



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0319

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Shimadzu Medical Systems

Manufacturer's Technical Representative: Jim Mekker / Akiharu Yamagata

Mailing Address: 25101 Chagrin Blvd. Suite 240, Beachwood, OH 44122

Telephone: (310) 217-8855 Email: mekker@shimadzu-usa.com

Product Information

Product Name: Fluoroscopy and Radiography Systems

Product Type: NA

Product Model Number: Sonialvision G4 and RADspeed

General Description: Multiple component digital radiography and fluoroscopy medical diagnostic imaging system.

Mounting Description: Rigid, See Certified Product Tables

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

Applicant Information

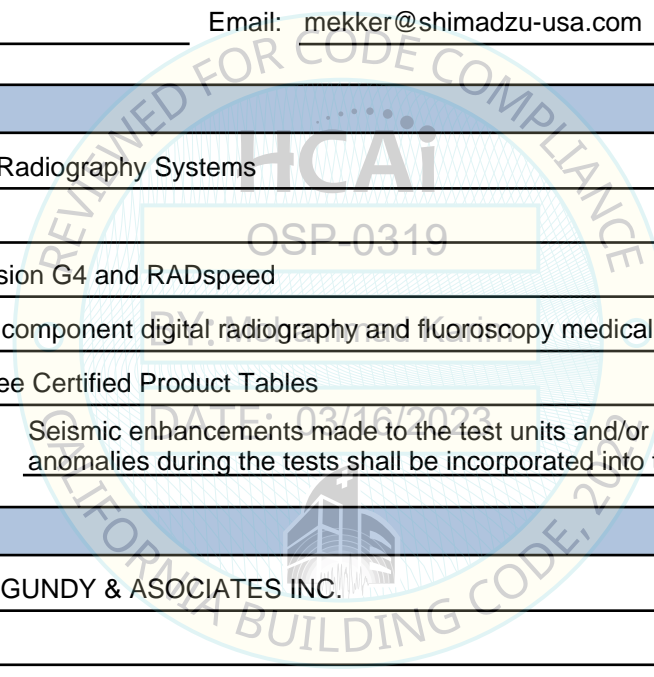
Applicant Company Name: W.E. GUNDY & ASSOCIATES INC.

Contact Person: Travis Soppe

Mailing Address: 1199 Shoreline Drive Suite 310, Boise, ID 83702

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

Title: President





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

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

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

Name: Travis Soppe California License Number: S6115

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

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

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3

Other (Please Specify): _____

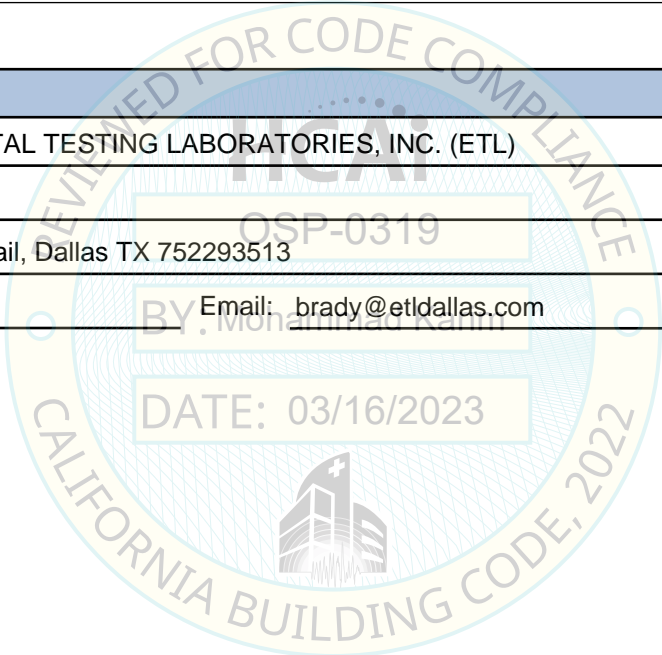
Testing Laboratory

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)

Contact Person: Brady Richard

Mailing Address: 11034 Indian Trail, Dallas TX 752293513

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





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =	See Attachments
SDS (Design spectral response acceleration at short period, g) =	2.0 at z/h = 1 and 2.6 at z/h = 0
a_p (Amplification factor) =	See attachments
R_p (Response modification factor) =	See attachments
Ω_0 (System overstrength factor) =	2.0
I_p (Importance factor) =	1.5
z/h (Height ratio factor) =	1 and 0
Natural frequencies (Hz) =	See Attachment
Overall dimensions and weight =	See Attachment

HCAI Approval (For Office Use Only) - Approval Expires on 03/16/2029

Date:	3/16/2023	OSP-0319
Name:	Mohammad Karim	Title: Supervisor, Health Facilities
Special Seismic Certification Valid Up to: SDS (g) =	See Above	z/h = See Above
Condition of Approval (if applicable):	DATE: 03/16/2023	

