



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0394

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: GE Healthcare

Manufacturer's Technical Representative: Tom Farnow

Mailing Address: 3000 N. Grandview Blvd., Waukesha, WI 53188-1696

Telephone: 888-406-1101

Email: Tom.Farnow@gehcseismic.com

Product Information

Product Name: Revolution CT / Revolution CT ES / Revolution Apex

Product Type: Computed Tomography (CT) system

Product Model Number: See Attachment 1

(List all unique product identification numbers and/or part numbers)

General Description: System components of multiple-component Computed Tomography (CT) medical diagnostic imaging systems. Seismic enhancements made to the test units and modifications required to address the anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid base mounted.

Applicant Information

Applicant Company Name: EASE LLC


Contact Person: Jonathan Roberson, S.E.

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA 91709

Telephone: (406) 541-EASE (3273)

Email: j.roberson@easeco.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

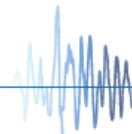
Signature of Applicant: 

Date: 12/18/2018

Title: Principal Engineer

Company Name: EASE LLC

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





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

Company Name: EASE LLC

Name: Jonathan Roberson, S.E. California License Number: S4197

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA 91709

Telephone: (909) 606-7622 Email: j.roberson@easeco.com

Supports and Attachments Preapproval

- ☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- ☒ Supports and attachments are not preapproved

Certification Method

- ☒ Testing in accordance with: ☒ ICC-ES AC156
- ☐ Other (Please Specify): _____
- _____
- _____

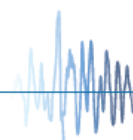
Testing Laboratory

Company Name: Environmental Testing Laboratory, Inc.

Contact Name: Brady Richard

Mailing Address: 11034 Indian Trail, Dallas, TX 75229-3513

Telephone: (972) 247-9657 Email: brady@etldallas.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = See Attachment 1, Table 4

S_{DS} (Design spectral response acceleration at short period, g) = See Attachment 1, Table 4

a_p (In-structure equipment or component amplification factor) = See Attachment 1, Table 4

R_p (Equipment or component response modification factor) = See Attachment 1, Table 4

Ω_0 (System overstrength factor) = See Attachment 1, Table 4

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = See Attachment 1, Table 4

Equipment or Component Natural Frequencies (Hz) = See Attachment 2

Overall dimensions and weight (or range thereof) = See Attachment 1, Tables 1, 2 & 3

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☒ Other(s) (Please Specify): Attachments 1 & 2

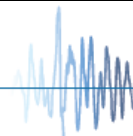
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature: Timothy J. Piland Date: January 8, 2021

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable): _____



ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 1: SEISMIC CERTIFIED SYSTEMS & COMPONENTS

Manufacturer	GE HEALTHCARE						
System	REVOLUTION CT						
COMPONENT	MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
		W	D	H			
GANTRIES ^[7]							
Revolution CT Gantry	5590000	93.1	56.2	78.9	6335	Floor	UUT-1
Revolution CT Gantry	5590000-2	93.1	56.2	78.9	6335	Floor	SAME
Revolution CT Gantry	5590000-6	93.1	56.2	78.9	6335	Floor	UUT-C1
Revolution CT Gantry	5590000-7	93.1	56.2	78.9	6335	Floor	SAME
PATIENT TABLES ^[7]							
NG 2000 Table	5201910	24	114	30	1760 ^[2]	Floor	UUT-2
NG 2000 Table	5201910-2	24	114	30	1760	Floor	SAME
NG 2000 Table	5201910-6	24	114	30	1760 ^[3]	Floor	UUT-A2
NG2000V Patient Table	5765282	24	130	49	1576 ^[3]	Floor	UUT-F1807-2
NG1700V Patient Table	5786623	24	118	49	1523 ^[3]	Floor	UUT-F1807-3
CONSOLES							
Scanner Desktop Assembly	5480177	18.5	28.375	25.8	157	Floor	UUT-3
Scanner Desktop Assembly (HP Z420)	5641778	18.5	29.0	25.8	135	Floor	UUT-B1
Open Console (HP Z420)	5737200	14.57	21.85	22.75	105	Floor	UUT-D1
Open Console (HP Z440)	5737200-5	14.65	22.28	22.5	105	Floor	UUT-E2
Scanner Desktop III (Open Console)	5737200-10	14.8	19.9	22.7	106	Floor	UUT-G1917-1
SYSTEM CABINETS							
Rev System Cabinet (Avnet Technologies Solutions) ^[7]	6161000	25	48	59	701 ^[4]	Floor	UUT4
Revo System Cabinet ^[7]	6162000	24	48.42	55.71	659	Floor	UUT-A1
System Cabinet ^[7]	6163000	24	48.42	55.71	706	Floor	UUT-C2
System Cabinet ^[7]	6163000-2	24	48.42	55.71	706	Floor	SAME
System Cabinet IV	6164000	24	50.9	55.8	736 ^[6]	Floor	UUT-F1807-6
POWER DISTRIBUTION							
Power Distribution Unit	2326492-61	27.6	21.7	41.8	818	Floor	UUT-5
Power Distribution Unit	2326492-91	27.6	21.7	41.8	955 ^[6]	Floor	UUT-F1807-4
Mount	Floor (Rigid Base): free-standing, base-mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.						
Notes	1. BASIS: <ul style="list-style-type: none">UUT#: Indicates that a test specimen matching these characteristics was tested as part of this testing program.SAME: Model is physically, mechanically & electrically the same as test specimen. Difference is limited to model number, color, software and/or GE manufacturing location. 2. Patient Table weight does not include the 500 lb. simulated patient load present during testing. 3. Patient Table weight does not include the 675 lb. simulated patient load present during testing 4. Weight of System Cabinet does not include 10lb. weight of brackets used to anchor the test specimen. 5. All components listed above are manufactured by GE Healthcare unless otherwise noted. 6. Installed weight including seismic mounting brackets. 7. Requires use of GE mounting kit (Catalog No. B7919BS or equivalent)						

