



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0330-10

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: Discovery MI, Discovery MI Digital Ready, Discovery IQ, Discovery 610 / 690 / 710, Optima 560 & Optima 560 FX PET-CT Systems

Product Type: PET & CT medical imaging systems.

Product Model Number: See Attachment 1

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

General Description: System components of multiple-component medical imaging systems. Special Seismic Certification of the Discovery 690 PET Gantry includes PET medical imaging services. For all other components listed in Attachment 1, Special Seismic Certification is limited to functions related to Computed Tomography (CT) medical imaging services. 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: (909) 606-7622 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: October 18, 2016

Title: Principal Engineer

Company Name: EASE LLC



**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): _____
- _____
- _____

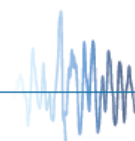
Testing Laboratory

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 2

S_{DS} (Design spectral response acceleration at short period, g) = See Attachment 1, Table 2

a_p (In-structure equipment or component amplification factor) = See Attachment 1, Table 2

R_p (Equipment or component response modification factor) = See Attachment 1, Table 2

Ω_0 (System overstrength factor) = See Attachment 1, Table 2

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = See Attachment 1, Table 2

Equipment or Component Natural Frequencies (Hz) = See Attachment 1, Table 2

Overall dimensions and weight (or range thereof) = See Attachment 1, Table 1

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, 2022

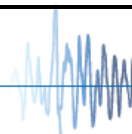
Signature: [Signature] Date: 11/28/16

Print Name: M. R. Karim Title: SHFR

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

Condition of Approval (if applicable): Special Seismic Certification is limited to the functions related to Computer

Tomography (CT) medical imaging only, with the exception of the Discovery 690 PET Gantry, which is certified for the PET medical imaging function.



ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 1: SEISMIC CERTIFIED SYSTEMS & COMPONENTS ^[6]

Manufacturer	GE HEALTHCARE							
System	Discovery 610 PET-CT Optima 560 PET-CT Discovery 690 PET-CT Discovery MI		Discovery 710 PET-CT Optima 560 FX PET-CT Discovery IQ Discovery MI Discovery MI Discovery MI Digital Ready PET					
COMPONENT		MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
			W	D	H			
PET-CT GANTRIES ^[7]								
Optima CT-540 Gantry, PET Specific		5432539-20	77.4	93.59	76	3887	Floor	UUT-B1
25cm Comet PET Gantry		5900025				3800		
Optima CT-540 Gantry, PET Specific		5432539-20	77.4	93.59	76	3887	Floor	INT
20cm Comet PET Gantry		5900020				3750		
Optima CT-540 Gantry, PET Specific		5432539-20	77.4	93.59	76	3887	Floor	INT
15cm Comet PET Gantry		5900015				3700		
Optima CT-540 Gantry, PET Specific		5432539-20	77.4	93.59	76	3887	Floor	INT
10cm Comet PET Gantry		5900010				3650		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
25cm Comet PET Gantry		5900025				3500		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
20cm Comet PET Gantry		5900020				3450		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
15cm Comet PET Gantry		5900015				3400		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
10cm Comet PET Gantry		5900010				3350		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	UUT-E1
25cm Odyssey PET Gantry		5900025-20				3500		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
20cm Odyssey PET Gantry		5900020-20				3450		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
15cm Odyssey PET Gantry		5900015-20				3400		
Optima CT-540 Gantry, PET Specific		5432539-22	89	101	76	3887	Floor	INT
10cm Odyssey PET Gantry		5900010-20				3350		
Revolution EVO CT Gantry, PET Specific		5454001-170	77.4	93.59	76	3940	Floor	UUT-C1
25cm Columbia PET Gantry		5990025				3915		
Revolution EVO CT Gantry, PET Specific		5454001-170	77.4	93.59	76	3940	Floor	INT
20cm Columbia PET Gantry		5990020				3870		
Revolution EVO CT Gantry, PET Specific		5454001-170	77.4	93.59	76	3940	Floor	INT
15cm Columbia PET Gantry		5990015				3825		
Revolution EVO CT Gantry, PET Specific		5454001-170	87	70	76	3940	Floor	INT
Discovery MI Digital Ready PET Gantry		5986030				3985		
Revolution EVO CT Gantry, PET Specific		5454001-170	87	70	76	3940	Floor	INT
Discovery PET-CT 710 (EVO) PET Gantry		5986031				3985		
BrightSpeed Elite CT Gantry		5144691-16	87	103	76	3887	Floor	UUT-1
Discovery 610 PET Gantry		5856010				4217		
BrightSpeed Elite CT Gantry		5144691-15	87	40.1	76	3887	Floor	SAME
Optima CT 660 Gantry, PET Specific		5454001-152	87	40.9	76.3	4042	Floor	INT

