APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY	
APPLICATION #:	OSP – 0522

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: **PHILIPS HEALTHCARE**

Manufacturer's Technical Representative: Yossi Kamhine

Mailing Address: Veenpluis 4-6, 5684 PC Best, The Netherlands

Telephone: On File Email: On File

Product Information

Product Name: **Brilliance iCT**

Product Type: Computed Tomography (CT) medical diagnostic imaging system.

Product Model Number: See Attachment 1
(List all unique product identification numbers and/or part numbers)

General Description: Multiple component systems for the provision of Computed Tomography medical diagnostic imaging. Seismic certification is limited to system components listed in Attachment 1 Table 1. Seismic enhancements incorporated into the test units shall be incorporated into the certified units.

Mounting Description: Rigid floor mount

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

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: October 2, 2019

Title: Principal Engineer Company Name: EASE LLC

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):

REVIEWED FOR CODE COMPLIANCE
OSHPD
OSP-0522
BY: Mohammad Aliaari
DATE: 09/29/2020
CALIFORNIA BUILDING CODE, 2019

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

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**

S_{DS} (Design spectral response acceleration at short period, g) = **2.50 (z/h = 0); 2.00 (z/h = 1)**

a_p (In-structure equipment or component amplification factor) = **See Attachment 1**

R_p (Equipment or component response modification factor) = **See Attachment 1**

Ω_0 (System overstrength factor) = **See Attachment 1**

I_p (Importance factor) = **1.5**

z/h (Height factor ratio) = **1 (S_{DS}=2.00); 0 (S_{DS}=2.50)**

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

Overall dimensions and weight (or range thereof) = **See Attachment 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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 Dr. Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

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: M. Aliaari Date: September 29, 2020

Print Name: Mohammad Aliaari Title: Senior Structural Engineer

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

TABLE 1:

System Manufacturer	**PHILIPS HEALTHCARE**
System	**Brilliance iCT Elite 256** (459800778191) [5] **Brilliance iCT SP 128** (459800778221) [5] **Brilliance iCT Elite 256** (459800778192) [5] **Brilliance iCT SP 128** (459800778222) [5] **Brilliance iCT Elite 256 w/ IMR** (459800778211) [5] **Brilliance iCT SP 128 w/ IMR** (459800778231) [5] **Brilliance iCT Elite 256 w/ IMR** (459800778213) [5] **Brilliance iCT SP 128 w/ IMR** (459800778232) [5]

COMPONENT	PART NUMBER	APPROX. DIMENSIONS (IN.) W	D	H	MAX. WT. (LB.)	MOUNT	BASIS [1]	F_P/W_P	S_{DS}	z/h	a_P	R_P	Ω_0
GANTRIES													
Gantry, iCT 256 [4][5]	453567449902	108	37.8	78.1	5656	Rigid Base	1705-1	2.40 1.13	2.0 2.5	1 0	1	1 ½	2
Gantry, iCT 128 [4][5]	453567531112	108	37.8	78.1	5656	Rigid Base	INT						
IQon Gantry [6]	459800868121	107	37.7	78.10	5669	Rigid Base	1505-1						
PATIENT TABLES													
Patient Support – iCT Standard [5]	453567480181	22.7	107.4	42 max.	889 [2]	Rigid Base	1705-2	2.40 1.13	2.0 2.5	1 0	1	1 ½	2
Patient Support – iCT Standard [5]	453567480183	22.7	107.4	42 max.	889 [2]	Rigid Base	SAME						
Patient Support – iCT Extended [5]	459800021201	22.7	117.6	42.2 max.	955 [2]	Rigid Base	1505-2						
Extended Patient Sup, BRIL iCT [5]	459800021203	22.7	117.6	42.2 max.	955 [2]	Rigid Base	SAME						
Patient Support – iCT Bariatric [5]	453567480191	22.7	107.4	42 max.	981	Rigid Base	INT						
Patient Support – iCT Bariatric [5]	453567480195	22.7	107.4	42 max.	981	Rigid Base	INT						
Patient Support – Bariatric [6][8]	453567391361	22.7	117.6	42.2 max.	890 [3]	Rigid Base	1602-2						
CONSOLES													
HOST RACK – IMR (Granite) w/ [5]	459800444981	13	35.3	29.9	172	Rigid Base	1503-A2	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Common Host Computer (CRC) (HP z440)	459800918411												
CRC RACK – IMR (Granite) w/ [5]	459800444991	24	35.5	29.9	316	Rigid Base	1503-A1	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CIRS S1 (HP z840)	459800912731												
CIRS S2 (HP z840)	459800914211												
CRC RACK – IMR (Granite) w/ [5]	459800444991	24	35.5	29.9	316	Rigid Base	INT	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CIRS S1 (HP z840)	459801304961												
CIRS S2 (HP z840)	459801305001												

