

3.2.1 GXR-SD/CSD/USD SYSTEM CONFIGURATION PART

Part		Configuration				
		GXR-32SD	GXR-40SD	GXR-52SD#	GXR-68SD#	GXR-82SD#
X-ray Generator	Model	GXR-32	GXR-40	GXR-52	GXR-68	GXR-82
	Type	High Frequency				
	Nominal Output	32kW	40kW	52kW	68kW	82kW
	kV Range	40~125kV 40~150kV for 3 phase line power		40~150kV		
	mA Range	10 to 400mA	10 to 500mA	10 to 640mA	10 to 800mA	10 to 1,000mA
	Timer Range	0.001~10 sec				
	mAs Range	0.1 to 500mAs (Optional up to 1,000mAs)				
	Software/Firmware	GXR SDK, HT Control Board, DSS board				
X-ray Tube Assembly	Tube	E7239X, E7242X, E7843X, E7876X, E7884X, E7252X, E7255FX, E7869X, E7254FX, DXT-8M, DXT-10M,DXT-11M, DXT-12M,DXT-14U, DXT-15U, RAD-14, RAD-21, RAD-60, RAD-92	E7239X, E7242X, E7843X, E7876X, E7884X, E7252X, E7255FX, E7869X, E7254FX, DXT-8M, DXT-10M,DXT-11M, DXT-12M,DXT-14U, DXT-15U, RAD-14, DXT-12M,DXT-14U, RAD-21, RAD-60, RAD-92	E7876X, E7884X#, E7252X#, E7255FX#, E7254FX#, E7869X#, DXT-12M#, DXT-14U#, DXT-15U#, RAD-14#, RAD-21#, RAD-60#,RAD-92#,	E7252X#, E7255FX#, E7254FX#, E7869X#, DXT-14U#, DXT-15U#, RAD-14#, RAD-21#, RAD-60#, RAD-92#, RTM90HS#, RTM101HS#, RTC600HS#,	E7255FX#, E7254FX#, E7869X#, RAD-21#, RAD-60#, RAD-92#, RTM90HS#, RTM101HS#, RTC600HS#, UH-6FC-31E#

				RTM90HS#, RTM101HS#, RTC600HS#, UH-6FC-31E#	UH-6FC-31E#	
	Type of Collimator	R108, DXC-RML, R302MLP/A#				
Patient Table	Mobile Patient Table	PBT-6 (Basic)#, PBT-4, PBT-1, PDT-1				
		-	PBT-6 (Deluxe)#,			
	Software/Firmware	PBT-6 Auto Control Board, PBT-4 Auto Control Board, Auto Tracking Board				
			PBT-6 Deluxe Auto Control Board, FS-WP3			
Wall Bucky Stand	Wall Bucky Stand	WBS(Manual), WBS-TM(Manual), WBS(Manual Plus), WBS(Motorized), WBS-TM(Motorized), WBS-TA(Motor type), WBS-TA(Actuator type)#				
		-	WBS-TA (Deluxe)#			
	Software/Firmware	Manual: PBT-4 Control Board				
		Motorized: WBS Motorized Control Board, WBS Panel Board, Communication Board				
		-	WBS Motor Driving Board, WBS Display Board, THU Control Board			
Tube Stand	Tube Stand	TS-FM6(Manual), TS-FC6(Manual), TS-FC4(Manual), TS-FC2(Manual), TS-FM6(Motorized), TS-FC6 (Motorized), TS-FC4 (Motorized), TS-FC2 (Motorized) TS-CSA, TS-CSE				
		-	TS-CSP			
	Software/Firmware	Manual: Tube Stand Control Board				
		Motorized: Tube Stand Control Board, LS210 Board(7inch), OP Switch Control Board, Angle Board TS-CSA: Ceiling main control, TS-CSA OP control, TS-CSA Switch control, TS-CSA Head Unit (7inch), TS-CSE: TS-CSE Main Board, TS-CSE Display Board				
		-	Motorized: Head Unit(15.6inch),			

