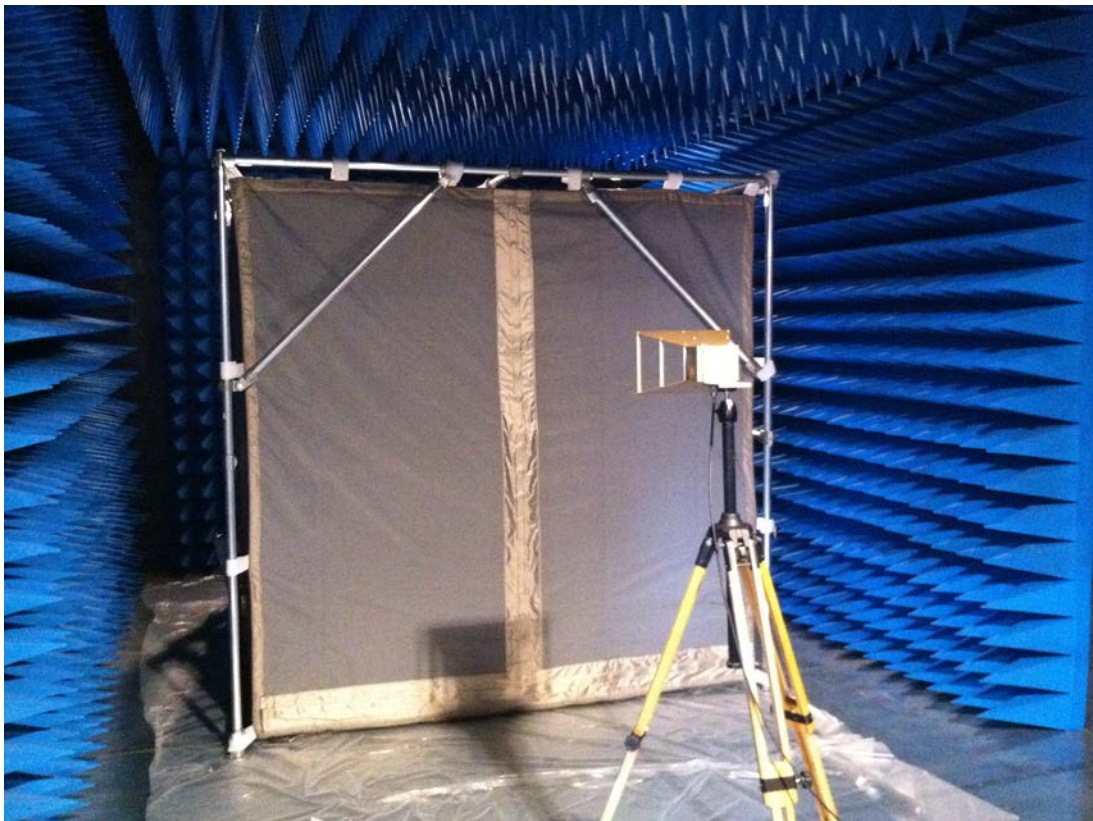


SOLEMI[®]tend

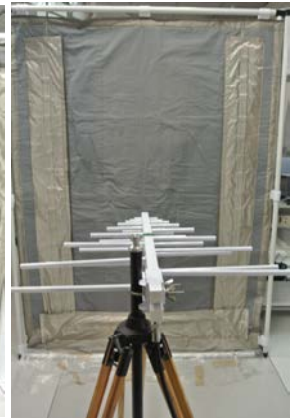
WORLD'S FIRST EMC TENT AND EMC FABRIC MANUFACTURER

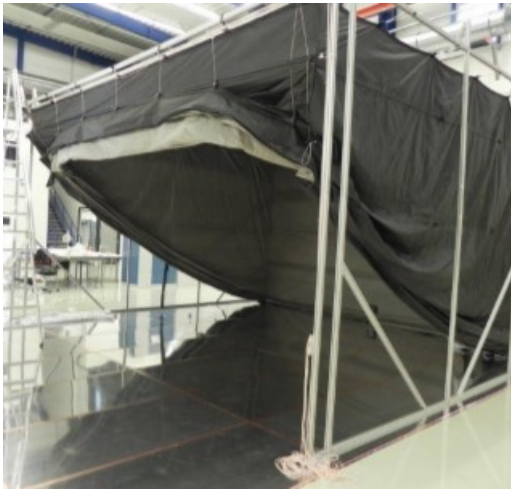


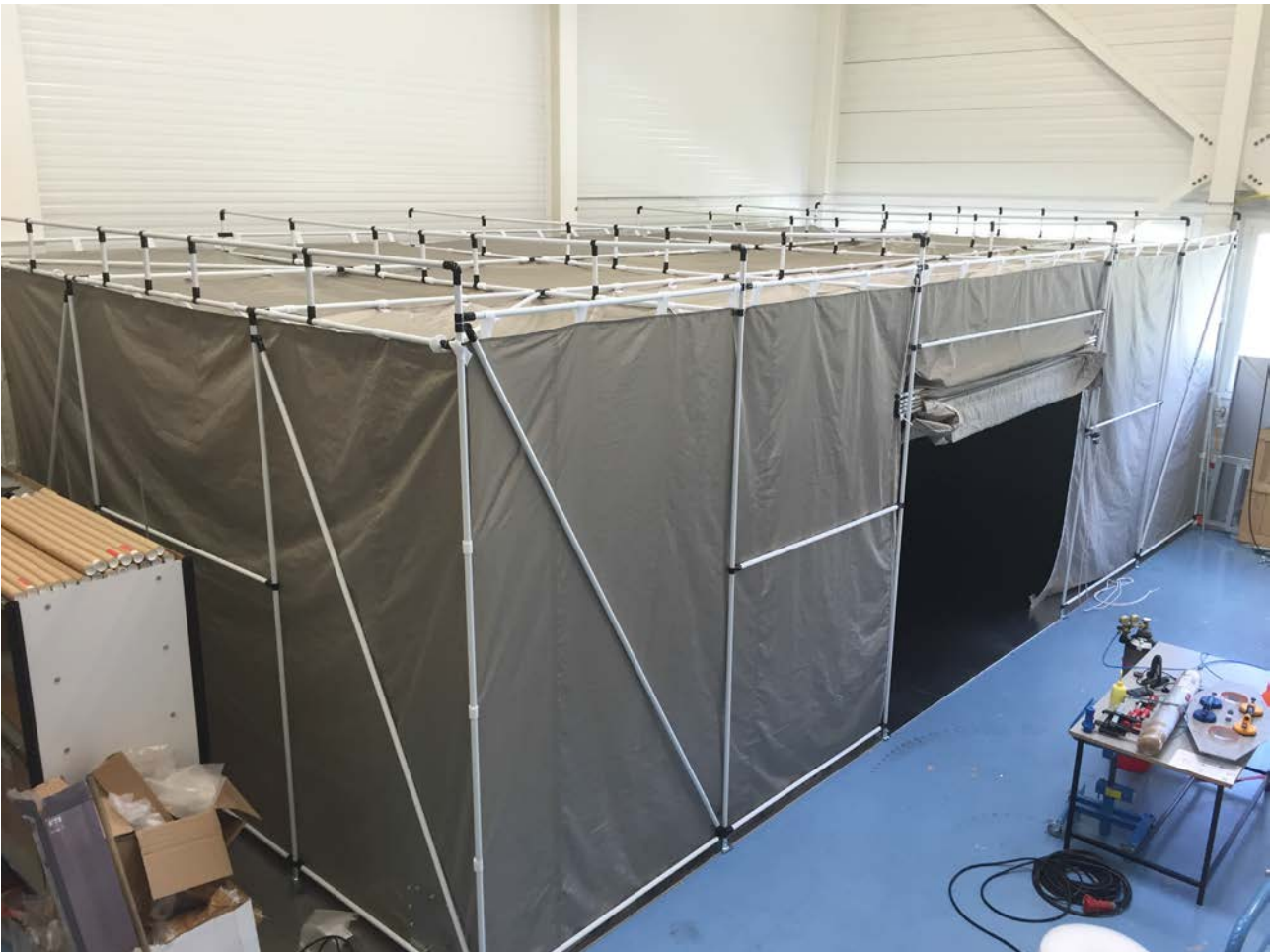
WERKSVERTRETUNG FÜR DEUTSCHLAND, ÖSTERREICH UND DIE SCHWEIZ

More than 250 tents made, we can make it as you want!

