

保守点検報告書

2022年度 第2回

顧客名 国立研究開発法人
国立がん研究センター中央病院

装置名 Digital Diagnost

設置場所 撮影室8

点検実施日 2022年11月1日

Case番号 0118738454

株式会社フィリップス・ジャパン

点検項目の説明

製品グループ DigitalDiagnost	
検査項目	
Configuration	M-Cabinet CXA / Optimus CXA / Chapter: Optimus RAD
装置構成確認	X線発生器機能確認、ケーブル確認、X線管調整、バックアップ作成
Functional Status (System)	SRO/RO/SRM X-ray Tube Assemblies
システム動作確認	X線管確認、ケーブル確認
Geometry Test	Collimator Ralco P225 / Nicol
駆動部動作確認	コリメータ機能、固定確認
Detector Performance (Fixed & Skyplate)	Accessories
ディテクタパフォーマンステスト	アクセサリ確認
Amplimat Dose Test	Tomography Attachment
アンプリマットチャンバーテスト、調整	動作確認、エンドストップ安全確認
Functional Tests	Final Steps
DAP表示確認、発生器負荷精度確認、モニターパフォーマンステスト、プリントパフォーマンステスト	最終動作確認
Protective Earth	
保護設置確認	
Touch Current	
タッチカレント確認	
Leakage Current System	
システム漏れ電流確認	
Table (TH / TH-S)	
臥位テーブル機能、固定部確認	
Height Adjustable Trolley TA-M	
トローリーテーブル機能、固定部確認	
Wall Stand (VS / VM)	
立位スタンド機能、固定確認	
CS 2/4 / CSIII CSM	
天井走行式支持装置機能、固定確認	
AWS - Acquisition Work Spot	
ワークステーション機能確認、清掃	
UPS	
無停電電源装置機能確認、清掃	
SkyPlate	
スカイプレートディテクタ外観確認、ショックセンサー確認、バックアップケーブル動作確認	
Wireless Portable Detector (WPD)	
ワイヤレスポータブルディテクタ外観確認、ショックセンサ確認、バッテリー交換時期確認、ドッキングステーション確認	

Ship To:
国立研究開発法人 国立がん研究センター 中央病院
築地5-1-1
中央区
Japan

Test and Verification Report

Case Number: 0118738454

Work Order: WO-06860281

WORK DETAILS

Engineer Name: TAKUMI SAKAI	Event Type: Predictive / Preventative Maintenance
Device Status: Pass	Service Activity: Visit 5b
	PM schedule for this site: PM Plan Template DiDi 4.x High Usage- 20 visits / 120 months

EQUIPMENT DETAILS

Product Name: DigitalDiagnost 4 High Performance	Serial Number: SN16000415
Product Number: 712031	Installed Product: 70301047
	UDI:

	Min	Max	UoM	Measurement	Result	Comments
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PM Table TH

Table TH (24 Month)

Functional Status	PASS
Table Base	PASS
Bucky Unit	PASS
Final Steps	PASS

PM Wall Stand VS

Wall Stand VS (12 month)

Fixations	PASS
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Wall Stand VS

Functional Status	PASS
Functional test vertical movement	PASS
Covers	PASS
Vertical Chain	PASS
Guide Rails and Castors	PASS
Vertical Collision Check	PASS
Bucky Unit	PASS
Options	PASS
Wrap Up	PASS

	Min	Max	UoM	Measurement	Result	Comments
PM Ceiling Suspension						
Functional Status						
Pre checks					PASS	
Functional Status1						
a. Functional Test Long Movement					PASS	
b. Functional Test Lateral Movement					PASS	
c. Functional Test Vertical Movement					PASS	
d. Functional Test Tilt and Swing					PASS	
Test of Geometry						
Vertical test					PASS	
Horizontal test(if wall stand is installed)					PASS	
Covers						
Rear Cover of telescopic carriage					PASS	
Centre cover of telescopic carriage					PASS	
Tube cover					PASS	
Fixations						
Fixations					PASS	
CSM/CSM3 - Component Integrity						
Component integrity					PASS	
Cleaning brush					Pass	
Catches					Pass	
Alpha Drive (CSM3)					Pass	
Cable Roller					Pass	
Cable Carriages					Pass	
X ray tube and display installation					Pass	
CSM/CSM3 - Castors						
Castors					PASS	
Telescopic End Covers replaced?					Yes	
Wrap Up						
Wrap up					PASS	
PM Workstation						
AWS - Acquisition Work Spot						
Cleaning AWS and Accessories					PASS	
Hard Disk Maintenance					PASS	

	Min	Max	UoM	Measurement	Result	Comments
PM Workstation						
AWS - Acquisition Work Spot						
Service Partition Maintenance					PASS	
Patient Database Maintenance					PASS	
PM M-Cabinet						
M-Cabinet						
Functional Status					PASS	
M-Cabinet 1						
Switching off the system (skip if GEST errors like arcing, etc are not present)					PASS	
Turning off the mains power (skip if GEST errors like arcing, etc are not present)					PASS	
Removing the covers (skip if GEST errors like arcing, etc are not present)					PASS	
Cable connections (skip if GEST errors like arcing, etc are not present)					PASS	
IQA Table TH						
IQA Checks Table						
X-ray Geometry Test					PASS	
Detector Performance Fixed Detector					PASS	
Amplimat Dose Test Table						
Amplimat dose test - Grid					F110 r8 L40	
Amplimat dose test - Attenuation factor				1.9		
Amplimat dose test - S200			μGy	9.508		
Amplimat dose test - S400			μGy	4.53		
Amplimat dose test - S800			μGy	2.585		
Amplimat dose test					PASS	
IQA Wall Stand						
IQA Checks Wall Stand						
X-ray Geometry Test					PASS	
Detector Performance Fixed Detector					PASS	
Amplimat Dose Test Wall Stand						
Amplimat dose test - Grid					F180 r12 L40	
Amplimat dose test - Attenuation factor				1.7		