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REVIEWED FOR CODE COMPLIANCE OSP-0522 BY Mohamad Alkam DATE: 09/29/2020 CALIFORNIA BUILDING CODE: 2019

TABLE 1:

System Manufacturer	**PHILIPS HEALTHCARE**
System	**Brilliance iCT Elite 256** (459800778191) [5] **Brilliance iCT SP 128** (459800778221) [5] **Brilliance iCT Elite 256** (459800778192) [5] **Brilliance iCT SP 128** (459800778222) [5] **Brilliance iCT Elite 256 w/ IMR** (459800778211) [5] **Brilliance iCT SP 128 w/ IMR** (459800778231) [5] **Brilliance iCT Elite 256 w/ IMR** (459800778213) [5] **Brilliance iCT SP 128 w/ IMR** (459800778232) [5]

COMPONENT	PART NUMBER	APPROX. DIMENSIONS (IN.) W	D	H	MAX. WT. (LB.)	MOUNT	BASIS [1]	F_P/W_P	S_{DS}	z/h	a_P	R_P	Ω_0
LCC CRC RACK DVI (Granite) w/ [5]	455012005711	24	35.5	29.9	307	Rigid Base	1503-A3	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Common Host Computer (CRC) (HP z440)	459800918411												
CIRS Computer (HP z840)	459800914091												
LCC CRC RACK DVI (Granite) w/ [5]	455012005711	24	35.6	29.9	307	Rigid Base	INT	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Common Host Computer (CRC) (HP z440)	459800918411												
CIRS Computer (HP z840)	459801305071												
CRC RACK (Avnet) w/ [7]	459801089011	24	35.6	29.9	318	Rigid Base	INT	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Common Host Computer (CRC) (HP z440)	459800918411												
CIRS Computer (HP z840)	459801305071												
CRC RACK (Avnet) w/ [6] [7]	459801089011	24	35.6	29.9	318	Rigid Base	1713-1	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Common Host Computer (CRC) (HP z440)	459801304931												
CIRS Computer (HP z840)	459801305071												
POWER DISTRIBUTION													
Light Weight PDU (Spellman High Voltage Electronics)	459800064812	22	32	48.5	1147	Rigid Base	1505-6	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CT PDU with Integrated DC-DC Converter (Spellman High Voltage Electronics)	459801051621	27.7	32.15	66.41	1264	Rigid Base	1702-1	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
USER INTERFACE													
CT Box 1 (Vexos) [5]	453567111594	15.8	4	3.5	4	Rigid Base	1705-3	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CT Box 1 (Vexos) [5]	453567111595	15.8	4	3.5	4	Rigid Base	SAME	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
MISC													
Compressor-JUN AIR 50/60 HZ	459800191992	21.42	28.86	30.75	200	Rigid Base	1503-A5	1.44 1.13	2.0 2.5	1 0	1	2 ½	2

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REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 1:

System Manufacturer	**PHILIPS HEALTHCARE**					
System	**Brilliance iCT Elite 256**	(459800778191)	[5]	**Brilliance iCT SP 128**	(459800778221)	[5]
	Brilliance iCT Elite 256	(459800778192)	[5]	**Brilliance iCT SP 128**	(459800778222)	[5]
	Brilliance iCT Elite 256 w/ IMR	(459800778211)	[5]	**Brilliance iCT SP 128 w/ IMR**	(459800778231)	[5]
	Brilliance iCT Elite 256 w/ IMR	(459800778213)	[5]	**Brilliance iCT SP 128 w/ IMR**	(459800778232)	[5]

COMPONENT	PART NUMBER	APPROX. DIMENSIONS (IN.) W	D	H	MAX. WT. (LB.)	MOUNT	BASIS [1]	F_P/W_P	S_{DS}	z/h	a_P	R_P	Ω_0
Cabinet Compressor-JUN AIR 50/60 Hz [5]	459800882781	24.3	26	33.7	290	Rigid Base	1503-A6	1.44 1.13	2.0 2.5	1 0	1	2 ½	2