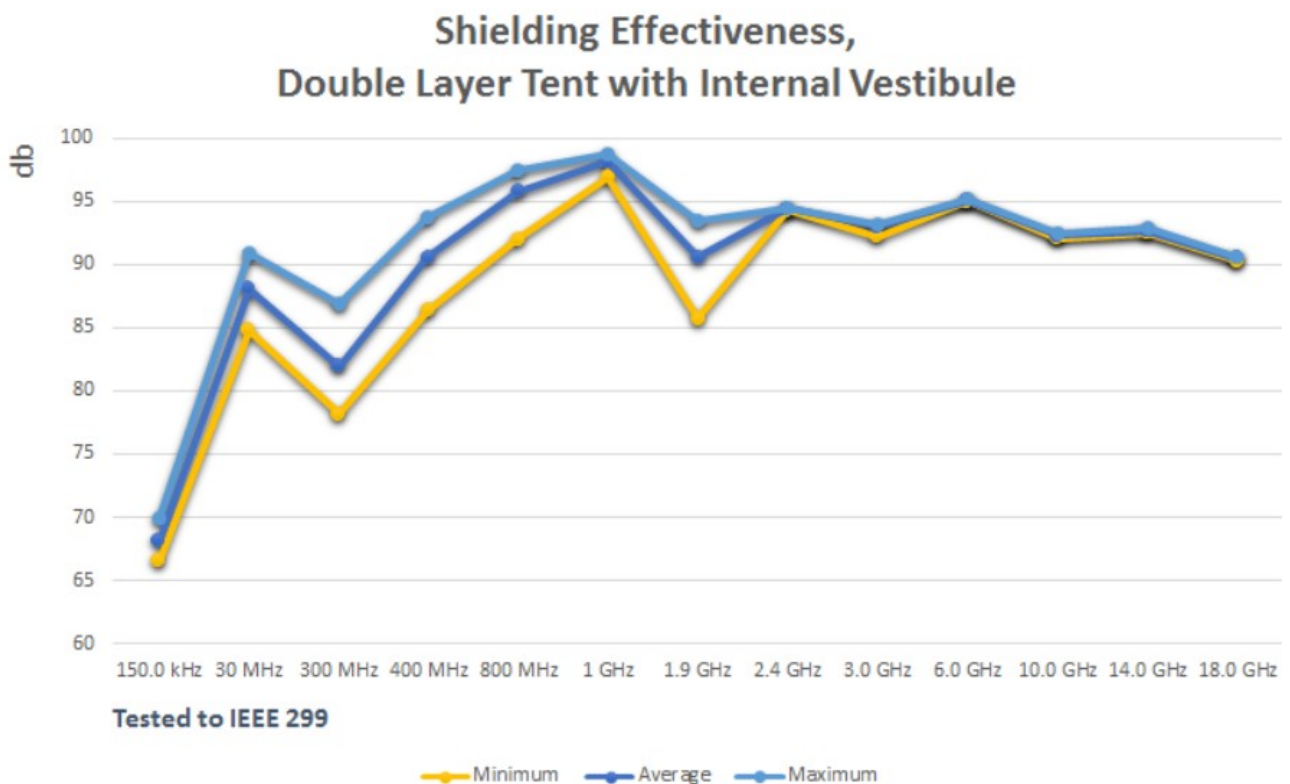
DETAILS SEE PAGE 11







To assure your portable enclosure meets your RF isolation needs, suppliers' data on shielding effectiveness should be carefully scrutinized to assure it meets minimum shielding requirements. SOLIANI EMC uses IEEE:299-2006 third party testing to measure minimum shielding effectiveness achieved on the fully assembled enclosures at different locations within the tent at different frequencies. this test on Soliani EMC tent's high attenuation tent with internal vestibule resulted in at least a -85.7db attenuation from 1 Mhz to 18Ghz when taking measurements through the wall at multiple locations.



SPECIFICATIONS

Made in Italy with material metalized in Italy as well

Standard Attenuation Portable Tent Enclosures include:

- Multiple layers of Galileo conductive fabric
- White ESD fabric layer inside tent (on request)
- Internal or external vestibule entryway system
- Single or double patented door seal systems
- Steel frame or inflatable
- High-performance power & data filtering
- Complete shielded ventilation system
- RF shielded floor between two layers of heavy duty tarp
- Tent storage and transit bag
- Complete installation instructions

PATENTED DOOR SYSTEM



SOLIANI EMC's exclusive patented door seal system ensures the isolation of the internal enclosure. Operations being conducted inside the enclosure do not need to be shut down if anyone exits or enters.

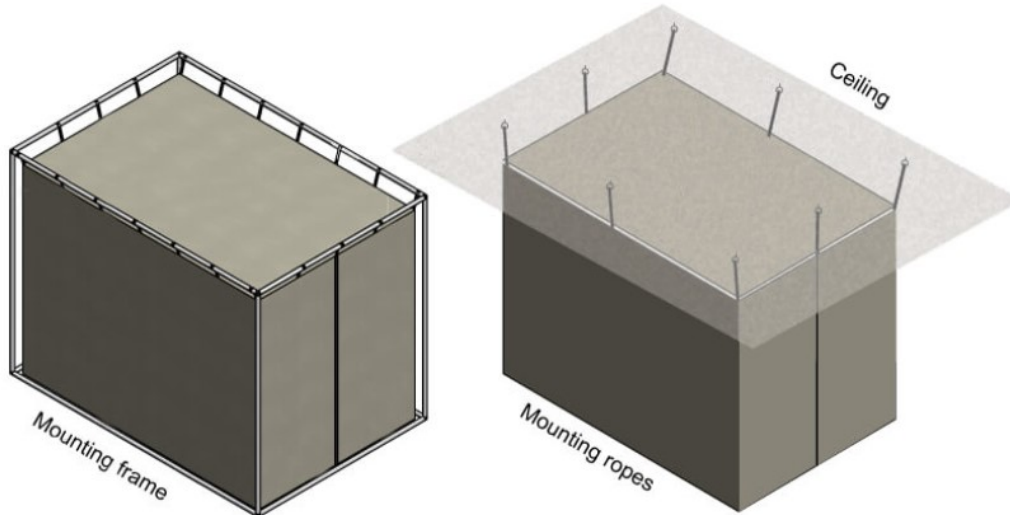
