



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

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0871

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Shanghai United Imaging Healthcare Co., Ltd.

Manufacturer's Technical Representative: Xin GAO

Mailing Address: 2258 Chengbei Rd., Jiading District, Shanghai 201807

Telephone: +86 (21) 67076888 Email: xin.gao@united-imaging.com

Product Information

Product Name: uMI Panorama GS PET-CT System

Product Model Number(s): See attachments

Product Category: CT Systems

Product Sub-Category: CT Systems

General Description: Multiple component system used for producing Computed Tomography (CT) medical images for diagnostic results.

Mounting Description: Base Mounted Rigid

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: WE Gundy & Associates, Inc

Contact Person: Travis Soppe

Mailing Address: PO Box 9121, Boise, ID 83707

Telephone: (208) 342-5989 Email: tsoppe@wegai.com

Title: President



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

Company Name: W.E. GUNDY & ASSOCIATES INC.

Name: Travis Soppe

California License Number: S6115

Mailing Address: P.O. Box 9121, Boise, ID 83707

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☒ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: SUZHOU ELECTRICAL APPARATUS SCIENCE RESEARCH INSTITUTE CO., LTD. (EETI)

Contact Person: Hui Yang

Mailing Address: No. 5, Yuexi Qianzhu Road, Wuzhong District, Suzhou Jiangsu 215104

Telephone: (5126) 955-2195

Email: eeti-kz@eeti.cn

BY: Mohammad Karim

DATE: 12/31/2025



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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =	See Attachment
SDS (Design spectral response acceleration at short period, g) =	SDS = 2.5 @ $z/h = 0$ and 2.0 @ $z/h = 1$
a_p (Amplification factor) =	See Attachment
R_p (Response modification factor) =	See Attachment
Ω_0 (System overstrength factor) =	See Attachment
I_p (Importance factor) =	1.5
z/h (Height ratio factor) =	0 and 1
Natural frequencies (Hz) =	See Attachment
Overall dimensions and weight =	See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 12/31/2031

Date: 12/31/2025		
Name: Mohammad Karim	Title: Supervisor, Health Facilities	
Special Seismic Certification Valid Up to: SDS (g) = 2.0	$z/h = 1$	
Condition of Approval (if applicable):		

