

Title: President

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

OFFICE USE ONLY APPLICATION FOR HCAI SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP) APPLICATION #: OSP-0681 **HCAI Special Seismic Certification Preapproval (OSP)** Type: New Renewal **Manufacturer Information** Manufacturer: Philips Medical Systems DMC GmbH Manufacturer's Technical Representative: Ming Xiao Mailing Address: Röntgenstraße 24, 22335 Hamburg, Germany Telephone: (94034) 971-2306 Email: Ming.Xiao@Philips.com **Product Information** Product Name: Fluoroscopy and Radiography Systems Product Type: NA Product Model Number: See certified product line matrices Multiple component digital radiography and fluoroscopy medical diagnostic imaging systems. General Description: Mounting Description: Several - See UUT Sheets, See Certified Product Tables None Tested Seismic Enhancements: **Applicant Information** Applicant Company Name: WE Gundy & Associates, Inc Contact Person: Travis Soppe Mailing Address: PO Box 9121, Boise, ID 83707 Telephone: (208) 342-5989 Email: tsoppe@wegai.com





DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

California Licensed Structural Enginee	r Responsible for the Engineering and Test Report(s)
Company Name: W.E. GUNDY & ASOCIATE	S INC.
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GR-63-Core X ICC-ES AC	56
Other (Please Specify):	
	EOR CODE CO
Testing Laboratory	D
Company Name: IABG TEST LABORATOR)	
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	DATE: 09/14/2023



STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

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Design Basis of Equipment or Components (Fp/Wp) = See Attachments

SDS (Design spectral response acceleration at short period, g) = 2.0 at z/h = 1 and 2.5 at z/h = 0

ap (Amplification factor) = See attachments

Rp (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

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Date: 9/14/2023 OSP-0681

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: Sps (g) = See Above z/h = See Above

Condition of Approval (if applicable): DATE 09/14/2023



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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

Table 1

PHILIPS MEDICAL SYSTEMS DMC GmbH SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS



System: X-Ray and Fluoroscopy Systems		Mai	Manufacturer: Philips Medical Systems DMC GmbH							
System Component ¹	Philips Part Number		mension Length	s (in) Height	Weight (lb)	Mounting	UUT ²			
Monitor Suspensions										
MCS 1 Monitor	4512-202-03332	72.4	33.9	34.6-70.9	222	ceiling	UUT _x -8			
MCS 2 Monitors	4512-202-03342	72.4	33.9	34.6-70.9	244	ceiling	interpolated			
MCS 3 Monitors	4512-202-03352	72.4	33.9	34.6-70.9	258	ceiling	UUT _x -7			
Vertical Stand VS2										
Vertical Stand 2 VS2 Non-Tilting - Fixed Detector	9897-010-01411 4598-009-4014x	28.3	60.6	1/82.7	518	floor/wall	UUT _y -1			
Vertical Stand 2 VS2 Non-Tilting - Wifi Detector	9897-010-01411 4598-015-74931	28.3	60.6	82.7	478	floor/wall	interpolated			
Vertical Stand 2 VS2 Tilting - Wifi Detector	9897-010-01411 4598-015-74931	SP-0	660.6	82.7	493	floor/wall	UUT _y -2			
Vertical Stand 2 VS2 Non-Tilting - Wifi Detector	9897-010-01411 4598-012-76111	122813118	ad <u>6</u> 6.6 rii	m 82.7	<mark>481</mark>	floor/wall	interpolated			
Vertical Stand 2 VS2 Tilting - Wifi Detector	9897-010-01411 4598-012-76111	28.3	4/ 60. 63	82.7	493	floor/wall	UUT _y -14			
\	WI	FI Acce	ss Point	111/0						
ARUBA 303 (ARUBA)	3000-055-10841	5.9	5.9	2.9	1	wall	UUT _y -3			
ARUBA 305 (ARUBA)	3000-055-10851	J[5.9 _D]	5.9	2.5	2	wall	UUT _y -4			

Notes:

² The units were tested at different times and the subscripts on the UUT's reference the following seismic certification test reports: w = TAB3-PB-19-020-V1 x = TAB3-PB-20-129-V1 y = TAB3-PB-20-127-V1