Table continues next page.

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

ATTACHMENT PAGE | 2 OF 4

TABLE 1: SEISMIC CERTIFIED SYSTEMS & COMPONENTS ^[6]

Manufacturer	GE HEALTHCARE						
System	Discovery 610 PET-CT Optima 560 PET-CT Discovery 690 PET-CT Discovery MI	Discovery 710 PET-CT Optima 560 FX PET-CT Discovery IQ Discovery MI Discovery MI Digital Ready PET					
COMPONENT	MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
		W	D	H			
Optima CT 660 Gantry ^[8]	5454001-100	80.7	40.9	76.3	4013	Floor	UUT-A1
Optima 560 PET Gantry	5856000	87	70	76	4217	Floor	INT
Optima 560 FX PET Gantry	5856020	87	70	76	4217	Floor	INT
Discovery 710 PET Gantry	5856030	87	70	76	4217	Floor	INT
Brightspeed Gantry, PET Specific	5143716-10	87	40.1	76	3887	Floor	UUT-3
Discovery 690 PET Gantry ^[11]	5201110	87	70	76	4631	Floor	UUT-4
PATIENT TABLES							
PROSCAN Patient Table	5101900	26	136	22 / 42	1808 ^[4]	Floor	UUT-5
Global PET-CT Table Ed3	5101900-2	26	136	22 / 42	1808	Floor	SAME
Mobile Ready Global PET-CT Table Ed3	5101900-20	26	136	22 / 42	1808	Floor	SAME
POWER DISTRIBUTION UNITS							
NGPDU-61	2326492-61	27.6	21.7	41.8	818	Floor	UUT-A2
NGPDU-71	2326492-71	27.6	21.7	41.8	813	Floor	UUT-A3
Power Distribution Box (PDB)	5627940	19.7	9.5	24.8	68	Wall	UUT-C2
CONSOLES							
NIO Console	5411378-23	18.5	29.1	25.8	161	Floor	UUT-A4
NIO Console	5411378-11	18.5	29.1	25.8	159	Floor	INT
NIO Console	5411378-12	18.5	29.1	25.8	159	Floor	INT
NIO Console	5411378	18.5	29.1	25.8	176	Floor	SAME
NIO Console	5441626-14	18.5	29.1	25.8	161	Floor	INT
NIO Console	5441626-22	18.5	29.1	25.8	159	Floor	INT
NIO Console	5441626-24	18.5	29.1	25.8	161	Floor	INT
NIO Console	5441626-34	18.5	29.1	25.8	161	Floor	INT
RIO Console	5577708-6	18.5	29	25.8	176	Floor	SAME
RIO Console	5577708-106	18.5	29	25.8	176	Floor	SAME
RIO Console	5577708-206	18.5	29	25.8	176	Floor	SAME
RIO Console	5577708-102	18.5	29	25.8	176	Floor	UUT-A5
OTHER EQUIPMENT							
FWS (Freedom Workspace - Large) tabletop w/ (2) – Eizo LCD Monitors on table-mounted articulated arms	5168666-2	53.1	29.2	26.9 / 35.9	167 ^[2]	Floor ^[5]	UUT-2
PET Adjustable Desk w/ (2) – Eizo 19" LCD Monitors on table mounts	5486188-10	60	36	27.25 / 30.0 ^[9]	155 ^[2]	Floor	UUT-B2
Lytron Chiller	5582166	22	28	32	314 ^[2]	Floor	UUT-C3
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. Wall: refers to a condition where the unit is fully supported- both vertically and laterally – by a building wall or partition.						
Notes	1. BASIS: • 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 and/or software.						