The patented single door sealing system features a lightweight, easy-to-use double magnet closure that maximizes RF isolation and EMI shielding. Both the interior and exterior doors feature SOLIANI EMC's exclusive door system.



The EMI/RFI-shielded tents are made of highly conductive, lightweight, and ultra-strong textile. By default the Shielded tents are delivered with multiple ropes so they can be easily attached to a ceiling, or they can come with a self-standing frame.

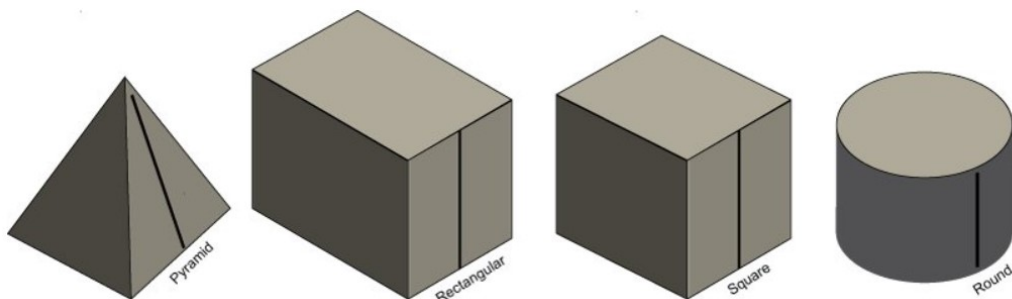
Typical applications are EMC experiments, RF measurements, mobile military or forensic activities, and personal protection in the field. Faraday tents offer a mobile solution for only a fraction of the cost compared to a conventional Faraday cage.

Mounting options



Features:

- Semi-permanent, easier to install, store and transport than metal wall chambers
- Lower in cost and weight than a permanent welded shielded chamber
- 10:1 weight ratio to a welded screen room
- Removable “hardware cloth” panels
- Internal frame
- Over 70dB attenuation over the range of 20MHz to 18 GHz (IEEE™ 299)
- Constructed with acrylic coated Ni conductive fabric.
- Optional cleaning to ISO Class 7 (Class 10,000 –Fed. Std. 209)



APPLICATIONS

Automotive

The megatrend of connectivity is not stopping at the commercial vehicle industry either. Everyone wants and needs to be connected everywhere. In order to ensure this, the number of radio services and their channel utilisation is increasing. However, the existing frequency bands were no longer sufficient, which is why we had to switch to free higher frequencies.