Mount	Rigid Base (Floor) Mount: free-standing, base-mounted configuration with component rigidly attached to supporting structure and no lateral support above base.
Notes	1. BASIS: • UUT#: Indicates that a unit matching these characteristics was tested. • SAME • INT (Interpolate/Extrapolate): indicates a model not specifically tested, by which seismic certification is established through evaluation of testing of other, similar models in the product line. 2. Patient table weight does not include the 450-lb. patient load present during testing. 3. Patient table weight does not include the 500-lb. patient load present during testing 4. Gantry requires use of Philips Healthcare SHIPWITH, GANTRY, & GCX INSTALL, iCT (Part No. 4598 001 92152). 5. Requires use of Philips Healthcare iCT Seismic Hardening kit (Part No. 4598 013 23201). 6. Model is included only for purpose of interpolation, and not used with the CT system systems identified above. 7. Requires use of Philips Healthcare CRC Rack Seismic Package Kit (Part No. 4598 013 57921). 8. Component requires use of Philips Healthcare Seismic Kit (Part No. 4598 008 81561).

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 Mohammad Aliaari CALIFORNIA BUILDING CODE, 2019

TABLE 2:

System Manufacturer	**PHILIPS HEALTHCARE**
System	**iCT S 256 with 4.1 Console-Best** (459800778193) [5] **iCT S 256 with 4.1 IMR Console- Best** (459800778214) [5]

COMPONENT	PART NUMBER	APPROX. DIMENSIONS (IN.) W	D	H	MAX. WT. (LB.)	MOUNT	BASIS [1]	F_P/W_P	S_{DS}	z/h	a_P	R_P	Ω_0
GANTRIES													
Gantry, iCT 256 [4][5]	459801661451	108	37.8	78.1	5656	Rigid Base	SAME AS 1705-1 [8]	2.40 1.13	2.0 2.5	1 0	1	1 ½	2
PATIENT TABLES													
Std Patient Support, iCT Wht [5]	453567480184	22.7	107.4	42 max.	889 [2]	Rigid Base	SAME AS 1705-2 [8]	2.40 1.13	2.0 2.5	1 0	1	1 ½	2
Patient Support, IQon Extended [5]	459800771026	22.7	117.6	42.2 max.	955	Rigid Base	SAME AS 1505-2 [8]						
Patient Supt, IQon Bariatric [5]	453567480192	22.7	107.4	42 max	890 [3]	Rigid Base	INT						
Patient Support – Bariatric [6][8]	453567391361	22.7	107.4	25.4 / 42	890 [3]	Rigid Base	1602-2						
CONSOLES													
LCC CRC Rack (Avnet) [9]	459801540281	24	35	30	309	Rigid Base	1806-3	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CT Gen5.3 IDose CIRS, Z8 + ACQ (HP)	459801493311												
Host z4, Kbd, Mouse, CAN, Adaptor (HP)	459801493301												
CRC RACK IMR (Avnet) [10]	459801286611	24	35	30	340	Rigid Base	1806-4	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
CT Gen 5.3 IMR CIRS S1, Z8 + ACQ (HP)	459801626701												
CT Gen 5.3 IMR CIRS S2, Z8 (HP)	459801626691												
HOST RACK IMR (Avnet) [11]	459801287961	13	35	30	189	Rigid Base	1806-5	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Host z4, Kbd, Mouse, CAN, Adaptor (HP)	459801493301												
POWER DISTRIBUTION													
CT PDU with Integrated DC-DC Converter (Spellman High Voltage Electronics)	459801051621	27.7	32.15	66.41	1264	Rigid Base	1702-1	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
USER INTERFACE													
CT BOX ASSEMBLY-NO TILT (RoHS) (Vexos) [5]	459800842442	15.8	4	3.5	4	Rigid Base	SAME AS 1705-3 [8]	1.44 1.13	2.0 2.5	1 0	1	2 ½	2

Table continues next page

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 By: Mohammad Ansari DATE: 09/29/2020 CALIFORNIA BUILDING CODE 2019

TABLE 2:

System Manufacturer	**PHILIPS HEALTHCARE**
System	**iCT S 256 with 4.1 Console-Best** (459800778193) [5] **iCT S 256 with 4.1 IMR Console- Best** (459800778214) [5]