Table continues next page.

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 1: SEISMIC CERTIFIED SYSTEMS & COMPONENTS ^[6]

Manufacturer	GE HEALTHCARE						
System	Discovery 610 PET-CT Optima 560 PET-CT Discovery 690 PET-CT Discovery MI			Discovery 710 PET-CT Optima 560 FX PET-CT Discovery IQ Discovery MI Discovery MI Digital Ready PET			
COMPONENT	MODEL NUMBER	APPROX. DIMENSIONS (IN.)			MAX. WT. (LB.)	MOUNT	BASIS ^[1]
		W	D	H			
Notes	- INT (Interpolate or extrapolate): indicates a model that was not specifically tested, and by which seismic qualification was established through evaluation of testing of other, similar models in the product line. 2. Weight includes 2 LCD monitors. 3. All components in table above are manufactured by GE Healthcare except as noted. 4. Patient Table weight does not include the 300 lb. simulated patient load present during testing 5. The GE Healthcare seismic bracket (Model No.5394347) used in this testing program shall be installed. 6. Seismic certification is limited to functions related to Computed Tomography (CT) only, unless otherwise noted. 7. Except as noted below, all gantry model numbers listed are versions specific to PET-CT. 8. Gantry is a dedicated CT gantry included here only for purposes of interpolation. It is not a component of a PET-CT system. 9. Maximum adjustable height of desk is 45.25". Seismic Certification limited to a maximum height of 30" used in test. 10. Not Used 11. Special Seismic Certification of the Discovery 690 PET Gantry includes PET medical imaging services.						

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

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TABLE 2: ASCE 7-10 DESIGN BASIS FOR EQUIPMENT

COMPONENT	MODEL NO.	F _p /W _p	S _{DS}	z/h	a _p	R _p	Ω ₀
PET-CT GANTRIES							
Optima CT-540 Gantry, PET Specific 25cm Odyssey PET Gantry 20cm Odyssey PET Gantry 15cm Odyssey PET Gantry 10cm Odyssey PET Gantry Optima Elite CT-540 Gantry, PET Specific 25cm Comet PET Gantry 20cm Comet PET Gantry 15cm Comet PET Gantry 10cm Comet PET Gantry Revolution EVO CT Gantry, PET Specific 25cm Columbia PET Gantry 20cm Columbia PET Gantry 15cm Columbia PET Gantry	5432539-22 5900025-20 5900020-20 5900015-20 5900010-20 5432539-20 5900025 5900020 5900015 5900010 5454001-170 5990025 5990020 5990015	2.40 					

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT- 1 Discovery 610 PET-CT Gantry									
MANUFACTURER:		GE Healthcare							
IDENTIFICATION:		PET Model: 5856010				CT Model 5144691-16			
		PET S/N: 12658PT1				CT S/N: 256315HM3			
DESCRIPTION:		System component of the Discovery 610 PET/CT System : - BrightSpeed Elite CT Gantry (Brightspeed MERI) - Discovery 610 PET Gantry The tested configuration included both a PET gantry and a CT gantry in a complete PET-CT assembly. Functionality verification for this test specimen was limited to functions related to CT imaging only.							
		MOUNTING:		Rigid Base (Floor) Mounted using (6) - 5/8" Dia Gr. 8 bolts to interface frame.					
									
PROPERTIES:									
DIMENSIONS (in.)						LOWEST RESONANT FREQUENCY (Hz.)			
Width	Depth	Height	Weight (lb.)						
87	103	76				8,039			6.8
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 0.0	1.5	3.20	2.40	1.74	0.70	
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test									

