RF Shielded Cabinets, Doors, & Enclosures
Shielding Against HEMP

Exceptional Performance from the Leader in HEMP Protection
SARA is a global leader in HEMP protection with unique expertise and decades of experience. SARA offers a shield door solution that exceeds the most stringent military standards for shielding. SARA manufactured doors are easy to install, simple to use, straightforward to maintain, and cost competitive. HEMP protection experts with several decades of experience in the field designed a line of shielded doors that represents a good balance between performance and affordability.

**Key Features**
- **Exceptional performance**
  - Exceeds 40dB above MIL-STD-188-125 requirement
- **Low maintenance**
  - Single knife edge design
  - Snap-in captured fingerstock (for straightforward maintenance)
- **Light Weight**
- **Adjustable hinges** for precision alignment (simple installation)
- **Optional Maintenance Plan**
  - Derived from imperical data from in-house cycle testing

**Additional Features**
- **COTS Fingerstock**
- **Interchangeable doors** (any door on any frame of the same size)
- **Precision manufacturing**
  - Standardized and controlled manufacturing process
- **Door Open/Close & Locking Options**
  - Open/Close assist mechanism or automatic door open/close
- **Vestibule with interlock controls** for multiple doors
- **SARA Research & Development** is committed to continued improvement.
**Shielded Doors**

SARA’s shielded doors are simple to install and maintain ensuring the effectiveness of the enclosure. SARA offers the lightest and best performing door in shielding effectiveness (SE) testing.

**Sealing Mechanism**
The shielded door is built using a brass knife-edge extrusion mounted on the inside opening of the door frame. This extrusion aligns with the brass channel extrusion that is mounted to the door leaf. The copper finger stock snaps into place on both internal sides of the channel extrusion. When the door is closed a highly effective shield is created.

**Latching Mechanism**
SARA doors are equipped with a latching mechanism that can be custom designed to your specifications. Whether you require a lock/unlock, open/close assist, or fully automatic open and close. The doors utilize a low-pull force to open and a low-push force to close.

**Hinges**
SARA doors are fully adjustable in three dimensions to create the best RF seal in the industry. Doors can be adjusted in-situ eliminating costly replacements should a door become misaligned. If required, the doors leaves can also be replaced with a new similar sized door without the need for welding. The door incorporates either a two or three hinge design and thrust bearings are used to minimize friction on the hinge pins and to allow for a smoother open/close action.

**The Accessories**
- **RF waveguide** air vents and air filters have the maximum amount of holes per square area allowing for maximum airflow and reduce weight.
- **Server Rails** can be installed per specification. Our server rails allow for adjustability forward and back for equipment space needs.
- **Back Doors** can be added for easy installs and service access
- **Castor blocks** can be supplied for portability
- **Power Filters** can be provided, installed and PCI tested.
MIL-STD-188-125-1/2 Appendix A and Appendix B testing is conducted to assess the HEMP performance of each door using a custom enclosure. Shielding effectiveness (SE) test points will be measured on five sides (top, left, right, front, back) with mobile SARA HF-SA-17L antennas, according to Appendix A of MIL-STD-188-125-1/2.

**Key Features**
- Exceeds MIL-STD-188-125-1/2 requirement by more than 40dB
- Extraction force is less than half of competitor doors of similar size

**Door Shielding Effectiveness**

SARA can provide a custom sized shielded enclosure that is custom built to the specifications of your computer or communications equipment up to 8’ x 8’ x 10’.

The enclosures are certified to MIL Standard 188-125-1-1/2. Our expert team of test engineers can perform verification - Appendix A testing. Power filters can be installed upon request in addition to Appendix B test report data, that can be supplied with cabinets and shelters upon request.

**Shielded Enclosures**

**Portable Cabinets**

Portable Cabinets are available and can be used on desks or workbenches. Portable Carts and platforms can be provided for maneuverability. Each cabinet is SE tested at 1GHz or at the customer’s operating frequency prior to shipment.
Parts

Cabinets

<table>
<thead>
<tr>
<th>CABINETS</th>
<th>NOTES</th>
<th>RACK RAIL</th>
<th># OF DOORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Wide</td>
<td>W: 26” D: 22” H: 84”</td>
<td>1 rack, W: 19”, 44U</td>
<td>1</td>
</tr>
<tr>
<td>Single Wide - Deep</td>
<td>W: 26” D: 38” H: 84”</td>
<td>1 rack, W: 19”, 44U</td>
<td>1</td>
</tr>
<tr>
<td>Double Wide</td>
<td>W: 65” D: 34” H: 84”</td>
<td>2 rack, W: 19”, 44U</td>
<td>2</td>
</tr>
<tr>
<td>Single Wide - Half Height</td>
<td>W: 24” D: 30” H: 84”</td>
<td>1 rack, W: 19”, 20U</td>
<td>1</td>
</tr>
</tbody>
</table>

- Standard width is 19” & 23”
- Standard lead-time is 6-8 weeks (without power filters); Lead-time for cabinet and power filters is 19-21 weeks, signal line lead-time - TBD
- Door secure bolts top and bottom
- All cabinets come with two wave guide vent arrays (7”x16” for single, & 16”x22” for Deep and Double), one - 1” ID WBC POE
- Two - 2 line power filters (120/208VAC)
- Pricing may vary due to customization, or large quantity orders

CABINET ACCESSORIES

- Wave Guide 7” x 16”
- Wave Guide 16” x 22”
- Wave Guide 6” x 6”
- WBC POE (0.5” - 2” ID)

Doors

<table>
<thead>
<tr>
<th>DOORS</th>
<th>CONFIGURAIONS</th>
<th>DOOR OPENING</th>
<th>EXTERNAL DOOR DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3070</td>
<td>single leaf door (LHO, RHO)</td>
<td>3’ x 7’</td>
<td>* 4’ x 8’</td>
</tr>
<tr>
<td>2050</td>
<td>single leaf door (LHO, RHO)</td>
<td>2’ x 5’</td>
<td>* 3’ x 6’</td>
</tr>
<tr>
<td>3030</td>
<td>single leaf door (LHO, RHO)</td>
<td>3’ x 3’</td>
<td>* 4’ x 4’</td>
</tr>
<tr>
<td>2040</td>
<td>single leaf door (LHO, RHO)</td>
<td>2’ x 4’</td>
<td>* 3’ x 5’w</td>
</tr>
</tbody>
</table>

- Smaller External Door Dimensions are available (External Door frames can be made with 2”x2”, 2”x4” or 2”x6” tubing)
- All doors come with 3/4” diameter wave guide, location is TBD, typically in lower hinge side
- Pricing may vary due to customization or large quantity orders

DOOR ACCESSORIES

- Mag Lock (door open/close assist)
- Lever Door open assist
- Automatic Door open/Close
- Door lock/unlock
- 2 Door Interlock System
- Seismic Bracing
Contact Us:
All products, prices, and lead times are subject to change. Please inquire for a formal quotation. For more information regarding any of the MIL-STD-188-125-1 PCI Test equipment or any other pulse generators not specified here, please call, email, or visit the SARA corporate website.

Phone 719-302-3117  
Email cos-po@sara.com  
Website www.sara.com