	Min	Max	UoM	Measurement	Result	Comments
IQA Wall Stand						
Amplimat Dose Test Wall Stand						
Amplimat dose test - S200			μGy	8.343		
Amplimat dose test - S400			μGy	4.14		
Amplimat dose test - S800			μGy	2.025		
Amplimat dose test					PASS	
IQA Other Components						
IQA Checks Other Components						
Monitor Performance					PASS	
DAP Indication					PASS	
Check accuracy of loading factors					PASS	
ES Table TH						
Protective Earth Table TH						
2) Potential Balance Point SX80	300	mOhm	67	Pass		
4) Foot Switch	300	mOhm	92	Pass		
5) Transversal carriage at SAYX 13	300	mOhm	96	Pass		
7) Service Cover	300	mOhm	86	Pass		
Protective Earth Bucky unit Table (Fixed Detector)						
2) Grid ejector	300	mOhm	74	Pass		
5) Rear cover screw	300	mOhm	78	Pass		
Touch Current Table TH						
2) Potential Balance Point SX80	20	μA	2.3	Pass		
3) Table Top Side Rail (Front)	20	μA	2.3	Pass		
3) Table Top Side Rail (Back)	20	μA	2.4	Pass		
4) Foot Switch	20	μA	2.3	Pass		
5) Transversal carriage at SAYX 13	20	μA	2.5	Pass		
7) Service Cover	20	μA	2.6	Pass		
Touch Current Bucky unit Table (Fixed Detector)						
2) Grid ejector	20	μA	2.5	Pass		
5) Rear cover screw	20	μA	2.4	Pass		
ES Wall Stand VS						
Protective Earth Wall Stand VS						
2) Column screw	300	mOhm	79	Pass		
3) Wall box cover screw	300	mOhm	83	Pass		

	Min	Max	UoM	Measurement	Result	Comments
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ES Wall Stand VS

Touch Current Wallstand VS

2) Column screw	20	μA	2.7	Pass
3) Wall box cover screw	20	μA	2.8	Pass
4) Rear cover screw wall stand display	20	μA	2.8	Pass
5) Holder screw remote control station	20	μA	2.7	Pass

ES Bucky Units Wall Stands

Protective Earth Bucky unit Wall Stand (Fixed Detector)

2) Grid ejector	300	mOhm	79	Pass
6) Rear cover screw	300	mOhm	83	Pass

Touch Current Bucky unit Wall Stand (Fixed Detector)

2) Grid ejector	20	μA	2.3	Pass
6) Rear cover screw	20	μA	2.3	Pass

ES Ceiling Suspension

Protective Earth CS

4) Union nut of the high voltage cable	300	mOhm	52	Pass
6) Accessory rail screw	300	mOhm	57	Pass
7) Rear screw of the tube control handle	300	mOhm	61	Pass

Touch Current CS

4) Union nut of the high voltage cable	20	μA	2.3	Pass
5) Key switch	20	μA	2.3	Pass
6) Accessory rail screw	20	μA	2.3	Pass
7) Rear screw of the tube control handle	20	μA	2.3	Pass
8) Clutch disk	20	μA	2.3	Pass

ES M-Cabinet

Protective Earth M-Cabinet CXA

2/B) Front cover	300	mOhm	24	Pass
3/C) Top cover	300	mOhm	46	Pass
4/D) Rear cover	300	mOhm	39	Pass
5/E) Left cover	300	mOhm	41	Pass
6/F) Right cover	300	mOhm	42	Pass

Touch Current M-Cabinet CXA

2/B) Front cover	20	μA	2.3	Pass
3/C) Top cover	20	μA	2.4	Pass

	Min	Max	UoM	Measurement	Result	Comments
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ES M-Cabinet

Touch Current M-Cabinet CXA

4/D) Rear cover	20	μA	2.4	Pass	
5/E) Left cover	20	μA	2.3	Pass	
6/F) Right cover	20	μA	2.3	Pass	

ES Workstation

Protective Earth Acquisition Workspot

2) Screw (rear side of PC)	300	mOhm	95	Pass	
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ES Wall Connection Box

Protective Earth Wall Connection Box

2) Upper Left Bezel	300	mOhm	15	Pass	
3) Lower Left Bezel	300	mOhm	18	Pass	
4) Upper Right Bezel	300	mOhm	14	Pass	
5) Lower Right Bezel	300	mOhm	21	Pass	
6) Front Cover Screw	300	mOhm	20	Pass	

Touch Current Wall Connection Box

2) Upper Left Bezel	20	μA	2.2	Pass	
3) Lower Left Bezel	20	μA	2.4	Pass	
4) Upper Right Bezel	20	μA	2.1	Pass	
5) Lower Right Bezel	20	μA	2.4	Pass	
6) Front Cover Screw	20	μA	2.4	Pass	

Notes

Remarks Engineer

2022年度第2回保守点検を以下の通り実施いたしました。

- ・エックス線管球調整
- ・フラットパネルディテクター4点校正
- ・アンブリマット感度測定
- ・ブレーキ板清掃、増し締め

* □管球カウンター: Small 91,153/Large 36,505 /Vario7

* □ソフトウェアリリース R4.1.9

* □設置年月日:2017年1月

Philips Representative Signature:

酒井拓己

Engineer Name: TAKUMI SAKAI

Date: Nov 1, 2022