COMPONENT	PART NUMBER	APPROX. DIMENSIONS (IN.) W	D	H	MAX. WT. (LB.)	MOUNT	BASIS [1]	F_P/W_P	S_{DS}	z/h	a_P	R_P	Ω_0
MISC													
Compressor-JUN AIR 50/60 HZ	459800191992	21.42	28.86	30.75	200	Rigid Base	1503-A5	1.44 1.13	2.0 2.5	1 0	1	2 ½	2
Cabinet Compressor-JUN AIR 50/60 Hz [5]	459800882781	24.3	26	33.7	290	Rigid Base	1503-A6	1.44 1.13	2.0 2.5	1 0	1	2 ½	2

Mount	Rigid Base (Floor) Mount: free-standing, base-mounted configuration with component rigidly attached to supporting structure and no lateral support above base.
Notes	1. BASIS: • UUT#: Indicates that a unit matching these characteristics was tested. • SAME: Model is physically, mechanically & electrically identical to test specimen. Difference is limited to model number, color, or software. • INT (Interpolate/Extrapolate): indicates a model not specifically tested, by which seismic certification is established through evaluation of testing of other, similar models in the product line. 2. Patient table weight does not include the 450-lb. patient load present during testing. 3. Patient table weight does not include the 500-lb. patient load present during testing 4. Gantry requires use of Philips Healthcare SHIPWITH, GANTRY, & GCX INSTALL, iCT (Part No. 4598 001 92152). 5. Requires use of Philips Healthcare iCT Seismic Hardening kit (Part No. 4598 013 23201). 6. Model is included only for purpose of interpolation, and not used with the CT system systems identified above. 7. Requires use of Philips Healthcare CRC Rack Seismic Package Kit (Part No. 4598 013 57921). 8. See Table 1 for referenced UUT. 9. LCC CRC Rack requires use of Philips Seismic Kit (Part No. 459801561661) 10. CRC RACK IMR requires use of Philips Seismic Kit (Part No. 459801561811) 11. HOST RACK IMR requires use of Philips Seismic Kit (Part No. 459801561671)

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 ACCEPTANCE IS BASED ON THE 2019 CBC

1705-1 iCT Gantry

MANUFACTURER:	Philips Medical Systems (Cleveland)
IDENTIFICATION:	Model No.: 453567449902
DESCRIPTION:	Component of the Brilliance iCT System 459800192152 SHIPWITH, GANTRY & GCX INSTALL, iCT 459801139791 Gantry/Couch Anchor Bracket Seismic Kit Test specimen modified to address anomalies observed during testing. These modifications subsequently included in updated seismic kit – iCT Seismic Hardening kit (Part No. 4598 013 23201).
MOUNTING:	Rigid Base (Floor) mounted using (8) – ¾" dia. SAE J429 Grade 8 bolts w/ Philips supplied washer kit.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
108	37.8	78.1	5656	10.8	9.1	40.6

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1705- 2 Patient Support - Standard

MANUFACTURER:	Philips Medical Systems (Cleveland)
IDENTIFICATION:	Model No.: 453567480181
DESCRIPTION:	Component of the Brilliance iCT System Patient Support - Standard including: PIM 459801139791 Gantry/Couch Anchor Bracket Seismic Kit 459800073071 Plinth Group, Couch Base
MOUNTING:	Rigid Base (Floor) mounted using (5) – ½" dia. SAE J429 Grade 8 bolts w/ Philips supplied washer kit.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Longit -Axis	Transv-Axis	Vert-Axis
22.7	107.4	42	889	24.3	3.4	4.6