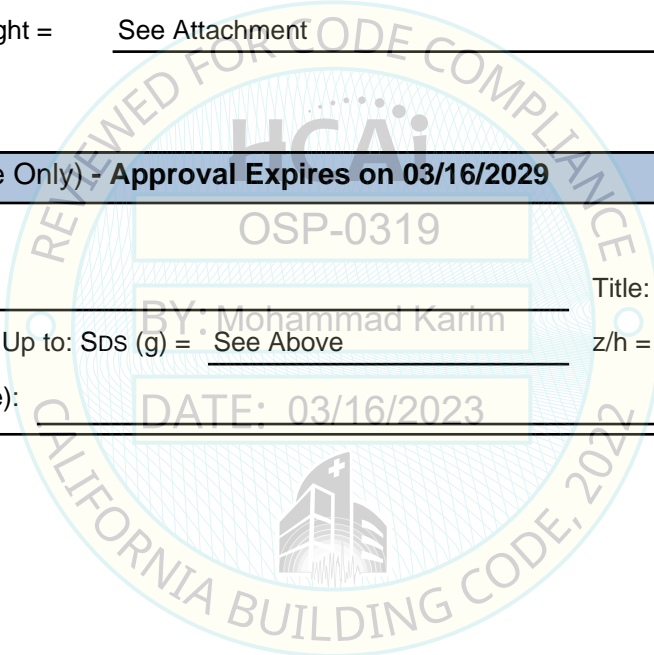


Table 1	SHIMADZU MEDICAL SYSTEMS SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS	 WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING
----------------	---	--

Manufacturer: Shimadzu Medical Systems

System: RADSPEED X-Ray and Fluoroscopy System

System Component ¹	Shimadzu Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT ²
		Width	Depth	Height			
Wall Stands							
BR 120 Wall Stand Wireless Digital Detector	503-61800-13	24.8	14.4	84.8	264	wall/floor	UUT _y -8
BR 120 Wall Stand Wireless Digital Detector	566-16500-42	24.8	14.4	84.8	264	wall/floor	same ⁵
BR 120 Wall Stand Flat Panel Detector	503-61800-13	24.8	14.4	84.8	264	wall/floor	interpolated
BR120 Wall Stand Fixed Panel Detector	503-61800-13	24.8	14.4	84.8	264	wall/floor	UUT _y -21
BR 120 Wall Stand Wireless Digital Detector	503-77185-35	26.4	14.4	85.3	283	wall/floor	interpolated
BR 120 Wall Stand Fixed Panel Detector	503-77185-35	26.4	14.4	85.3	283	wall/floor	UUT _z -5
Patient Table							
BK-200 Table Wireless Digital Detector	503-61750-02	31.9	92.5	33.5	720 ³	floor	UUT _y -13
BK-200 Table Wireless Digital Detector	563-61750-81	31.9	92.5	33.5	720 ³	floor	same ⁵
Ceiling Mounted Tube							
CH-200 Ceiling Tube Transverse Bridge	503-58100-27	216.5	129.9	112.2	740	ceiling	UUT _y -6

¹ All components are manufactured by Shimadzu Medical Systems. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² The units were tested at different times and the subscripts on the UUT reference the following seismic test reports:
y = SQ10-1205-01 z = SQ10-1503-01

³ Table weight listed does not include 350lb simulated patient weight included during the horizontal position tests.

⁴ Monitor Ceiling Suspension weight listed does not include the additional 30lbs mass attached to each monitor for simulation of varied monitor configurations.

⁵ Components identified as "same" are of identical construction to the tested UUT with the same name and differ only in color / software

SEISMIC CERTIFICATION LIMITS

System Component	Code	S _{DS} (g)	z / h	I _p	a _p	R _p	Ω ₀	F _p / W _p
Wall Stands	CBC 2022	2.0	1.0	1.50	1.0	1.5	2.0	2.40
		2.6	0					1.17
Patient Table	CBC 2022	2.0	1.0	1.50	1.0	1.5	2.0	2.40
		2.6	0					1.17
Ceiling Mounted Tube	CBC 2022	2.0	1.0	1.50	2.5	2.5	2.0	3.60
		2.6	0					1.56

Table 1	SHIMADZU MEDICAL SYSTEMS SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS	 WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING
----------------	---	--

