

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0769

CAI Special Seismic Certification Preapproval (OSP)
ype: X New Renewal
anufacturer Information
anufacturer: Philips Healthcare (Suzhou) Co., Ltd.
anufacturer's Technical Representative: Mingyuan Zhao
ailing Address: 258 Zhongyuan Rd, Suzhou Industrial Park, Suzhou, Jiangsu, China, 215121
elephone: 188 4245-8096 Email: MingYuan.ZHAO@philips.com
FORCODECOA
roduct Information
roduct Name: CT Systems
roduct Type: NA
roduct Model Number: CT 5300
eneral Description: Computed Tomography (CT) Medical Imaging System
ounting Description: Rigid, Flo <mark>or Mo</mark> unted
ested Seismic Enhancements: None DATE: 07/05/2023
pplicant Information
pplicant Company Name: Pre Compliance
ontact Person: Galen Reid
ailing Address: 36 SW Wall Street, Bend, OR 97702
elephone: (541) 241-2310 Email: galen@go-pre.com
tle: Principal & Program Manager

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alifornia Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
ompany Name: PRE COMPLIANCE
ame: Andrew Coughlin California License Number: S6082
lailing Address: 36 SW Wall Street, Bend, OR 97702
elephone: (415) 635-8461 Email: Andy@go-pre.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: CHINA TELECOMMUNICATION TECHNOLOGY LABS (CTTL)
ontact Person: Cuilan Fang
lailing Address: No.299, Tengfei Road, Industrial Park, Lianchi District, Baoding, Hebei, China
elephone: +86 0312-6798950 Email: cuilanfang@caict.ac.cn
C DATE: 07/05/2023
DATE: 07/05/2023
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BUILDING

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Seismic Parameters									
Design Basis of Equipment or Components	(Fp/Wp) = 2.4 (SDS = 2.0); 1.13 (S	DS = 2.5)							
SDS (Design spectral response accele	eration at short period, g) = $2.0 (z/h =$	1); 2.5 (z/	h = 0)						
ap (Amplification factor) =	1								
R_p (Response modification factor) = 1.5									
Ω_0 (System overstrength factor) = 2.0									
$I_{p} (Importance factor) = \frac{1.5}{1.5}$									
z/h (Height ratio factor) =									
Natural frequencies (Hz) =	See Attachment								
Overall dimensions and weight =	See Attachment								
	DE								
		~							
HCAI Approval (For Office Use Only) -	Approval Expires on 07/05/2029	Z							
Date: 7/5/2023	OSP-0769	CF							
Name: Mohammad Karim		Title:	Supervisor, Health Facilities						
Special Seismic Certification Valid <mark>Up to:</mark> St	DS (g) = See Above	z/h =	See Above						
Condition of Approval (if applicable):	DATE: 07/05/2023	\mathbb{V}_{\sim}							
P		18							
17	PRNIA BUILDING COD								
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SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Manufacturer:Philips Healthcare (Suzhou) Co., Ltd.Product Type:CT SystemModel Line:CT 5300

Seismic Parameters

Building Codes

S_{DS} = 2.0g for z/h=1 S_{DS} = 2.5g for z/h=0

CBC 2022

TABLE 1

Mounting Configuration: Base Mounted - Rigid

Construction Summary

CT Boxes: Plastic case.

Consoles/PDU: Carbon steel enclosure Gantry/Couch: Carbon steel frame with plastic shroud

Options Summary Standard or Premium console available

 $I_{\rm p} = 1.5$

Max. Dimensions (in) ¹Wt. UUT Component Manufacturer Model Notes D W Н (lb) Philips Healthcare Gantry CT128PGA100 92 38 77 4784 1 (Suzhou) Co., Ltd. **Philips Healthcare** CT128PGB200 176 28 Couch 772 2 34 (Suzhou) Co., Ltd. 17.5 CT128PGA300 Hewlett Packard (HP) 8.5 Console 21.760 3,4 Grayhill Electronics CT128PGA3015/2(13.4) 4.7 1.8 2.2 5 (Shenzen) Co., Ltd. CT Box CTBOXPGB100 15.8 4 3.5 4 6 Shenzhen Beacon 7 Display Technology CTBOXPGB101 15.8 4 3.5 4 Co.,Ltd CTBOXPGB102 3.5 4 8 15.8 4 PHI-PDU-115kVA-Cetc Ecrieepower PDU 28 25 29 344 9 380-480 (Anhui) Co., Ltd.

