



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0112

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Siemens Inc.

Manufacturer's Technical Representative: Vincent Baroncini

Mailing Address: 2 Gatehall Dr., Parsippany, NJ 07054

Telephone: (973) 593-2682

Email: vincent.baroncini@siemens.com

Product Information

Product Name: Electrical Control Panels on Life Safety/Critical Branch

Product Type: Fire Protection & Security Panels

Product Model Number: MME-3 & MLE-6 enclosures with various internal components per Attachments

General Description: Wall mounted microprocessor based fire protection system.

Mounting Description: Rigid, Wall Mounted

Tested Seismic Enhancements: None

DATE: 06/23/2022

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates

Contact Person: Daniel Zentner

Mailing Address: 233 SW Wilson Ave, Suite 101, Bend, OR 97702

Telephone: (541) 292-5839

Email: dzentner@structint.com

Title: Program Manager





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: STRUCTURAL INTEGRITY ASSOCIATES, INC.

Name: Andrew Coughlin California License Number: S6082

Mailing Address: 5215 Hellyer Ave, Suite 101, San Jose, CA 951381025

Telephone: (415) 635-8461 Email: acoughlin@structint.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3

Other (Please Specify): _____

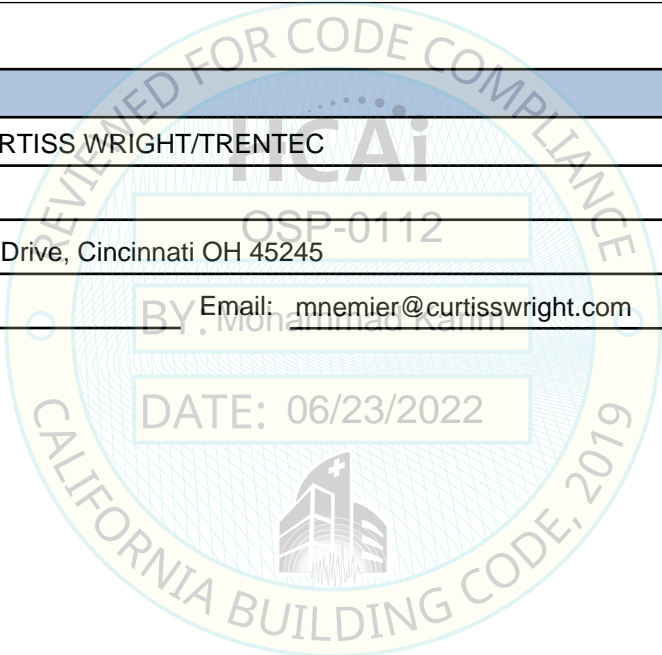
Testing Laboratory

Company Name: QUALTECH/CURTISS WRIGHT/TRENTEC

Contact Person: Marie Nemier

Mailing Address: 4600 East Tech Drive, Cincinnati OH 45245

Telephone: (513) 528-7900 Email: mnemier@curtisswright.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.5

SDS (Design spectral response acceleration at short period, g) = 2.0

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 06/23/2028

Date: 6/23/2022

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = See Above

Condition of Approval (if applicable): DATE: 06/23/2022



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT MATRIX

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.	TABLE 1
Model Line: MXL Fire Protection System	

Certified Product Construction Summary:
16 ga. Carbon Steel.

Certified Options Summary:
See subcomponents (Table 2) for a complete list of certified components and options.

Mounting Configuration:
Wall mounted - rigid
Note: Installed mounting configuration must be of similar configuration and equivalent strength and stiffness to those tested.

Building Code: CBC 2019 **Seismic Certification Limits:** $S_{DS} = 2.0g \quad z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.0g \quad z/h = 0.0$

Model Line	Model	Dimensions (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
MXL System	MME-3	6.14	24.13	39.13	190		2
	MLE-6	6.14	24.13	63.75	280		1

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.	Table Description: Panel Subcomponents	TABLE 2
Model Line: MXL Fire Protection System		

Building Code: CBC 2019	Seismic Certification Limits:	$S_{DS} = 2.0g$ $z/h = 1.0$	$I_p = 1.5$
		$S_{DS} = 2.0g$ $z/h = 0.0$	

