

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC	OFFICE USE ONLY						
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP-0769						
HCAI Special Seismic Certification Preapproval (OSP)							
Type: X New Renewal							
Manufacturer Information							
Manufacturer: Philips Healthcare (Suzhou) Co., Ltd.							
Manufacturer's Technical Representative: Mingyuan Zhao							
Mailing Address: 258 Zhongyuan Rd, Suzhou Industrial Park, Suzhou, Jiangsi	u, China, 215121						
Telephone: 188 4245-8096 Email: MingYuan.ZHAO@	philips.com						
EOR CODE COA							
Product Information							
Product Name: CT Systems	É.						
Product Type: NA	13						
Product Model Number: CT 5300	1 m						
General Description: Computed Tomography (CT) Medical Imaging System	n						
Mounting Description: Rigid, Floor Mounted							
Tested Seismic Enhancements: None DATE: 07/05/2023	2						
	0,						
Applicant Information	4.						
Applicant Company Name: Pre Compliance							
Contact Person: Galen Reid							
Mailing Address: 36 SW Wall Street, Bend, OR 97702							
Felephone: (541) 241-2310 Email: galen@go-pre.com							
Title: Principal & Program Manager							

"A healthier California where all receive equitable, affordable, and quality healthcare"

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY





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California Licensed Structural Engineer Responsit	ple for the Engineering and Test Report(s)						
Company Name: PRE COMPLIANCE							
Name: Andrew Coughlin	California License Number: S6082						
Mailing Address: 36 SW Wall Street, Bend, OR 97702							
Telephone: (415) 635-8461 Email:	Andy@go-pre.com						
Certification Method							
GR-63-Core X ICC-ES AC156 [☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3						
Other (Please Specify):							
COR	CODE CO						
Testing Laboratory	Mp.						
Company Name: CHINA TELECOMMUNICATION TECHN	OLOGY LABS (CTTL)						
Contact Person: Cuilan Fang	2						
Mailing Address: No.299, Tengfei Road, Industrial Park, Lianchi District, Baoding, Hebei, China							
Telephone: +86 0312-6798950 Emai	l: cuilanfang@caict.ac.cn						
DATE: (07/05/2023						
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Design Basis of Equipment or Components (Fp/Wp) = 2.4 (SDS = 2.0); 1.13 (SDS = 2.5)

SDS (Design spectral response acceleration at short period, g) = 2.0 (z/h = 1); 2.5 (z/h = 0)

ap (Amplification factor) =

Rp (Response modification factor) = 1.5

 Ω_0 (System overstrength factor) = 2.0

1.5 Ip (Importance factor) =

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 07/05/2029

Date: 7/5/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

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

Condition of Approval (if applicable):



SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENTS

Pre No. CC231005-01-R0

Manufacturer: Philips Healthcare (Suzhou) Co., Ltd.

Seismic Parameters

Building Codes

Product Type: CT System **Model Line:** CT 5300

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

 $I_p = 1.5$

CBC 2022

TABLE 1

Mounting Configuration: Base Mounted - Rigid

Construction Summary

Options Summary

CT Boxes: Plastic case.

Consoles/PDU: Carbon steel enclosure

Standard or Premium console available

Gantry/Couch: Carbon steel frame with plastic shroud

0	Manufacturer	D THE	Max. Dimensions (in)			¹ Wt.	Notes	UL
Component		Model	D	W	Н	(lb)	Notes	
Gantry	Philips Healthcare (Suzhou) Co., Ltd.	CT128PGA100	92	38	77	4784		,
Couch	Philips Healthcare (Suzhou) <mark>Co.,</mark> Ltd.	CT128PGB200	69 ₁₇₆	28	34	772		
Console	Hewlett Packard (HP)	CT128PGA300	K _{17.15} m	8.5	21.7	60		3
	Grayhill Electronics (Shenzen) Co., Ltd.	/CT128PGA3015/	203.4	4.7	1.8	2.2		
CT Box	Shenzhen Beacon	CTBOXPGB100	15.8	4	3.5	4		
	Display Technology Co.,Ltd	CTBOXPGB101	15.8	4	3.5	4		
		CTBOXPGB102	15.8	4	3.5	4		
PDU	Cetc Ecrieepower (Anhui) Co., Ltd.	PHI-PDU-115kVA- 380-480	138	25	29	344		
	couch does not include							

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

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SPECIAL SEISMIC CERTIFICATION TESTING SUMMARY

UUT	Component	Test Report	¹ Test Laboratory	S _{DS}	z/h	I _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	Mo 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	CAICT	2.0 2.5	1.0 0.0	1.5
9	PDU	B ₂₃ x ₈₀₅₀₇ mad Ka	rim CAICT	2.0 2.5	1.0 0.0	1.5
		DATE: 07/05/202	23			
			2			
		PNIA BUILDING	CODE.			
		BUILDING				
NI.I.						