¹ Listed weight of couch does not include 414.5 lbs. of simulated patient weight also tested.



Pre No. CC231005-01-R0

UUT	Component	Test Report	¹ Test Laboratory	S _{DS}	z/h	l _p
1	Gantry	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
2	Couch	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
3	Standard Console	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
4	Premium Console	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
5	CT Box (CT 5300)	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
6	CT Box (BB & Ingenuity)	B23X80507	MB CAICT	2.0 2.5	1.0 0.0	1.5
7	CT Box (ICT & IQON & Hawk)	B23X80507	CAICT	2.0 2.5	1.0 0.0	1.5
8	CT Box (Oceanus)	B23X80507-0769	CAICT	2.0 2.5	1.0 0.0	1.5
9	PDU O	Bb23x80507mad Ka	rim CAICT	2.0 2.5	1.0 0.0	1.5
	C	DATE: 07/05/202	23			
		THE A	2			
		PNIA BUILDING	CODE			
		BUILDING				
Notes:		and Communications Techn				

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		UUT	1	Test	Repo	rt# B23	3X8050	7	
Manufacturer:		Highe	est Pa	ssed Te	st Leve	el			
Model Line: Model Number: Component:	CT 5300 CT128PGA100 Gantry	-	S_{DS} 2.0 2.5	z/h 1 0	Ι _ρ 1.5	A _{flx-h} 3.2	A _{rig-h} 2.4	Α_{flx-v} 1.68	A _{rig-v} 0.68
Dir Depth (in) Width 92 38	· · · ·	Weight (Ibs.) 4784	Front-Ba 8.98	ack		al Frequ le-Side 7.81	uency (Hz) Vertic 29.3	
Building Code	es Tes		DECO	Constr	uction	/Option	Summ	ary	
CBC 2022	ICC	ES AC156	Cat	rbon ste	el fram	ing with	plastic s	shroud	
UU ⁻	T Mounting Details:			ist of Ir	nclude	d Subc	ompon	ents	
	RF	OSP-0	769 De	scriptio	on		Mode	I #	Wt. (lbs.)
	PHILIPS	BY: Mohamma DATE: 07/0	ad Karim						
M16 screws. Unit maintained st operational per ma	ounted to table using (ructural integrity and anufacturer requireme Il contents were inclu conditions.	remained nt following							



		UUT	۲2	Test	Repo	rt# B2:	3X8050	7		
	ilips Healthcare 5300	(Suzhou) Co., Ltd.	S _{DS}	High z/h		ssed Test Level				
Model Number: CT	128PGB200 Duch		2.0 2.5	1 0	Ι _p 1.5	A _{flx-h} 3.2	A _{rig-h} 2.4	Α_{flx-v} 1.68	A _{rig-v} 0.68	
^{1,2} Dime	nsions/Weigh	ts		Lowest	Natur	al Freq	uency (Hz)		
Depth (in) Width (in) 176 28	Height (in) 34	Weight (Ibs.) 772	Front-B 11.33	ack		de-Side 3.12		Vertio 3.52		
Building Codes	Te	est Criteria CO	DECO	Constr	uction	/Option	Summ	ary		
CBC 2022		C-ES AC156	Ca	rbon ste	el fram	ing with	plastic	shroud		
UUT M	ounting Detail			ist of l	nclude	d Subc	ompon	ents		
	R	OSP-(D769 De	scriptio	on		Mode	I #	Wt. (Ibs.)	
		BY: Mohamn	had Karim		0					
			05/2023							
	-									
	- Mar	MAN	TNGC							
A P		BUILD	DING							
UUT rigid base mount	ed to table using	1 (6) Grade 8 8	Notes:							
M16 screws.			¹ Listed Dep and tested			s maximu	ım extei	nded op	erating	

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

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 $^{\rm 2}$ Listed weight of couch does not include 414.5 lbs. of

simulated patient weight also tested.



