

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCALSPEC	OFFICE USE ONLY				
CERTIFICATION PREAPPROVA	AL (OSP)	APPLICATION #: OSP-0743			
HCAI Special Seismic Certification Prea	pproval (OSP)				
Type: New X Renewal					
Manufacturer Information					
Manufacturer: Siemens Healthcare GmbH					
Manufacturer's Technical Representative: Don	Medlar				
Mailing Address: Siemensstr. 3, Forchheim, B	avaria 91301				
Telephone: (49919) 118-6521	Email: don.medlar@sieme	ns-healthineers.com			
Product Information					
Product Name: NAEOTOM Alpha CT Systems		2			
Product Model Number(s): See attachment	ПСАІ	E.			
Product Category: CT Systems	OSP-0743	G			
Product Sub-Category: NA					
General Description: Multiple component s variety of medial diag	ystem for producing Computed T nostic results.	omography (CT) medical images for a wide			
Mounting Description: Several - See Certifie	d Product Tables and UUT Shee	et -			
Tested Seismic Enhancements: None					
Applicant Information					
Applicant Company Name: WE Gundy & Asso	ciates, Inc				
Contact Person: Travis Soppe	BUILDING				
Mailing Address: PO Box 9121, Boise, ID 8370	07				
Telephone: (208) 342-5989	Email: tsoppe@wegai.com				
Title: President					



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OSP-0743



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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):
EOR CODE CON
esting Laboratory
ompany Name: IABG TEST LABORATORY
ontact Person: Steffen Roedling
ailing Address: Einsteinstrasse 20, Ottobrunn Bavaria 85521
elephone: (49896) 088-2052 Email: roedling@iabg.de
O DATE: 04/11/2025
PLI
BUILDING



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OSP-0743



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Seismic Parameters

Design Basis of Equipment or Components (Fp/Wp) = See Attachments						
SDS (Design spectral response accele	SDS (Design spectral response acceleration at short period, g) = $2.00 (z/h = 1.0), 2.50 (z/h = 0.0)$					
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 ODF						
HCAI Approval (For Office Use Only) -	Approval Expires on 04/10/2031					
Date: 4/11/2025	OSP-0743					
Name: Mohammad Karim	Title: Supervisor, Health Facilities					
Special Seismic Certification Valid Up to: St	z/h = 1					
Condition of Approval (if applicable):						
	PRIVIA BUILDING CODE:					



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OSP-0743

TABLE 1

SIEMENS HEALTHCARE GmbH SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM COMPONENTS



Manufacturer: Siemens Healthcare GmbH

System: NAEOTOM Alpha CT Systems

	Siemens	Dimensions (in)			Weight	M		
System Component [*]	Part Number	Width	Depth	Height	(lb)	Mounting	UUI	
			Gantries					
NAEOTOM Alpha.Prime	11549431	93.7	37.9	78.3	4409	floor	UUT _z -1	
SOMATOM X.ceed	11330002	99.8	37.7	78.1	4748	floor	UUT _w -2	
NAEOTOM Alpha.Pro	10191100	94.5	49.8	78.3	5953	floor	interpolated	
NAEOTOM Alpha.Peak	11330003	94.5	49.8	78.3	5953	floor	UUT _x -2	
		FP	atient Tabl	es				
Vario 2.D PHS	11061335	27.6	97.6-179.5	24.0-40.7	802 ²	floor	UUT _w -4	
Vitus PHS	11061336	27.8	100.8-182.7	14.8-38.0	1040	floor	UUT _v -3	
	Image I	Reconst	ruction an	d UPS Sys	stems			
ALON UPS-cabinet	1 <mark>15011</mark> 40	34.8	40.5	<u>50.8</u>	<mark>8</mark> 95	floor / wall	UUT _y -3	
ALON UPS-cabinet	1 <mark>1501</mark> 140	34.8	40.5	50.8	<mark>88</mark> 6	floor / wall	UUT _z -2	
UPS Rack - Config 1 1-GXT5 and IRSxp2e	11769311	25.6	0432141/20	2524.5	226	floor	UUT _z -3	
UPS Rack - Config 2 2-GXT5 and IRSxp	11760611	25.6	32.4	24.5	305	floor	interpolated	
UPS Rack - Config 3 3-GXT5 and IRSxp3h	11769987	25.6	32.4	24.5	366	floor	UUT _z -4	
UPS Rack - IRSxp2e and UPS GXT-05	11501180	15.4	JIL32.7	22.5	149	floor	UUT _x -5	
Computer IRS XL20-1H	11513711	30.7	12.1	19.6	79	floor	UUT _x -4	
IRSxp2a	11652201	7.0	21.7	17.1	44	floor	UUT _x -6	