SEISMIC CERTIFICATION LIMITS										
System Component	Code	$S_{DS}(g)$	z / h	I_P	$\mathbf{a}_{\mathbf{P}}$	R_{P}	Ω_0	$\mathbf{F}_{\mathbf{P}} / \mathbf{W}_{\mathbf{P}}$		
Monitor Suspensions	CBC	2.0	1.0	1.50	2.5	2.5	2.0	3.60		
	2022	2.5	0	1.30	2.3	2.3	2.0	1.50		
Vartical Stand VS2	CBC	2.0	1.0	1.50	1.0	1.5	2.0	2.40		
Vertical Stand VS2	2022	2.5	0	1.50				1.13		
WIFI Access Point	CBC	2.0	1.0	1.50	1.0	1.0 2.5	2.0	1.44		
	2022	2.5	0	1.50	1.0			1.13		

¹ All components are manufactured by Philips Medical Systems DMC GmbH unless noted in (). The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

Table 1

PHILIPS MEDICAL SYSTEMS DMC GmbH SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS



System: X-Ray and Fluoroscopy Systems			Manufacturer: Philips Medical Systems DMC GmbH						
System Component ¹	Philips		Dimensions (in)			Mounting	UUT ²		
System component	Part Number	Width	Length	gth Height (lb) Houn		8			
	PC	/ User I	nterface	:					
AWS-DI - CombiDiagnost	4512-202-04321	6.7	17.0	17.0	25	floor	UUT _y -5		
AWS-DI - ProxiDiagnost	3000-062-16541	6.7	17.0	17.0	24	floor	interpolated		
AWS-DI3	3000-100-11091	8.0	17.0	13.2	31	floor	interpolated		
AWS-2X PC - DigitalDiagnost	4512-201-11781	8.5	E _{10.9}	17.6	33	floor	UUT _w -4		
Uninterruptible Power Supply									
UPS GXT4-1000RT230	4598-010-49611	3.3	16.9	19.7	33	floor	UUT _y -9		

Notes:

SEISMIC CERTIFICATION LIMITS System Component Code $S_{DS}(g)$ z/h R_{P} Ω_0 $\mathbf{F}_{\mathbf{P}} / \mathbf{W}_{\mathbf{P}}$ I_{P} a_P CBC 1.50 2.0 1.0 PC / User Interface 1.50 2.5 6.0 2.0 2022 2.5 0 1.13 **CBC** 2.0 1.0 1.50 Uninterruptible Power Supply 1.50 2.5 6.0 2.0 2022 2.5 0 1.13

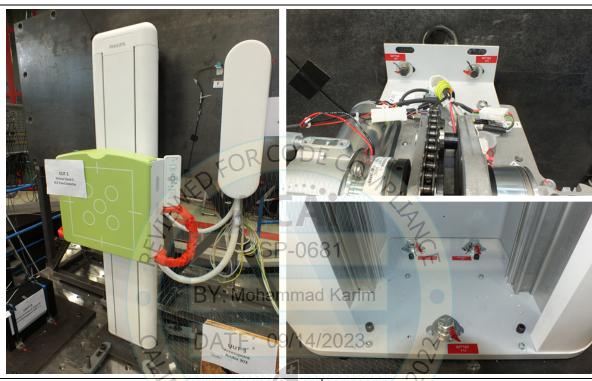
¹ All components are manufactured by Philips Medical Systems DMC GmbH unless noted in (). The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units.

The units were tested at different times and the subscripts on the UUT's reference the following seismic certification test reports: w = TAB3-PB-19-020-V1 x = TAB3-PB-20-129-V1 y = TAB3-PB-20-127-V1

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Floor/wall mount with $3 - \frac{1}{2}$ inch grade 8 bolts (90 ft-lbs torque) with washers to the floor combined with $2 - \frac{3}{8}$ inch grade 8 bolts (35 ft-lbs torque) with washers to the wall fixture. The electrical box is mounted to wall fixture with $4 - \frac{1}{4}$ inch grade 8 bolts (10 ft-lbs torque) with washers.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: Vertical Stand 2 VS2 Test Date: September 2020