Manufacturer: Shimadzu Medical Systems

System: RADSPED X-Ray and Fluoroscopy System

System Component ¹	Shimadzu Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT ²
		Width	Depth	Height			
Monitor Ceiling Suspension							
Flat Panel Monitor Suspension	ID10000F-2WOR	38.0	80.0	68.0	294 ⁴	ceiling	UUT _y -5
Control / Power Cabinets							
BK-200 Control Cabinet	503-04403A	19.7	15.8	20.1	98	floor	UUT _y -14
CH-200 / BR-120 Control Cabinet	503-04427D	15.8	19.7	20.1	110	floor	UUT _y -25
CH-200 / BR-120 Control Cabinet	572-18677-02	15.8	19.7	20.1	110	floor	same ⁵
80kW High Voltage Generator UD150B-40	502-23375-01	27.6	15.9	71.1	435	wall/floor	UUT _y -30
80kW High Voltage Generator UD150B-40	562-23375-79	27.6	15.9	71.1	435	wall/floor	same ⁵
PC / User Interface							
UD150B-40 X-Ray Control Console	502-23588	12.1	8.3	13.6	9	wall	UUT _y -10A
UD150B-40 X-Ray Control Console	502-23588	12.1	8.3	13.6	9	floor	UUT _y -10B
Side Station Computer	502-24407-13	7.8	19.6	16.8	28	floor	UUT _y -22
Canon CXDI-NE Workstation	CXDI-NE PC	7.8	18.8	16.5	28	floor	UUT _y -24

¹ All components are manufactured by Shimadzu Medical Systems. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² The units were tested at different times and the subscripts on the UUT reference the following seismic test reports:
y = SQ10-1205-01 z = SQ10-1503-01

³ Table weight listed does not include 350lb simulated patient weight included during the horizontal position tests.

⁴ Monitor Ceiling Suspension weight listed does not include the additional 30lbs mass attached to each monitor for simulation of varied monitor configurations.

⁵ Components identified as "same" are of identical construction to the tested UUT with the same name and differ only in color / software

SEISMIC CERTIFICATION LIMITS

System Component	Code	S _{DS} (g)	z / h	I _p	a _p	R _p	Ω ₀	F _p / W _p
Monitor Ceiling Suspension	CBC 2022	2.0	1.0	1.50	2.5	2.5	2.0	3.60
		2.6	0					1.56
Control / Power Cabinets	CBC 2022	2.0	1.0	1.50	2.5	6.0	2.0	1.50
		2.6	0					1.17
PC / User Interface	CBC 2022	2.0	1.0	1.50	2.5	6.0	2.0	1.50
		2.6	0					1.17

Table 2	SHIMADZU MEDICAL SYSTEMS SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS	 WEGAI <small>W. E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING</small>
	Manufacturer: Shimadzu Medical Systems	

System: SONIALVISION G4 X-Ray and Fluoroscopy System

System Component ¹	Shimadzu Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT ²
		Width	Depth	Height			
Wall Stands							
BR 120 Wall Stand Wireless Digital Detector	503-61800-13	24.8	14.4	84.8	264	wall/floor	UUT _y -8
BR 120 Wall Stand Wireless Digital Detector	566-16500-42	24.8	14.4	84.8	264	wall/floor	same ⁵
BR 120 Wall Stand Flat Panel Detector	503-61800-13	24.8	14.4	84.8	264	wall/floor	interpolated
BR 120 Wall Stand Wireless Digital Detector	503-77185-35	26.4	14.4	85.3	283	wall/floor	interpolated
BR 120 Wall Stand Fixed Panel Detector	503-77185-35	26.4	14.4	85.3	283	wall/floor	UUT _z -5

Patient Table							
ZS-200 Elevating Table Horizontal Position	503-78001	76.0	92.5	96.0	3485 ³	floor	UUT _z -1A
ZS-200 Elevating Table Vertical Position	503-78001	76.0	92.5	96.0	3485 ³	floor	UUT _z -1B
ZS-200 Elevating Table	563-78001-02	76.0	92.5	96.0	3485 ³	floor	same ⁵

Monitor Ceiling Suspension							
Flat Panel Monitor Suspension	ID10000F-2WOR	38.0	80.0	68.0	294 ⁴	ceiling	UUT _y -5

¹ All components are manufactured by Shimadzu Medical Systems. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² The units were tested at different times and the subscripts on the UUT reference the following seismic test reports:
y = SQ10-1205-01 z = SQ10-1503-01

³ Table weight listed does not include 400lb simulated patient weight included during the horizontal position tests.

⁴ Monitor Ceiling Suspension weight listed does not included the additional 30lbs mass attached to each monitor for simulation of varied monitor configurations.