UUT-2										Freedom Workspace – Large w/ 2 LCD monitors									
MANUFACTURER:					GE Healthcare														
IDENTIFICATION:					Model No. 5168666-2														
DESCRIPTION:					System component of the Discovery 610 PET/CT System Larger variant of the Freedom Workspace table w/ (2)-EIZO LCD Monitors mounted to articulated arms														
MOUNTING:					Rigid Base (Floor) mounted using GE Healthcare seismic bracket Model No. 5394347 w/ (4) – 3/8" Dia Cap bolts to aluminum interface plate.														
PROPERTIES:																			
DIMENSIONS (in.)										Weight (lb.)		LOWEST RESONANT FREQUENCY (Hz.)							
Width			Depth			Height						Front/Back		Side/Side			Vert		
53.1			29.2			35				167		6.1		3.9			3.9		
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 2.6			1.0 0.0		1.5		3.20		2.40		1.74		0.70	
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test																			

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT- 3				Discovery PET/CT 690 BrightSpeed CT Gantry					
MANUFACTURER:		GE Healthcare							
IDENTIFICATION:		P/N: 5143716-10						HLA No.: 5144709	
		S/N: 393918CN8							
DESCRIPTION:		System component of the Discovery PET/CT 690 System PET specific version of BrightSpeed CT Gantry & counterpart to UUT-4							
MOUNTING:		Rigid Base (Floor) Mounted using (4) - 5/8" Dia bolts to interface plate.							
PROPERTIES:									
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)					
Width	Depth	Height		X-Axis	Y-Axis	Vert			
89.2	39.6	74.6		7.5	6.8	12			
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	1.93	1	1.5	3.09	2.32	1.29	0.52	
Unit maintained structural integrity and remained functional per manufacturer requirement									

UUT-4				Discovery PET/CT 690 PET Gantry				
MANUFACTURER:		GE Healthcare						
IDENTIFICATION:		P/N: 5201110						
		S/N: 405144CN7						
DESCRIPTION:		System component of the Discovery PET/CT 690 System PET Gantry Counterpart to UUT-3						
MOUNTING:		Rigid Base (Floor) Mounted using (4) - 5/8" Dia bolts to interface plate.						
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		X-Axis	Y-Axis	Vert		
87	70	76		4,550	9	9.2	15	
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	1.93	1	1.5	3.09	2.32	1.29	0.52
Unit maintained structural integrity and remained functional per manufacturer requirement								

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT- 5		PROSCAN Patient Table						
MANUFACTURER:		GE Healthcare						
IDENTIFICATION:		P/N: 5101900						
		S/N: 176453HM9						
DESCRIPTION:		System component of the Discovery PET/CT 690 System & Discovery PET/CT 600 System						
MOUNTING:		Rigid Base (Floor) Mounted using (4) - 5/8" Dia Gr. 8 bolts to interface plate.						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		X-Axis	Y-Axis	Vert		
25.6	135.8	22/ 42		---	5.3	>33		
SHAKE TABLE TEST PARAMETERS				* Instrumentation error				
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	1.93	1	1.5	3.09	2.32	1.29	0.52
Unit maintained structural integrity and remained functional per manufacturer requirement								



UUT- A1			Optima CT660 Gantry					
MANUFACTURER:		GE Medical Systems, LLC						
IDENTIFICATION:		Model No.: 5454001-100						
		S/N: 423765CN7						
DESCRIPTION:		System component of the Optima CT660 System						
MOUNTING:		Rigid Base (Floor) mounted using (4) – 5/8" dia. hex head bolts to interface frame.						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front/Back	Side/Side	Vert		
80.7	40.9	76.3		5.7	9.4	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 2.6	1.0 0.0	1.5	3.20	2.40	1.74	0.70
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								



ATTACHMENT 2: TEST UNIT SUMMARY

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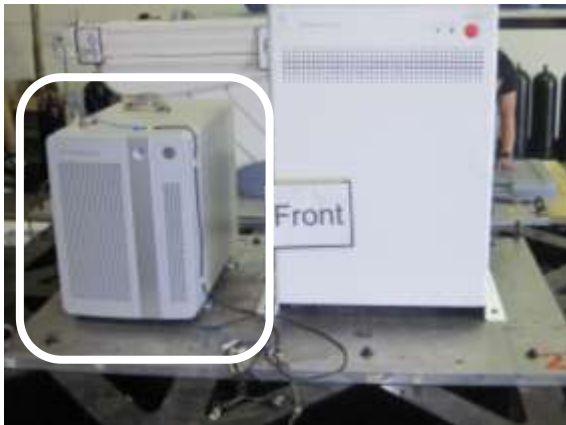
UUT- A2		NGPDU-61							
MANUFACTURER:	GE Hangwei Medical Systems CO., LTD								
IDENTIFICATION:	Model No.: 2326492-61								
	Serial No.: : 322132HM2								
DESCRIPTION:	System component of the Optima CT580 System								
MOUNTING:	Rigid Base (Floor) Mounted using (4) - 3/8" dia. socket head bolts to aluminum interface plate.								
									