			TS-CSA: TS-CSA Head Unit (15.6inch) TS-CSP: Ceiling main control, TS-CSP OP control, TS-CSP Switch control, TS-CSP Sensor Board, TS-CSP Head Unit (7inch / 15.6inch)
Generator controller	Generator controller	PC interface module, Touch Console	
	Software/Firmware	GXR_PCI, GXR_TCC	
SW	Workstation	Workstation	
	Operating software	RADMAX	
Detector	Detector	PaxScan4343R V3, PaxScan4343RC, PaxScan4336W V4, 4343W(Basic), XRpad2 3025 HWC-M, XRpad2 4336 HWC-M, XRpad2 4343 HWC-M, 2530W-G5, 4336W-G5, 4343W(Lumen) Mano4343T, Mano4336W, Mano4343W, Mars1417X, Mars1717X, Luna1012X, Luna1012X-G, Mano2530A, Mano2530F, Mars1417X-PI, Mars1717X-PI, Mano4336A, Mano4343A, Mano4336F, Mano4343F, PIXIUM 4343EZ-C HD, PIXIUM 3543EZ-C HD, F1417MCW, A1417MCW, A1717MCW	
Options & Accessories	DAP (Dose Area Product) meter	120-131HS (RS485)	
	Grid	Grid 1000	
	Live streaming camera	HU205	
	Stitching Stand	Stitching Stand	
	AEC Ion Chamber	9890 000 70006 (Amplimat 5-Field)	
	Grid Holder	Grid Holder	

* When selecting E7252X or DXT-14U tube from GXR-52, it can be used only when Rotor Supply is Dual Speed.

* #: It can be combined with TS-CSP.

* The 15.6 inch option of the Tube Stand (TS-CSP) is only available in combination with PBT-6 (Basic)/ PBT-6 (Deluxe), WBS-TA (Actuator type)/ WBS-TA

(Deluxe), and GXR 3 phase.

* The 15.6 inch option of the Tube Stand (Motorized, TS-CSA) is only available in combination with GXR 3-phase and cannot be used with PBT-6 (deluxe) or WBS-TA (deluxe).

* When combining the 15.6-inch Deluxe with TS-FM6 motorized equipment, only X-ray tubes weighing 21 kg or less are applicable. (E7869X, RTC600HS/C52S, and UH-6FC-31E tubes are not applicable.)

Part		Configuration				
		GXR-C32SD	GXR-C40SD	GXR-C52SD#	GXR-U32SD	GXR-U40SD
X-ray Generator	Model	GXR-C32	GXR-C40	GXR-C52	GXR-U32	GXR-U40
	Type	High Frequency				
	Nominal Output	32kW	40kW	52kW	32kW	40kW
	kV Range	40~125kV (Optional 40~150kV)			40~125kV (Optional 150kV)	
	mA Range	10 to 400mA	10 to 500mA	10 to 640mA	10 to 400mA	10 to 500mA
	Timer Range	0.001~10 sec				
	mAs Range	0.1 ~ 500mAs			0.1 to 500mAs (Optional up to 1,000mAs)	
	Software/Firmware	GXR SDK, HT Control Board				
GXR Charger Board			GXR Inverter Board			
X-ray Tube Assembly	Tube	E7239X, E7242X, E7843X, E7876X, E7884X, E7252X, E7255FX, E7869X, E7254FX, DXT-8M, DXT-10M,DXT-11M,	E7239X, E7242X, E7843X, E7876X, E7884X, E7252X, E7255FX, E7869X, E7254FX, DXT-8M,	E7876X, E7884X#, E7255FX#, E7869X#, E7254FX,# DXT-12M#, DXT-15U#,	E7239X, E7242X, E7843X, E7876X, DXT-8M, DXT-10M,DXT-11M	E7239X, E7242X, E7843X, E7876X, DXT-8M, DXT-10M,DXT-11M