⁵ Components identified as "same" are of identical construction to the tested UUT with the same name and differ only in color / software

SEISMIC CERTIFICATION LIMITS								
System Component	Code	S _{DS} (g)	z / h	I _p	a _p	R _p	Ω ₀	F _p / W _p
Wall Stands	CBC 2022	2.0	1.0	1.50	1.0	1.5	2.0	2.40
		2.6	0					1.17
Patient Table	CBC 2022	2.0	1.0	1.50	1.0	1.5	2.0	2.40
		2.6	0					1.17
Monitor Ceiling Suspension	CBC 2022	2.0	1.0	1.50	2.5	2.5	2.0	3.60
		2.6	0					1.56

Table 2	SHIMADZU MEDICAL SYSTEMS SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS	 WEGAI <small>W. E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING</small>
	Manufacturer: Shimadzu Medical Systems	

System: SONIALVISION G4 X-Ray and Fluoroscopy System

System Component ¹	Shimadzu Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT ²
		Width	Depth	Height			
Wifi Access Point							
Hewlett Packard WAP	J9650A	6.6	2.8	8.0	2	wall	UUT _z -13
PC / User Interface							
LCD Touch Screen Konica	ROM950AIII	17.0	5.3	13.8	21	wall	UUT _z -15
LCD Screen DR-300	SMD19102- SC6GF6211-2EH51	15.6	4.6	13.6	19	wall	UUT _z -16
Konica Aero X-Ray Interface	AreoDR Interface Unit2	7.0	18.0	11.3	29	floor	UUT _z -14
Side Station Computer	502-24407-13	7.8	19.6	16.8	28	floor	UUT _y -22
UD150B-40 X-Ray Control Console	502-23588	12.1	8.3	13.6	9	wall	UUT _y -10A
UD150B-40 X-Ray Control Console	502-23588	12.1	8.3	13.6	9	floor	UUT _y -10B
Konica Aero Workstation	TPC-F046-SF	4.0	14.9	13.3	16	floor	UUT _z -9
DR-300 Image Processing	562-29102	6.3	18.7	23.0	71	floor	UUT _z -7
ZS-200 Control Console Remote	563-78007-02	21.6	12.3	2.3	24	floor	UUT _z -6

¹ All components are manufactured by Shimadzu Medical Systems. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² The units were tested at different times and the subscripts on the UUT reference the following seismic test reports:
y = SQ10-1205-01 z = SQ10-1503-01

³ Table weight listed does not include 400lb simulated patient weight included during the horizontal position tests.

SEISMIC CERTIFICATION LIMITS

System Component	Code	S _{DS} (g)	z / h	I _P	a _P	R _P	Ω ₀	F _P / W _P
Wifi Access Point	CBC 2022	2.0	1.0	1.50	1.0	2.5	2.0	1.44
		2.6	0					1.17
PC / User Interface	CBC 2022	2.0	1.0	1.50	2.5	6.0	2.0	1.50
		2.6	0					1.17

Table 2	SHIMADZU MEDICAL SYSTEMS SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS	 WEGAI W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING
----------------	---	--

Manufacturer: Shimadzu Medical Systems

System: SONIALVISION G4 X-Ray and Fluoroscopy System

System Component ¹	Shimadzu Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT ²
		Width	Depth	Height			
Control / Power Cabinets							
CH-200 / BR-120 Control Cabinet	503-04427D	15.8	19.7	20.1	110	floor	UUT _y -25
ZS-200 Cabinet	502-29300-02	27.5	19.7	72.6	569	wall/floor	UUT _z -2
ZS-200 Cabinet	562-29300-12	27.5	19.7	72.6	569	wall/floor	same ⁵
X-Ray High Voltage Cabinet	562-29200-02	27.5	19.7	72.6	606	wall/floor	UUT _z -3
X-Ray High Voltage Cabinet	562-29200-12	27.5	19.7	72.6	606	wall/floor	same ⁵
DR-300 Digital Cabinet	562-29101	27.5	19.7	72.6	654	wall/floor	UUT _z -4
DR-300 Digital Cabinet	562-29101-01	27.5	19.7	72.6	654	wall/floor	same ⁵

¹ All components are manufactured by Shimadzu Medical Systems. The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

² The units were tested at different times and the subscripts on the UUT reference the following seismic test reports:

y = SQ10-1205-01 z = SQ10-1503-01

³ Table weight listed does not include 400lb simulated patient weight included during the horizontal position tests.

⁵ Components identified as "same" are of identical construction to the tested UUT with the same name and differ only in color / software

SEISMIC CERTIFICATION LIMITS

System Component	Code	S _{DS} (g)	z / h	I _p	a _p	R _p	Ω ₀	F _p / W _p
Control / Power Cabinets	CBC 2022	2.0	1.0	1.50	2.5	6.0	2.0	1.50
		2.6	0					1.17

UUT_z-1A

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) 3/4" diameter bolts.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: ZS-200 Elevating Table	Test Date: October 2015
Model Number: 503-78001	Report Number: SQ10-1503-1 REV 1
UUT Function: Patient table with integrated x-ray system. Tested in horizontal position	
UUT Description: Component of the SONIALVISION G4 X-Ray and Flouroscopy system, includes seismic option kits SV-G4.	

