

## Shielding Box MSB-0023 MobileRobot

MTS-No.: 59.61.0023-02

### Application

For measurements and tests of electronic devices such as mobile phones, notebooks, evaluation boards etc. without electromagnetic disturbances from the environment.

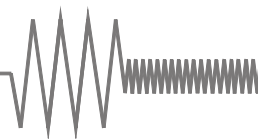
### Description

MTS Systemtechnik GmbH has developed a compact and EMC screened 'room' which can be built-in a 19"-rack. The stable construction of the Shielding Box series MSB is predestined for high test appearance due to the easy, singled-handed open-close function. The operation of the test samples can be done by a Mobile Robot.



### Characteristics

- ▶ Highest quality materials for extended life time and high test appearance
- ▶ Economical solution for very high RF shielding levels and reproducible test scenarios to avoid time-consuming and expensive tests at EMC laboratories.
- ▶ Usable for frequencies between 700 MHz and 4200 MHz, such as GSM / DCS / DECT / UMTS / RFID / ZigBee / Bluetooth / WLAN etc.
- ▶ Weight optimized structure
- ▶ Inside coated with RF absorber material
- ▶ Handle on the right side (changeable to the left side)
- ▶ With door contact for interlock function
- ▶ 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



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### Configuration:

1x N/SMA adapter, 2x SMA connections, 3x SUB-D 25-pole, 2x SUB-D 9-pole (RS232), 1x USB 2.0, 2x fiber optic connections, 1x 230 V power plug and door interlock

### Technical data:

#### 1 RF-specifications:

1.1 Impedance	50 Ω	3.5 Surface	Aluminium chemical nickel-plated (20 - 25 μm)
1.2 Frequency range	700 MHz – 4200 MHz	3.6 Weight	Approx. 23 kg
1.3 Shielding	80 dB typ. @ 700 MHz - 1 GHz, 60 dB typ. @ 1 GHz – 4,2 GHz	3.7 Absorber	Inside coated with RF absorber mats

#### 2 Connections (outside / inside):

2.1 Antenna interface	1x N female / SMA female 2x SMA female / SMA female
2.2 Parallel interface	3x SUB-D 25-pole male / SUB-D 25-pole female
2.3 Serial interface	2x SUB-D 9-pole female / SUB-D 9-pole male
2.4 USB interface	1x USB 2.0 type A female / type A female
2.5 Fiber optic-connection	2x ST connector / ST connector 2x connector FSMA / connector FSMA
2.6 Interlock	1x SUB-D 9-pole male (from door switch)
2.7 Ground connection	Screw M4 (only outside)
2.8 Mains voltage supply	Power plug (IEC 60320 C14) / 230 V AC power jack (CEE7/4), filtered

#### 3 General specifications:

3.1 Power supply	230 V AC at 50 Hz
3.2 Operating temperature	+0 °C - +50 °C
3.3 Reference temperature for specifications	+25 °C
3.4 Dimensions (without protruding parts, like handles, connectors, etc.)	Outside: 12 HU x 19" x 603 mm (HxWxD) Inside: 524 x 430 x 410 (HxWxD in mm)

#### 4 Delivered parts:

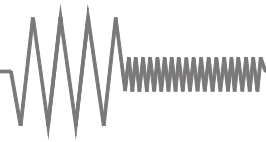
Shielding Box MSB-0023 MobileRobot  
Power cable and power cable extension  
Data cable SUB-D 9-pole to SUB-D 25-pole  
3 pcs. data cable SUB-D 25-pole  
Data cable fiber optic multimode LC/ST  
Operating manual (on CD)