In addition to connectivity, the automotive industry also focuses on safety, and trouble-free functionality, which is why the frequency range to be examined has been extended from immunity tests to the Super High Frequency (SHF) frequency range.

But as we know, the topic of shading in an absorber hall increases with increasing frequency, while the transmitting lobes of the measuring antennas decrease. To ensure the desired test coverage, however, more and more antenna positions are required as the frequency increases. Particularly long and large vehicles are severely affected.

The measurement method in a Mode Turbulence Chamber (MTC) does not present this problem. Due to the desired reflections on the chamber walls, the test object is subjected to the test field at once from all sides and directions due to the statistical field homogeneity.

As known, there are two different measurement options in one MTC. First, the “tuned mode” in which the mode stirrer is rotated step by step and then measured and the “stirring mode” in which the mode is continuously rotated and measured simultaneously.

The “tuned mode” requires, on the one hand, solid walls and a stirrer. On the other hand, the measuring process takes an extremely long time, since each stirrer position must be measured, and decay time is required. This does not represent a time advantage over several antenna positions and is therefore of no interest to the automotive industry.

In this case, the “stirring mode” remains in which average field strength is set on the test object during the measurement. The average field strength depends on the chamber, the stirrer and the test piece itself. A pure control of the amplifier (open loop) via characteristic curves would require a time-consuming calibration. Why choose a field strength controlled system with 8 fast field probes (closed loop).

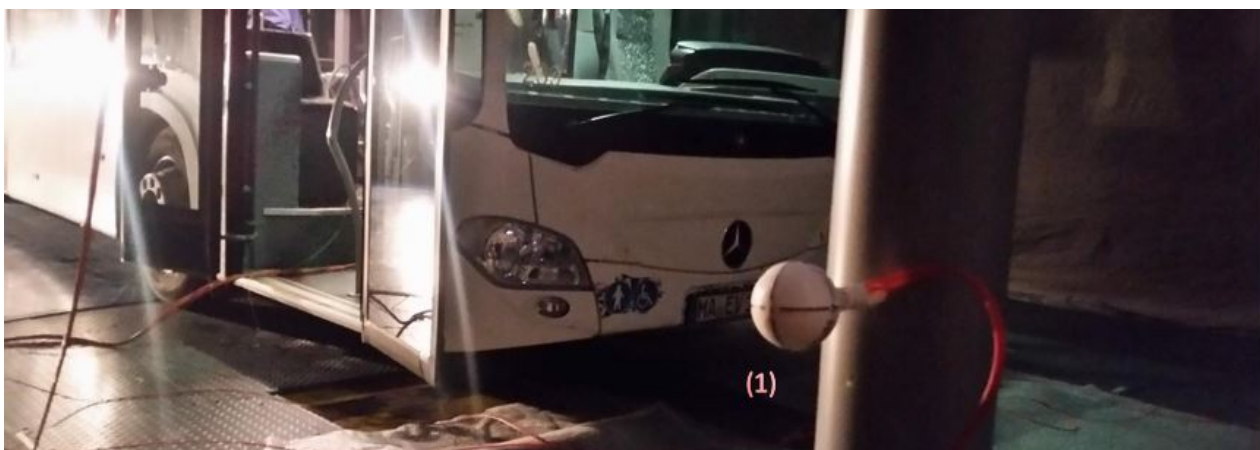


Figure 1: Bus in the test field, field probe on the mast (1)

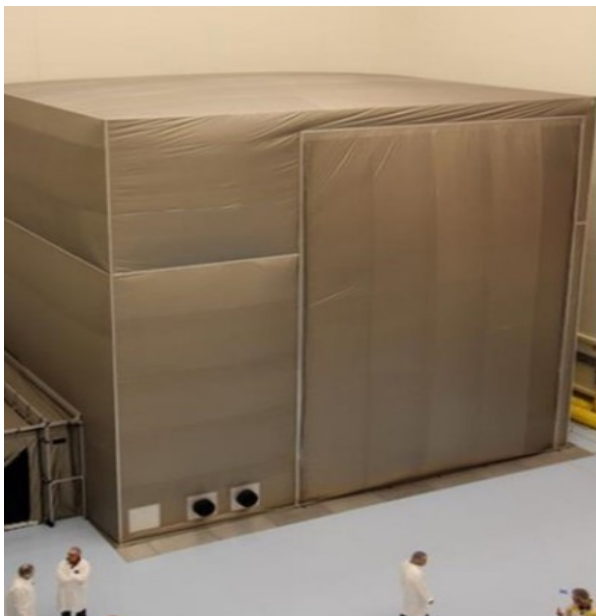
The 8 probes, see Figure 7 (1), stretch the test volume. They are positioned on four PVC masts around the vehicle. The distance to the vehicle should be > 1 m and more than $\lambda/4$ of the lower frequency from the walls [6].

The antenna should not be directed directly at the vehicle but in the direction of the oscillating device behind the moving wall.



Figure 2: Truck in the test field defined test volume within the columns is irradiated with a LogPer antenna.

Space and laboratory



When equipment is too large or requires special provisions (loads, drives, water, emission of toxic fumes and such), testing in a typical semi-anechoic room may not be feasible. Temporary screen rooms consisting of hardware cloth can be built around the test area to reduce the ambient for radiated emission testing and to contain the RF field during radiated susceptibility testing. Since the room may be highly reflective, care must be taken to identify any resonances. Several antenna positions may be required in order to reduce the effect of the resonances.