		DXT-12M,DXT-14U, DXT-15U, RAD-14, RAD-21, RAD-60, RAD-92	DXT-10M,DXT-11M, DXT-12M,DXT-14U, DXT-15U, RAD-14, RAD-21, RAD-60, RAD-92	RAD-14#,RAD-21#, RAD-60#, RAD-92# RTM90HS#, RTM101HS#, RTC600HS#, UH-6FC-31E#		
	Type of Collimator	R108, DXC-RML, R302MLP/A#				
Patient Table	Mobile Patient Table	PBT-6 (Basic)#, PBT-4, PBT-1, PDT-1				
		-	PBT-6 (Deluxe)#	-		
	Software/Firmware	PBT-6 Auto Control, Auto Tracking, PBT-4 Auto Control				
		-	PBT-6 Deluxe Auto Control, FS-WP3	-		
Wall Bucky Stand	Wall Bucky Stand	WBS(Manual), WBS-TM(Manual), WBS(Manual Plus), WBS(Motorized), WBS-TM(Motorized), WBS-TA(Motor type), WBS-TA(Actuator type)#				
		-	WBS-TA (Deluxe) #	-		
	Software/Firmware	Manual: PBT-4 Control Board Motorized: WBS Motorized Control Board, WBS Panel Board, Communication Board				
		-	WBS Motor Driving Board, WBS Display Board, THU CONTROL Board	-		
Tube Stand	Tube Stand	TS-FM6(Manual), TS-FC6(Manual), TS-FC4(Manual), TS-FC2(Manual), TS-FM6(Motorized), TS-FC6 (Motorized), TS-FC4 (Motorized), TS-FC2 (Motorized), TS-CSA, TS-CSE				
		-	TS-CSP	-		

	Software/Firmware	Manual: Tube Stand Control Board Motorized: Tube Stand Control Board, LS210 Board(7inch), OP Switch Control Board, Angle Board TS-CSA: Ceiling main control, TS-CSA OP control, TS-CSA Switch control, TS-CSA Head Unit (7inch) TS-CSE: TS-CSE Main Board, TS-CSE Display Board		
		-	Motorized: Head Unit(15.6inch), TS-CSA: TS-CSA Head Unit (15.6inch) TS-CSP: Ceiling main control, TS-CSP OP control, TS-CSP Switch control, TS-CSP Sensor Board, TS-CSP Head Unit (7inch), TS-CSP Head Unit (15.6inch)	-
Generator controller	Generator controller	PC interface module, Touch Console		
	Software/Firmware	GXR_PCI, GXR_TCC		
SW	Workstation	Workstation		
	Operating software	RADMAX		
Detector	Detector	PaxScan4343R V3, PaxScan4343RC, PaxScan4336W V4, 4343W(Basic), XRpad2 3025 HWC-M, XRpad2 4336 HWC-M, XRpad2 4343 HWC-M, 2530W-G5, 4336W-G5, 4343W(Lumen)		

		Mano4343T, Mano4336W, Mano4343W, Mars1417X, Mars1717X, Luna1012X, Luna1012X-G, Mano2530A, Mano2530F, Mars1417X-PI, Mars1717X-PI, Mano4336A, Mano4343A, Mano4336F, Mano4343F, PIXIUM 4343EZ-C HD, PIXIUM 3543EZ-C HD, F1417MCW, A1417MCW, A1717MCW
Options & Accessories	DAP (Dose Area Product) meter	120-131HS (RS485)
	Grid	Grid 1000
	Live streaming camera	HU205
	Stitching stand	Stitching stand
	AEC Ion Chamber	9890 000 70006 (Amplimat 5-Field)
	Grid Holder	Grid Holder

* #: It can be combined with TS-CSP.

* The 15.6 inch option of the Tube Stand (TS-CSP) is only available in combination with PBT-6 (Basic)/ PBT-6 (Deluxe), WBS-TA (Actuator type)/ WBS-TA (Deluxe), and GXR-C52.

* The 15.6 inch option of the Tube Stand (Motorized, TS-CSA) is only available in combination with GXR-C52 and cannot be used with PBT-6 (deluxe) or WBS-TA (deluxe).

* When combining the 15.6-inch Deluxe with TS-FM6 motorized equipment, only X-ray tubes weighing 21 kg or less are applicable. (E7869X, RTC600HS/C52S, and UH-6FC-31E tubes are not applicable.)

NOTE

For detailed specifications, please refer to the detailed specifications of the model below.

NOTE

Collimators and tubes can be used in any combination

(This page intentionally left blank)

3.2.2 DETECTOR

- Digital flat panel detector (VAREX)

Model		PaxScan4343R v3		PaxScan4343RC	
Active Pixel Area / Matrix		17 x 17 inch (3,052 x 3,052)		17 x 17 inch (3,052 x 3,052)	
Pixel Pitch		139um			
Limiting Resolution		3.6 lp/mm			
Scintillator		DRZ+	CsI	DRZ+	CsI
Energy Range		40 – 150kVp			
A/D Conversion		16-bits			
MTF	@ 1 lp/mm	54%	56%	54%	56%
	@ 2 lp/mm	23%	27%	23%	27%
	@ 3 lp/mm	9%	14%	9%	14%
DQE	@ 0 lp/mm	38%	78%	38%	78%
	@ 1 lp/mm	27%	55%	27%	55%
	@ 2 lp/mm	16%	42%	16%	42%
	@ 3 lp/mm	7%	28%	7%	28%
Interface		Gigabit Ethernet		Gigabit Ethernet	
Weight		6.1 kg (13.4 lbs.)	6.2 kg (13.6 lbs.)	3.5 kg (7.7 lbs.)	3.76 kg (8.2 lbs.)