UUT PROPERTIES

Weight (lb) with Patient	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
3,885	76.0	92.5	96	4.0	3.4	4.1

The patient table moves horizontally and vertically to accommodate different patients and procedures. The system was tested in the normal horizontal operating position with total simulated patient weight of 400lbs.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_z-1B

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) ¾" diameter bolts.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: ZS-200 Elevating Table	Test Date: October 2015
Model Number: 503-78001	Report Number: SQ10-1503-1 REV 1
UUT Function: Patient table with integrated x-ray system. Tested in vertical position	
UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system, includes seismic option kits SV-G4.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
3,485	76.0	92.5	96	4.4	4.4	5.1

The patient table moves horizontally and vertically to accommodate different patients and procedures. The system was tested in the normal vertical operating position.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{Z-2}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Combined rigid wall mounted with (2) ¼" diameter bolts and rigid floor mounted with (4) ½" diameter bolts.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: ZS-200 Cabinet	Test Date: October 2015
Model Number: 502-29300-02	Report Number: SQ10-1503-1 REV 1
UUT Function: Power distribution to ZS-200 Table	
UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
569	27.5	19.7	72.6	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{Z-3}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Combined rigid wall mounted with (2) ¼" diameter bolts and rigid floor mounted with (4) ½" diameter bolts.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: X-Ray High Voltage Cabinet **Test Date:** October 2015

Model Number: 562-29200-02 **Report Number:** SQ10-1503-1 REV 1

UUT Function: X-ray high voltage generator cabinet

UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
606	27.5	19.7	72.6	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{z-4}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Combined rigid wall mounted with (2) ¼" diameter bolts and rigid floor mounted with (4) ½" diameter bolts.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: DR-300 Digital Cabinet **Test Date:** October 2015

Model Number: 562-29101 **Report Number:** SQ10-1503-1 REV 1

UUT Function: Electrical cabinet

UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
654	27.5	19.7	72.6	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{Z-5}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Combined rigid wall mounted with (2) 1/4" diameter bolts and rigid floor mounted with (4) 3/8" diameter bolts.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: BR-120 Wall Stand
Fixed Panel Detector **Test Date:** October 2015

Model Number: 503-77185-35 **Report Number:** SQ10-1503-1 REV 1

UUT Function: Radiographic wall stand for X-ray exposures

UUT Description: Component of the RADSPEED and SONIALVISION G4 X-Ray and Flouroscopy system. Tested with Konica Aero XE Flat Panel Detector

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
283	14.4	26.4	85.3	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{z-6}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid base mounted with (6) ¼" machine screws.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: ZS-200 Control Console Remote	Test Date: October 2015
Model Number: 563-78007-02	Report Number: SQ10-1503-1 REV 1
UUT Function: Control console remote for X-ray system	
UUT Description: Component of the SONIALVISION G4 X-Ray and Flouroscopy system.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
24	21.6	12.3	2.3	> 33.0	>33.0	32.3

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{z-7}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) 3/8" diameter bolts.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: DR-300 Image Processing PC	Test Date: October 2015
Model Number: 562-29102	Report Number: SQ10-1503-1 REV 1
UUT Function: Imaging system PC	
UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
71	6.3	18.7	23.0	>33.0	17.9	> 33.0

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_{Z-9}

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (2) 1" wide hand-tightened nylon cam buckle straps (200lb WLL) through slots in (4) L2.5x2.5x1/4" x 2.5" long brackets. Angle brackets anchored with (1) 3/8" diameter bolt each.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: Konica Aero Workstation **Test Date:** October 2015

Model Number: TPC-F046-SF **Report Number:** SQ10-1503-1 REV 1

UUT Function: Imaging System PC

UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscopy system

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
16	4.0	14.9	13.3	>33.0	>33.0	> 33.0