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 2: SEISMIC CERTIFIED SYSTEMS & COMPONENTS

Manufacturer	GE HEALTHCARE						
System	REVOLUTION CT ES						
COMPONENT	MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
		W	D	H			
GANTRIES ^[7]							
Revolution CT ES Gantry	5590000-15	93.1	56.2	78.9	6218	Floor	UUT-E1
Revolution CT ES Gantry	5590000-16	93.1	56.2	78.9	6218	Floor	SAME
PATIENT TABLES ^[7]							
NG 2000 Table	5201910-2	24	114	30	1760	Floor	SAME ^[4]
NG 2000 Table	5201910-6	24	114	30	1760 ^[3]	Floor	UUT-A2
NG2000V Patient Table	5765282	24	130	49	1576 ^[3]	Floor	UUT-F1807-2
NG1700V Patient Table	5786623	24	118	49	1523 ^[3]	Floor	UUT-F1807-3
CONSOLES							
Open Console (HP Z420)	5737200	14.57	21.85	22.75	105	Floor	UUT-D1
Open Console (HP Z440)	5737200-5	14.65	22.28	22.5	105	Floor	UUT-E2
Scanner Desktop III (Open Console)	5737200-10	14.8	19.9	22.7	106	Floor	UUT-G1917-1
SYSTEM CABINETS							
System Cabinet ^[7]	6163000	24	48.42	55.71	706	Floor	UUT-C2
System Cabinet ^[7]	6163000-2	24	48.42	55.71	706	Floor	SAME
System Cabinet IV	6164000	24	50.9	55.8	736 ^[6]	Floor	UUT-F1807-6
System Cabinet V 80	6164000-2	24.2	53.5	55.9	597 ^[6]	Floor	UUT-G1917-2
POWER DISTRIBUTION							
Power Distribution Unit	2326492-61	27.6	21.7	41.8	818	Floor	UUT-5
Mount	Floor (Rigid Base): free-standing, base-mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.						
Notes	<div>1. BASIS:<ul style="list-style-type: none">UUT#: Indicates that a test specimen matching these characteristics was tested as part of this testing program.SAME: Model is physically, mechanically & electrically the same as test specimen. Difference is limited to model number, color, software and/or GE manufacturing location.</div> <div>2. Patient Table weight does not include the 500 lb. simulated patient load present during testing.</div> <div>3. Patient Table weight does not include the 675 lb. simulated patient load present during testing</div> <div>4. Same as UUT-2 in Table 1.</div> <div>5. All components listed above are manufactured by GE Healthcare unless otherwise noted.</div> <div>6. Installed weight including seismic mounting brackets.</div> <div>7. Requires use of GE mounting kit (Catalog No. B7919BS or equivalent)</div>						