Model		PaxScan4336W v4		4343W(Basic)		
Active pixel area / matrix		17 x 14 inch (3,052 x 2,456)	17 x 17 inch (3,062 x 3,062)	17 x 17 inch (3,052 x 3,052)	17 x 17 inch (3,032 x 3,032)	
Pixel pitch		139 um				
Limiting resolution		3.6 lp/mm				
Scintillator		DRZ+	CsI	DRZ+	Standard CsI	Premium CsI
Energy range		40 – 150 kV				
A/D conversion		16-bits				
MTF	@ 1 lp/mm	56 %	57 %	58%	66%	62%
	@ 2 lp/mm	24 %	28 %	25%	37%	32%
	@ 3 lp/mm	12 %	16 %	11%	20%	17%
DQE	@ 0 lp/mm	39 %	78 %	37%	62%	73%
	@ 1 lp/mm	28 %	58 %	28%	51%	58%
	@ 2 lp/mm	18 %	42 %	19%	42%	49%
	@ 3 lp/mm	8 %	24 %	10%	29%	34%
Interface		WiFi(802.11 a/g/n/ac)		Gigabit Ethernet / WiFi(802.11ac)		
Weight		2.9 kg (6.4 lbs.)	3.0 kg (6.6 lbs.)	3.1 kg (6.8 lbs.)	3.3 kg (7.3 lbs.)	3.3 kg (7.3 lbs.)

Model		XRpad2 3025 HWC-M	XRpad2 4336 HWC-M	XRpad2 4343 HWC-M
Active Pixel Area / Matrix		12 x 10 inch (3,004 x 2,508)	17 x 14 inch (4,288 x 3,524)	17 x 17 inch (4,288 x 4,288)
Pixel Pitch		100um		
Limiting Resolution		5 cy/mm		
Scintillator		CsI,		
Energy Range		40 – 150kVp		
A/D Conversion		16-bits		
MTF	@ 1 lp/mm	70%	70%	70%
	@ 2 lp/mm	40%	40%	40%
	@ 4 lp/mm	15%	15%	15%
DQE	@ 0 lp/mm	75%	75%	75%
	@ 1 lp/mm	60%	60%	60%
	@ 3 lp/mm	40%	40%	40%
Interface		Ethernet / WIFI(802.11n)		
Weight		1.8kg (4.0 lbs.)	3.2kg (7.0 lbs.)	3.8kg (8.4 lbs.)

Model		2530W-G5	4336W-G5		4343W(Lumen)	
Active Pixel Area / Matrix		12 x 10 inch (2,264 x 1,860)	17 x 14 inch (3,052 x 2,456)	17 x 14 inch (3,032 x 2,436)	17 x 17 inch (3,052 x 3,052)	17 x 17 inch (3,032 x 3,032)
2.65Pixel Pitch		131 um	139 um			
Limiting Resolution		3.8 cy/mm	3.6 cy/mm			
Scintillator		Csl(Std/Pre)	DRZ+	Csl(Std/Pre)	DRZ+,	Csl(Std/Pre)
Energy Range		40 – 150kVp				
A/D Conversion		16-bits				
MTF	@ 1 lp/mm	64%/59%	58%	66%/62%	58%	66%/62%
	@ 2 lp/mm	35%/28%	25%	37%/32%	25%	37%/32%
	@ 3 lp/mm	19%/14%	11%	20%/17%	11%	20%/17%
DQE	@ 0 lp/mm	65%/77%	37%	62%/73%	37%	62%/73%
	@ 1 lp/mm	55%/62%	28%	51%/58%	28%	51%/58%
	@ 2 lp/mm	43%/48%	19%	42%/49%	19%	42%/49%
	@ 3 lp/mm	31%/33%	10%	29%/34%	10%	29%/34%
Interface		Ethernet / WIFI(802.11 n/ac)				
Weight (Without battery)		1.56kg (3.4 lbs.)	2.65kg (5.8lbs.)	2.8kg (6.2lbs.)	2.9kg (6.3lbs.)	3.1kg (6.8lbs.)