Notes:

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

² The units were tested at different times and the subscripts on the UUT's reference the following seismic certification test reports:

v = TAB3-PB-20-140-V1 / w = TAB3-PB-21-074-V1 / x = TA-B-000477-V1 / y = TA-B-00478-V1 / z = TA-B-005685-V1 & TA-B-05725-V1

SEISMIC CERTIFICATION LIMITS								
System Component	Code	$S_{DS}(g)$	z / h	I _P	a _P	R _P	Ω ₀	$\mathbf{F}_{\mathbf{P}}$ / $\mathbf{W}_{\mathbf{P}}$
Contrios	CBC	2.0	1.0	1.50	1.0	1.5	2.0	2.40
Gantries	2022	2.5	0	1.50	1.0	1.3	2.0	1.13
Detiont Tables	CBC	2.0	1.0	1.50	1.0	1.5	2.0	2.40
Fatient Tables	2022	2.5	0	1.50	1.0	1.3	2.0	1.13
IDS and LIDS Systems	CBC	2.0	1.0	1.50	1.0	2.5	2.0	1.44
its and OFS Systems	2022	2.5	0	1.50	1.0	2.3	2.0	1.13

UUT_z-1

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (4) 5/8" grade 10.9 bolts



UUT_w -2

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (5) 5/8" grade 8 bolts

Manufacturer	Manufacturer: Siemens Healthcare GmbH Test Location: IABG mbH, Germany									
Component:	SOMATOM X.	ceed Gantry			Test Da	te: May 202	о шон, ч 21	Jermany	Ý	
Model Numbe	er: 11330002				Report	Number:	ГАВ3-PB-	21-074-	V1	
UUT Functior	: Continuous r	otating x-ray	to	generate	e diagno	stic imaging				
UUT Descript	ion: Gantry wit	h water cool	ing	g for the	SOMA	TOM X.Cee	d CT syste	ems.		
UUT Modifica	tions: Modification the stand	ations require ard production	ed i on	for the U units.	JUT to p	bass the seisr	nic test wi	ill be inc	orpo	orated in
		τ	UU	T PRO	PERTI	ES				
Waight (11)	Dir	mensions (in	che	es)		N	latural Fre	quency	(Hz)	
weight (16)	Width	Depth		Hei	ght	FB	S	SS		V
4,748	99.8	37.7		78	.1	12.5	6	.4		24.5
		SEISM	IIC	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)	$A_{RIG-V}(g)$
CPC 2022 / 1		2.00		1.0	1.5	3.20	2.40	-		-
	CC-ES ACIJO	2.50		0	1.5	-	-	1.6	7	0.67
Note: The unit w maintained struct	as full of contents of ural integrity durin	luring testing ar g and after the l	nd r ICC	remained t C-ES AC1	functiona 56 test.	l before and aft	er the ICC-I	ES AC156	test.	The unit

UUT_x -2

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (4) 5/8" grade 8 bolts

	Manufacturer: Siemens Healthcare GmbH Test Location: IABG mbH, Germany								
Component:	NAEOTOM Al	pha.Peak Gan	try	Test Da	ate: March 2	.022	lerinaliy		
Model Numbe	er: 11330003	A.	BUTIE	Report	Number: 7	ГА-В-0004	77-V1		
UUT Functior	n: Continuous r	otating x-ray t	to generat	e diagno	ostic imaging	5			
UUT Descript	ion: Gantry for	r the NAEOTO	OM Alpha	a CT sys	stems.				
		U	UT PRO	PERTI	ES				
Weight (1b)	Di	mensions (inc	hes)		N	latural Freq	luency (l	Hz)	
	Width	Depth	Hei	ght	FB	SS	S		V
5,953	94.5	49.8	78	.3	9.8	18	.2		> 33
		SEISMI	IC TEST	PARA	METERS				
Building Code	/ Test Criteria	$S_{DS}(g)$	z / h	Ip	$A_{FLX-H}\left(g ight)$	$A_{RIG\text{-}H}\left(g\right)$	A _{FLX-V}	(g)	$A_{RIG-V}(g)$
CBC 2022 / 10		2.00	1.0	1.5	3.20	2.40	-		-
	UC-ES AC130	2.50	0	1.5	-	-	1.67		0.67
Note: The unit w maintained struct	as full of contents of tural integrity during	during testing and and after the IC	d remained CC-ES AC1	functiona 56 test.	l before and aft	er the ICC-ES	S AC156 1	test.	Гhe unit



UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (4) 5/8" grade 8 bolts.



	Test Date. May 2	021
Model Number: 11061335	Report Number:	TAB3-PB-21-074-V1

UUT Function: Motorized patient support

UUT Description: Patient table for the SOMATOM X.ceed CT systems.

UUT PROPERTIES

Weight (lb)	Di	mensions (inche	es)	Natu	ural Frequency	(Hz)
with Patient	Width	Depth	Height	FB	SS	V
1,343	27.6	97.6 - 179.5	24.0 - 40.7	11.6	14.9	> 33

The patient table moves vertically and horizontally to accommodate different positions and procedures. The system was tested in the normal operating position, with the tabletop extended 39.4 inches, vertically extended 36.8 inches, and with a total simulated patient weight of 540lbs.

SEISMIC TEST PARAMETERS							
Building Code / Test Criteria	S _{DS} (g)	z / h	Ip	$A_{FLX-H}\left(g ight)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
	2.00	1.0	1.5	3.20	2.40	_	-
CBC 2022 / ICC-ES AC150	2.50	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.

UUT_v-3

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (6) 5/8" grade 8 bolts.

Mounting Det	ans: Rigid floor	r mounted with	<u>1 (6) 3/8''</u>	grade 8	bolts.			
	UUT-2			IUT-3				
Manufacturer	: Siemens Hea	lthcare GmbH		Test Lo	cation: IAE	<mark>3G</mark> mbH, G	ermany	
Component:	Vitus PHS	DATE	: 04/1	Test Da	te: Septemb	er 2020		
Model Numbe	er: 11061336		*	Report	Number:	TAB3-PB-2	20-140-V1	
UUT Function	: Motorized pa	tient support						
UUT Descript	ion: Patient tab	le for the SOM	IATOM	X.cite C	T systems.			
		U	UT PRO	PERTI	ES			
Weight (lb)	Di	mensions (incl	nes)		N	atural Freq	uency (Hz)	
with Patient	Width	Depth	Hei	ght	FB	SS	5	V
1,580	27.8	100.8 - 182.7	14.8 -	- 38.0	16.6	7.0	6	11.3
The patient table in the normal operation patient weight of the	The patient table moves vertically and horizontally to accommodate different positions and procedures. The system was tested in the normal operating position, with the tabletop extended 39.4 inches, vertically extended 38 inches, and with a total simulated patient weight of 540lbs.							
SEISMIC TEST PARAMETERS								
Building Code	e / Test Criteria	$S_{DS}(g)$	z / h	IP	$A_{FLX-H}\left(g ight)$	$A_{RIG-H}\left(g ight)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / I		2.00	1.0	1.5	3.20	2.40	-	-
	CC-ES AC130	2.50	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.								

UUT_y-3

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid combined floor and wall mounting using Siemens provided seismic restraint kit SN:11500841. Seismic restraint kit includes an angle wall bracket connecting the UUT to the wall with 2 - 3/8" grade 5 bolts and floor brackets connecting the UUT to the floor with 4 - 3/8" grade 5 bolts.



Manufacturer: Siemens Healthcare GmbH	Test Location: IABG mbH, Germany			
Component: ALON UPS-cabinet	Test Date: September 2022			
Model Number: 11501140	Report Number: TA-B-000478-V1			
UUT Function: Uninterruptible power supply and IRS system.				
UUT Description: Component of the NAEOTOM Alpha CT systems.				