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 3: SEISMIC CERTIFIED SYSTEMS & COMPONENTS

Manufacturer	GE HEALTHCARE						
System	REVOLUTION APEX						
COMPONENT	MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
		W	D	H			
GANTRIES ^[7]							
Revolution Apex Gantry	5590000-20	90.3	52.4	79.9	6170	Floor	UUT-F1807-1
Revolution Apex Gantry	5590000-21	90.3	52.4	79.9	6170	Floor	SAME
PATIENT TABLES ^[7]							
NG 2000 Table	5201910	24	114	30	1760 ^[2]	Floor	UUT-2
NG 2000 Table	5201910-2	24	114	30	1760	Floor	SAME
NG 2000 Table	5201910-6	24	114	30	1760 ^[3]	Floor	UUT-A2
NG2000V Patient Table	5765282	24	130	49	1576 ^[3]	Floor	UUT-F1807-2
NG1700V Patient Table	5786623	24	118	49	1523 ^[3]	Floor	UUT-F1807-3
CONSOLES							
Open Console (HP Z420)	5737200	14.57	21.85	22.75	105	Floor	UUT-D1
Open Console (HP Z440)	5737200-5	14.65	22.28	22.5	105	Floor	UUT-E2
Scanner Desktop III (Open Console)	5737200-10	14.8	19.9	22.7	106	Floor	UUT-G1917-1
SYSTEM CABINETS							
System Cabinet IV	6164000	24	50.9	55.8	736 ^[6]	Floor	UUT-F1807-6
POWER DISTRIBUTION							
Power Distribution Unit	2326492-61	27.6	21.7	41.8	818	Floor	UUT-5
Power Distribution Unit	2326492-91	27.6	21.7	41.8	955 ^[6]	Floor	UUT-F1807-4
Mount	Floor (Rigid Base): free-standing, base-mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.						
Notes	<div>1. BASIS:<ul style="list-style-type: none">• UUT#: Indicates that a test specimen matching these characteristics was tested as part of this testing program.• SAME: Model is physically, mechanically & electrically the same as test specimen. Difference is limited to model number, color, software and/or GE manufacturing location.</div> <div>2. Patient Table weight does not include the 500 lb. simulated patient load present during testing.</div> <div>3. Patient Table weight does not include the 675 lb. simulated patient load present during testing</div> <div>4. Not Used</div> <div>5. All components listed above are manufactured by GE Healthcare unless otherwise noted.</div> <div>6. Installed weight including seismic mounting brackets.</div> <div>7. Requires use of GE mounting kit (Catalog No. B7919BS or equivalent)</div>						

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS


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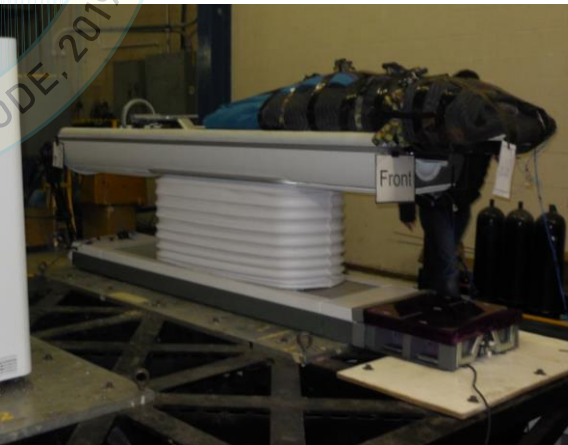
TABLE 4: ASCE 7-10 DESIGN BASIS FOR EQUIPMENT

COMPONENT		F_p/W_p	S_{DS}	z/h	a_p	R_p	Ω_0
Gantries	5590000 5590000-2 5590000-6 5590000-7 5590000-15 5590000-16 5590000-20 5590000-21	2.40	2.0	1	1	1 ½	1 ½
		1.13	2.5	0			
Patient Tables	5201910 5201910-2 5201910-6 5765282 5786623	2.40	2.0	1	1	1 ½	1 ½
		1.13	2.5	0			
Consoles	5480177 5641778 5737200 5737200-5 5737200-10	1.50	2.0	1	2 ½	6	2
		1.13	2.5	0			
System Cabinets	6161000 6162000 6163000 6163000-2 6164000 6164000-2	1.50	2.0	1	2 ½	6	2
		1.13	2.5	0			
Power Distribution Units	2326492-61	1.44	2.0	1	1	2 ½	2
		1.13	2.5	0			
Power Distribution Units	2326492-91	1.44	2.0	1	1	2 ½	2
		1.13	2.5	0			

