

Ceco Door eBook

EMI-RFI/STC Shielding Assembly with Split Frame and Adjustable Seals

About This eBook...

This eBook is intended to provide an overview of the EMI-RFI/STC Shielding Assembly with Split Frame and Adjustable Seals.

To advance to the next slide, click the Green Arrow at the bottom right of the page.

To advance to a different section, click on the desired box at the bottom of the page.



What is an EMI-RFI Assembly?

Common **Applications** Testing and Performance Assembly Construction

Door and Frame

Shielding

Materials

Quoting and Ordering

Value Proposition





What are Adjustable EMI-RFI/STC Shielding Assemblies?

- Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) reduces electronic signal integrity and strength which can cause poor performance in sensitive communication systems and devices.
- The EMI-RFI/STC Shielding Assembly reduces the possibility of electronic and radio interference by blocking unwanted electromagnetic waves or radiation from interfering with other circuits or devices.
- A conductive enclosure used to block electromagnetic waves and radiation is known as a "Faraday Cage".
- EMI-RFI/STC Shielding Assemblies help ensure sensitive and confidential information is secure and contained when in shielded rooms or facilities.



What is an EMI-RFI Assembly?

Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

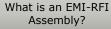
Value Proposition



Common Applications

- Data Centers
- Government / Military Security Centers (SCIF)
- Healthcare Facilities
- Business Offices
- Test Labs
- Emergency Call Centers
- Sensitive Electronic Installations
- Computer Data Processing Security Centers
- Financial Centers
- RFID Scanning Areas





Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials

Quoting and Ordering

Value Proposition

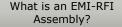


Test Methods, Standards and Performance

- Meets or exceeds commonly specified shielding effectiveness ratings in accordance with IEEE-299 such as 60 dB at 10 GHz. Customer must define standard/specification desired, relevant frequencies, and required shielding effectiveness to ensure assembly will meet specified requirements.
- Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) shielding effectiveness
- Tests were conducted from 9 kHz to 18 GHz per the IEEE 299 standard.
- Intelligence Community Directive (ICD) 705 (Sensitive Compartmented Information Facilities),
 SCIF (Group 3 and 4 ICD 705)
- May be used in specific Transient Electromagnetic Pulse Emanation (TEMPEST) standard applications dependent on project requirements which limits electric or electromagnetic radiation

Opening	Lock Type	STC Rating
Singles	Mortise or Cylindrical	Up to STC 50 / SCIF Group 3 and 4 (ICD-705)
Singles	Lockmasters (SCIF)	Up to STC 50 / SCIF Group 3 and 4 (ICD-705)
Pairs	Exit Device	Up to STC 50 / SCIF Group 3 and 4 (ICD-705)





Common Applications

Testing and Performance

Assembly Construction

Door and Frame

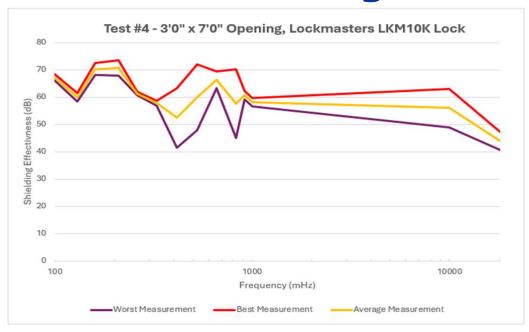
Shielding Materials Quoting and Ordering

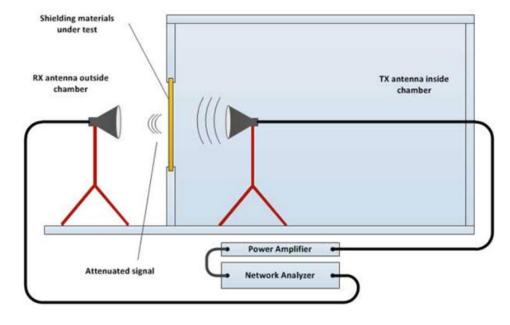
Value Proposition





EMI-RFI Shielding Protection Frequencies – IEEE 299







Adjustable EMI-RFI/STC Shielding protection in compliance with ICD-705 (Group 3 and 4), IEEE 299, TEMPEST requirements

Shielding Protection

9 kHz - 18 GHz

Sound Protection

Fire Rated

18 GHz STC 50

90 Minute

Required Fields:

- Magnetic Field (low frequency): 9 kHz 16 MHz
- Electric Field (resonant frequency): 20 MHz 300 MHz
- Plane Wave/Microwave (high frequency): 300 MHz 18 GHz
- Owner specified dB Shielding Requirements and Frequencies

What is an EMI-RFI Assembly?

Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

Value Proposition





EMI-RFI/STC Shielding Assembly Construction



- Prime painted EMI-RFI
 Shielded stainless steel
 door and split frame
- Locking hardware by others



 Adjustable EMI-RFI/STC shielded seals



Adjustable EMI-RFI/STC shielded door bottom



Aluminum threshold (options for stainless steel)



 EMI-RFI shielding conductive caulk



 McKinney Cam-Lift Hinges



Shielding tape
Note: Use copper tape to fill in
any voids or gaps in the
shielding mating areas of the

EMI-RFI copper

What is an EMI-RFI Assembly?

Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

Value Proposition

Tools & Resources

wall and frame.



Door Construction





- 1- 3/4" thick door flush only
- 16, 14 or 12 Gauge
- 304 or 316 stainless steel construction prime painted
- #4 and XL blend finishes available
- Fire Rated Assembly 90 minutes
- Welded seamless edges
- 15 Pounds per square foot
- Singles: 2'0" x 6'8" to 4'0" x 10'0"
- Pairs: 4'0" x 6'8" to 8'0" x 10'0" with fixed or removable hardware mullion
- Reinforced for Cylindrical, Mortise, Exit Device or Lockmaster (SCIF) locking hardware with cam-lift hinges
- Pre-Configured SCIF assemblies (Group 3 and 4) are available in 3'0" x 7'0" sizes and reinforced for Lockmaster hardware

What is an EMI-RFI Assembly?

Common Applications Testing and Performance

Assembly Construction

Door and Frame

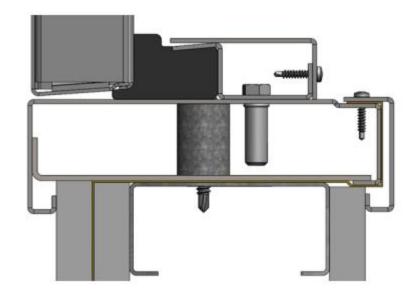
Shielding Materials Quoting and Ordering

Value Proposition



Frame Construction and Anchoring

- Split frame design
- 14 or 12 Gauge
- 304 or 316 stainless steel construction prime painted
- #4 and XL blend finishes available
- 4-7/8" 14" jamb depths with applied stop and adjustable EMI-RFI/STC compression seals
- Factory welded corners
- Stainless Steel fixed or removable hardware mullion (by others) for pairs
- 4" face head available
- Anchoring options including wood stud, metal stud, existing opening, masonry wire, and masonry T anchors
- Pre-Configured SCIF assemblies (Group 3 and 4) are available in 3'0" x 7'0" sizes with frame depths of 7.25", 7.625" and 9.625"



What is an EMI-RFI Assembly?

Common Applications Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

Value Proposition





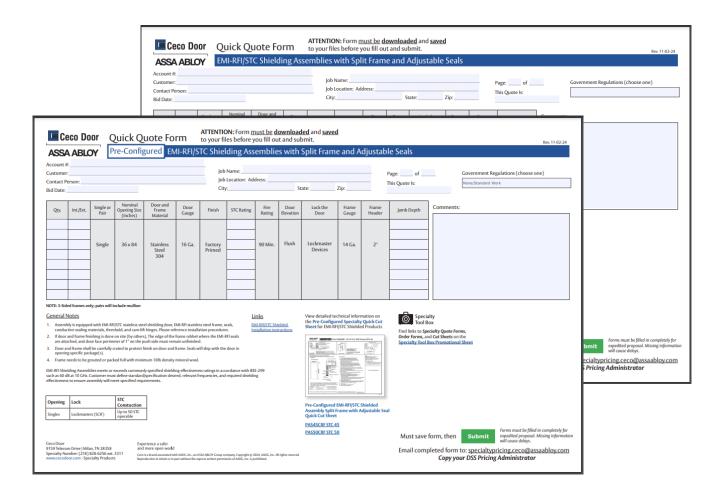
EMI-RFI/STC Shielding Materials

- Each assembly is equipped with adjustable EMI-RFI/STC seals, copper conductive tape, conductive shielding materials and threshold.
- Using the EMI-RFI/STC shielding materials properly during installation for grounding the door, frame, wall, ceiling and floor is critical to maintain proper level of EMI-RFI/STC protection and shielding effectiveness.
- See "Tool's" section for installation instructions including animation of frame assembly



Quoting and Ordering

- To request a quote for the Adjustable EMI-RFI/STC Shielding Assembly use the Quick Quote Form (QQF) for a 24 turnaround.
- Pre-Configured flush 3'0" x 7'0" SCIF or Custom QQFs are available
- Once quoted and ready to order submit a purchase order to:
 - specialtyorders.ceco@assaabloy.com
- See "Tool's" section to access the QQF



What is an EMI-RFI Assembly?

