

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0551

HCAI Special Seismic Certification Preapproval (OSP)

Туре:

X Renewal

Manufacturer Information

New

Manufacturer: Siemens Shanghai Medical Equipment LTD

Manufacturer's Technical Representative: Chen Zhonghua

Mailing Address: 278 Zhouzhu Hwy, Pudong 201318 Shanghai, China

Telephone: +86 (21) 20606030

Email: zhonghua.chen@siemens-healthineers.com

Product Information

Product Name: Fluorosc	opy and Radiography Systems
Product Type: NA	OSP-0551
Product Model Number:	Multitom Fusion Max
General Description:	Multiple component system for producing Radiography and Fluoroscopy medical images for a wide variety of medical diagnostic results.
Mounting Description:	Rigid, Floor/Wall Mounted
Tested Seismic Enhance	ements: None
Applicant Informatio	n Optimised and the second secon
Applicant Company Nam	ne: W.E. Gundy & Associates, Inc.
Contact Person: Travis	Soppe
Mailing Address: 1199 S	Shoreline Drive Suite 310, Boise, ID 83702
Telephone: (208) 342-5	989 Email: tsoppe@wegai.com

Title: President





HC



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

alifornia Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
ompany Name: W.E. GUNDY & ASOCIATES INC.
ame: Travis Soppe California License Number: S6115
ailing Address: P.O. Box 9121, Boise, ID 83707
elephone: (208) 342-5989 Email: tsoppe@wegai.com
ertification Method
GR-63-Core X ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
Other (Please Specify):
FOR CODE CO.
esting Laboratory
ompany Name: IABG TEST LABORATORY
ontact Person: Dr. Steffen Roedling
ailing Address: Einsteinstrasse 20, D-85521 Ottobrunn Germany
elephone: +49 89 6088 2052 Email: roedling@iabg.de
C DATE: 11/09/2022
DATE: 11/09/2022
BUILDING

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

HCAi

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY



H

Name:

Mohammad Karim

Condition of Approval (if applicable):

Special Seismic Certification Valid Up to: SDS (g) = See Above

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

Seismic Parameters	
Design Basis of Equipment or Components	(Fp/Wp) = See Attachments
SDS (Design spectral response accele	eration at short period, g) = 2.0 at z/h = 1 and 2.5 at z/h = 0
ap (Amplification factor) =	See attachments
Rp (Response modification factor) =	See attachments
Ω_0 (System overstrength factor) =	2.0
Ip (Importance factor) =	1.5
z/h (Height ratio factor) =	1 and 0
Natural frequencies (Hz) =	See Attachment
Overall dimensions and weight =	See Attachment
	ED FORMER AND
HCAI Approval (For Office Use Only)	Approval Expires on 11/09/2028
Date: 11/9/2022	OSP-0551

1/00

RNIA BU

NG CODE

Title:

z/h =

Supervisor, Health Facilities

See Above

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY

Table 1

SIEMENS HEALTHCARE GmbH SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS



Manufacturer: Siemens Healthcare GmbH

System: Multix Fusion Max Radiography System	System:	Multix	Fusion	Max	Radiogra	phy S	vstem
----------------------------------------------	---------	--------	--------	-----	----------	-------	-------

•/	0155	1			•	1 1						
$\mathbf{S}_{\mathrm{rest}}$	Siemens	D	imensior	ıs (in)	Weight	Mounting	UUT					
System Component ¹	Part Number	Width	Depth	Height	(lb)	wounting	001					
Bucky Wall Stand												
Bucky Wall Stand with MAX wi-D Detector	10961060	19.7	28.2	82.9	497	floor	UUT-4					
Bucky Wall Stand with MAX wi-D Detector	10961061	19.7	28.2	82.9	497	floor	interpolated					
Bucky Wall Stand with 4343R-RCE Detector	10681703	19.7	28.2	82.9	506	floor	UUT-3					
Patient Table												
RAD MST Patient Table with MAX wi-D Detector	10273206	94.9	31.5	20.3-37.6	812 ²	floor	UUT-2					
	E	Ge	nerator									
Polydoros RF Rad 80 (with PSU)	10307360	50.9	-225451	21.4	499	floor	UUT-1					
	P	C / UPS	/ WIFI A	Access								
PC (W520) Imaging System	11020769	Mohan 13.4	1mad K 27.4	22.8	88.9	floor	UUT-6					
UPS	5P850iPA	5.9 ¹	/09/20 9.2	²² 13.6	21.8	floor	UUT-7					
SCALANCE W700 Wi-Fi Access Point	10860657	7.9	5.5	8.9	3.7	wall	UUT-5					
	1/7											

General Notes:

¹ All components are manufactured by Siemens Healthcare GmbH unless noted. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² Weight listed does not include 530bs simulated patient weight.