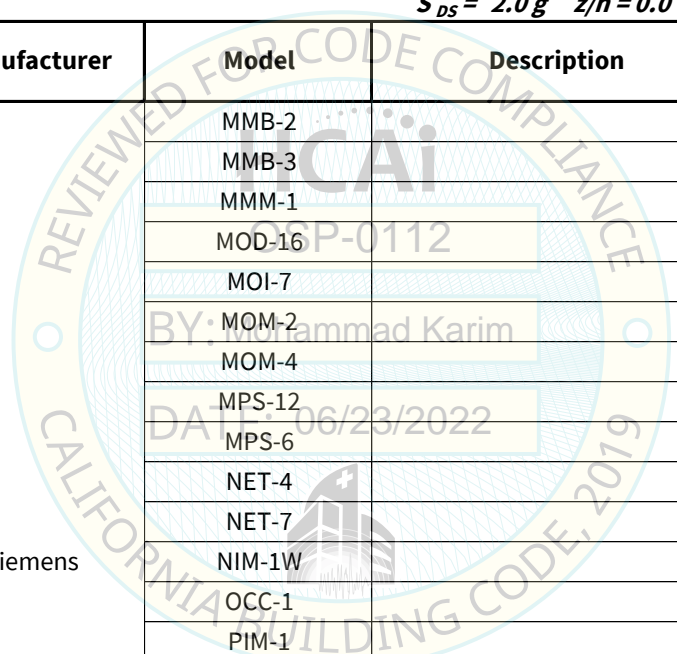
Component Type	Manufacturer	Model	Description	Notes	UUT
Audio Control Module	Siemens	ACM-1			1
Analog Loop Driver		ALD-2I			1
Amplifier Supervision and Backup Card		ASC-1		Similar to ACM-1/MMM-1/VSM-1	Interp.
Amplifier and Riser Supervisory Card		ASC-2		Similar to ACM-1/MMM-1/VSM-1	Interp.
CXL/MXL Interface Module		CMI-300		Similar to CRM-4	Interp.
Programmable Relay Module		CRM-4			1
Notification Appliance Circuit Module		CSM-4			1
Conventional Zone Module		CZM-4			1
Digital Message Card		DMC-1		Similar to ACM-1/MMM-1/VSM-1	Interp.
Optional Cardcage Mounting Plate		MBR-3MP		Similar to MBR-MP	Interp.
Module Mounting Plate		MBR-MP			1, 2
Digital Alarm Communicator Transmitter		MFACT			2
Blank Metal Door Inserts		MDB-1			2
Metal Louver Vent Door Inserts		MDG-1			2
Clear Lens		MDL-1		Similar to MDG-1	Interp.
Upper or Middle Dead Front Panel		MHD-1		Similar to MHD-3	Interp.
Lower Dead Front Panel		MHD-2		Similar to MHD-3	Interp.
Middle, DF w/Switch Openings		MHD-3			1
Middle Dead Front Plate w/Printer Cutout		MHD-4		Similar to MHD-3	Interp.
BTM. DF w/SW Openings MSE-2/MBR		MHD-5		Similar to MHD-3	Interp.
Input Driver Module	MID-16			1	
Main Keyboard 2 Line	MKB-2			1	
Main Keyboard 9 Line	MKB-5		Similar to MKB-2	Interp.	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.		Table Description: Panel Subcomponents			TABLE 2	
Model Line: MXL Fire Protection System						
Building Code: CBC 2019		Seismic Certification Limits:				
		$S_{DS} = 2.0g \quad z/h = 1.0$		$I_P = 1.5$		
		$S_{DS} = 2.0g \quad z/h = 0.0$				
Component Type	Manufacturer	Model	Description	Notes	UUT	
MXL Main Board	Siemens	MMB-2		Similar to MMB-3	Interp.	
Main Motherboard		MMB-3			1	
Microphone Master Module		MMM-1			1	
Output Driver Module		MOD-16			1	
Network I/O Interface		MOI-7			1	
Network Option Module Card Cage		MOM-2		Similar to MOM-4	Interp.	
Expansion Card Cage 4-Slot		MOM-4			2	
Main Power Supply 12A		MPS-12			1	
Main Power Supply 6A		MPS-6			2	
Communication Module		NET-4		Similar to NET-7	Interp.	
Style 7 Communication Module		NET-7			2	
Network Interface Module		NIM-1W			1	
Output Control Card		OCC-1			2	
Peripheral Interface Module		PIM-1			1	
Aux 5V Power Supply		PS-5A			1	
Power Supply Remote		PSR-1			2	
Audio Control Riser Module		RCM-1		Similar to MMB-3	Interp.	
Repeater Module		REP-1			2	
Terminal Block Module		TBM-2		Similar to ACM-1/MMM-1/VSM-1	Interp.	
Telephone Master Module		TMM-1			1	
Thermal Strip Printer		TSP-40A			1	
Fan Control Module		VFM-1		Similar to VSM-1 & VLM-1	Interp.	
LED Module		VLM-1			1	