UUT PROPERTIES										
Weight (1h)	Dii	Natural Frequency (Hz)								
weight (10)	Width	Depth	Hei	ght	FB	SS	5	V		
895	34.8	40.5	50	.8	NA	NA	A	NA		
	SEISMIC TEST PARAMETERS									
Building Code	e / Test Criteria	$S_{DS}(g)$	z / h	IP	$A_{FLX-H}\left(g ight)$	$A_{RIG-H}(g)$	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$		
		2.00	1.0	1.5	3.20	2.40	-	-		
CBC 2022 / IC	LC-ES ACI30	2.50	0	1.5	-	-	1.67	0.67		
Note: The unit w	as full of contents d	uring testing a	nd remained	functional	before and aft	er the ICC_ES	SAC156 test	The unit		

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.

UUT_z-2

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid combined floor and wall mounting using Siemens provided seismic restraint kit SN:11500841. Seismic restraint kit includes an angle wall bracket connecting the UUT to the wall with 2 - 3/8" grade 5 bolts and floor brackets connecting the UUT to the floor with 4 - 3/8" grade 5 bolts.



Manufacturer: Siemens Healthcare GmbH	Test Location: IABG mbH, Germany					
Component: ALON UPS-cabinet	Test Date: October 2024					
Model Number: 11501140	Report Number: TA-B-005685-V1					
UUT Function: Uninterruptible power supply and IRS system.						
UUT Description: Component of the NAEOTOM Alpha CT systems.						

UUT PROPERTIES										
Weight (lb)	Dimensions (inches)					Natural Frequency (Hz)				
	Width	Depth		Height		FB	SS	5	V	
886	34.8	40.5		50.8 NA NA		A	NA			
SEISMIC TEST PARAMETERS										
Building Code / Test Criteria S _{DS} (g)				z / h	IP	$A_{FLX-H}(g)$	$A_{RIG-H}(g)$	A _{FLX-V} (g)	$A_{RIG-V}(g)$	
		2.00		1.0	1.5	3.20	2.40	-	-	
CBC 2022 / IC	LC-ES AC130	2.50		0	1.5	-	-	1.67	0.67	
Note: The unit w	as full of contents d	luring testing a	nd re	mained f	functional	before and aft	er the ICC_ES	SAC156 test	The unit	

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.



UUTz	-4	UNIT SU	UNIT UNDER TEST (UUT) SUMMARY SHEET							
Mounting Details: Rigid floor mounting using Siemens provided seismic restraint kit SN:11768107. Seismic restraint kit includes 2 angle brackets in the backside of the UUT and 1 angle bracket in the front of the UUT. Each bracket connects the UUT to the floor with 2 – 3/8" grade 5 bolts for a total of 6 bolts.										
Manufacturer	Siemens He	althcare GmbH	I	Test Loc	ation: IAI	3G mbH, G	bermany			
Component:	3-GXT5 and IF	RSxp3h		Test Dat	e: October	2024				
Model Number	r: 11769987		POIL	Report N	Number:	ГА-В-0572	5-V1			
UUT Function	: Combined u	ninterruptible	power s	upply and	image recon	struction P	C			
UUT Descripti	on: Compone	ent of the NAE	ОТОМ	Alpha C7	systems.					
		U	UT PR	OPERTI	ES					
$W_{a} = 1 \neq (11)$	D	imensions (inc	hes)		N	latural Freq	uency (Hz))		
weight (1b)	Width	Depth	Н	eight	FB	S	S	V		
366	25.6	32.4		24.5	> 33	19	.8	> 33		
		SEISMI	IC TEST	F PARA	METERS		.			
Building Code	/ Test Criteria	$S_{DS}(g)$	z / h	IP	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$		
		2.00	1.0	1.5	3.20	2.40	-	-		
	LU-ES AUI36	2.50	0	1.5	-	-	1.67	0.67		
Note: The unit wa maintained structure	s full of contents of an arrangement of the second se	during testing and g and after the IC	l remaine CC-ES AC	l functional 156 test.	before and afte	er the ICC-ES	S AC156 test.	The unit		

UUT_x-4

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounting using Siemens provided seismic restraint kit SN:11500840. Seismic restraint kit includes three 1" wide hand tightened cam buckle straps (560lb WLL) looped thru angle brackets positioned on the long and short sides of the unit. The six angle brackets are attached to the table with individual 3/8" grade 5 bolts.