				PROPERTIES:					
				DIMENSIONS (in.)		Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
				Width	Depth		Height	Side/Side	Front/Back
27.6	21.7	41.8	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 0.0	1.5	3.20	2.40	1.74	0.70	
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test									

UUT-A3		NGPDU-71							
MANUFACTURER:	GE Hangwei Medical Systems Co., LTD								
IDENTIFICATION:	Model No.: 2326492-71								
	Serial No.: 306846HM7								
DESCRIPTION:	System component of the Optima CT540 System								
MOUNTING:	Rigid Base (Floor) mounted using (4) – 3/8" Dia grade 8 Allen head Cap bolts to aluminum interface plate.								
									
				PROPERTIES:					
				DIMENSIONS (in.)		Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
				Width	Depth		Height	Front/Back	Side/Side
27.6	21.7	41.8	813	17.2	15.6	32.6			
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 2.6	1.0 0.0	1.5	3.20	2.40	1.74	0.70	
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test									

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT- A4			NIO Console					
MANUFACTURER:		GE Hangwei Medical Systems Co., LTD						
IDENTIFICATION:		Model No.: 5411378-11 (on label)						
		Model No.: 5411378-23 (as configured w/ GPU card)						
DESCRIPTION:		System component of the Optima CT580 System Unit included GPU card added to the test specimen prior to test, transforming it from Model No. 5411378-11 to 5411378-23.						
MOUNTING:		Rigid Base (Floor) Mounted using (4) - 3/8" Dia grade 8 Allen head Cap bolts to aluminum interface plate.						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Side/Side	Front/Back	Vert		
18.5	29.1	25.8		12.2	16.8	9.9		
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 2.6	1.0 0.0	1.5	3.20 2.60	2.40 1.04	1.34 1.74	0.54 0.70
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								

UUT- A5				RIO Console				
MANUFACTURER:		GE Medical Systems, LLC						
IDENTIFICATION:		Model No.: 5577708-102						
		S/N: 424057CN8						
DESCRIPTION:		System component of the Optima CT660 System						
MOUNTING:		Rigid Base (Floor) Mounted using (4) - 3/8" dia. socket head bolts to aluminum interface plate.						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Front/Back	Side/Side	Vert		
18.5	29	25.8	175.5	21.8	13.5	13.6		
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 2.6	1.0 0.0	1.5	3.20	2.40	1.74	0.70
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT- B1		Discovery IQ PET-CT Gantry						
MANUFACTURER:		GE Healthcare						
IDENTIFICATION:		PET Model: 5900025		CT Model 5432539-20				
		PET S/N: 13465PT0		CT S/N: 256329HM4				
DESCRIPTION:		System Component of the Discovery IQ PET-CT System: • Optima Elite CT-540 Gantry • 25cm Comet PET Gantry The tested configuration included both a PET gantry and a CT gantry in a complete PET-CT assembly. • Functionality verification for this test specimen was limited to functions related to CT imaging only.						
MOUNTING:		FLOOR MOUNTED (Rigid Base) (12) – 5/8" dia GR 8 hex head bolts to interface frame.						
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Side/Side	Front/Back	Vert		
77.4	93.59	76	7687	7.4	8.8	8.9		
SHAKE TABLE TEST PARAMETERS								
CODE	TEST CRITERIA	S _{DS} (g)	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.0 2.5	1.0 0.0	1.5	3.20	2.40	1.68	.54 0.68
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								

UUT-B2		PET Adjustable Desk w/ (2) 19" LCD Monitors						
MANUFACTURER:	Desk: KI Monitor: Eizo							
IDENTIFICATION:	Model No.: 5486188-10							
DESCRIPTION:	System component of the Discovery IQ PET-CT System:							
MOUNTING:	Floor mounted using (4) – 5/16" dia GR 8 hex head bolts with GE mounting bracket. Monitors attached to GE Healthcare Mobile CT monitor mounts and secured to desk with (4)-M6 machine screws through desktop with nuts and washers at underside.							
								