ATTACHMENT 2: TEST SPECIMEN SUMMARY

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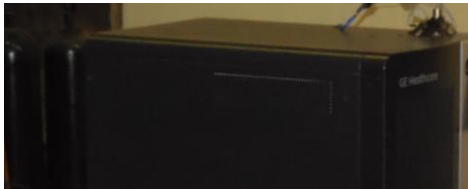
UUT- 1		Revolution CT Gantry	
MANUFACTURER:		GE Healthcare	
IDENTIFICATION:		Model No.: 5590000 Serial No.: 1977CZ8	
DESCRIPTION:		System Component of the Revolution CT System	
MOUNTING:		FLOOR MOUNTED (Rigid Base) using (8) – 5/8" dia. SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649	
			
PROPERTIES:			
DIMENSIONS (in.)			LOWEST RESONANT FREQUENCY (Hz.)
Width	Depth	Height	Weight (lb.)
93.1	56.2	78.9	6335
		FRONT-AXIS	SIDE-AXIS
		7.4	11.3
		VERTICAL-AXIS	
		8.4	
SHAKE TABLE TEST PARAMETERS			
CODE	TEST CRITERIA	S _{DS} (G)	z/h
CBC 2016	ICC-ES AC156	2.0 2.5	1 0
		I _p	A _{FLX-H} (G)
		1.5	3.2
		A _{RIG-H} (G)	A _{FLX-V} (G)
		2.4	1.68
		A _{RIG-V} (G)	
		0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement			

UUT-2		NG 2000 Table	
MANUFACTURER:		GE Healthcare	
IDENTIFICATION:		Model No.: 5201910 Serial No.: 436153CN1	
DESCRIPTION:		System Component of the Revolution CT System	
MOUNTING:		FLOOR MOUNTED (Rigid Base) using (6) – 5/8" dia SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649	
			
PROPERTIES:			
DIMENSIONS (in.)			LOWEST RESONANT FREQUENCY (Hz.)
Width	Depth	Height	Weight (lb.)
23.5	116 min / 210 max	41	1760 + 500 Patient
		SIDE-AXIS	FRONT-AXIS
		3.0	16.8
		VERTICAL-AXIS	
		4.5	
SHAKE TABLE TEST PARAMETERS			
CODE	TEST CRITERIA	S _{DS} (G)	z/h
CBC 2016	ICC-ES AC156	2.0 2.5	1 0
		I _p	A _{FLX-H} (G)
		1.5	3.2
		A _{RIG-H} (G)	A _{FLX-V} (G)
		2.4	1.68
		A _{RIG-V} (G)	
		0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement			

ATTACHMENT 2: TEST SPECIMEN SUMMARY

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UUT- 3 Scanner Desktop Assembly	
MANUFACTURER:	GE Healthcare
IDENTIFICATION:	Model No.: 5480177 Serial No.: 433776CN2
DESCRIPTION:	System Component of the Revolution CT System
MOUNTING:	<u>Rigid Base (Floor) mounted using:</u> GE console to floor mounting assembly (4 locations total): Console Anti Seismic Bracket (P/N 5357148) each w/ (2) – M6 x 16 10.9 Class bolts (Torque=7.9 N-m) (P/N 2262896-2) (1) – 3/8" dia. ASTM A574 Socket Head Cap Screw w/ washer to floor plate.



PROPERTIES:						
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height		SIDE-AXIS	FRONT-AXIS	VERTICAL-AXIS
18.5	29.1	25.8	157	12.8	16.8	13.9


SHAKE TABLE TEST PARAMETERS								
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 2016	ICC-ES AC156	2.0 2.5	1.0 0.0	1.5	3.2	2.4	1.68	0.68


Unit maintained structural integrity and remained functional per manufacturer requirement