- Digital flat panel detector (iRay)

Model		Mano4343T	Mano4343W	Mano4336W
Active Pixel Area / Matrix		17 x 17 inch (3,072 x 3,072)		17 x 14 inch (2,800 x 2,304)
Pixel Pitch		139um		150um
Limiting Resolution		3.6 lp/mm		3.3 lp/mm
Scintillator		CsI		
Energy Range		40 – 150kVp		
A/D Conversion		16-bits		
MTF	@ 1 lp/mm	70%	70%	75%
	@ 2 lp/mm	43%	43%	49%
	@ 3 lp/mm	24%	24%	29%
DQE	@ 0 lp/mm	66%	66%	61%
	@ 1 lp/mm	48%	48%	46%
	@ 2 lp/mm	35%	35%	36%
Interface		Gigabit Ethernet	Gigabit Ethernet / WiFi(802.11ac)	
Weight (Without battery)		Approx. 4kg (8.8 lbs.) (Without Cable)	4.3kg (9.47lbs.)	3.3kg (7.3lbs.)

Model	Mars1417X	Mars1717X
Active Pixel Area / Matrix	14 x 17 inch (3,500 x 4,300)	17 x 17 inch (4,267 x 4,267)
Pixel Pitch	100um	
Limiting Resolution	5 lp/mm	
Scintillator	CsI	
Energy Range	40 – 150kVp	
A/D Conversion	16-bits	
MTF	@ 1 lp/mm	70 %
	@ 2 lp/mm	40.4 %
	@ 3 lp/mm	22.8 %
DQE	@ 0 lp/mm	73.4 %
	@ 1 lp/mm	55.9 %
	@ 2 lp/mm	40.4 %
Interface	Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)	2.7kg (5.95 lbs.)	3.1kg (6.83 lbs.)

Model	Luna1012X	Luna1012X-G
Active Pixel Area / Matrix	10 x 12 inch (2,502 x 3,152)	10 x 12 inch (2,502 x 3,152)
Pixel Pitch	100um	
Limiting Resolution	5 lp/mm	
Scintillator	CsI	
Energy Range	40 – 150kVp	
A/D Conversion	16-bits	
MTF	@ 1 lp/mm	68 %
	@ 2 lp/mm	38 %
	@ 3 lp/mm	21 %
DQE	@ 0 lp/mm	67 %
	@ 1 lp/mm	51 %
	@ 2 lp/mm	36 %
Interface	Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)	1.7kg (3.74 lbs.)	2.0kg (4.40 lbs.)

Model		Mars1417X-PI	Mars1717X-PI
Active pixel area / matrix		14 x 17 inch (3,500 x 4,300)	17 x 17 inch (4,267 x 4,267)
Pixel pitch		100 um	
Limiting resolution		5 lp/mm	
Scintillator		CsI	
Energy range		40 – 150 kV	
A/D conversion		16-bits	
MTF	@ 1 lp/mm	70 %	70 %
	@ 2 lp/mm	40.4 %	40.4 %
	@ 3 lp/mm	22.8 %	22.8 %
DQE	@ 0 lp/mm	73.4 %	73.4 %
	@ 1 lp/mm	55.9 %	55.9 %
	@ 2 lp/mm	40.4 %	40.4 %
	@ 3 lp/mm	28 %	28 %
Interface		Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)		2.4 kg (5.29 lbs.)	2.8 kg (6.17lbs.)

Model		Mano4336A	Mano4343A
Active Pixel Area / Matrix		14 x 17 inch (3,500 x 4,300)	17 x 17 inch (4,267 x 4,267)
Pixel Pitch		100um	
Limiting Resolution		5 lp/mm	
Scintillator		CsI	
Energy Range		40 – 150kVp	
A/D Conversion		16-bits	
MTF	@ 1 lp/mm	70 %	
	@ 2 lp/mm	40.4 %	
	@ 3 lp/mm	22.8 %	
DQE	@ 0 lp/mm	73.4 %	
	@ 1 lp/mm	55.9 %	
	@ 2 lp/mm	40.4 %	
Interface		Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)		2.7kg (5.95 lbs.)	3.1kg (6.83 lbs.)