Military

SOLIANI EMC RF isolating security tents are designed for portable, secure communications applications* where specific signal attenuation is required. Our RF security shielding pouches are also designed to isolate wireless communications devices. Soliani EMC's engineering staff will also collaborate with your team to custom design lightweight, collapsible, secure RF security solutions that meet your specific applications. SOLIANI EMC can secure your electronics including laptops, printers and communications



systems with portable, RF Security table top tents. Tempest secure keyboards, high attenuation power filtering, and RF shielded windows allow full access to standard laptop computers. SOLIANI EMC has worked with many government agencies providing RF security applications RF isolation for police and emergency response agencies Transportation security, including aviation and maritime transportation Research on next-generation security technologies

NATO Registered

ITAR registered – US Dept. of State – Office of Defense Trade Compliance

Cage Code: A1040



* RF isolation is one part of a secure communications protocol. Please make sure your operation is in compliance with all sections of the protocol.

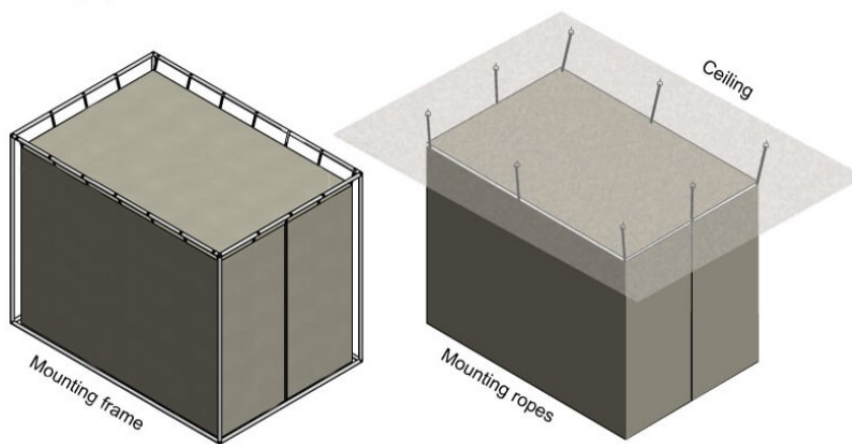
Build your own EMC tent

A) What's the size of the tent you want?

Length (Mt)	Wideness (Mt)	Highness (Mt)

B) Do you want with frame or just with mounting ropes?

Mounting options



I want with metal frame	I want only with mounting ropes

C) What's the frequency range you want the emc tent to work?

9 KHz	1 MHz	10 MHz	100 MHz	500 MHz	1 GHz	2 GHz	3 GHz	4 GHz	5 GHz	6 GHz	7 GHz	8 GHz	9 GHz	10 GHz	11 GHz	12 GHz	13 GHz	14 GHz	15 GHz	18 GHz	30 GHz	

D) What's shielding effectiveness needed?

Between 40 – 50 dB	Between 60 – 80 dB	Between 70 – 90 dB

E) What's the door size you want on the tent?

Door Size 1	
Highness	Wideness

Door Size 2	
Highness	Wideness

Door Size 3	
Highness	Wideness

F) Do you want the floor to be made with Zinc coated panel for better grounding?

Yes I want it!	No, I want a portable solution so I do not want the zinc coated steel floor

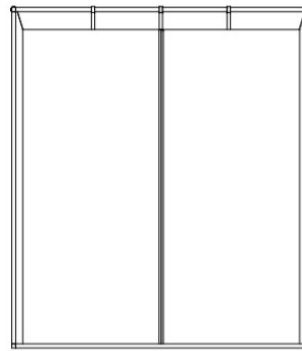
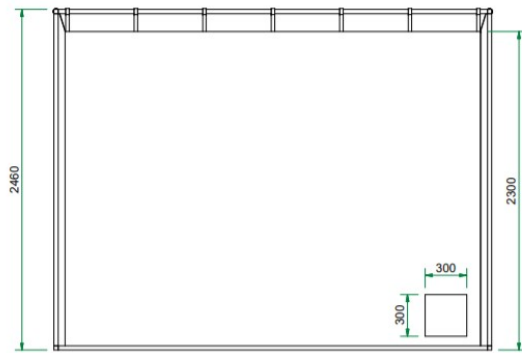
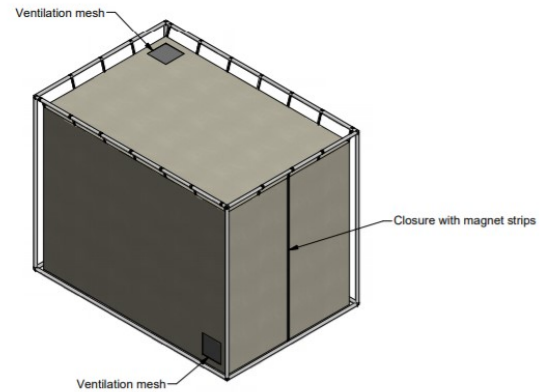
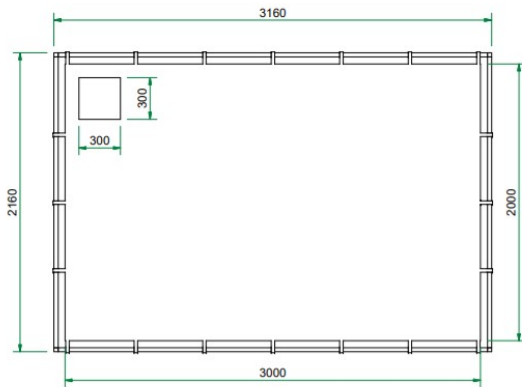
G) Accessories