UUT-4		Rev System Cabinet						
MANUFACTURER:		Avnet Technologies Solutions						
IDENTIFICATION:		Model No.: 6161000	Serial No.: 435438C7					
DESCRIPTION:		System Component of the Revolution CT System						
MOUNTING:		<p>Rigid Base (Floor) mounted using: (4) – ½" dia. SAE J429 Grade 8 bolts w/ washer through GE mounting brackets to floor plate. GE mounting assembly includes: (2) – Seismic Bracket, System Cabinet (P/N 5534896) Each bracket mounted to cabinet w/: (2) – M12-1.75, X25mm Long, Class 8.8 Steel, Hex Socket Head Cap Screw (P/N 1000-M12C025-04) (2) – Curved lock washer (P/N 2203-M12-07) (2) – Flat Washer (P/N 2001-M12-03)</p>						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		SIDE-AXIS	FRONT-AXIS	VERTICAL-AXIS		
25	48	59	701 + 10 brackets	6.0	10.1	22.6		
SHAKE TABLE TEST PARAMETERS								
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit maintained structural integrity and remained functional per manufacturer requirement								

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT- 5 Power Distribution Unit									
MANUFACTURER:			GE Healthcare						
IDENTIFICATION:			Model No.: 2326492-61						
			Serial No.: 322132HM2						
DESCRIPTION:			System component of the Optima CT580 System						
MOUNTING:			<u>Rigid Base (Floor) mounted using:</u> (2) – 3/8" dia. ASTM A574 Socket Head Cap Screws w/ washer through GE mounting brackets to floor plate. <u>GE mounting assembly including:</u> (2) – Seismic Bracket, System Cabinet (P/N 2354563-2) Each bracket mounted to cabinet w/: (2) – M10-1.5 X25mm Class 12.9 Socket Head Cap Screw, Black Oxide (Torque= 38.4 N-m) (2) – M10 Lock Washer (P/N 2203-M10-07) (2) – M10 Flat Washer (P/N 2000-M10-03)						
									
PROPERTIES:									
DIMENSIONS (in.)					LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Weight (lb.)		SIDE-AXIS	FRONT-AXIS	VERTICAL-AXIS		
27.6	21.7	41.8	796 + 22 brackets = 818		15.7	19.9	45		
SHAKE TABLE TEST PARAMETERS									
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 2016	ICC-ES AC156	2.0 2.6	1 0	1.5	3.2	2.4	1.74	0.70	
Unit maintained structural integrity and remained functional per manufacturer requirement									

UUT- A1 SYSTEM CABINET									
MANUFACTURER:				GE Healthcare					
IDENTIFICATION:				Model No.: 6162000					
DESCRIPTION:				System component of the Revolution CT system					
MOUNTING:				<p>Rigid Base (Floor) mounted using:</p> <p>(4) – ½" dia. SAE J429 Grade 8 bolts w/ washer through GE mounting brackets to floor plate.</p> <p><u>GE mounting assembly includes:</u></p> <p>(2) – Seismic Bracket, System Cabinet (P/N 5693408)</p> <p>Each bracket mounted to cabinet w/:</p> <p>(4) – M10-1.5 x 25mm Long, Class 8.8 ISO 4762 Steel Hex Socket Head Cap Screw (P/N 1000-M10C025-04)</p> <p>(4) – Curved lock washer, DIN 128A (P/N 2203-M10-07)</p> <p>(4) – Flat Washer, ISO 7089 (2000-M10-03)</p> <p>2) – M12-1.75, X25mm Long, Class 8.8 Steel, Hex Socket Head Cap Screw (P/N 1000-M12C025-04)</p>					
									
PROPERTIES:									
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)					
Width	Depth	Height		FRONT-AXIS	SIDE-AXIS	VERTICAL-AXIS			
24	48.42	55.71		659	6.3	16.3	12.4		
SHAKE TABLE TEST PARAMETERS									
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement									

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT- A2 NG2000 TABLE									
MANUFACTURER: GE Healthcare									
IDENTIFICATION: Model No.: 5201910-6									
DESCRIPTION: System component of the Revolution CT system Patient table 675lb capacity									
MOUNTING: Floor mounted using (6) - 5/8" dia SAE J429 Grade 8 bolts w/ washer to aluminum plate. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649									
PROPERTIES:									
DIMENSIONS (in.)					LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Weight (lb.)		FRONT-AXIS	SIDE-AXIS	VERTICAL-AXIS		
23.5	114 min / 210 max	23 min / 41 max	1760 + 675 LB Patient load		9.1	19.3	4.4		
SHAKE TABLE TEST PARAMETERS									
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement									