#### 5 Comments:

Warranty 12 months  
RoHS-compliant No

#### 6 Recommended accessories:

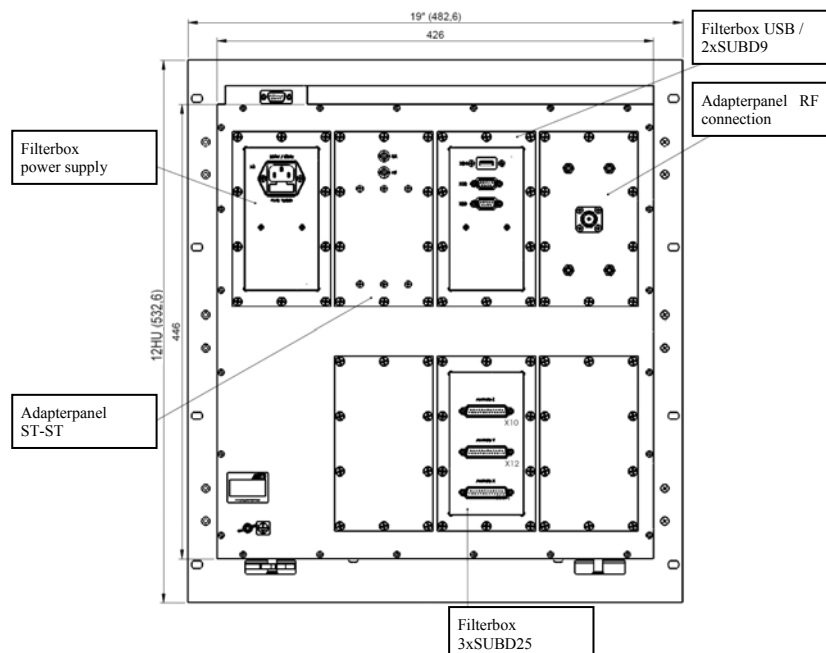
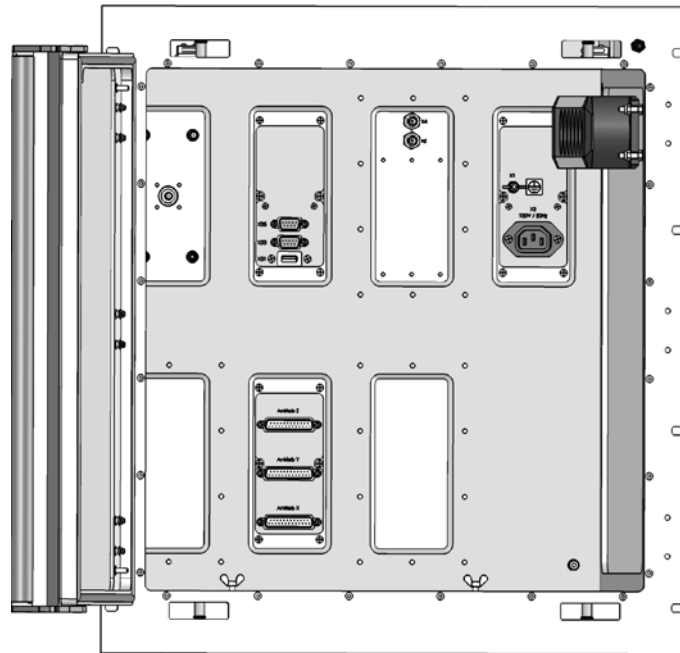
Control Unit MobileRobot  
MobileRobot MRT-1  
USB-cable type A / type A  
Lighting bar  
Stripe antenna  
Measurement cable assemblies

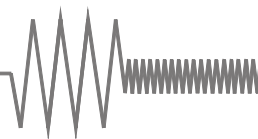


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## Views:

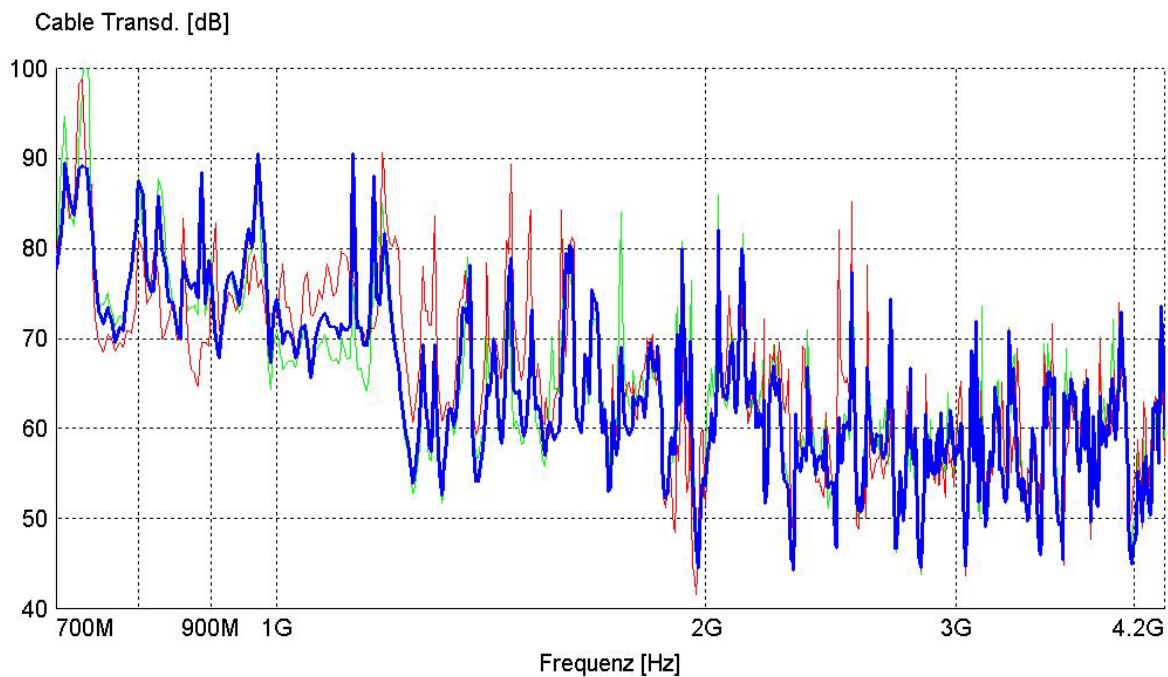




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### Measurement of the shielding (typ.)



The measurement has been carried out at different positions of the controller.  
There are no essential differences.