Notes:

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¹ China Academy of Information and Communications Technology (CAICT)



 I_{p}

1.5

Test Report# B23X80507

z/h

1

0

Manufacturer: Philips Healthcare (Suzhou) Co., Ltd.

Dimensions/Weights

Height (in)

77

Model Line: CT 5300 Model Number: CT128PGA100

38

Component: Gantry

Lowest Natural Frequency (Hz)

Highest Passed Test Level

 A_{flx-h}

3.2

 A_{rig-h}

2.4

Model#

 $\boldsymbol{A}_{\text{flx-v}}$

1.68

 A_{rig-v}

0.68

Wt.

(lbs.)

Front-Back Side-Side Vertical 8.98 7.81 29.3

Building Codes

CBC 2022

Depth (in) Width (in)

92

Test Criteria

Weight (lbs.)

4784

Construction/Option Summary

List of Included Subcomponents

ICC-ES AC156 Carbon steel framing with plastic shroud

Description

 S_{DS}

2.0

2.5

UUT Mounting Details: Mohammad Karim

M16 screws.

shake table test. All contents were included in the unit per operating conditions.

UUT rigid base mounted to table using (8) Grade 8.8 Unit maintained structural integrity and remained operational per manufacturer requirement following



Test Report# B23X80507

Manufacturer: Philips Healthcare (Suzhou) Co., Ltd.

Model Line: CT 5300

Model Number: CT128PGB200

Component: Couch

Highest Passed Test Level							
	S _{DS}	z/h	l _p	A_{flx-h}	A _{rig-h}	A_{flx-v}	A_{rig-v}
	2.0	1	1.5	3.2	2.4	1 60	0.68
	2.5	0	1.5	3.2	۷.4	1.00	0.00

^{1,2}Dimensions/Weights

Depth (in) Width (in) Height (in) Weight (lbs.) 176 772 28 34

UUT Mounting Details:

Lowest Natural Frequency (Hz)

Front-Back Side-Side Vertical 11.33 3.52 3.12

Building Codes CBC 2022

Test Criteria

Construction/Option Summary

List of Included Subcomponents

Model#

Wt.

(lbs.)

Carbon steel framing with plastic shroud

ICC-ES AC156



Description

UUT rigid base mounted to table using (6) Grade 8.8 M16 screws.

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

Notes:

¹ Listed Depth dimension is maximum extended operating and tested position.

² Listed weight of couch does not include 414.5 lbs. of simulated patient weight also tested.

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List of Included Subcomponents

Model#

Wt.

(lbs.)

UUT 3 Test Report# B23X80507

Description

Manufacturer: Hewlett Packard (HP) Highest Passed Test Level

 A_{flx-h} A_{rig-h} $\boldsymbol{A}_{\text{flx-v}}$ SDS z/h A_{riq-v} I_{p} **Model Line:** CT 5300 2.0 1 1.5 3.2 2.4 1.68 0.68 Model Number: CT128PGA300 0 2.5

Component: Standard Console

Dimensions/Weights Lowest Natural Frequency (Hz)

 Depth (in)
 Width (in)
 Height (in)
 Weight (lbs.)
 Front-Back
 Side-Side
 Vertical

 17.5
 8.5
 21.7
 60
 24.22
 23.05
 >33.3

Building Codes Test Criteria Construction/Option Summary

CBC 2022 ICC-ES AC156 Carbon steel framing with plastic shroud

Details: OS P-0769 L BY: Mohammad Karim DATE: 07/05/2023

UUT rigid base mounted to table using (4) Grade 8.8 M10 screws and manufacturer provided seismic mounting kit #459801768771.

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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List of Included Subcomponents

Model#

Wt.

(lbs.)

Test Report# B23X80507

Description

Manufacturer: Hewlett Packard (HP) **Highest Passed Test Level**

 A_{flx-h} A_{rig-h} $\boldsymbol{A}_{\text{flx-v}}$ SDS z/h A_{riq-v} I_{p} **Model Line:** CT 5300 2.0 1 1.5 3.2 2.4 1.68 0.68 0 2.5

Model Number: CT128PGA300 Component: Premium Console

> **Lowest Natural Frequency (Hz)** Dimensions/Weights

Height (in) Depth (in) Width (in) Weight (lbs.) Front-Back Side-Side Vertical 24.22 17.5 8.5 21.7 60 23.05 >33.3

Construction/Option Summary **Building Codes Test Criteria**

CBC 2022 ICC-ES AC156 Carbon steel framing with plastic shroud

07/05/2023

UUT Mounting Details: Mohammad Karim

UUT rigid base mounted to table using (4) Grade 8.8 M10 screws and manufacturer provided seismic mounting kit #459801768771.

operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

Unit maintained structural integrity and remained



Test Report# B23X80507

Manufacturer: Grayhill Electronics (Shenzen) Co.,

CT 5300 **Model Line:** Model Number: CT128PGA301

Component: CT Box

 A_{flx-h} $\boldsymbol{A}_{\text{flx-v}}$ SDS z/h A_{riq-h} A_{riq-v} I_{p} 2.0 1 1.5 3.2 2.4 1.68 0.68

2.5 0

Front-Back

Dimensions/Weights Height (in) Depth (in) Width (in) Weight (lbs.) 13.4 4.7 1.8

2.2

Lowest Natural Frequency (Hz)

Highest Passed Test Level

>33.3

Description

Side-Side >33.3

Vertical >33.3

Building Codes

Test Criteria

Construction/Option Summary

CBC 2022

ICC-ES AC156

Plastic Housing

List of Included Subcomponents



UUT Mounting Details:

07/05/2023

Wt. Model# (lbs.)