UUT-B1 Scanner Desktop Assembly (HP Z420)									
MANUFACTURER: GE Healthcare									
IDENTIFICATION: Model No.: 5641778 Serial No.: 440747CN4									
DESCRIPTION: Main component of CT Imaging									
MOUNTING: Rigid Base (Floor) mounted using: GE console to floor mounting assembly (4 locations total): Console Anti Seismic Bracket (P/N 5357148) each w/ (2) - M6 x 16 Class 10.9 bolts (Torque=7.9 N-m) (P/N 2262896-2) (2) - Flat washers (P/N 2001-M8-02) (1) - 3/8" dia. ASTM A574 Socket Head Cap Screw w/ washer to floor plate.									
PROPERTIES:									
DIMENSIONS (in.)					LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height	Weight (lb.)		FRONT-AXIS	SIDE-AXIS	VERTICAL-AXIS		
18.5	29.0	25.8	133.5		21	15.1	19.1		
SHAKE TABLE TEST PARAMETERS									
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement									

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT-B2 Scanner Desktop Assembly (HP Z440)								
MANUFACTURER:			GE Healthcare					
IDENTIFICATION:			Model No.: 5641778-2					
			Serial No.: 440749CN0					
DESCRIPTION:			Main component of CT Imaging					
MOUNTING:			Rigid Base (Floor) mounted using: GE console to floor mounting assembly (4 locations total): Console Anti Seismic Bracket (P/N 5357148) each w/ (2) – M6 x 16 Class 10.9 bolts (Torque=7.9 N-m) (P/N 2262896-2) (2) – Flat washers (P/N 2001-M8-02) (1) – 3/8" dia. ASTM A574 Socket Head Cap Screw w/ washer to floor plate.					
								
PROPERTIES:								
DIMENSIONS (in.)			LOWEST RESONANT FREQUENCY (Hz.)					
Width	Depth	Height	Weight (lb.)	FRONT-AXIS	SIDE-AXIS	VERTICAL-AXIS		
29.0	18.5	25.8	133	19.4	14.5	25		
SHAKE TABLE TEST PARAMETERS								
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68
Unit maintained structural integrity and remained functional per manufacturer requirement								

UUT-C1 Revolution CT Gantry									
MANUFACTURER: GE Healthcare									
IDENTIFICATION: Model No.: 5590000-6									
Serial No.: 442608CN6									
DESCRIPTION: System Component of the Revolution CT System									
MOUNTING: Floor mounted using (8) – 5/8" dia SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649									
PROPERTIES:									
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)					
Width	Depth	Height		FRONT-AXIS	SIDE-AXIS	VERTICAL-AXIS			
93.1	56.5	78.9	6335	11.1	7.5	23			
SHAKE TABLE TEST PARAMETERS									
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 2016	ICC-ES AC156	2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement									

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT-C2 System Cabinet																	
MANUFACTURER:				GE Healthcare													
IDENTIFICATION:				Model No.: 6163000													
				Serial No.: 442508CN8													
DESCRIPTION:				Main component of CT Imaging													
MOUNTING:				<p><u>Rigid Base (Floor) mounted using:</u></p> <p>(4) – ½" dia. SAE J429 Grade 8 bolts w/ washer through GE mounting brackets to floor plate.</p> <p><u>GE mounting assembly includes:</u></p> <p>(2) – Seismic Bracket, System Cabinet (P/N 5693408)</p> <p>Each bracket mounted to cabinet w/:</p> <p>(4) – M10-1.5 x 25mm Long, Class 8.8, ISO 4762 Steel Hex Socket Head Cap Screw (P/N 1000-M10C025-04)</p> <p>(4) – Curved lock washer, DIN 128A (P/N 2203-M10-07)</p> <p>(4) – Flat Washer, ISO 7089 (P/N 2000-M10-03)</p>													
																	
PROPERTIES:																	
DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)													
Width		Depth		Height		Weight (lb.)		FRONT-AXIS		SIDE-AXIS		VERTICAL-AXIS					
24		48.42		55.71		706		18.9		5.9		24.7					
SHAKE TABLE TEST PARAMETERS																	
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 2016		ICC-ES AC156		2.0 2.5		1 0		1.5		3.2		2.4		1.68		0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement																	

UUT-D1 Open Console (HP Z420)									
MANUFACTURER:				GE Healthcare					
IDENTIFICATION:				Model No.: 5737200					
				Serial No.: 445262CN9					
DESCRIPTION:				System component of the Revolution CT System HP Z420 Computer					
MOUNTING:				<u>Rigid Base (Floor) mounted using:</u> GE console to floor mounting assembly (3 locations total): Console Anti Seismic Bracket (P/N 5357148) each w/ (2) – M6 x 16 10.9 Class bolts (Torque = 7.9 N-m) 					