The EMC tent comes as standard (included) with following accessories:

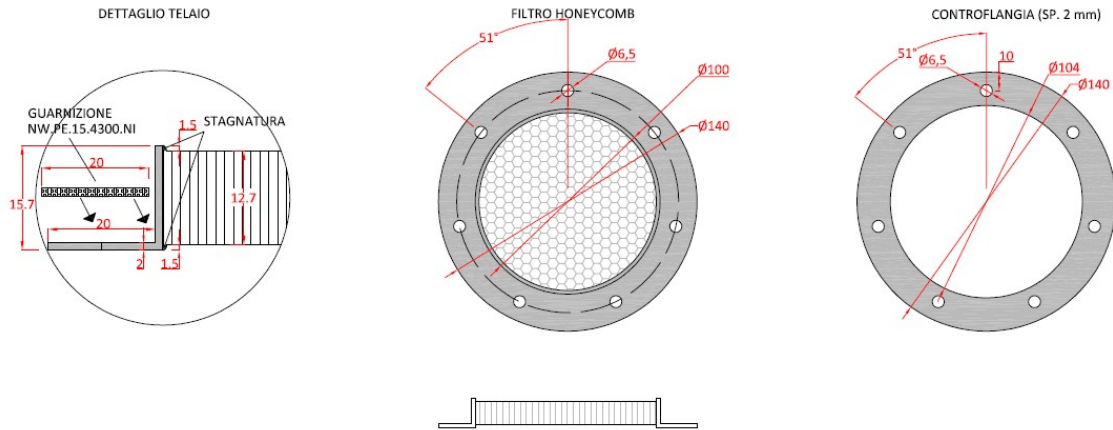
- 1 pc 230V 16A EMC filter with 3 Shucko plugs
- 1 pc Led lights or EMC free halogen lamp
- 1 pc EMC honeycomb 10cm for air ventilation (60.10026)

*OTHER ACCESSORIES CAN BE ADDED ON REQUEST
 SOME OF THE POSSIBILITIES ARE OUTLINED BELOW.*

VENTILATION



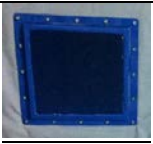
	Code	Description	How many pieces?
	60.10026	10cm diameter round ventilation shielding honeycomb	

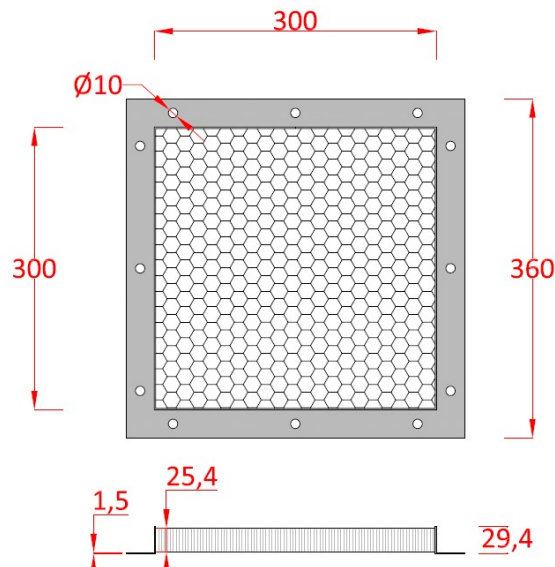

TOLLERANZE DIMENSIONALI


OLTRE (mm)	0	3	6	30	120	400	1000	2000
FINO A (mm)	3	6	30	120	400	1000	2000	4000
TOLLERANZA +/- (Classe c) Lavorazione Standard	0.2	0.3	0.5	0.8	1.2	2	3	4

NOTE PRODUTTIVE:

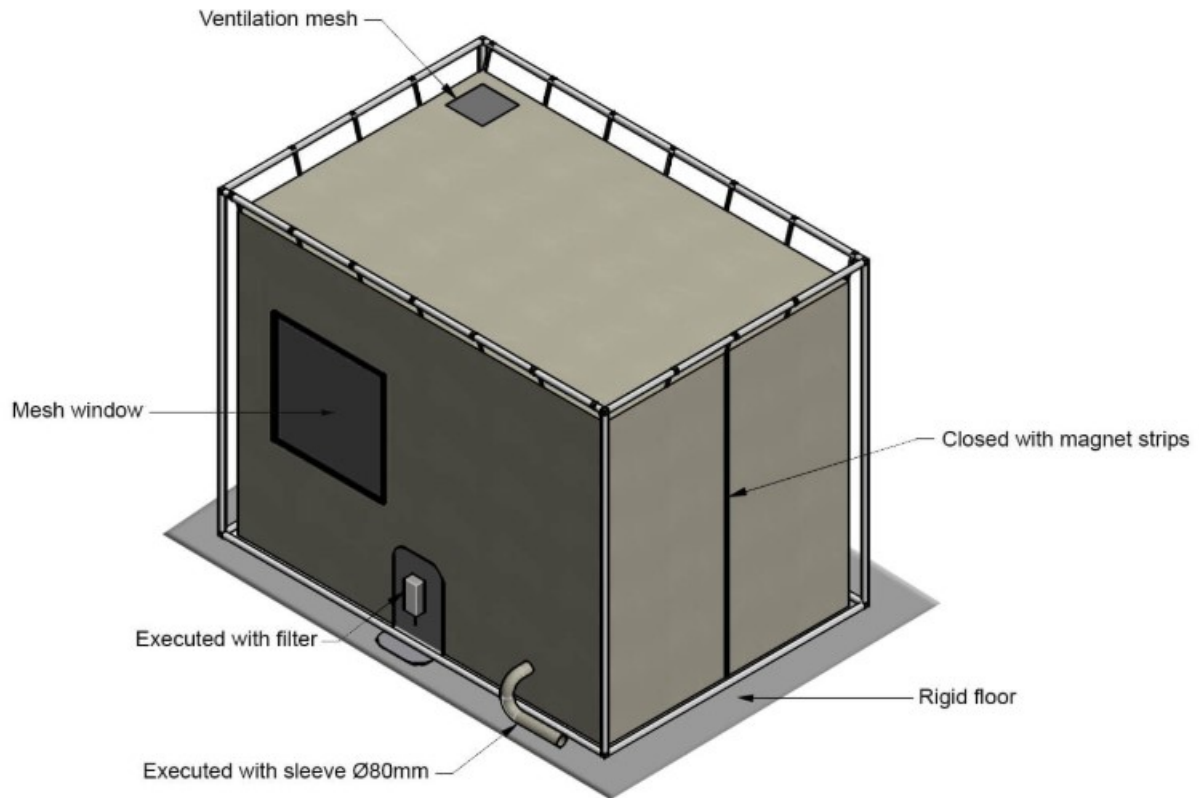
MATERIALE TELAIO: ACCIAIO INOX AISI 304
 MATERIALE PANNELLO ALVEOLARE: ACCIAIO
 DIMENSIONE CELLA : 3/16"