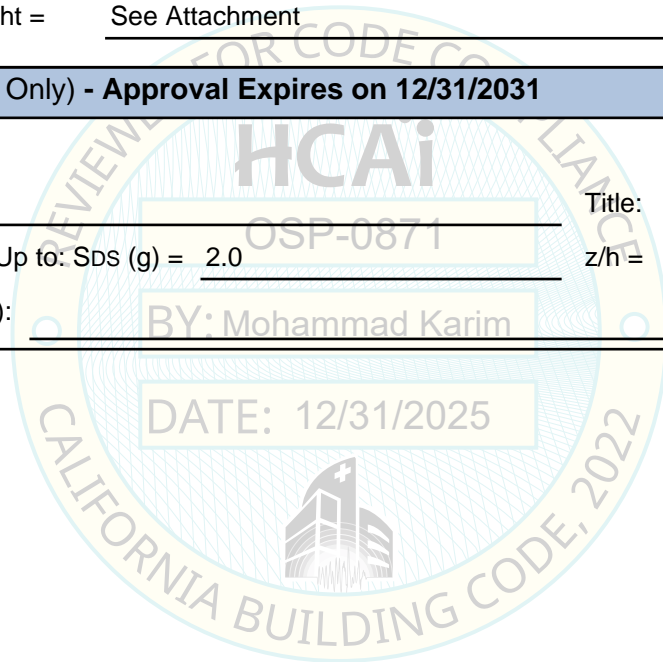




Table 1	SHANGHAI UNITED IMAGING HEALTHCARE Co., Ltd SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS					 W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
System: uMI Panorama GS PET-CT Systems			Manufacturer: Shanghai United Imaging Healthcare Co., Ltd					
System Component ¹	United Imaging Part Number	Dimensions (in)			Weight (lb)	Mountin g	UUT ³	
		Width	Length	Height				
CT Gantries								
U80P Panorama GS CT	78006465	88.0	34.9	80.1	4731	floor	UUT _x -1A	
PET Gantries ⁴								
uMI Panorama 35 PET Gantry with Single Base	78011741	74.8	20.9	68.1	2024	floor	UUT _x -1B	
uMI Panorama GS_PET Gantry with Tripple Base	18060606 18030374	76.5	83.8	68.1	3168	floor	UUT _y -1	
Patient Support ²								
PET-CT Table Horizon	78012859	20.1	163.3-262.1	43.8	2315	floor	UUT _y -2	
Cooling Systems								
uMI Panorama GS_Water Chiller (Water Cooled) HRSH250-W-20-AKMST	78009599	27.0	28.1	48.6	485	floor	UUT _y -5	
uMI Panorama GS_Water Chiller (Air Cooled) HRSH300-A-20-AKMS	78009600	40.7	33.5	67.7	670	floor	UUT _y -4	
Notes: ¹ All components are manufactured by Shanghai United Imaging Healthcare Co., Ltd. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. ² Patient table weight does not include 441lb simulated patient weight. ³ The units were tested at different times and the subscripts on the UUT's reference the following lab test reports: x - 1340-07 / y - 1340-08 ⁴ UUTx-1A/B make up the combined PET-CT Gantry system including the interconnecting enclosure design. UUTy-1 is the PET Gantry of the GS PET-CT system with the extended base assembly that can support three PET Gantries. A total of three PET Gantries make up the GS PET-CT system and these gantries are independently mounted to the combined tripple PET Gantry base. Only one GS PET gantry was tested on the tripple base the base load path is equally anchored under each individual gantry.								
SEISMIC CERTIFICATION LIMITS								
System Component	Code	S _{DS} (g)	z / h	I _P	a _p	R _P	Ω ₀	F _P / W _P
CT and PET Gantries	CBC 2022	2.0	1.0	1.50	1.0	1.5	1.5	2.40
		2.5	0					1.13
Patient Support		2.0	1.0	1.50	1.0	1.5	1.5	2.40
		2.5	0					1.13
Cooling Systems		2.0	1.0	1.50	1.0	2.5	2.0	1.44
		2.5	0					1.13

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System: uMI Panorama GS PET-CT Systems				Manufacturer: Shanghai United Imaging Healthcare Co., Ltd				
System Component ¹	United Imaging Part Number	Dimensions (in)			Weight (lb)	Mountin g	UUT ³	
		Width	Length	Height				
Power Supply Cabinet								
uMI Panorama GS_PSC PS-85K-0000-AB1	78008083	43.3	33.5	78.3	2116	floor	UUT _y -3	
PC Console Cabinet								
Console Cabinet	18052920	34.7	29.1	31.5	280	floor	UUT _y -6	
Subcomponents	Subcomponents	ID	Notes					
	Console PC Panorama GS	60019807	60 lb, 17.5 x 21.7 x 8.5 in					
Reconstruction Server Cabinet								
RCS Cabinet	18072721	25.6	47.2	72.8	798	floor	UUT _y -7/8/9/10	
Subcomponents	Subcomponents	ID	Notes			UUT		
	CT RECON PC	60008085	46 lb, 17.2 x 20.5 x 7.0 in			UUT _y -7/8/9/10		
	PET ACQ PC0 / PC1	60012595	90 lb, 17.2 x 29.0 x 7.0 in			UUT _y -7/8/9/10		
	CT Rio Plus RECON PC	60009013	91 lb, 17.2 x 29.0 x 7.0 in			UUT _y -7/8/9/10		
	PET RECON PC0	60018311	99 lb, 17.2 x 29.0 x 7.0 in			interpolated		
	PET RECON PC1	60018312	108 lb, 19.0 x 32.7 x 6.9 in			UUT _y -7/8/9/10		
Notes: ¹ All components are manufactured by United Imaging Healthcare Co., Ltd. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. ² Patient table weight does not include 441b simulated patient weight. ³ The units were tested at different times and the subscripts on the UUT's reference the following lab test reports: x - 1340-07 / y - 1340-08 ⁴ UUTx-1A/B make up the combined PET-CT Gantry system including the interconnecting enclosure design. UUTy-1 is the PET Gantry of the GS PET-CT system with the extended base assembly that can support three PET Gantries. A total of three PET Gantries make up the GS PET-CT system and these gantries are independently mounted to the combined tripple PET Gantry base. Only one GS PET gantry was tested on the tripple base the base load path is equally anchored under each individual gantry.								
SEISMIC CERTIFICATION LIMITS								
System Component	Code	S _{DS} (g)	z / h	I _P	a _P	R _P	Ω ₀	F _P / W _P
Power Supply Cabinets	CBC 2022	2.0	1.0	1.50	1.0	2.5	2.0	1.44
		2.5	0					1.13
PC Console Cabinet		2.0	1.0	1.50	1.0	2.5	2.0	1.44
		2.5	0					1.13
RCS Cabinet		2.0	1.0	1.50	1.0	2.5	2.0	1.44
		2.5	0					1.13