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT-E1 Revolution CT ES Gantry						
MANUFACTURER:						
IDENTIFICATION:						
DESCRIPTION:						
MOUNTING:						
Model no.: 5590000-15 Serial no.: 448109CN9						
System component of the Revolution CT ES System Revolution CT ES Gantry						
Rigid Base (Floor) Mounted using (8) – 5/8" dia. SAE J429 Grade 8 bolts w/ washers.						
Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649						
DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front-Axis	Side-Axis	Vert-Axis
93.1	56.2	78.9	6218	7.79	11.75	25.59
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _P	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						

UUT-E2 Open Console (HP Z440) E: 01/08/2021						
MANUFACTURER:			GE Healthcare			
IDENTIFICATION:			Model no.: 5737200-5 Serial no.: 448108CN1			
DESCRIPTION:			Open console. HP Z440 Computer			
MOUNTING:			<u>Rigid Base (Floor) mounted using:</u> GE console to floor mounting assembly (3 locations total): Console Anti Seismic Bracket (P/N 5357148) each w/ (2) – M6 x 16 10.9 Class bolts (Torque = 7.9 N-m) 			

ATTACHMENT 2: TEST SPECIMEN SUMMARY


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UUT-F1807-1 Revolution CT Gantry						
MANUFACTURER: GE Healthcare						
IDENTIFICATION: Model No: 5590000-20						
DESCRIPTION: System Component of the Revolution Apex System Revolution Apex Gantry 160mm Quantum						
MOUNTING: Rigid Base (Floor) Mounted using (8) – 5/8" diameter SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649						
DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front / X-Axis	Side / Y-Axis	Vert / Z-Axis
90.3	52.4	79.9	6170	8.86	11.52	8.61
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _p	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						

UUT-F1807-2 NG2000V Patient Table						
MANUFACTURER: GE Healthcare						
IDENTIFICATION: Model No: 5765282						
DESCRIPTION: Component of the Revolution CT / CT ES / Apex system.						
MOUNTING: Rigid Base (Floor) Mounted using (6) – 5/8" diameter SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649						
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height		Transv. / X-Axis	Longit. / Y-Axis	Vert. / Z-Axis
24	129.9	49	1576	2.97	43.26	4.29
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _P	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						

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UUT-F1807-3 NG1700V Patient Table						
MANUFACTURER: GE Healthcare						
IDENTIFICATION: Model No: 5786623						
DESCRIPTION: Component of the Revolution CT / CT ES / Apex system.						
MOUNTING: <u>Rigid Base (Floor) Mounted</u> using (6) – 5/8" diameter SAE J429 Grade 8 bolts w/ washers. Includes GE mounting kit: Catalog No. B7919BS / Engineering P/N 5498649						
DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Transv. / X-Axis	Longit. / Y-Axis	Vert. / Z-Axis
24	118	49	1522.5	3.46	34.81	4.63
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _P	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.						

UUT-F1807-4 Power Distribution Unit							
MANUFACTURER:			GE Healthcare				
IDENTIFICATION:			Model No: 2326492-91				
DESCRIPTION:			Component of the Revolution Apex system Configuration Controlled Verification Unit				
MOUNTING:			<u>Rigid Base (Floor) mounted using:</u> (2) – 3/8" dia. ASTM A574 Socket Head Cap Screws w/ washer through GE mounting brackets to floor plate. <u>GE mounting assembly including:</u> (2) – Seismic Bracket, System Cabinet (P/N 2354563-2) Each bracket mounted to cabinet w/: (2) – M10-1.5 X25mm Class 12.9 Socket Head Cap Screw, Black Oxide (Torque= 38.4 N-m) (2) – M10 Lock Washer (P/N 2203-M10-07) (2) – M10 Flat Washer (P/N 2000-M10-03)				
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height		Longit -Axis	Transv-Axis	Vert-Axis	
27.6	21.7	41.8		954.5 (w/ brackets)	17.11	15.57	17.04
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS							CODE: 2016 CBC
S _{DS} (G)	z/h	I _p	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)	
2.0	1	1.5	3.2	2.4	1.68	0.68	
2.5	0						
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.							