Non-Tilting - Fixed Detector

Model Number: 9897-010-01411 / 4598-009-4014x | Report Number: TAB3-PB-20-127-V1

UUT Function: Vertical X-Ray imaging system

UUT Description: Vertical stand detector for X-Ray and Fluoroscopy Systems

Non-Tilting with RCE Fixed detector: 4598-009-4014x

UUT PROPERTIES

Waight (1h)	Di	mensions (inch	es)	Natural Frequency (Hz)			
Weight (lb) Width Depth		Depth	Height	FB	SS	V	
359	28.3	60.6	82.7	na	na	na	

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Floor/wall mount with $3 - \frac{1}{2}$ inch grade 8 bolts (90 ft-lbs torque) with washers to the floor combined with $2 - \frac{3}{8}$ inch grade 8 bolts (35 ft-lbs torque) with washers to the wall fixture. The electrical box is mounted to wall fixture with $4 - \frac{1}{4}$ inch grade 8 bolts (10 ft-lbs torque) with washers.







Test Date: September 2020

Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: Vertical Stand 2 VS2

Tilting - Wifi Detector

Model Number: 9897-010-01411 / 4598-015-74931 | Report Number: TAB3-PB-20-127-V1

UUT Function: Vertical X-Ray imaging system

UUT Description: Vertical stand detector for X-Ray and Fluoroscopy Systems

Tilting with EZ Small 1.2 Wifi detector: 4598-015-74931

UUT PROPERTIES

Waight (1h)	Di	mensions (inch	es)	Natural Frequency (Hz)			
Weight (lb) Width Depth		Depth	Height	FB	SS	V	
493	28.3	60.6	82.7	na	na	na	

SEISMIC TEST PARAMETERS

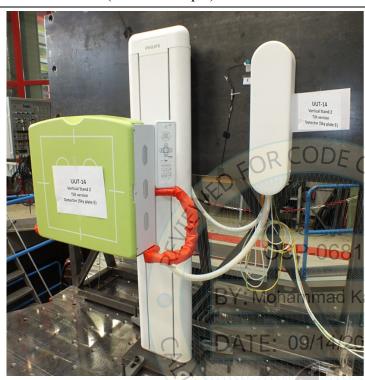
Building Code / Test Criteria	S _{DS} (g)	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

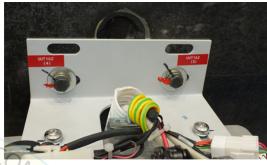
UUTy-14

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Floor/wall mount with $3 - \frac{1}{2}$ inch grade 8 bolts (90 ft-lbs torque) with washers to the floor combined with $2 - \frac{3}{8}$ inch grade 8 bolts (35 ft-lbs torque) with washers to the wall fixture. The electrical box is mounted to wall fixture with $4 - \frac{1}{4}$ inch grade 8 bolts (10 ft-lbs torque) with washers.







Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: Vertical Stand 2 VS2 Test Date: September 2020

Tilting - Wifi Detector

Model Number: 9897-010-01411 / 4598-012-76111 **Report Number:** TAB3-PB-20-127-V1

UUT Function: Vertical X-Ray imaging system

UUT Description: Vertical stand detector for X-Ray and Fluoroscopy Systems

Tilting with Skyplate E Wifi detector: 4598-012-76111

UUT PROPERTIES

Waight (1h)	Di	mensions (inch	es)	Natural Frequency (Hz)			
Weight (lb)	Width	Depth	Height	FB	SS	V	
493	28.3	60.6	82.7	na	na	na	

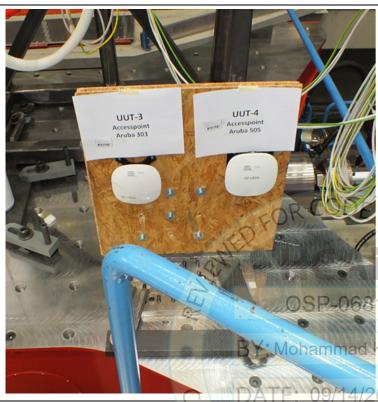
SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Wall mount with 4 - size 3 wood screws.