UUT_x-1A

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (8) M16 grade 12.9 bolts



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: U80P Panorama CT

Test Date: June 27, 2023

Model Number: 78006465

Report Number: 1340-07

UUT Function: Continuous rotating x-ray to generate diagnostic imaging

UUT Description: Component of the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
4,731	88.0	34.9	80.1	10.3	11.2	8.3

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 _{RIG-V} (g)
CBC 2022	2.00	1.0	1.5	3.20	2.40	-	-
IEEE 344 / ICC-ES AC156	2.50	0	1.5	-	-	1.67	0.67

Note: The unit was tested in accordance with the IEEE 344 standard while following and meeting the ICC-ES A156 criteria. The unit was full of contents during testing and remained functional before and after the IEEE 344 / ICC-ES AC156 test. The unit maintained structural integrity during and after the IEEE 344 / ICC-ES AC156 test.

UUT_x-1B

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (8) M12 grade 12.9 bolts



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: uMI Panorama 35 PET

Test Date: June 27, 2023

Model Number: 78011741

Report Number: 1340-07

UUT Function: Use of small amounts of radioactive material to generate diagnostic imaging

UUT Description: Component of the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2,024	74.8	20.9	68.1	19.0	9.8	9.8

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 _{RIG-V} (g)
CBC 2022	2.00	1.0	1.5	3.20	2.40	-	-
IEEE 344 / ICC-ES AC156	2.50	0	1.5	-	-	1.67	0.67

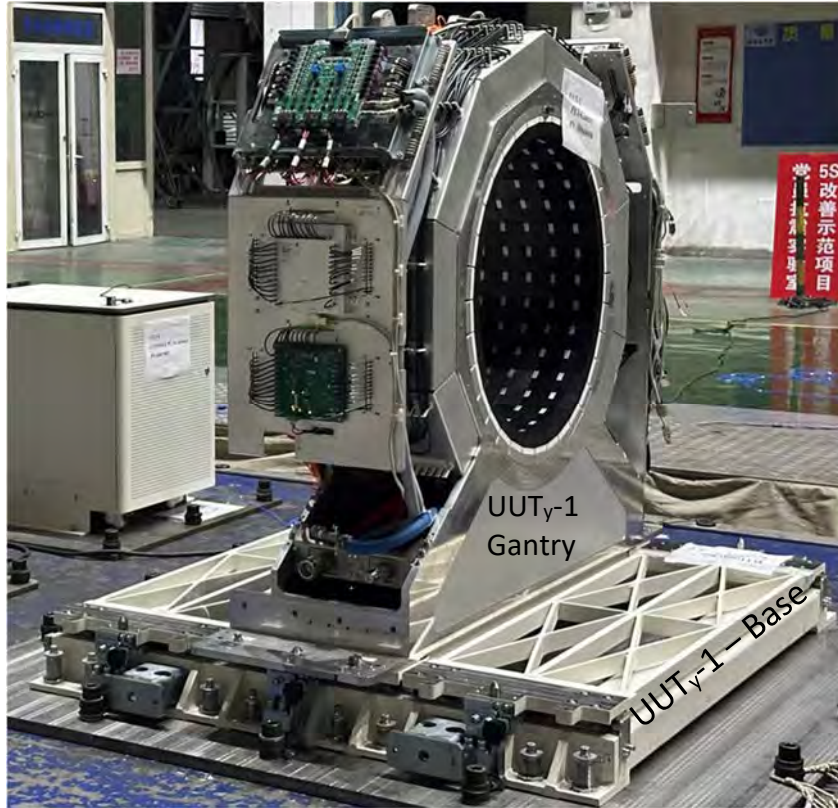
Note: The unit was tested in accordance with the IEEE 344 standard while following and meeting the ICC-ES A156 criteria. The unit was full of contents during testing and remained functional before and after the IEEE 344 / ICC-ES AC156 test. The unit maintained structural integrity during and after the IEEE 344 / ICC-ES AC156 test.