SEISMIC CERTIFICATION LIMITS													
System Component	Code	S _{DS} (g)	z / h	I _P	a _P	R _P	Ω ₀	$\mathbf{F}_{\mathbf{P}}$ / $\mathbf{W}_{\mathbf{P}}$					
Bucky Wall Stand	CBC	2.0	1	1.50	1.0	1.5	2.0	2.40					
	2022	2.5	0	1.30				1.13					
Patient Table	CBC	2.0	1	1.50	1.0	1.5	2.0	2.40					
Fatient Table	2022	2.5	0	1.30	1.0	1.5	2.0	1.13					
Concretor	CBC	2.0	1	1.50	2.5	6.0	2.0	1.50					
Generator	2022	2.5	0	1.50	2.5	0.0	2.0	1.13					
PC / LIPS / WIEL A coose	CBC	2.0	1	1.50	1.0	2.5	2.0	1.44					
PC / UPS / WIFI Access	2022	2.5	0	1.30	1.0	2.3	2.0	1.13					

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with 4 - M12 grade 10.9 bolts torqued to 60 ft-lbs.

		UUT-3	OF	hamm			RITANCE			
	<u>a:</u> 11	DAT	E		9/20		5	LADO		
	: Siemens Heat		<u> </u>		1777	XXX.		IABG	7	
	Bucky Wall Stan	a – 4343R-	RCI	E Detec			Date: Octol			2 1/1
Model Numbe	: Digital system	used for m	R	d V ro		- 	rt Number:		PB-1/-34;	5-V I
UUT Descript	Component		tix l	Fusion 1	Max F	Radio	graphy Syste		ed with 43	343R-RCE
		1	UU	T PRO	PERT	ГIES				
Waight (11)	Din	nensions (in	che	s)			Natu	ral Freq	uency (Hz	z)
Weight (lb)	Width	Depth		Heig	ght		FB	S	S	V
506	19.7	28.2		82.	.9		12.4	8.	2	> 33
		SEISM	IIC	TEST	PARA	AME	TERS			
Building Code	e / Test Criteria	Sds (g)	2	z / h	Ip		Aflx-H (g)	Arig-h (g)	Aflx-v (g) Arig-v (g)
CBC 2022 / I	CC-ES AC156	2.00		1.0	1.5	5	3.20	2.40		
	CC-L5 AC150	2.50		0.0	1.5	5			1.67	0.67
	as full of contents du ural integrity during						Fore and after th	e ICC-ES	S AC156 tes	t. The unit

UUT-	-4		UNDE MMAI		ST (UUT HEET)	W.E. GUNDY & STRUCTURAL & EART	GAI ASSOCIATES, INC. HQUAKE ENGINEERING
Mounting Det	ails: Rigid floor	mounted wit	h 4 - M12	grade	10.9 bolts tor	equed to 60	ft-lbs.	
			Aohamm	9/202	22			
Manufacturer	: Siemens Healt	thcare Gmbh		Tes	st Location:	IABG		
Component:	Bucky Wall Stan	d - MAX wi-	D Detect	or Tes	st Date: Octo	ober 2017		
Model Numbe	er: 10961060	N/IA		Re	port Number	r: TAF4-PI	B-17-343-V	/1
UUT Function	: Digital system	used for ma	king X-ra	y expo	sures of the b	ody		
UUT Descript		t of the Multi Pixium 3543			adiography S 1105032	ystem. Test	ted with M	AX wi-D
		U	UT PRO	PERT	IES			
Weight (lb)	Din	nensions (incl	hes)		N	latural Freq	uency (Hz)
weight (10)	Width	Depth	Hei	ght	FB	SS	S	V
497	19.7	28.2	82	.9	12.9	8.4	4	12.8
		SEISMI	C TEST	PARA	METERS			
Building Code	e / Test Criteria	$S_{DS}(g)$	z / h	Ip	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	ARIG-V (g)
CDC 2022 / I		2.00	1.0	1.5	3.20	2.40		
CBC 2022 / I	CC-ES AC156	2.50	0.0	1.5			1.67	0.67
	as full of contents du ural integrity during				al before and aft	er the ICC-ES	S AC156 test	. The unit

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounted with 4 - M12 grade 10.9 bolts.



UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with 4 - M8 grade 8.8 bolts and 2 - M10 grade 10.9 bolts.

Manufacturer	r: Siemens Heal	DAT theare Gmbh		CO DSP-1 hamn : 11/0		T-1 trim	IABG			S.
Model Numbe	Polydoros RF Ra		50			t Date: Octo		2 17 2/	2 V	1
	n: Power distrib	ution to Mult	B	m Fusie	76115	ortivuliber	• 174-61	5-17-54	-J-V	1
	ion: Componen					diography Sv	vstem			
				T PRO			, 500111.			
	Dir	nensions (inc				r	atural Freq	lliency ((H2)	
Weight (lb)	Width	Depth		Heig	ght	FB	SS		(112)	V
499	50.9	22.4		21	-	26.2	26.			> 33
	<u> </u>		IC			METERS	I			
Building Code	e / Test Criteria	S _{DS} (g)		z / h	Ip	Aflx-h (g)	Arig-h (g)	AFLX-V	(g)	Arig-v (g)
		2.00		1.0	1.5	3.20	2.40		(0)	
CBC 2022 / I	CC-ES AC156	2.50		0.0	1.5			1.67	7	0.67
	as full of contents d ural integrity during					l before and aft	er the ICC-ES	S AC156	test.	The unit

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounting using Siemens provided seismic restraint kit (11107393). Seismic restraint kit includes a 1" wide hand tightened cam buckle strap (992lb WLL) looped thru angle brackets positioned on the long side of the unit. The four angle brackets are attached to the table with individual M10 grade 10.9 bolts.