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

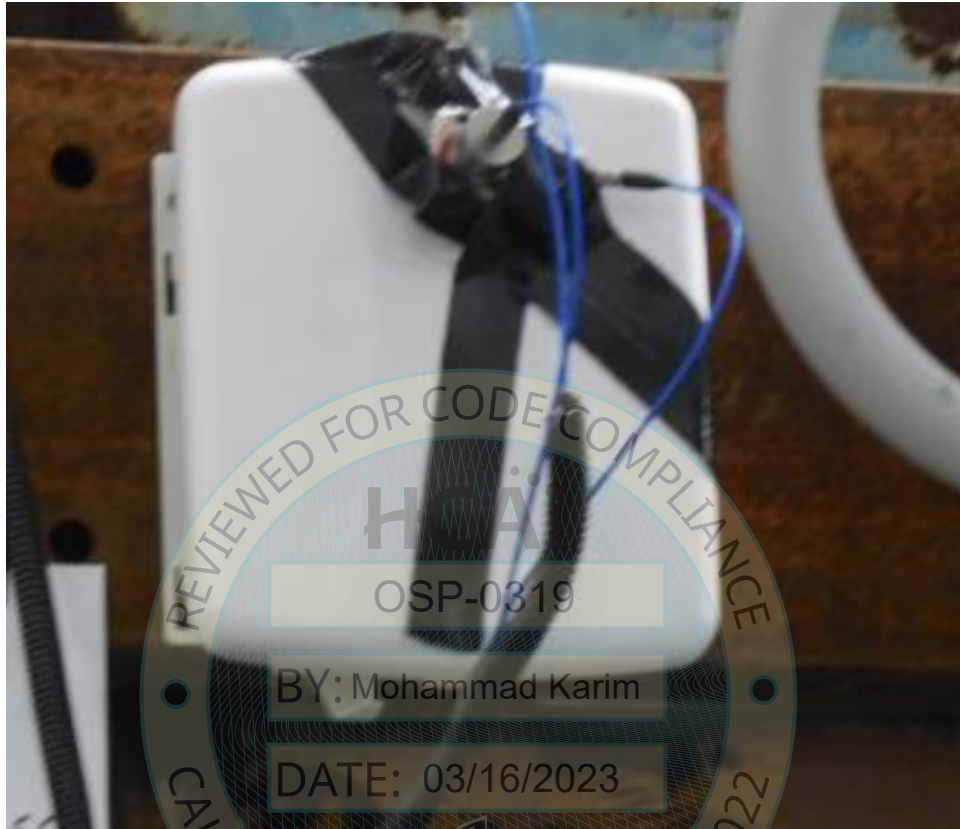
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_z-13

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (3) #10 machine screws



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: Hewlett Packard WAP	Test Date: October 2015
Model Number: J9650A	Report Number: SQ10-1503-1 REV 1
UUT Function: Wireless access point	
UUT Description: Component of the SONIALVISION G4 X-Ray and Flouroscopy system.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2	6.6	2.8	8.0	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{Ds} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_z-14

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (2) 3/8" diameter bolts



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: Konica AERO X-Ray Interface	Test Date: October 2015
Model Number: AeroDR Interface Unit2	Report Number: SQ10-1503-1 REV 1
UUT Function: X-ray interface	
UUT Description: Component of the SONIALVISION G4 X-Ray and Fluoroscropy system.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
29	7.0	18.0	11.3	12.0	14.3	11.5

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_z-15

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (4) #10 machine screws



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: LCD Touch Screen - Konica	Test Date: October 2015
Model Number: ROM950AIII	Report Number: SQ10-1503-1 REV 1
UUT Function: Wall mounted display for x-ray system	
UUT Description: Component of the SONIALVISION G4 X-Ray and Flouroscopy system	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
21	17.0	5.3	13.8	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_z-16

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (4) #10 machine screws



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: LCD Screen - DR-300	Test Date: October 2015
Model Number: SMD19102-SC6GF6211-2CH51	Report Number: SQ10-1503-1 REV 1
UUT Function: Wall mounted display for x-ray system	
UUT Description: Component of the SONIALVISION G4 X-Ray and Flouroscopy system	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
19	15.6	4.6	13.6	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-5

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rails and connecting parts of the component bolt with 2 – ½" bolts (20 bolts total) to a Unistrut grid spaced at approximately 22" on center. The Unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at approximately 24" on center.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: Flat Panel Monitor Suspension **Test Date:** October 2012

Model Number: ID1000F-2WOR **Report Number:** SQ10-1205-01

UUT Function: Suspension of monitors used for medical equipment

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System

UUT PROPERTIES

*Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
294	38.0	80.0	68.0	N/A	N/A	N/A

*Weight listed does not include additional 30lb masses attached to each monitor for simulation of varied monitor configurations.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	SDS (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

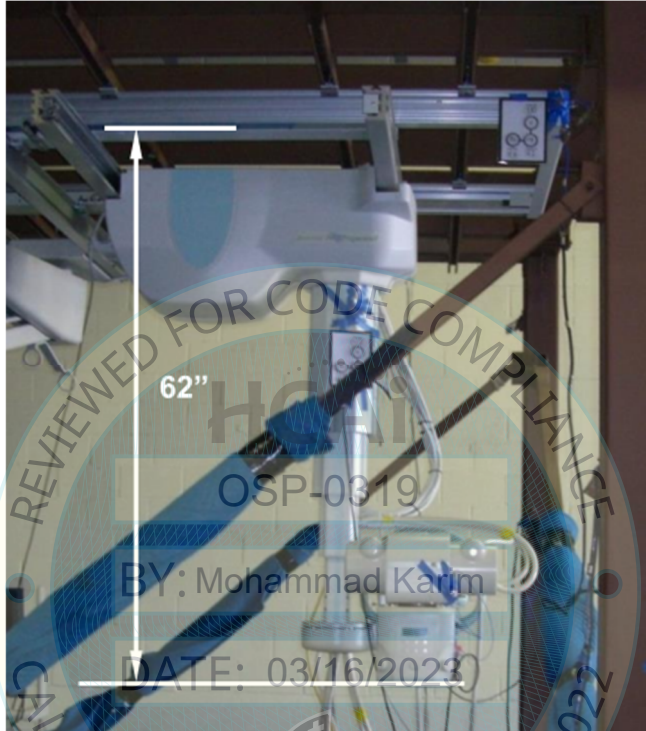
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-6