UUT_y-1

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (16) M12 grade 12.9 bolts



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: uMI Panorama GS PET Gantry
with Tripple Base

Test Date: October 29, 2024

Model Number: 18060606 / 18030374

Report Number: 1340-08

UUT Function: Use of small amounts of radioactive material to generate diagnostic imaging

UUT Description: PET Gantry component of the uMI Panorama GS PET-CT system

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
3,168	76.5	83.8	68.1	14.0	> 33	> 33

Note: The tested system consists of the PET Gantry weighing 1603lbs with dimensions of 74.8 x 19.1 x 61.0 inches mounted to the PET Gantry Tripple Base weighing 1565lbs with dimensions of 76.5 x 83.8 x 7.1 inches.

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	2.50	0	1.5	-	-	1.67	0.67

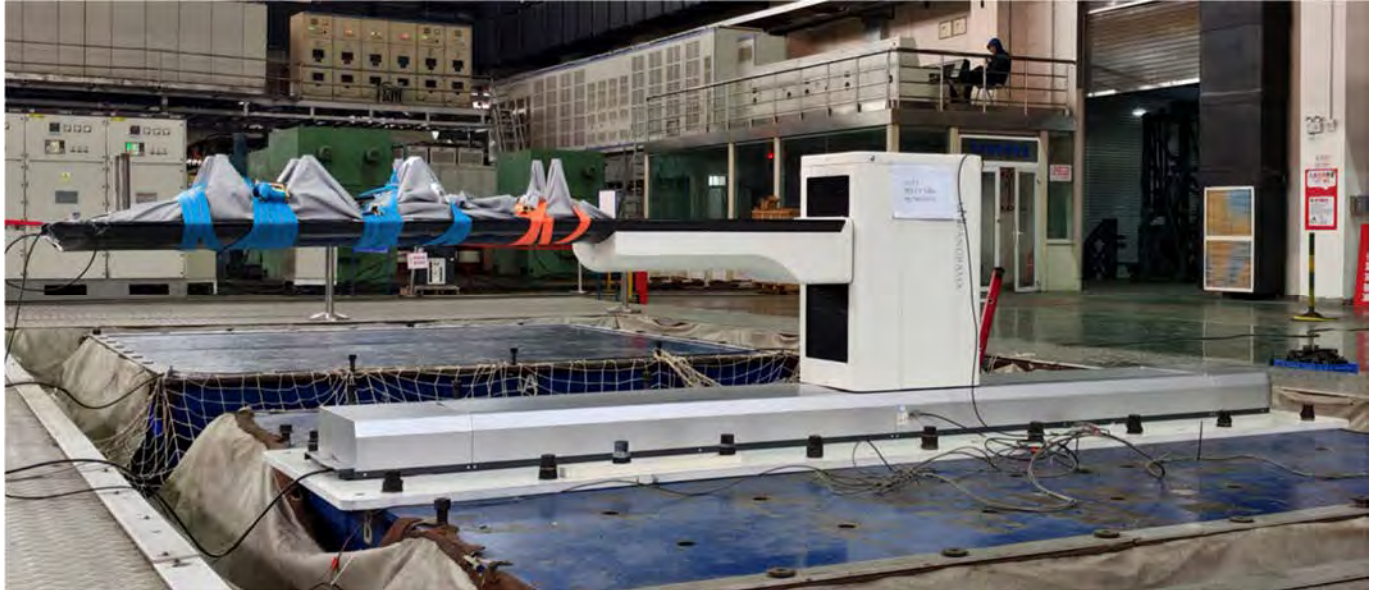
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-2