	Code	Description	How many pieces?
	60.10119	30cm x 30cm ventilation shielding honeycomb	



	Code	Description	How many pieces?
	60.10120	Air conditioning portable Max Power 10.700 Btu/h*	

EMC WINDOW



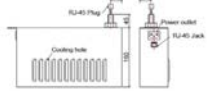
SOLIANI EMC can supply EMC metal mesh window please indicate number and size of each

Window Size 1	
Highness	Wideness

Window Size 2	
Highness	Wideness

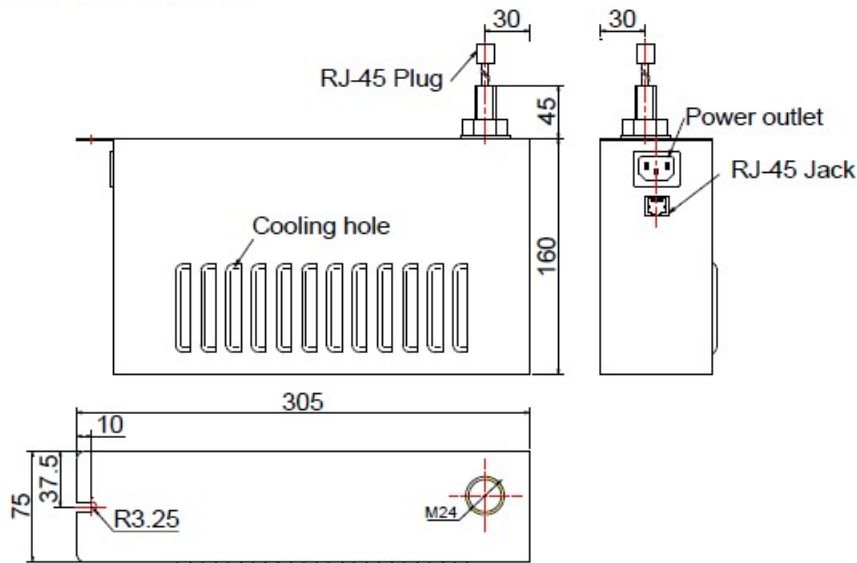
Window Size 3	
Highness	Wideness

EMC POWER LINES AND SIGNAL LINES

	Code	Description	How many pieces?
	70.10125	1000mB/s RJ45 port	

1. Type: SOLEMI-LAN1000

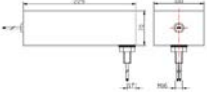
2. Dimensions: (mm)

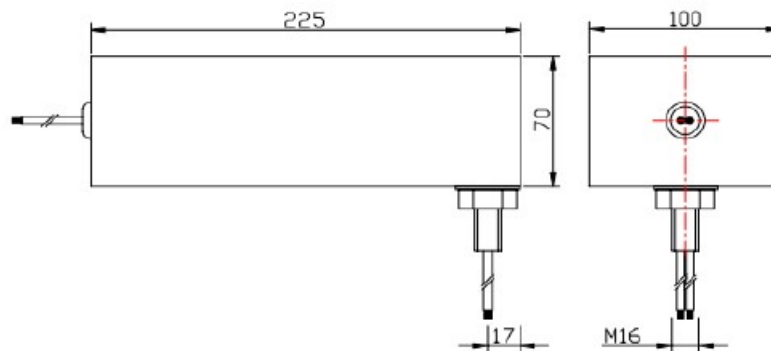


3. Technical Data:

- ① Rated Voltage: 250VAC
- ② Data Rate: 100/1000Mbps
- ③ Shielding Effectiveness: 100dB, 14KHz-10GHz
- ④ Climatic Category: 25/070/21

4. Accessory Parts:
- ① M24 Conduit Screw: 1pc
 - ② Gasket24: 1pc
 - ③ M24 Screw Nut: 1pc
 - ④ EMI Gasket: 1pc
 - ⑤ Certificate: 1pc