Manufacturer: ARUBA Test Location: IABG mbH, Germany

Component: ARUBA 303 Test Date: September 2020

Model Number: 3000-055-10841 **Report Number:** TAB3-PB-20-127-V1

UUT Function: WIFI Module

UUT Description: WIFI access point for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
	Width Depth		Height	FB	SS	V	
1	5.9	5.9	2.9	na	na	na	

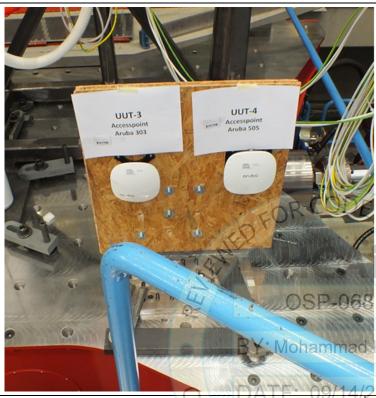
SEISMIC TEST PARAMETERS

Building Code / Test Criteria	S _{DS} (g)	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Wall mount with 4 - size 3 wood screws.







Manufacturer: ARUBA Test Location: IABG mbH, Germany

Component: ARUBA 305 Test Date: September 2020

Model Number: 3000-055-10851 **Report Number:** TAB3-PB-20-127-V1

UUT Function: WIFI Module

UUT Description: WIFI access point for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
	Width	Depth	Height	FB	SS	V	
2	5.9 5.9		2.5	na	na	na	

SEISMIC TEST PARAMETERS

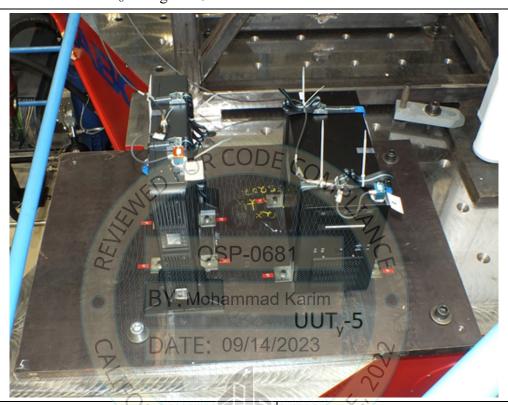
Building Code / Test Criteria	S _{DS} (g)	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UUTy-5

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounting using Phillips provided seismic restraint kit 4512-134-74741. Seismic restraint kit includes a hand tightened cam buckle strap looped thru angle brackets on each side of the unit. The angle brackets are attached to the table with individual ³/₈ inch grade 8 bolts.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: Eleva Workspot AWS-DI Test Date: September 2020

Model Number: 4512-202-04321 **Report Number:** TAB3-PB-20-127-V1

UUT Function: Computational processing for image system

UUT Description: PC / Image processing and user interface for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
weight (10)	Width	Depth	Height	FB	SS	V	
25	6.7	17.0	17.0	29.7	22.4	> 33	

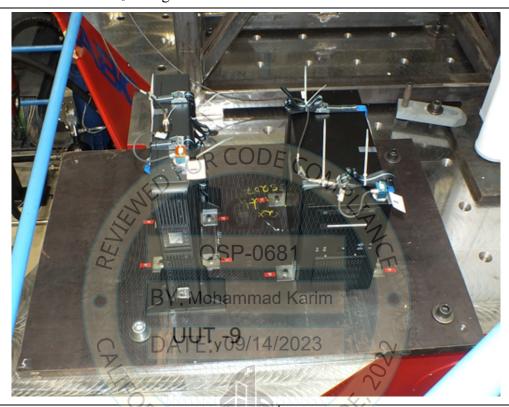
SEISMIC TEST PARAMETERS

Building Code / Test Criteria	$S_{DS}(g)$	z/h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounting using Phillips provided seismic restraint kit 4512-134-74741. Seismic restraint kit includes a hand tightened cam buckle strap looped thru angle brackets on each side of the unit. The angle brackets are attached to the table with individual ³/₈ inch grade 8 bolts.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: UPS GXT4-1000RT230 Test Date: September 2020

Model Number: 4598-010-49611 **Report Number:** TAB3-PB-20-127-V1

UUT Function: Uninterruptible power supply

UUT Description: Uninterruptible power supply for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
weight (10)	Width	Depth	Height	FB	SS	V	
33	3.3	16.9	19.7	> 33	17.7	> 33	

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	$S_{DS}(g)$	z/h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

 UUT_x-7

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rails and connecting parts of the component bolt to Unistrut grid with 2 - M10 bolts at each intersecting location (spaced at 25.6" on center). The Unistrut grid consisted of MURPO#150969 MPR-41/82/2.0 H-Profiles (Unistrut P1001 equivalent) anchored with 2 - M10 bolts with clamping claws (MURPO 157219) at each intersection to the ceiling fixture framing spaced at 23.6" on center.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: MCS 3 Monitors Test Date: September 2020