Model		Mano4336F	Mano4343F
Active pixel area / matrix		14 x 17 inch (3,500 x 4,300)	17 x 17 inch (4,267 x 4,267)
Pixel pitch		100 um	
Limiting resolution		5 lp/mm	
Scintillator		CsI	
Energy range		40 – 150 kV	
A/D conversion		16-bits	
MTF	@ 1 lp/mm	70 %	70 %
	@ 2 lp/mm	40.4 %	40.4 %
	@ 3 lp/mm	22.8 %	22.8 %
DQE	@ 0 lp/mm	73.4 %	73.4 %
	@ 1 lp/mm	55.9 %	55.9 %
	@ 2 lp/mm	40.4 %	40.4 %
	@ 3 lp/mm	28 %	28 %
Interface		Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)		2.4 kg (5.29 lbs.)	2.8 kg (6.17lbs.)

Model		Mano2530F	Mano2530A
Active pixel area / matrix		10 x 12 inch (2,502 x 3,152)	10 x 12 inch (2,502 x 3,152)
Pixel pitch		100 um	
Limiting resolution		5 lp/mm	
Scintillator		CsI	
Energy range		40 – 150 kV	
A/D conversion		16-bits	
MTF	@ 1 lp/mm	68 %	
	@ 2 lp/mm	38 %	
	@ 3 lp/mm	21 %	
DQE	@ 0 lp/mm	67 %	
	@ 1 lp/mm	51 %	
	@ 2 lp/mm	36 %	
Interface		Gigabit Ethernet / WiFi(802.11ac)	
Weight (without battery)		1.7kg (3.74 lbs.)	2.0kg (4.40 lbs.)

- Digital flat panel detector (THALES)

Model		PIXIUM 3543EZ-C HD	PIXIUM 4343EZ-C HD
Active pixel area / matrix		14 x 17 inch (3,534 x 4,302)	17 x 17 inch (4,302x 4,302)
Pixel pitch		100 um	
Limiting resolution		5 lp/mm	
Scintillator		CsI	
Energy range		40 – 150 kV	
A/D conversion		16-bits	
MTF	@ 1 lp/mm	62 %	62 %
	@ 2 lp/mm	33 %	33 %
	@ 3 lp/mm	17 %	17 %
DQE	@ 0 lp/mm	70 %	70 %
	@ 1 lp/mm	50 %	50 %
	@ 2 lp/mm	42 %	42 %
	@ 3 lp/mm	34 %	34 %
Interface		Gigabit Ethernet / WiFi(802.11 ac)	
Weight (without battery)		2.85 kg (6.28 lbs.)	3.85 kg (8.48 lbs.)

- **Digital flat panel detector (H&abyz)**

Model		F1417MCW	A1417MCW		A1717MCW
Active Pixel Area / Matrix		14 x 17 inch (3,040 x 2,466)	14 x 17 inch (3,040 x 2,466)		17 x 17 inch (3,040 x 3,036)
Pixel Pitch		140um			
Limiting Resolution		3.57 lp/mm			
Scintillator		CsI (Flexible)	CsI (TFT)	CsI (Flexible)	CsI(TFT)
Energy Range		40 – 150kVp			
A/D Conversion		16-bits			
MTF	@ 1 lp/mm	66 %	66 %	66 %	66 %
	@ 2 lp/mm	34 %	34 %	34 %	34 %
	@ 3 lp/mm	17 %	17 %	17 %	17 %
DQE	@ 0 lp/mm	76 %	76 %	76 %	76 %
	@ 1 lp/mm	64 %	64 %	64 %	64 %
	@ 2 lp/mm	51 %	51 %	51 %	51 %
Interface		Gigabit Ethernet / WiFi(802.11ac)			
Weight (without battery)		2.1kg (±0.20kg) (4.62 lbs.)	2.9kg (±0.20kg) (6.39 lbs.)	2.4kg (±0.20kg) (5.29 lbs.)	3.4kg (±0.20kg) (7.49 lbs.)

NOTE

Depending on the country, there are detectors that cannot be installed and used. Please refer to the table below.