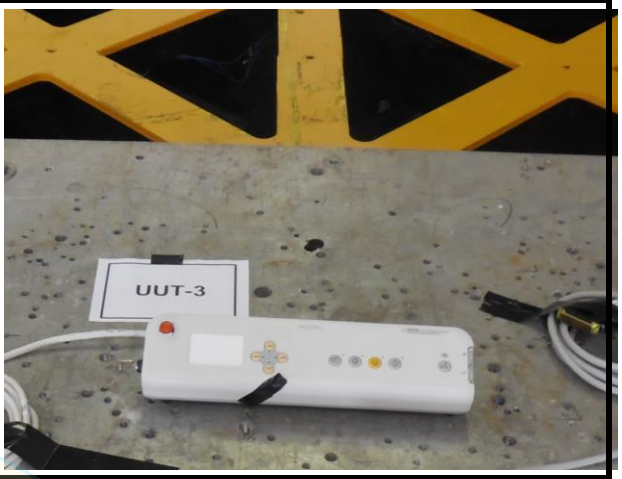
ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						CODE: 2016 CBC
S_{DS} (G)	z/h	I_P	A_{FLX-H} (G)	A_{RIG-H} (G)	A_{FLX-V} (G)	A_{RIG-V} (G)
2.0 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Khalili DATE: 09/29/2020 CALIFORNIA BUILDING CODE: 2019

1705- 3 CT Box

MANUFACTURER:	Vexos
IDENTIFICATION:	Model No.: 453567111594
DESCRIPTION:	Component of the Brilliance iCT System 459801147561 (4x) CT Box Seismic Mounting Strip
MOUNTING:	Rigid Base (Floor) mounted using (2) - 1" x 3" 3M Dual Lock SJ3560 Reclosable fastener at each of two tapered feet (applied to bottom of foot and test plate).



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front-Axis	Side-Axis	Vert-Axis
15.8	4	3.5	4	> 50	> 50	> 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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1602- 2 Patient Support - Bariatric

MANUFACTURER:	Philips Medical Systems (Cleveland)
IDENTIFICATION:	Model No.: 453567391361
DESCRIPTION:	Component of the Brilliance Big Bore CT system, Brilliance iCT System and others. Philips Healthcare Seismic Kit (Part No. 4598 008 81561)
MOUNTING:	Rigid Base (Floor) mounted using (5) – 5/8" dia GR 8 bolts



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Transv -Axis	Longit-Axis	Vert-Axis
22.7	107.4	36	908	3.3	7.3	4.7

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE 2019

1505- 1 IQon Gantry

MANUFACTURER: Philips Medical Systems (Cleveland)

IDENTIFICATION: Model No.: 459800868121

DESCRIPTION: Component of the IQon CT System

Included enhancements not found on then-standard production units which were subsequently included in Philips Healthcare GANTRY/COUCH ANCHOR BRACKET SEISMIC KIT (Part No. 459801139791).

MOUNTING: Rigid Base (Floor) mounted using
(8) – ¾" dia GR 8 bolts with Philips provided washer assembly



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
107	37.7	78.10	5669	9.4	8.0	30.6

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1505- 2 Patient Support – Extended

MANUFACTURER: Philips Medical Systems (Cleveland)

IDENTIFICATION: Model No.: 459800021201

DESCRIPTION: Component of the IQon CT system, Brilliance iCT System and others.

Included enhancements not found on then-standard production units which were subsequently included in Philips Healthcare GANTRY/COUCH ANCHOR BRACKET SEISMIC KIT (Part No. 459801139791).

MOUNTING: Rigid Base (Floor) mounted using
(5) – ½" dia GR 8 bolts with Philips provided washer assembly.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Transv -Axis	Longit-Axis	Vertical-Axis
22.7	117.6	41.4	954.5	3.7	7.61	4.2

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Khalili DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

1505- 6 Light Weight PDU

MANUFACTURER: Spellman High Voltage Electronics

IDENTIFICATION: Model No.: 459800064812

DESCRIPTION: Component of the IQon CT system and Brilliance iCT System.

MOUNTING: Rigid Base (Floor) mounted using
(4) – 3/8" dia ASTM A574 Socket Head Cap Screws through
(2) - 4" x 3.75" x 0.179" x 2'-1" ASTM A1008/A1008M steel mounting brackets provided by manufacturer. Each bracket connected to cabinet with
(4) – 3/8-16 x 1" full thread, SAE J429 grade 5 bolts & flat washer. (Torque =26 ft-lb)



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
22	32	48.5	1147	10.1	16.7	23.8

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1503-A1 CRC RACK IMR

MANUFACTURER: Philips Medical Systems (Cleveland)

IDENTIFICATION:
Rack 459800444991 Rev C
CIRS S1 459800912731
CIRS S2 459800914211

DESCRIPTION: CRC RACK IMR including:
- CIRS S1 (CIRS, HP z840 E5-2630v3 4Drv, SN5BP, ACQ4e)
- CIRS S2 (CIRS, HP z840 E5-2630v3 No Raid, SN5BP)
- Gen 5.X Console Seismic Kit (REF: 4598 008 81561)

The Test Specimen was fully populated at time of test.