		UUT	ГЗ	Test	Repo	ort# B23	3X8050	7	
Manufacturer:	Hewlett Packard (H	IP)			est Pa	ssed Te	est Leve	el	
Model Line: Model Number: Component:	CT 5300 CT128PGA300 Standard Console		S _{DS} 2.0 2.5	z/h 1 0	Ι _p 1.5	A _{flx-h} 3.2	A _{rig-h} 2.4	Α_{flx-v} 1.68	A_{rig-v} 0.68
Di Depth (in) Width 17.5 8. Building Code	5 21.7	Weight (lbs.) 60 st Criteria	Front-B 24.22	ack 2	Sic	al Frequ de-Side 23.05 /Option		Vertic >33.	
CBC 2022	ICC	ES AC156		\mathcal{O}		ing with			
UU	T Mounting Details	: OSP-	0769 L	ist of l	nclude	d Subc	ompon	ents	
			Demad Karim	SCriptio	on		Mode		Wt. (lbs.)
M10 screws and r mounting kit #459 Unit maintained s operational per m	tructural integrity and anufacturer requirem All contents were incl	d seismic I remained ent following							

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		UUJ	Γ4	Test	t Repo	ort# B23	3X8050	7	
Manufacturer:	Hewlett Packard (H	P)			est Pa	ssed Te	st Leve	el	
Model Line: Model Number: Component:	CT 5300 CT128PGA300 Premium Console		S _{DS} 2.0 2.5	z/h 1 0	Ι _p 1.5	A _{flx-h} 3.2	A _{rig-h} 2.4	Α_{flx-v} 1.68	A _{rig-v} 0.68
Dir Depth (in) Width 17.5 8.5 Building Code	5 21.7	Weight (lbs.) 60 st Criteria	Front-B 24.23	a ck 2	Sic	al Frequ de-Side 23.05 /Option		Vertic >33.	
CBC 2022	ICC	-ES AC156		$\sqrt{2}$		ing with			
UU	T Mounting Details	: OSP-	0769 I	ist of l	nclude	d Subc	ompon	ents	
			05/2023	escriptio	on		Mode		Wt. (lbs.)
M10 screws and m mounting kit #459 Unit maintained st operational per ma	ructural integrity and anufacturer requireme Il contents were inclu	l seismic remained ent following							

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UUT Test Report# B23X80507 Manufacturer: Grayhill Electronics (Shenzen) Co., **Highest Passed Test Level** Ltd. A_{flx-h} $\mathbf{A}_{\mathsf{flx-v}}$ S_{DS} z/h A_{ria-h} A_{riq-v} l_p CT 5300 Model Line: 2.0 1 1.5 3.2 2.4 1.68 0.68 Model Number: CT128PGA301 2.5 0 **Component:** CT Box Dimensions/Weights Lowest Natural Frequency (Hz) Height (in) Depth (in) Width (in) Weight (lbs.) Front-Back Side-Side Vertical 13.4 4.7 1.8 2.2 >33.3 >33.3 >33.3 **Construction/Option Summary Building Codes Test Criteria** CBC 2022 **ICC-ES AC156 Plastic Housing UUT Mounting Details:** List of Included Subcomponents Wt. Description Model # (lbs.) BY: Mohammad Karim 07/05/2023 DING COD BUIL UUT rigid base mounted to table using (2) strips of 3M Dual Lock. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

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UUT 6 Test Report# B23X80507 Manufacturer: **Highest Passed Test Level** Shenzhen Beacon Display Technology z/h A_{flx-h} A_{rig-h} $\mathbf{A}_{\mathsf{flx-v}}$ Co.,Ltd S_{DS} A_{riq-v} l_p Model Line: **BB & Ingenuity** 2.0 1 1.5 3.2 2.4 1.68 0.68 Model Number: CTBOXPGB100 2.5 0 **Component:** CT Box Lowest Natural Frequency (Hz) Dimensions/Weights Height (in) Depth (in) Width (in) Weight (lbs.) Front-Back Side-Side Vertical 15.8 4 3.5 4 >33.3 >33.3 >33.3 **Construction/Option Summary Building Codes Test Criteria** CBC 2022 **ICC-ES AC156 Plastic Housing UUT Mounting Details:** List of Included Subcomponents Wt. Description Model # (lbs.) Mohammad Karim 07/05/2023 DING COD BLIT UUT rigid base mounted to table using (2) strips of 3M Dual Lock. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