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rails and connecting parts of the component bolt with 2 – ½" bolts (20 bolts total) to a Unistrut grid spaced at approximately 22" on center. The Unistrut grid consisted of Unistrut P1001 rails anchored with 2 - 3/8" bolts at each intersection to the ceiling fixture framing spaced at approximately 24" on center.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: CH-200 Ceiling Tube Transverse Bridge	Test Date: October 2012
Model Number: 503-58100-27	Report Number: SQ10-1205-01
UUT Function: Ceiling suspended X-ray tube for use in radiographic imaging	
UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
740	216.5	129.9	112.2	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-8

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Combined rigid wall mounted with (2) 3/8" diameter bolts and rigid floor mounted with (4) 3/8" diameter bolts



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: BR-120 Wall Stand - Wireless Detector	Test Date: October 2012
Model Number: 503-61800-13	Report Number: SQ10-1205-01
UUT Function: Radiographic wall stand for X-ray exposures	
UUT Description: Component of the RADSPEED and SONIALVISION G4 X-Ray and Flouroscopy system, includes seismic option kit SMK1059. Tested with Canon CXDI-70C Wireless Digital Detector.	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
264	24.8	14.4	84.8	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test. Seismic enhancements made to the test unit shall be incorporated into the production units.

UUT_y-10A

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (6) #10 hex bolts



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: UD150B-40 X-Ray Control Console **Test Date:** October 2012

Model Number: 502-23588 **Report Number:** SQ10-1205-01

UUT Function: Generator controls

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
9	12.1	8.3	13.6	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{AFLX-H} (g)	A _{ARIG-H} (g)	A _{AFLX-V} (g)	A _{ARIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

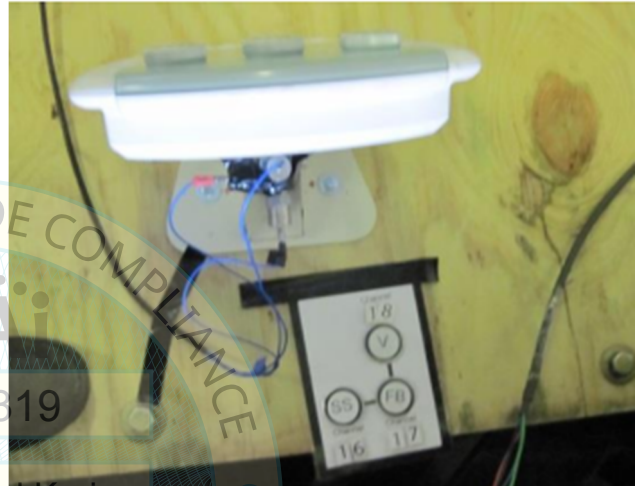
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-10B

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid base mounted with (2) 1/4" diameter hex bolts



REVIEWED FOR CODE COMPLIANCE
CAi
OSP-0319
BY: Mohammad Karim
DATE: 03/16/2023
CALIFORNIA BUILDING CODE 2022

Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: UD150B-40 X-Ray Control Console	Test Date: October 2012
Model Number: 502-23588	Report Number: SQ10-1205-01
UUT Function: Generator controls	
UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	Width	Depth
9	12.1	8.3	13.6	19.2	18.9	16.2

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLEX-H} (g)	A _{RIG-H} (g)	A _{FLEX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-13

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with (4) ½" diameter bolts



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: BK-200 Table – Wireless Detector **Test Date:** October 2012

Model Number: 503-61750-02 **Report Number:** SQ10-1205-01

UUT Function: Motorized patient table for support and positioning for image acquisition

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System, includes seismic option kit SMK1059. Tested with Canon CDXI-70C Wireless Digital Detector.

UUT PROPERTIES

Weight (lb) with Patient	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
1,070	31.9	92.5	33.5	>33.0	4.5	9.6

The patient table moves vertically and horizontally to accommodate different patients and procedures. The system was tested in the normal operating position with a vertical height of 30" and a total simulated patient weight of 350lbs.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test. Seismic enhancements made to the test unit shall be incorporated into the production units.