Manufacturar: Siemens Healthcare GmbH	Test Location: LABG mbH Germany
	Test Location. IADO mori, Cermany
Component: Computer IRS XL20-1H	Test Date: March 2022
Model Number: 11513711	Report Number: TA-B-000477-V1

UUT Function: Image Reconstruction System

UUT Description: Component of the NAEOTOM Alpha CT systems.

UUT PROPERTIES										
Weight (lb)	Dii	mensions (in	es)	Natural Frequency (Hz)						
	Width	Depth		Height		FB	S	S	V	
79.4	30.7	12.1		19	19.6 23.9 17.9		> 33			
SEISMIC TEST PARAMETERS										
Building Code						$A_{RIG-V}(g)$				
		2.00		1.0	1.5	3.20	2.40	-	-	
CBC 2022 / IC	C-ES AC130	2.50		0	1.5	-	1.67		0.67	
Note: The unit wa maintained struct	as full of contents d ural integrity durin	luring testing a g and after the	nd r ICC	emained f	functiona 56 test.	l before and aft	er the ICC-E	S AC156 tes	. The unit	

UUT_x-5

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounting using Siemens provided seismic restraint kit SN:11500840. Seismic restraint kit includes three 1" wide hand tightened cam buckle straps (560lb WLL) looped thru angle brackets positioned on the long and short sides of the unit. The six angle brackets are attached to the table with individual 3/8" grade 5 bolts.



Manufacturer	: Siemens Hea	lthcare Gmb	H	Test Location: IABG mbH, Germany						
Component:	UPS Rack: IRS	xp2e & UPS	GXT-05	Test Da	te: March 2	022				
Model Numbe	r: 11501180			Report	Number: 7	ГА-В-0004 [°]	77-V1			
UUT Function	: Combined U	ninterruptabl	e Power Sy	ystem an	d Image Red	construction	n System			
UUT Descript	ion: Componer	t of the NAI	EOTOM A	lpha CT	systems.					
		l	UUT PRO	PERTI	ES					
Waight (1h)	Dii	nensions (in	Natural Frequency (Hz)							
weight (10)	Width	Depth	Hei	ght	FB	SS	5	V		
149.0	15.4	32.7	22	2.5	> 33	9.8	9.8 > 33			
		SEISM	IC TEST	PARAN	AETERS					
Building Code	e / Test Criteria	$S_{DS}(g)$	z / h	I _P	$A_{FLX-H}\left(g ight)$	$A_{RIG-H}(g)$	A _{FLX-V} (g	$A_{RIG-V}(g)$		

Dec Lor 10002.5001.5--1.670.67Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test.0.67maintained structural integrity during and after the ICC-ES AC156 test.

1.5

3.20

2.40

1.0

2.00

CBC 2022 / ICC-ES AC156

UUT_x-6

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid Floor mounting using Siemens provided seismic restraint kit SN:11500840. Seismic restraint kit includes two 1" wide hand tightened cam buckle straps (560lb WLL) looped thru angle brackets positioned on the long side of the unit. The four angle brackets are attached to the table with individual 3/8" grade 5 bolts.



Manufacturer: Siemens Healthcare GmbH	Test Location: IABG mbH, Germany				
Component: IRSxp2a	Test Date: March 2022				
Model Number: 11652201	Report Number: TA-B-000477-V1				
UUT Function: Image Reconstruction System					
UUT Description: Component of the NAEOTOM Alpha CT systems.					
UUT PROPERTIES					

Weight (lb)	Dii	Natural Frequency (Hz)							
	Width	Depth	Hei	ght	FB	SS	5	V	
44.1	7.0	21.7	17	.1	> 33	16	7	> 33	
SEISMIC TEST PARAMETERS									
Building Code / Test Criteria $S_{DS}(g)$ z / h I_P $A_{FLX-H}(g) A_{RIG-H}(g) A_{FLX-V}(g)$				$A_{FLX-V}(g)$	$A_{RIG-V}(g)$				
		2.00	1.0	1.5	3.20	0 2.40 -		-	
CBC 2022 / 10	CC-ES ACISO	2.50	0	1.5	-	- 1.67		0.67	
Note: The unit w	as full of contents d	luring testing a	nd remained	functiona	l before and aft	er the ICC-ES	SAC156 test	. The unit	

maintained structural integrity during and after the ICC-ES AC156 test.