Common Applications Testing and Performance

Assembly Construction

Door and Frame

Quoting and Ordering

Shielding

Materials

Value Proposition





Value Proposition

- Shields/Reduces electronic, magnetic and radio interference by blocking unwanted electromagnetic waves or radiation from interfering with other circuits or devices in healthcare, commercial or government applications.
- Split frame design for new and retrofit applications including adjustable seal system for EMI-RFI and STC protection.
- Pre-Configured SCIF models for Group 3 (STC 45) and 4 (STC 50) applications 3'0" x 7'0" single openings.
- Ensures sensitive and confidential information is secure and contained when in shielded rooms, Government/Military sites, data centers, and healthcare facilities.
- Meets or exceeds commonly specified shielding effectiveness ratings in accordance with IEEE-299 such as 60 dB at 10 GHz.
 Customer must define standard/specification desired, relevant frequencies, and required shielding effectiveness to ensure assembly will meet specified requirements.
- May be used in specific Intelligence Community Directive (ICD) 705 (Sensitive Compartmented Information Facilities), SCIF (Group 3 and 4)
- May be used in specific Transient Electromagnetic Pulse Emanation (TEMPEST) standard applications dependent on project requirements which limits electric or electromagnetic radiation.
- Assembly includes door, split frame, adjustable EMI-RFI/STC perimeter seals, adjustable door bottom, copper conductive tape, conductive shielding caulk, cam-lift Hinges and aluminum threshold.

What is an EMI-RFI Assembly?

Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

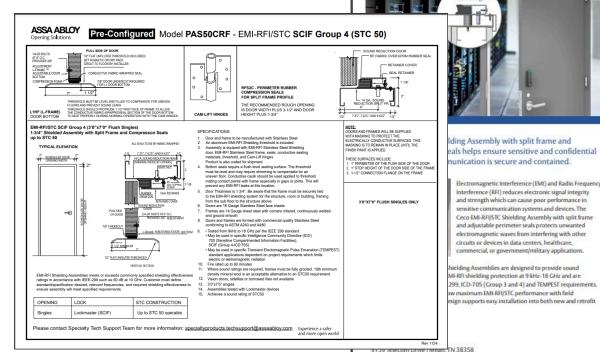
Value Proposition





Tools

- Video
- **Fast Facts**
- **Announcement**
- **Promotional Sheet**
- **Infographic**
- **Installation Instructions**
- **Frequently Asked Questions**
- **Tech Data Manual**
- **Quick Cut Sheets**
 - Pre-Configured SCIF STC 45
 - Pre-Configured SCIF STC 50
 - Custom
- **Quick Quote Forms**
 - Pre-Configured SCIF STC 45 & 50
 - Custom



EMI-RFI/STC Shielding Assembly with Split Frame and Adjustable Seals □ Ceco Door ASSA ABLOY

For Government, Military Sites, Data Centers, and Healthcare Facilities

Electromagnetic Interference (EMI) and Radio Frequency

Interference (RFI) reduces electronic signal integrity

sensitive communication systems and devices. The

Ceco EMI-RFI/STC Shielding Assembly with split frame

Standard Options

- Pre-Configured and custom models with SCIF compliance (Group 3 and 4)
- EMI-RFI Shielding protection from 9 kHz to 18 GHz per IEEE 299 and ICD-705 (Group 3 and 4) standard
- May be used in specific TEMPEST applications
- dependent on customer requirements
- Up to STC 50 with SCIF compliance
- Adjustable conductive perimeter seals for maximum EMI-RFI/STC performance
- Easy installation with split frame design for new and retrofit applications
- 14 or 12 Gauge 304 or 316 stainless steel
- Prime painted: #4 brushed satin, other finishes available
- Singles: 20" x 6'8" to 40" x 10'0"
- Pairs: 40' x 6'8' to 80' x 10'0' with fixed or removable
- 1-3/4" thick door with flush faces
- Meets ADA requirements
- Fire rated up to 90 minutes,

Assembly Includes

EMI-RFI/STC door and split frame, adjustable conductive perimeter seals, conductive caulk and tape, Pemko threshold, and cam-lift hinges.

Applications

- Data Centers
- Test Labs
- **Emergency Call Center**
- Healthcare Facilities
- Sensitive Compartment Information Facilities (SCIFs)
- Special Access Program Facilities (SAPFs)
- Financial Centers
- RFID Scanning Areas

Compliant Government Sourcing

Can meet the Federal Government's common domestic sourcing regulations. Contact the Specialty team regarding:

- Buy American Act
- Trade Agreement Act
- American Iron and Steel Requirements

Specialty Products Tech Supportitiossophley.com

Specialty Number: (218) 828-6256 ext. 3311 www.cecodoor.com - Specialty Products

Experience a safer and more open world

Coco is a brand associated with AADG, Inc., an ASSA ABLOY Group company. Copyright © 2024, AADG, Inc. All rights neigred. Reproduction in whole or in part without the express written permission of AADC, Inc. is prohibited

CEC-159-11/24

What is an EMI-RFI Assembly?

Common **Applications** Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials

Quoting and Ordering

Value Proposition





Resources

Technical Support and Assistance

Specialtyproducts.Techsupport@assaabloy.com

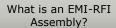
Quotes

Specialtypricing.ceco@assaabloy.com

Orders

Specialtyorders.ceco@assaabloy.com





Common Applications

Testing and Performance

Assembly Construction

Door and Frame

Shielding Materials Quoting and Ordering

Value Proposition