MOUNTING: Rigid Base (Floor) mounted using
(4) -3/8" dia. ASTM A574 Socket Head Cap Screws



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
24.0	35.5	29.9	316	8.1	6.6	9.2

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)
2.5	1.0	1.5	4.00	3.00	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE 2016

1503-A2 Host Rack - IMR

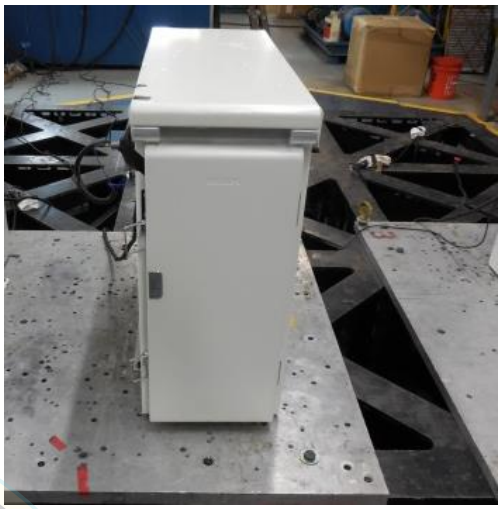
MANUFACTURER: Philips Medical Systems (Cleveland)

IDENTIFICATION:
Rack 459800444981 Rev D
Common Host 459800918411

DESCRIPTION:
Host Rack - IMR including:
Common Host Computer (CRC) (Host HP z440, CAN, Adaptor)
Gen 5.X Console Seismic Kit (REF: 4598 008 81561)

The Test Specimen was fully populated at time of test.

MOUNTING:
Rigid Base (Floor) mounted using
(4) -3/8" dia. ASTM A574 Socket Head Cap Screws to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
13.0	35.3	29.9	172	8.3	3.9	25.1

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)
2.5	1.0	1.5	4.00	3.00	1.68	0.68

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

1503-A3 LCC CRC RACK DVI

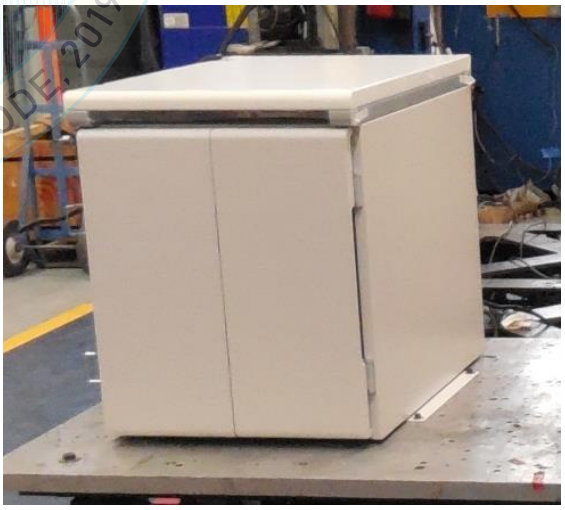
MANUFACTURER: Philips Medical Systems (Cleveland)

IDENTIFICATION:
Rack 455012005711 Rev B
CRC 459800918411
CIRS 459800914091

DESCRIPTION:
LCC CRC RACK DVI consist of :
Common Host Computer (CRC) (Host, HP z440, CAN, Adaptor)
CIRS Computer (CIRS, HP z840 E5-2620v3 4Drv, SN5BP, ACQ4e)
Gen 5.X Console Seismic Kit (REF: 4598 008 81561)

The Test Specimen was fully populated at time of test.

MOUNTING:
Rigid Base (Floor) mounted using
(4) -3/8" dia. ASTM A574 Socket Head Cap Screws to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Front-Axis	Side-Axis	Vertical-Axis
24.0	35.5	29.9	307	9.4	5.6	20.8

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)
2.5	1.0	1.5	4.00	3.00	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammed Aljaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE 2019

1503-A5 COMPRESSOR-JUN AIR 50/60 HZ

MANUFACTURER: Jun-Air

IDENTIFICATION: Model No.: 459800191992

DESCRIPTION: Component of the IQon CT system and Brilliance iCT System.

Casters removed to allow anchorage of unit to fixture.
The Test Specimen was fully populated & full of content at time of test.