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UUT-F1807-6 System Cabinet

MANUFACTURER: GE Healthcare
IDENTIFICATION: Model No: 6164000
DESCRIPTION: Component of the Revolution CT / CT ES / Apex system

MOUNTING: Rigid Base (Floor) mounted using:
(4) – ½" dia. SAE J429 Grade 8 bolts w/ washer through GE mounting brackets to floor plate.
GE mounting assembly includes:
(2) – Seismic Bracket, System Cabinet (P/N 6164078)
Each bracket mounted to cabinet w/
(4) – M12-1.75, X25mm Long, Class 8.8 Steel, Socket Head Cap Screw, Black Oxide (P/N 1000-M12C025-02)
(4) – Curved lock washer (P/N 2203-M12-07)
(4) – Flat Washer (P/N 2001-M12-02)



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front / X-Axis	Side / Y-Axis	Vert / Z-Axis
24	50.9	55.8	736 (w/ brackets)	26.83	7.29	>50
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _p	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					

Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.

UUT-G1917-1 Scanner Desktop III (Open Console)

MANUFACTURER: GE Healthcare (General Electric Company)
IDENTIFICATION: Model No: 5737200-10
DESCRIPTION: Component of the Revolution CT / CT ES / Apex system
Levovo Thinkstation P520 computer

MOUNTING: Rigid Base (Floor) mounted using:
GE console to floor mounting assembly (3 locations total):
Console Anti Seismic Bracket (P/N 5357148 rev. 3) each w/
(2) – M6 x 16 10.9 Class bolts (Torque = 7.9 N-m)
(P/N 2262896-2)
(1) – 3/8" dia. ASTM J429 Grade 8 bolt w/ washer to floor plate.




DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side / X-Axis	Front / Y-Axis	Vert / Z-Axis
14.8	19.9	22.7	106 w/ brackets	16.6	27.4	14.3
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S _{DS} (G)	z/h	I _p	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)
2.0	1	1.5	3.2	2.4	1.68	0.68
2.5	0					

Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.

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UUT-G1917-2 System Cabinet V 80																										
MANUFACTURER: GE Healthcare																										
IDENTIFICATION: Model No: 6164000-2																										
DESCRIPTION: Component of the Revolution CT ES system																										
MOUNTING: <u>Rigid Base (Floor) mounted using:</u> (4) – ½" dia. SAE J429 Grade 8 bolts w/ washer through GE mounting brackets to floor plate. <u>GE mounting assembly includes:</u> (2) – Seismic Bracket, System Cabinet (P/N 6164078) Each bracket mounted to cabinet w/ (4) – M12-1.75, X25mm Long, Class 8.8 Steel, Socket Head Cap Screw, Black Oxide (P/N 1000-M12C025-02) (4) – Curved lock washer (P/N 2203-M12-07) (4) – Flat Washer (P/N 2001-M12-02)																										
<table border="1"> <thead> <tr> <th colspan="3">DIMENSIONS (in.)</th> <th rowspan="2">Weight (lb.)</th> <th colspan="3">LOWEST RESONANT FREQUENCY (Hz.)</th> </tr> <tr> <th>Width</th> <th>Depth</th> <th>Height</th> <th>Side / X-Axis</th> <th>Front / Y-Axis</th> <th>Vert / Z-Axis</th> </tr> </thead> <tbody> <tr> <td>24.2</td> <td>53.5</td> <td>55.9</td> <td>597 (w/ brackets)</td> <td>33.0</td> <td>9.0</td> <td>13.2</td> </tr> </tbody> </table>				DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			Width	Depth	Height	Side / X-Axis	Front / Y-Axis	Vert / Z-Axis	24.2	53.5	55.9	597 (w/ brackets)	33.0	9.0	13.2			
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)																						
Width	Depth	Height		Side / X-Axis	Front / Y-Axis	Vert / Z-Axis																				
24.2	53.5	55.9	597 (w/ brackets)	33.0	9.0	13.2																				
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS																										
CODE: 2016 CBC																										
S _{DS} (G)	z/h	I _p	A _{FLX-H} (G)	A _{RIG-H} (G)	A _{FLX-V} (G)	A _{RIG-V} (G)																				
2.0	1	1.5	3.2	2.4	1.68	0.68																				
2.5	0																									
Unit satisfied AC156 requirements for structural integrity and manufacturer requirements for functionality after AC156 test.																										

DATE: 01/08/2021