	Code	Description	How many pieces?
	70.10002	10-100mB/s RJ45 port + RJ11 port	

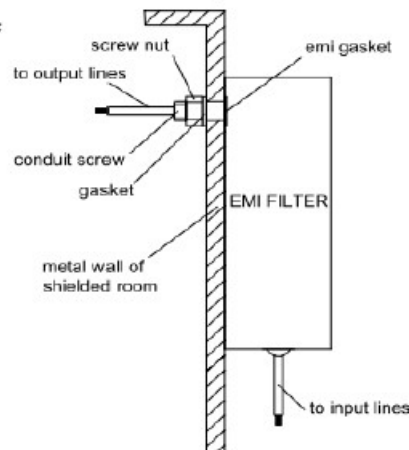


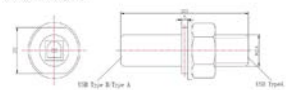
3. Technical Data:

- ① Rated Voltage: 250VDC ② Passband: 0-20KHz
- ③ Rated Current: 0.3A ④ Insertion Loss: 100dB, 100KHz-40GHz
- ⑤ Climatic Category: 25/085/21

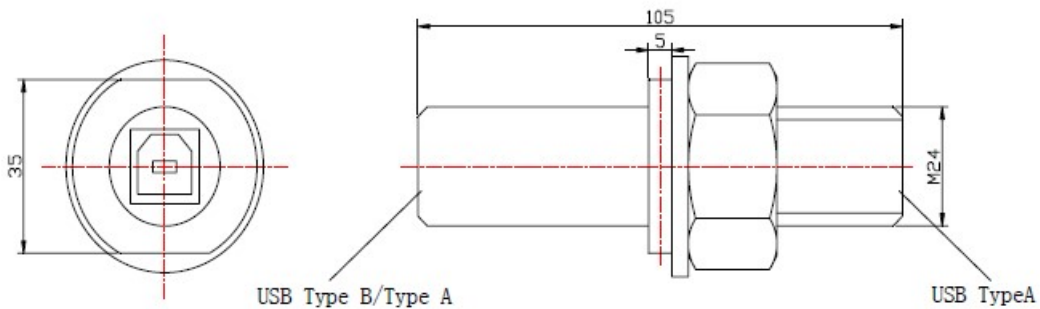
- ### 4. Accessory Parts:
- ① M16 Conduit Screw: 1pc ② Gasket 16: 1pc
 - ③ M16 Screw Nut: 1pc ④ EMI Gasket: 1pc
 - ⑤ Certificate: 1pc

5. Installation Sketch:



	Code	Description	How many pieces?
	70.10105	USB port	

2. Dimensions: (mm)

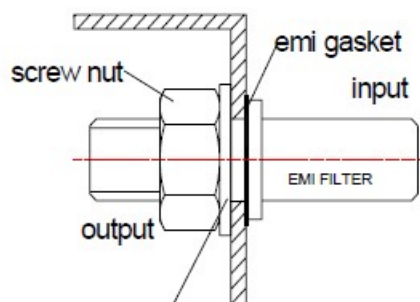


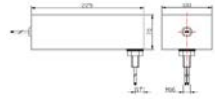
3. Technical Data:

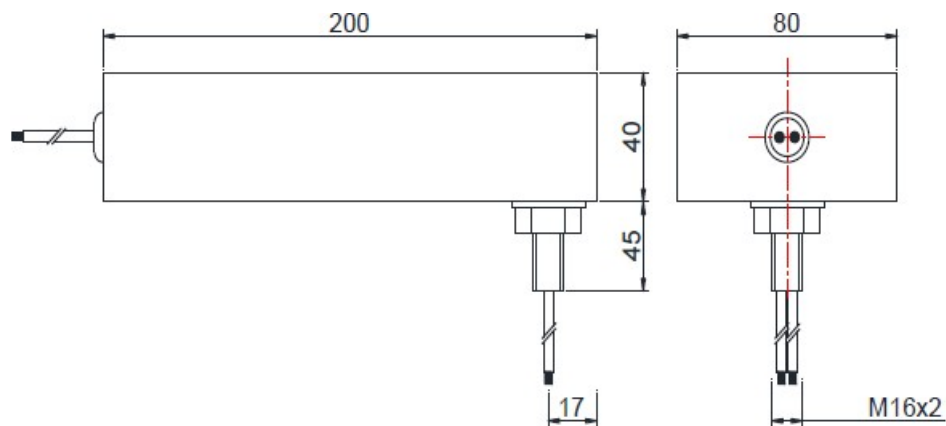
- ① Data Rate: USB2.0
- ② Shielding Effectiveness: 80dB, 14kHz-40GHz (Not Connected)
30dB, 14kHz-40GHz (Connected)
- ③ Climatic Category: 25/070/21

4. Accessory Parts: ① Gasket 24: 1pc ② M24 Screw Nut: 1pc
 ③ EMI Gasket: 1pc ④ Certificate: 1pc

5. Installation Sketch:



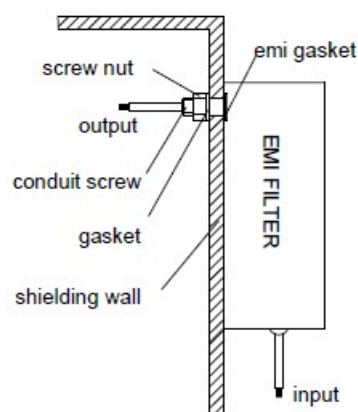
	Code	Description	How many pieces?
	70.10150	Fire alarm or general signal filter	




3. Dati tecnici:

- ① Rated Voltage: 100VDC
- ② Pass band: 0-6MHz
- ③ Corrente: 1A
- ④ Shielding Effectiveness: 100dB, 14kHz-40GHz
- ⑤ Categoria climatica: 25/070/21

4. Diagramma installazione:



SELF STANDING METAL DOOR

	Code	Description	How many pieces?
	96.00042	DOOR.850.1900.DT.EMC.	



FÜR IHRE FRAGEN STEHEN WIR GERNE ZUR VERFÜGUNG



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