Model Number: 4512-202-03352 **Report Number:** TAB3-PB-20-127-V1

UUT Function: Suspension of monitors used for medical equipment

UUT Description: Monitor suspension for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
weight (10)	Width	Width Depth H		FB	SS	V	
258	72.4	33.9	34.6-70.9	> 33	27.0	> 33	

SEISMIC TEST PARAMETERS

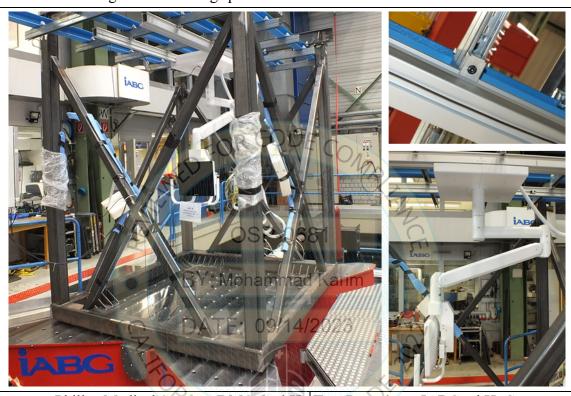
Building Code / Test Criteria	$S_{DS}(g)$	z/h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

 UUT_x-8

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rails and connecting parts of the component bolt to Unistrut grid with 2 - M10 bolts at each intersecting location (spaced at 25.6" on center). The Unistrut grid consisted of MURPO#150969 MPR-41/82/2.0 H-Profiles (Unistrut P1001 equivalent) anchored with 2 - M10 bolts with clamping claws (MURPO 157219) at each intersection to the ceiling fixture framing spaced at 23.6" on center.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: MCS 1 Monitor Test Date: September 2020

Model Number: 4512-202-03332 **Report Number:** TAB3-PB-20-127-V1

UUT Function: Suspension of monitor used for medical equipment

UUT Description: Monitor suspension for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Di	mensions (inch	es)	Natural Frequency (Hz)			
	Width	Depth	Height	FB	SS	V	
222	72.4	33.9	34.6-70.9	26.7	27.0	24.9	

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	$S_{DS}(g)$	z / h	I_P	A _{FLX-H} (g)	A _{RIG-H} (g)	$A_{FLX-V}(g)$	$A_{RIG-V}(g)$
CBC 2022 / ICC-ES AC156	2.00	1.0	1.5	3.20	2.40		
	2.50	0.0	1.5			1.67	0.67

UUTw-4

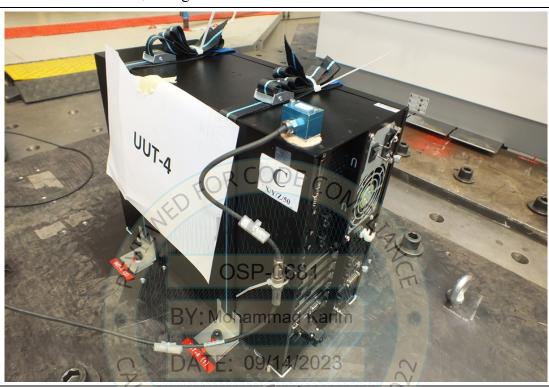
UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mounting using Phillips provided seismic restraint kit 4512-134-74741.

Seismic restraint kit includes a hand tightened cam buckle strap looped thru angle brackets on each side of the unit. The angle brackets are attached to the table with

individual ³/₈ inch grade 8 bolts.



Manufacturer: Philips Medical Systems DMC GmbH | Test Location: IABG mbH, Germany

Component: AWS-2X PC User Interface Test Date: February 2019

Model Number: 4512-201-11781 **Report Number:** TAB3-PB-19-020-V1

UUT Function: Computational processing for image system

UUT Description: PC / Image processing and user interface for X-Ray and Fluoroscopy Systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)			
	Width	Depth	Height	FB	SS	V	
33	8.5	10.9	17.6	> 33	28.1	> 33	

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		
CBC 2022 / ICC-ES AC136	2.50	0.0	1.5			1.67	0.67