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

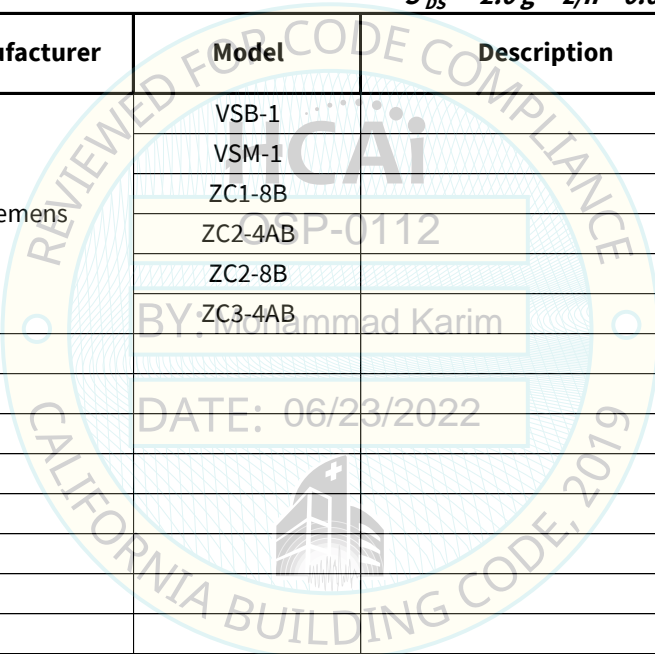
TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.	Table Description: Panel Subcomponents	TABLE 2
Model Line: MXL Fire Protection System		

Building Code: CBC 2019 **Seismic Certification Limits:** $S_{DS} = 2.0 g$ $z/h = 1.0$ $I_p = 1.5$
 $S_{DS} = 2.0 g$ $z/h = 0.0$

Component Type	Manufacturer	Model	Description	Notes	UUT
Switch Blank	Siemens	VSB-1			1
Switch & LED Module		VSM-1			1
Zone Card		ZC1-8B		Similar to ACM-1/MMM-1/VSM-1	Interp.
		ZC2-4AB		Similar to ACM-1/MMM-1/VSM-1	Interp.
		ZC2-8B		Similar to ACM-1/MMM-1/VSM-1	Interp.
		ZC3-4AB		Similar to ACM-1/MMM-1/VSM-1	Interp.



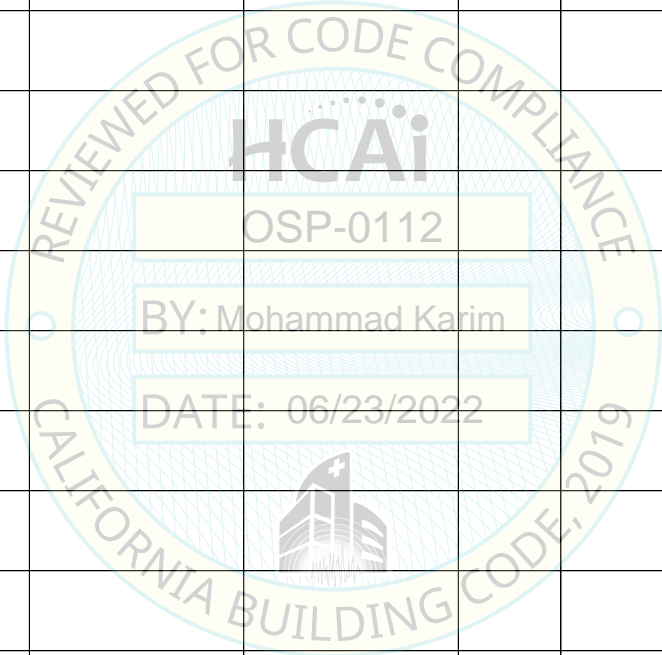
UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.
Model Line: MXL Fire Protection System

UUT	Unit Description	Report Number	Testing Lab	Year Tested	ISO 17025 Accredited?	S _{DS}	z/h	I _p
1	MXL System MLE-6	Q0036.0 (Q0036-03-01-01)	Qual Tech NP (Curtiss Wright)	2010	No ¹	2.0	1, 0	1.5
2	MXL System MME-3	Q0036.0 (Q0036-04-01-01)	Qual Tech NP (Curtiss Wright)	2010	No ¹	2.0	1, 0	1.5



Notes:
1. Qual Tech -Curtiss Wright was not ISO 17025 accredited at the time of testing but has been reviewed by TRU Compliance and found to meet the requirements for ICC-ES AC156. Review form is on file with TRU Compliance.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.	UUT 1
Model Line: MXL Fire Protection System	
Model Number: MLE-6 Serial Number: N/A	

Product Construction Summary:
16 ga. Carbon Steel large sized enclosure consisting of a backbox and front door.