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Side/Side	Front/Back	Vert		
58.25	35.25	30"	155	5.1	4.9	19.6		
SHAKE TABLE TEST PARAMETERS								
CODE	TEST CRITERIA	S _{DS} (g)	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.0 2.5	1.0 0.0	1.5	3.20	2.40	1.68	0.68
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT-C1 Discovery PET-CT System Gantry																			
MANUFACTURER: GE Healthcare																			
IDENTIFICATION:		CT			PET														
Model No.:		5454001-170			5990025														
Serial No.:		10002			10002														
DESCRIPTION: System component of the Discovery PET-CT System:																			
MOUNTING: Floor mounted using (11) – 5/8" dia GR 8 bolts.																			
																			
										PROPERTIES:									
										DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)					
										Width	Depth	Height		Side/Side	Front/Back	Vert			
77.4	93.59	76	7855	8.6	8.1	14.7													
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 0.0	1.5	3.20	2.40	1.68	0.68											
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test																			

UUT-C2 Discovery PET-CT Power Distribution Box (PDB)																			
MANUFACTURER: GE Healthcare																			
IDENTIFICATION:		Model No.: 5627940 Rev 2																	
		Serial No.: ENG 1																	
DESCRIPTION: System component of the Discovery PET-CT System:																			
MOUNTING: Wall mounted using (4) – 1/4" dia. machine screws w/ (2) 1-1/4" O.D. x 5/16" I.D. fender washers at top and (2) standard washers at bottom and Hex Head nuts at back side of 1/4" steel backing plate.																			
																			
										PROPERTIES:									
										DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)					
										Width	Depth	Height		Side/Side	Front/Back	Vert			
19.7	9.5	24.8	68	---	---	---													
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	3.20	2.40	1.68	0.68											
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test																			

ATTACHMENT 2: TEST UNIT SUMMARY

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UUT-C3			Discovery PET-CT Chiller					
MANUFACTURER:	GE Healthcare							
IDENTIFICATION:	Lytron P/N: RC045J03YY3C017 REV B							
	Lytron Serial No.: 898088-01							
GEHC P/N: 5582166 REV 06								
DESCRIPTION:	System component of the Discovery PET-CT System. Unit included enhancements to construction not found on then-standard production units. These enhancements installed at lab.							
MOUNTING:	Rigid Base (Floor) mounted using (4) – ½" dia GR 8 bolts using GE provided mounting brackets.							
PROPERTIES:								
DIMENSIONS (in.)			Weight (lb.)	LOWEST RESONANT FREQUENCY (Hz.)				
Width	Depth	Height		Side/Side	Front/Back	Vert		
21.375	27.75	31.875	313.5	25.9	10.6	16.7		
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	1.0	1.5	3.20	2.40	1.34	0.54
		2.5	0.0		2.50	1.00	1.68	0.68
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test								

UUT-E1				Discovery IQ PET-CT Gantry													
MANUFACTURER:		GE Healthcare															
IDENTIFICATION:		CT Gantry		PET Gantry													
		Model:		5432539-22		5900025-20											
		Serial:		441940HM4													
DESCRIPTION:		System component of the Discovery IQ PET-CT System.															
MOUNTING:		Rigid Base (Floor) mounted using (6) – 5/8" dia GR 8 bolts.															
																	
PROPERTIES:																	
DIMENSIONS (in.)						LOWEST RESONANT FREQUENCY (Hz.)											
Width		Depth		Height						Weight (lb.)							
89		101		76		7387		Side/Side		Front/Back		Vert					
								10.4		9.0		21.0					
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		3.20		2.40		1.68		0.68	
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test																	