UUT_y-14

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with 2 - 11 gauge bent steel plates (12" x 2") on both sides of the UUT anchored to the floor with (4) ¼" diameter bolts and connected to the UUT with 2" wide industrial Velcro tape at the top of the 12" leg.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: BK-200 Control Cabinet	Test Date: October 2012
Model Number: 503-04403A	Report Number: SQ10-1205-01
UUT Function: Continuous rotating x-ray to generate diagnostic imaging	
UUT Description: Component of the RADSPEED X-Ray and Fluoroscopy System	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
98	19.7	15.8	20.1	>33.0	8.5	> 33.0

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-21

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (2) 3/8" diameter bolts and rigid floor mounted with (4) 3/8" diameter bolts



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: BR-120 Wall Stand Fixed Panel Detector	Test Date: October 2012
Model Number: 503-61800-13	Report Number: SQ10-1205-01

UUT Function: Radiographic wall stand for X-ray exposures

UUT Description: Component of the RADSPEED X-Ray and Fluoroscopy System. Tested with Canon CXDI-70C Wireless Digital Detector.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
264	24.8	14.4	84.8	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

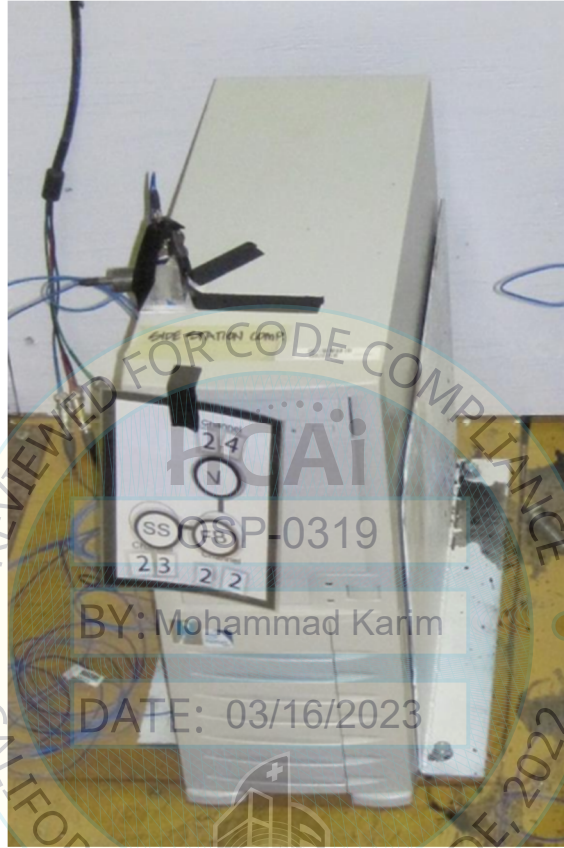
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-22

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with 2 - 11 gauge bent steel plates (12" x 2") on both sides of the UUT anchored to the floor with (4) 3/8" diameter bolts and connected to the UUT with 2" wide industrial Velcro tape at the top of the 12" leg.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: Side Station Computer **Test Date:** October 2012

Model Number: 502-24407-13 **Report Number:** SQ10-1205-01

UUT Function: PC for radiography system

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
28	7.8	19.6	16.8	19.0	8.2	>33.0

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-24

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with 2 - 11 gauge bent steel plates (12" x 2") on both sides of the UUT anchored to the floor with (4) 3/8" diameter bolts and connected to the UUT with 2" wide industrial Velcro tape at the top of the 12" leg.



Manufacturer: Shimadzu Medical Systems	Test Location: ETL (Dallas, TX)
Component: Canon CXDI-NE Workstation	Test Date: October 2012
Model Number: CXDI-NE PC	Report Number: SQ10-1205-01
UUT Function: PC for radiography system	
UUT Description: Component of the RADSPEED X-Ray and Fluoroscopy System	

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
28	7.8	18.8	16.5	26.5	9.1	10.8

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-25

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mounted with 2 - 11 gauge bent steel plates (12" x 2") on both sides of the UUT anchored to the floor with (4) ¼" diameter bolts and connected to the UUT with 2" wide industrial Velcro tape at the top of the 12" leg.



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: CH-200 / BR-120 Control Cabinet **Test Date:** October 2012

Model Number: 503-04427D **Report Number:** SQ10-1205-01

UUT Function: Control cabinet for radiography system

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
110	19.7	15.8	20.1	18.8	1.4	>33.0

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

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

UUT_y-30

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid wall mounted with (2) 1/4" diameter bolts and rigid floor mounted with (4) 3/8" diameter bolts



Manufacturer: Shimadzu Medical Systems **Test Location:** ETL (Dallas, TX)

Component: 80kW High Voltage UB150B-40 Generator Cabinet **Test Date:** October 2012

Model Number: 502-23375-01 **Report Number:** SQ10-1205-01

UUT Function: Generator for radiography system

UUT Description: Component of the RADSPEED X-Ray and Flouroscopy System

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
435	27.6	15.9	71.1	N/A	N/A	N/A

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I _p	A _{FLEX-H} (g)	A _{RIG-H} (g)	A _{FLEX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	--	--
	2.60	0.0	1.5	--	--	1.74	0.70

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test. Seismic enhancements made to the test unit shall be incorporated into the production units.