MOUNTING: Rigid Base (Floor) mounted using
(4) -1/2" dia. grade 8 hex bolts to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
21.42	28.86	30.75	200	21.9	10.6	15.6

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)
2.5	1.0	1.5	4.00	3.00	1.68	0.68

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

1503-A6 CABINET COMPRESSOR- JUN AIR 50/60 HZ

MANUFACTURER: Jun-Air

IDENTIFICATION: Model No.: 459800882781

DESCRIPTION: Component of the IQon CT system and Brilliance iCT System.
Test specimen included seismic enhancements which are represented in Philips seismic kit P/N 459801067821.

The Test Specimen was fully populated & full of content at time of test.

MOUNTING: Rigid Base (Floor) mounted using
(4) -3/8" dia. ASTM A574 Socket Head Cap Screws to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vertical-Axis
24.3	26	33.7	290	6.1	6.3	29.9

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)
2.5	1.0	1.5	4.00	3.00	1.68	0.68

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

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 By: Mohammad Aliaei CALIFORNIA BUILDING CODE 2016

1713-1 CRC RACK (Avnet)

MANUFACTURER: Philips Healthcare & Avnet Technology Solutions (Tianjin) Ltd.

IDENTIFICATION:

CRC Rack	Common Host	CIRS
459801089011	459801304931	459801305071

DESCRIPTION: CRC RACK (Avnet) including:

- Common Host Computer (CRC) (HP z440): UPD Host z440, Kbd, Mouse, CAN, Adapter
- CIRS Computer (HP z840): UPD Host z440, Kbd, Mouse, CAN, Adapter
- CRC Rack Seismic package KIT (459801357921)

The Test Specimen was fully populated at time of test.

MOUNTING: Rigid Base (Floor) mounted using
(4) -3/8" diam. SAE J429 Grade 8 to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Longit -Axis	Transv-Axis	Vert-Axis
24.0	35.6	29.9	317.5	12.58	11.54	21.43

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1702-1 Power Distribution Unit

MANUFACTURER: Spellman High Voltage Electronics Corporation

IDENTIFICATION: Model No.: PDUX4626 (Philips Part No. 459801051621)

DESCRIPTION: Power Distribution Unit
CT PDU with Integrated DC-DC Converter

Unit was full of content during test.

MOUNTING: Rigid Base (Floor) mounted using:
0.18" thick 1008 steel bracket (Fy = 43.1 ksi) w/
(4) – M8-class 8.8 bolts to equipment frame
(Torque = 10.4 ft-lb) (provided by Spellman)
(3) - 3/8" diam. socket head cap screws w/ washers.
(Torque = 25 ft-lb) to structure
Typical each side of cabinet (2 locations total)



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
27.7	32.15	66.41	1264	13.8	16.3	14.4

ICC-ES AC156 SHAKE TABLE TEST PARAMETERS

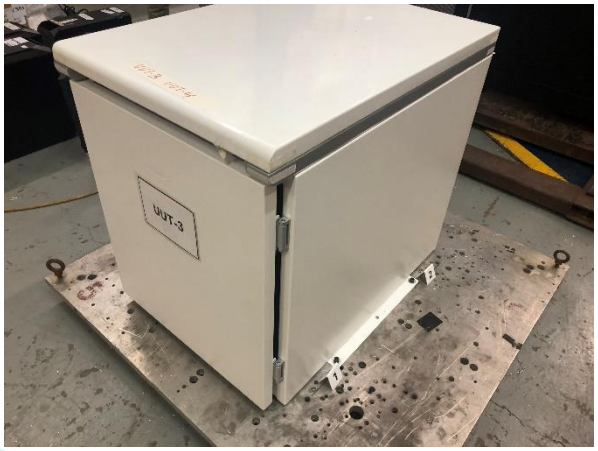
S_{DS} (G)	z/h	I_P	A_{FLX-H} (G)	A_{RIG-H} (G)	A_{FLX-V} (G)	A_{RIG-V} (G)
2.0 2.5	1 0	1.5	3.20	2.40	1.68	0.68

Unit maintained structural integrity and remained functional per manufacturer requirement after AC156 test.