Options/Subcomponent Summary:
Audio Control Module (ACM-1), Analog Loop Driver (ALD-2I), Programmable Relay Module (CRM-4), Notification Appliance Circuit Module (CSM-4), Conventional Zone Module (CZM-4), Module Mounting Plate (MBR-MP), Middle, DF w/ Switch Openings (MHD-3), Input Driver Module (MID-16), Main Keyboard 2 Line (MKB-2), Main Motherboard (MMB-3), Microphone Master Module (MMM-1), Output Driver Module (MOD-16), Network I/O Interface (MOI-7), Main Power Supply 12A (MPS-12), Network Interface Module (NIM-1W), Peripheral Interface Module (PIM-1), Aux 5V Power Supply (PS-5A), Telephone Master Module (TMM-1), Thermal Strip Printer (TSP-40A), LED Module (VLM-1), Switch Blank (VSB-1), Switch & LED Module (VSM-1).

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
280	6.14	24.13	63.75	N/A	N/A	N/A

<i>UUT Highest Passed Seismic Run Information</i>									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	1.33	0.53	
		2.0	0.0						

Test Mounting Details:

Unit to be wall mounted to test frame

1/2" Diameter Bolts

UUT1 was wall mounted - rigid using four (4) 1/2" bolts and washers.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 2200522



Manufacturer: Siemens Industry, Inc.	UUT 2
Model Line: MXL Fire Protection System	
Model Number: MME-3 Serial Number: N/A	

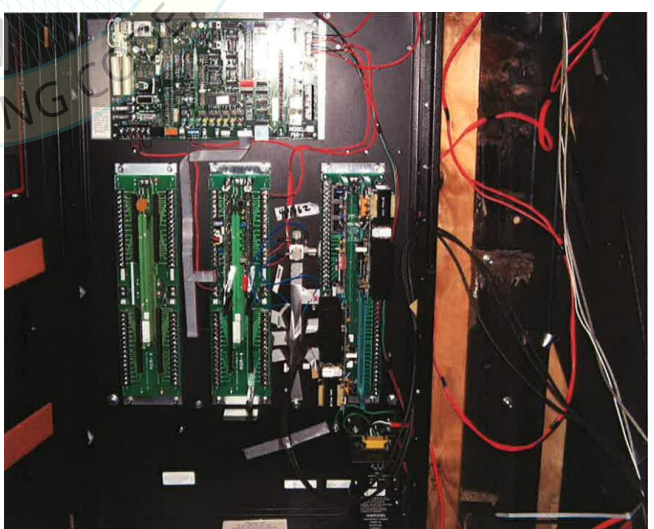
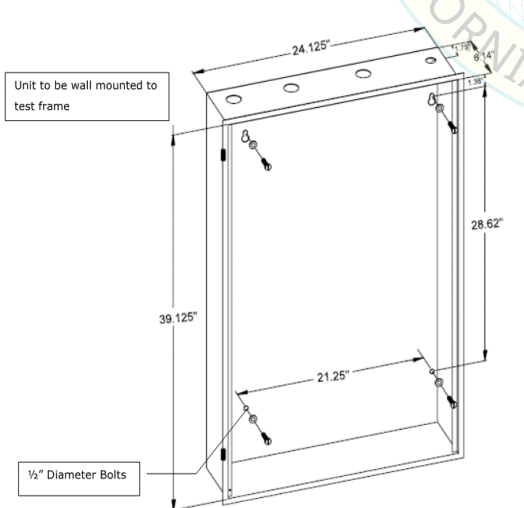
Product Construction Summary:
16 ga. Carbon Steel large sized enclosure consisting of a backbox and front door.

Options/Subcomponent Summary:
Module Mounting Plate (MBR-MP), Digital Alarm Communicator Transmitter (MDACT), Blank Metal Door Inserts (MDB-1), Metal Louver Vent Door Inserts (MDG-1), Expansion Card Cage 4-Slot (MOM-4), Main Power Supply 6A (MPS-6), Style 7 Communication Module (NET-7), Output Control Card (OCC-1), Power Supply Remote (PSR-1), Repeater Module (REP-1).

<i>UUT Properties</i>						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
190	6.14	24.13	39.13	N/A	N/A	N/A

<i>UUT Highest Passed Seismic Run Information</i>									
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
CBC 2019	ICC-ES AC156	2.0	1.0	1.5	3.20	2.40	1.33	0.53	
		2.0	0.0						

Test Mounting Details:



UUT2 was wall mounted - rigid using four (4) 1/2" bolts and washers.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.