			VVNAJ X		INNXVI						
Manufacturer	: Siemens Heal	thcare Gmb	h		Test	t Location:	IABG				
Component:	PC (W520) Imag	ging System		MANA	Test	Date: Octo	ber 2017				
Model Numbe	er: 11020769	1.A	BUI	ĽD	Rep	ort Number	: TAF4-PE	3-17-343-V	1		
UUT Function: Computational processing for image system											
UUT Description: Component of the Multix Fusion Max Radiography System.											
			UUT P	ROP	PERTI	ES					
Dimensions (inches) Natural Frequency (Hz)											
Weight (lb)	Width	Depth		Height		FB	FB SS		V		
89	13.4	27.4		22.8	8	27.5	15.	.5	> 33		
		SEISM	IIC TE	ST P	PARAN	METERS					
Building Code	e / Test Criteria	$S_{DS}(g)$	z / 1	ı	I_P	$A_{FLX-H}(g)$	A _{RIG-H} (g)	A _{FLX-V} (g)	$A_{RIG-V}(g)$		
CDC 2022 / I	CC-ES AC156	2.00	1.0		1.5	3.20	2.40				
CBC 2022 / I	CC-ES AC130	1.5			1.67	0.67					
	as full of contents during ural integrity during					before and aft	er the ICC-ES	S AC156 test.	The unit		

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounting using Siemens provided seismic restraint kit (11107393). Seismic restraint kit includes a 1" wide hand tightened cam buckle strap (992lb WLL) looped thru angle brackets positioned on the long side of the unit. The four angle brackets are attached to the table with individual M10 grade 10.9 bolts.



				HHHH	BARBA V		A DECEMBER OF THE OWNER OWNER OF THE OWNER OWNE	A LOCAL DIST. NO.			
Manufacturer	: Siemens Healt	thcare Gmb	h	Test	Test Location: IABG						
Component:	UPS	TNI		Test	Date: Octo	ober 2017					
Model Numbe	r: 5P850i	14	BUILD) [Rep	ort Number	: TAF4-PH	3- 17-343-√	/1			
UUT Function	: Uninterruptab	le power su	pply system	m							
UUT Description: Component of the Multix Fusion Max Radiography System.											
UUT PROPERTIES											
Weight (lb)	Din	nensions (in	iches)		N	latural Freq	uency (Hz)				
Weight (lb)	Width	Depth	He	ight	FB	SS	5	V			
22	5.9	9.2	13	3.6	> 33	26.	.4	> 33			
		SEISM	IIC TEST	PARAM	AETERS						
Building Code	e / Test Criteria	S _{DS} (g)	z / h	Ip	$A_{FLX-H}(g)$	A _{RIG-H} (g)	A _{FLX-V} (g)	$A_{RIG-V}(g)$			
CDC 2022 / I	CC-ES AC156	2.00	1.0	1.5	3.20	2.40					
	CC-ES ACI30	2.50	0.0	1.5			1.67	0.67			

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid wall mounted with 4 - M4 grade 8.8 bolts.

Manufacturer	alis: Rigid wall The second s	BY: DAT	OR CO DR CO	DE G DE G DE G DE G DE G DE G DE G DE G	t Location:	IABG ber 2017	B-17-343-V	/1
		×-1A	BHITT	Kep	ortivumber	: IAг 4- гі	5-1/-545-	V I
UUT Function	: Wi-Fi Module		JUILL	JII''				
UUT Descript	ion: Component	t of the Mult	ix Fusion	Max Ra	diography Sy	ystem.		
		τ	JUT PRO	PERTI	ES			
$W_{a} = 1 + (11)$	Din	nensions (ind	ches)		N	atural Freq	uency (Hz	
Weight (lb)	Width	Depth	Hei	ght	FB	SS	5	V
4	7.9	5.5	8.	9	NA	NA	4	NA
		SEISM	IC TEST	PARA	METERS			
Building Cod	e / Test Criteria	S _{DS} (g)	z / h	Ip	Aflx-h (g)	Arig-h (g)	AFLX-V (g) Arig-V (g)
		2.00	1.0	1.5	3.20	2.40		
CBC 2022 / I	CC-ES AC156	2.50	0.0	1.5			1.67	0.67
	as full of contents du ural integrity during				before and aft	er the ICC-ES	S AC156 test	t. The unit