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		UUT	Γ7	Test	Repo	rt# B23	3X8050	7	
Manufacturer:	Shenzhen Beacon		Highe	est Pa	ssed Te	est Leve	el		
Model Line:	Co.,Ltd ICT & IQON & Haw	k	S_{DS} 2.0	z/h 1	۱ _р	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
Model Number:	-	r.	2.0	0	1.5	3.2	2.4	1.68	0.68
Component:	CT Box								
Di	mensions/Weights	5	L.	owest	Natur	al Frequ	uencv (Hz)	
Depth (in) Width	i (in) Height (in)	Weight (lbs.)	Front-Ba		Sic	le-Side		Vertio	
15.8 4	3.5	4	>33.3		>	>33.3		>33.	3
Building Code	es Te	est Criteria	DE CONS	onstru	uction	/Option	Summ	ary	
CBC 2022		C-ES AC156		2	Plasti	c Housir	ng		
	ALL N			Z	_				
UU	T Mounting Detail	s: OSP-	0769 Li	st of Ir	nclude	d Subc	ompon	ents	
			Des	criptic	on		Mode	I #	Wt. (Ibs.)
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1.00	1 522 A								
10.00		14							
UUT rigid base mo	ounted to table using	g (2) strips of							
3M Dual Lock.		-							
	ructural integrity and anufacturer requirem								
	All contents were inc	-							

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unit per operating conditions.



UUT 8 Test Report# B23X80507 Manufacturer: **Highest Passed Test Level** Shenzhen Beacon Display Technology z/h A_{flx-h} $\mathbf{A}_{\mathsf{flx-v}}$ Co.,Ltd S_{DS} A_{ria-h} A_{riq-v} l_p Model Line: Oceanus 2.0 1 1.5 3.2 2.4 1.68 0.68 Model Number: CTBOXPGB102 2.5 0 **Component:** CT Box **Dimensions/Weights** Lowest Natural Frequency (Hz) Height (in) Depth (in) Width (in) Weight (lbs.) Front-Back Side-Side Vertical 15.8 4 3.5 4 >33.3 >33.3 >33.3 **Construction/Option Summary Building Codes Test Criteria** CBC 2022 **ICC-ES AC156 Plastic Housing UUT Mounting Details:** List of Included Subcomponents Wt. Description Model # (lbs.) Mohammad Karim БY 07/05/2023 DING COD BLITI UUT rigid base mounted to table using (2) strips of 3M Dual Lock. Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

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		UU [.]	T 9	Test	Repo	rt# B2:	3X8050	7	
Manufacturer:	Manufacturer: Cetc Ecrieepower (Anhui) Co., Ltd.					ssed Te			
Model Line: Model Number: Component:	CT 5300 PHI-PDU-115kVA-3 PDU	380-480V	S _{DS} 2.0 2.5	z/h 1 0	Ι _p 1.5	A _{flx-h} 3.2	A _{rig-h} 2.4	Α_{flx-v} 1.68	A_{rig−v} 0.68
	nensions/Weights			Lowest			uency (
Depth (in) Width 28 25	(in) Height (in) 29	Weight (Ibs.) 344	Front-B 24.22			de-Side 23.05		Vertio >33.	
Building Codes	То	st Criteria	DECO	Constr	uction	/Ontion	Summ	orv.	
CBC 2022		C-ES AC156		rbon ste					
000 2022	- All			Thom sto	, cr mann	ing with		Sinouu	
UUT	Mounting Details	s: OSP-	-0769 L	ist of l	nclude	d Subc	ompon	ents	
		DV · Mohom	De mad Karim	escriptio	on		Mode	I #	Wt. (lbs.)
M10 screws. Unit maintained str	unted to table using uctural integrity and nufacturer requirem	(6) Grade 8.8 remained							

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unit per operating conditions.

shake table test. All contents were included in the