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 By: Mohammad Alsaadi DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

1806-3 Gen 5.3 CRC Rack IMR (Avnet)

MANUFACTURER:	Avnet Technology Solutions (Taijin), Ltd. (Avnet) Hewlett Packard (HP) & Philips Healthcare (Suzhou) Co., Ltd.
IDENTIFICATION:	Part No.: 459801540281 Serial No.: N/A
DESCRIPTION:	Gen 5.3 CRC Rack (Avnet) Includes the following: CT Gen5.3 IDose CIRS, Z8 + ACQ (HP), Part: 459801493311 w/ 1 TB NVMe SSD, Part: MZVLB1T0HALR-000H2 Host z4, Kbd, Mouse, CAN, Adaptor; Part: 459801493301 CT Gen5.3 IDose CIRS, Z8 + ACQ (HP), Part: 459801493311 Also included: 2 TB NVMe SSD, Part: MZVLB2T0HMLB-000H1 **Requires Seismic Kit 12NC P/N: 459801561661** The Test Specimen was fully populated at time of test.
MOUNTING:	Rigid Base (Floor) mounted using (4) -3/8" diam. SAE J429 Grade 8 to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Longit -Axis	Transv-Axis	Vert-Axis
24	35	30	309	16.26	22.41	16.87

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 2.5	1 0	1.5	3.2	2.4	1.68	0.68

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

1806-4 Gen 5.3 CRC Rack IMR (Avnet)

MANUFACTURER:	Avnet Technology Solutions (Taijin), Ltd. (Avnet) Hewlett Packard (HP) & Philips Healthcare (Suzhou) Co., Ltd.
IDENTIFICATION:	459801286611
DESCRIPTION:	Gen 5.3 CRC Rack IMR (Avnet) (Component of Brilliance and Ingenuity CT Systems) Includes the following: • CT Gen 5.3 IMR CIRS S1, Z8 + ACQ (HP), Part: 459801626701 • CT Gen 5.3 IMR CIRS S2, Z8 (HP), Part: 459801626691 • w/ 1 TB NVMe SSD, Part: MZVLB1T0HALR-000H2 • CT Gen5.3 IQon CIRS Computing Z8, Part: 459801498691 Also included: 2 TB NVMe SSD, Part: MZVLB2T0HMLB-000H1 **Requires Seismic Kit 12NC P/N: 459801561811** The Test Specimen was fully populated at time of test.
MOUNTING:	Rigid Base (Floor) mounted using (4) -3/8" diam. SAE J429 Grade 8 to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
24	35	30	340	15.66	21.63	16.29

ICC-ES AC156 SHAKE TABLE TEST PARAMETERS						
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 2.5	1 0	1.5	3.20	2.40	1.68	0.68

Unit maintained structural integrity and remained functional per manufacturer requirement after AC156 test.

REVIEWED FOR CODE COMPLIANCE OSHPD OSP-0522 BY: Mohammad Aliaari DATE: 09/29/2020 CALIFORNIA BUILDING CODE, 2019

1806-5	**Gen 5.3 Host Rack IMR (Avnet)**
MANUFACTURER:	Avnet Technology Solutions (Taijin), Ltd. (Avnet) Hewlett Packard (HP) & Philips Healthcare (Suzhou) Co., Ltd.
IDENTIFICATION:	Part No.: 459801287961 Serial No.: AVTHOSTIMR00002
DESCRIPTION:	Gen 5.3 Host Rack IMR (Avnet) (Component of Brilliance and Ingenuity CT Systems) Includes the following: Host Z4, Kbd, Mouse, CAN, Adaptor (HP), Part: 459801493301 **Requires Seismic Kit 12NC P/N: 459801561671**
MOUNTING:	Rigid Base (Floor) mounted using (4) -3/8" diam. SAE J429 Grade 8 to aluminum interface plate.



DIMENSIONS (in.)				LOWEST RESONANT FREQUENCY (Hz.)		
Width	Depth	Height	Weight (lb.)	Side-Axis	Front-Axis	Vert-Axis
13	35	30	189	36.55	13.03	25.90

ICC-ES AC156 SHAKE TABLE TEST PARAMETERS

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 2.5	1 0	1.5	3.20	2.40	1.68	0.68

Unit maintained structural integrity and remained functional per manufacturer requirement after AC156 test.

REVIEWED FOR CODE COMPLIANCE
OSHPD
OSP-0522
BY: Mohammad Aliaari
DATE: 09/29/2020
CALIFORNIA BUILDING CODE 2019