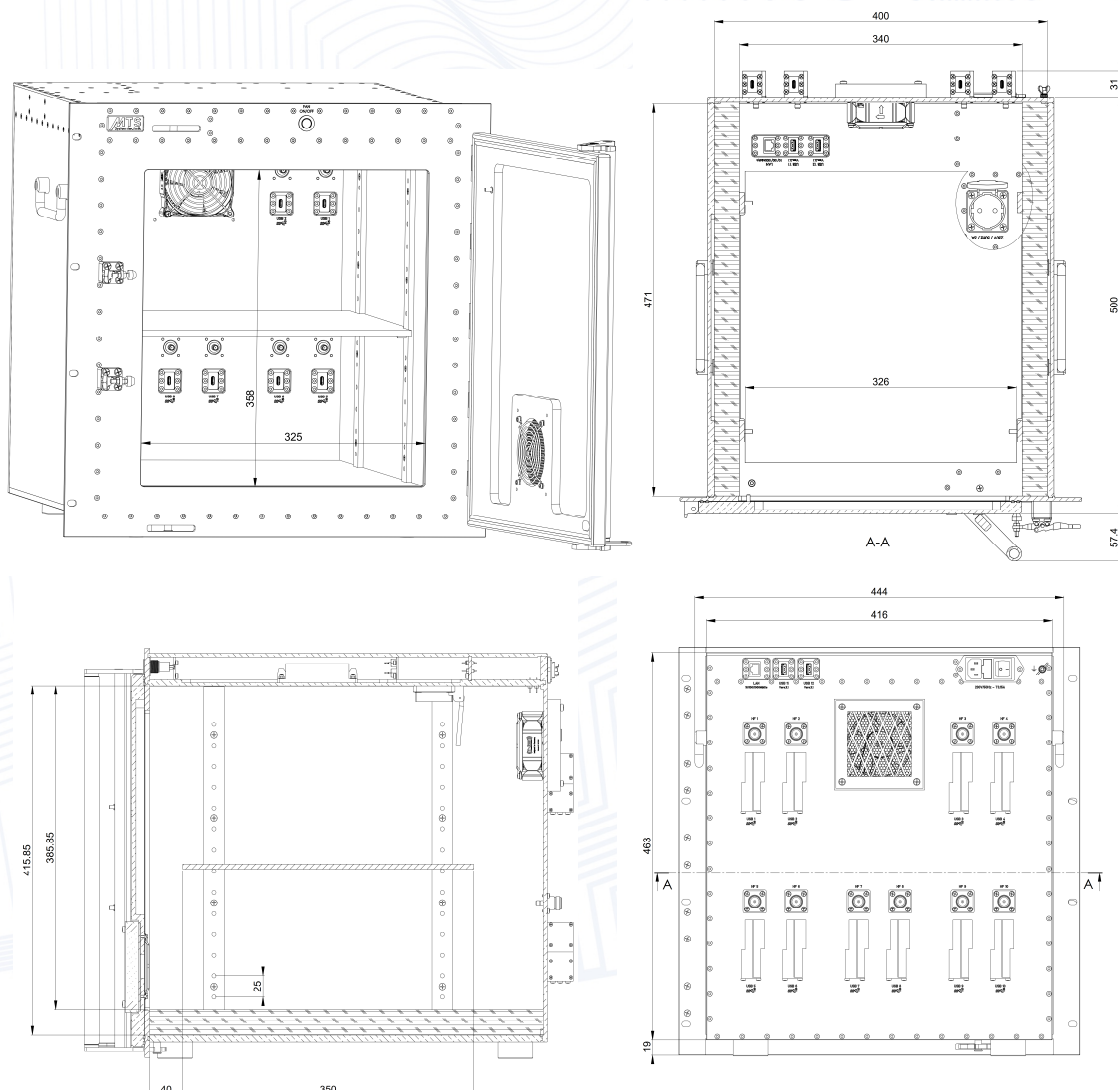Audio-interface (XLR 3- or 5-pole or stereo jack 4-pole)

Ferrite absorber

Infrared window

One or more pcs. of mobile smart phone attachment
with or without Velcro® fastening

Door with built-in flexible wire mesh optional with
one or more pcs. of integrated touchpanel operating stylus
or field of vision or rounded field of vision

Views:

Shielding with closed cover (complete solid cover):