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.



 I_{p}

1.5

z/h

1

0

SDS

2.0

2.5

UUT 6 Test Report# B23X80507

Manufacturer: **Highest Passed Test Level** Shenzhen Beacon Display Technology

Co.,Ltd

Model Line: BB & Ingenuity Model Number: CTBOXPGB100

Component: CT Box

> Lowest Natural Frequency (Hz) Dimensions/Weights

> > 07/05/2023

Height (in) Depth (in) Width (in) Weight (lbs.) Front-Back Side-Side Vertical 15.8 3.5 4 >33.3 >33.3 >33.3

Building Codes

Test Criteria

Construction/Option Summary

 A_{flx-h}

3.2

 A_{rig-h}

2.4

 $\boldsymbol{A}_{\text{flx-v}}$

1.68

 A_{riq-v}

0.68

Wt.

(lbs.)

CBC 2022 ICC-ES AC156 Plastic Housing



List of Included Subcomponents Description Model#

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.



UUT 7 Test Report# B23X80507

Manufacturer: Shenzhen Beacon Display Technology

Co.,Ltd

Model Line: ICT & IQON & Hawk **Model Number:** CTBOXPGB101

Component: CT Box **Highest Passed Test Level**

1.5

z/h A_{flx-h} $\boldsymbol{A}_{\text{flx-v}}$ SDS A_{riq-h} A_{riq-v} I_{p} 2.0 1 3.2

2.5

0

2.4 1.68

0.68

Wt.

(lbs.)

Dimensions/Weights

Height (in) Depth (in) Width (in) Weight (lbs.) 15.8 4

3.5

Lowest Natural Frequency (Hz)

Front-Back >33.3

Side-Side >33.3

Vertical >33.3

Building Codes

Test Criteria

Construction/Option Summary

CBC 2022

ICC-ES AC156

Plastic Housing

List of Included Subcomponents



Description Model# Iohammad Karim

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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Test Report# B23X80507 Manufacturer: **Highest Passed Test Level** Shenzhen Beacon Display Technology z/h A_{flx-h} $\boldsymbol{A}_{\text{flx-v}}$ Co.,Ltd SDS A_{riq-h} A_{riq-v} I_{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)

Depth (in) Width (in) Height (in) Weight (lbs.)

15.8 4 3.5 4 >33.3 >33.3 >33.3

Building Codes

Test Criteria

Construction/Option Summary

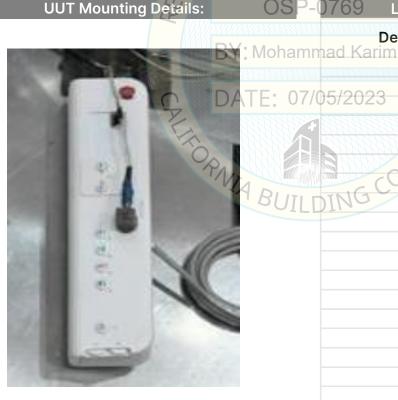
CBC 2022

ICC-ES AC156

Plastic Housing

Wt.

(lbs.)



OSP-0769 List of included Subcomponents

Description Model #

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.



Test Report# B23X80507

Manufacturer: Cetc Ecrieepower (Anhui) Co., Ltd.

Model Line: CT 5300

Model Number: PHI-PDU-115kVA-380-480V

Component: PDU

 A_{flx-h} A_{rig-h} $\boldsymbol{A}_{\text{flx-v}}$ SDS z/h I_{p} 2.0 1

1.5

Highest Passed Test Level

2.5 0 3.2 2.4 1.68 0.68

Model#

Dimensions/Weights

Height (in) Depth (in) Width (in) Weight (lbs.) 28

25 29 344 **Lowest Natural Frequency (Hz)**

Front-Back Side-Side 24.22

Description

23.05

Vertical >33.3

 A_{riq-v}

Wt.

(lbs.)

Building Codes CBC 2022

Test Criteria

ICC-ES AC156

Construction/Option Summary

Carbon steel framing with plastic shroud

List of Included Subcomponents

UUT Mounting Details: RY Mohammad Karim 07/05/2023

UUT rigid base mounted to table using (6) Grade 8.8 M10 screws.

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