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (20) M12 grade 12.9 bolts



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: PET-CT Table Horizontal

Test Date: December 19, 2024

Model Number: 78012859

Report Number: 1340-08

UUT Function: Motorized patient support

UUT Description: Patient support for the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb) with Patient	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Length	Height	FB	SS	V
2,756	20.1	195.0	43.8	4.0	4.0	> 33

The patient table moves vertically / horizontally to accommodate different positions and procedures. The system was tested in the normal operating position, with the table centered, height extended 10 in, and a total simulated patient weight of 441 lbs.

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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 floor mounted with (8) M12 grade 12.9 bolts thru United Imaging seismic anchorage brackets (78005842).



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: uMI Panorama GS_PSC
PS-85K-0000-AB1

Test Date: November 08, 2024

Model Number: 78008083

Report Number: 1340-08

UUT Function: Power Supply Cabinet

UUT Description: Component of the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2,116	43.3	33.5	78.3	10.0	15.0	>33.0

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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-4

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (8) M12 grade 12.9 bolts thru United Imaging angle brackets (78009599, 78009600) with (3) M12 screws per bracket to the chiller



Manufacturer: United Imaging Healthcare	Test Location: EETI (Suzhou, CHINA)
Component: uMI Panorama GS_Water Chiller HRSH300-A-20-AKMS (Air Cooled)	Test Date: October 30, 2024
Model Number: 78009600	Report Number: 1340-08

UUT Function: Air Cooled Chiller

UUT Description: Component of the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
670	40.7	33.5	67.7	9.0	15.0	19.0

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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-5

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounted with (8) M12 grade 12.9 bolts thru United Imaging angle brackets (78009599, 78009600) with (3) M12 screws per bracket to the chiller



Manufacturer: United Imaging Healthcare	Test Location: EETI (Suzhou, CHINA)
Component: uMI Panorama GS_Water Chiller HRSH250-W-20-AKMST (Water Cooled)	Test Date: October 29, 2024
Model Number: 78009599	Report Number: 1340-08

UUT Function: Water Cooled Chiller

UUT Description: Component of the uMI Panorama GS PET-CT systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
485	27.0	28.1	48.6	25.0	9.0	26.0

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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-6

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Cabinet is Rigid floor mounted with (4) M12 grade 12.9 bolts thru United Imaging seismic anchorage brackets (60019807).



Manufacturer: United Imaging Healthcare

Test Location: EETI (Suzhou, CHINA)

Component: CONSOLE PC - Panorama GS

Test Date: October 29, 2024

Model Number: 18052920

Report Number: 1340-08

UUT Function: Console PC

UUT Description: Console Cabinet with internally mounted Console PC (60019807). The Console PC mounts to the inside of the cabinet using seismic restraint brackets (18042256).

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
280	34.7	29.1	31.5	23.0	10.0	19.0

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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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 -7/8/9/10		UNIT UNDER TEST (UUT) SUMMARY SHEET					
Mounting Details:		Cabinet is Rigid floor mounted with (8) M12 grade 12.9 bolts thru United Imaging seismic anchorage brackets (18097495).					
							
Manufacturer: United Imaging Healthcare				Test Location: EETI (Suzhou, CHINA)			
Component: RSC Cabinet				Test Date: November 8, 2024			
Model Number: 18072721				Report Number: 1340-08			
UUT Function: Imaging System PC							
UUT Description: Reconstruction Server Cabinet with internally mounted CT Recon PC (60008085), PET ACQ PCO / PC1 (60012595), CT Rio Plus RECON PC (60009013), and PET RECON PC1 (60018312).							
UUT PROPERTIES							
Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)			
	Width	Depth	Height	FB	SS	V	
798	25.6	47.2	72.8	9.0	23.0	27.0	
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 _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	-	-
	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.							