Nation	List of detectors that cannot be installed
Taiwan	2530W-G5, 4336W-G5, 4343W(Basic, Lumen), Mars1417X, Mars1717X Mars1417X-PI, Mars1717X-PI, Mano4343A, Mano4336F, Mano4336F, Mano4343F, Luna1012X, Luna1012X-G, Mano2530F, Mano2530A, PIXIUM 3543EZ-C HD, PIXIUM 4343EZ-C HD, F1417MCW, A1417MCW, A1717MCW
USA	4343W(Lumen), 2530W-G5, 4336W-G5, Mars1417X, Mars1717X Mars1417X-PI, Mars1717X-PI, Mano4336A, Mano4343A, Mano4336F, Mano4343F, Luna1012X, Luna1012X-G, Mano2530F, Mano2530A, PIXIUM 3543EZ-C HD, PIXIUM 4343EZ-C HD, F1417MCW, A1417MCW, A1717MCW

CAUTION

Use a detector that provides an imaging calibration program. Otherwise, the quality of the X-ray image may be lowered.

3.2.3 WORKSTATION

CPU	Intel Core i5 10th or higher
Memory	16GB (1x16GB) DDR4 2400Mhz or higher
Display	Intel® HD Graphics 630 or Higher
Storage	256GB SSD, 1TB 7200RPM SATA HDD
OS	Windows 10 or 11 Enterprise LTSC
Monitor	23 inch Color LED or Higher, Display resolution: 1920 x 1080 pixels (16:9)

- AP (Access Point) for Wireless Detector.**

Model	RT-AX57 (AX 3000)
Product Picture	
Manufacturer	ASUS
Standards	IEEE 802.11n, IEEE 802.11ac, IEEE 802.11ax
Frequency	5GHz / 2.4GHz
Wireless LAN (max.)	2402Mbps(5GHz) / 1201Mbps(2.4GHz)
Weight Antennas Type	4 external antennas
DC Power Adapter	12V / 1.5A
Regulatory Compliance	CE, FCC, RoHS, KCC

3.2.4 IMAGING SOFTWARE

1) General Features

- Windows OS based graphic user interface
- Multi-image display (1x1 ~ 4x4)
- X-ray generator control panel
- ROI feature (support the creation of ROI for each APR by user)
- Maker feature (support the creation of maker for each APR by user)
- Multi-language support
- EXCEL sheet for language support (only possible on Microsoft Office automation environment)
- DAP meter (Optional)
- Unlimited PACS code (CPT code)
- Unlimited Anatomically programmed radiography (APR) support
- Dose monitoring function
- Built-in memory function
- Grid line suppression function
- Reject analysis function
- 9 Preset function
- Cobb's angle function
- Tube & Line Enhancement function
- APR Positioning Guide function
- Auto ROI function
- Screen Locker function
- ROI Masking function
- Authority setting function
- MANO Detector power off function
- Live Streaming function
- Blue and Dark and Black Skin GUI
- Support SCP(SERVICE CLASS PROVIDER)
- Support Audit Trail
- Support Period Setting
- Support DICOM Send Monitoring
- Support AEC Field area display function using camera
- Support DICOM Tag Matching
- Support Scatter Reduction image processing parameter
- Support C-Store SCP function
- Support Widget function
- Support Small Movement function

- Support Bone Suppression function
- Support Easy Auto Stitch function
- Support Manual Workflow Mode
- Enhanced security function
- Sound Settings (Worklist Alarm ,Auto Voice , Driving Sound)
- Study Backup/Restore function
- Extended Display function

2) Post processing parameters

- MODULE 1
 - ◆ Edge Enhancement: 0 ~ 50
 - ◆ Contrast Factor : 1 ~ 200
 - ◆ Image Frequency : 0 ~ 20
 - ◆ Image Latitude : -10 ~ 10
 - ◆ Sharpness : 0 ~ 100
- MODULE 2
 - ◆ Histogram Optimization : -100 ~ 100
 - ◆ Skin line Weight : -100 ~ 100
 - ◆ Latitude Compression : -100 ~ 100
 - ◆ Contrast Enhancement : -100 ~ 100
 - ◆ Edge Enhancement : -100 ~ 100
 - ◆ Noise Suppression : -100 ~ 100
 - ◆ Gamma : -20 ~ 20
- MODULE 3
 - ◆ Global Brightness : -100 ~ 100
 - ◆ Global Contrast : -100 ~ 100
 - ◆ Latitude Compression : -100 ~ 100
 - ◆ S-Structure Enhancement : -100 ~ 100
 - ◆ Noise Suppression : -100 ~ 100
 - ◆ Gamma : -20 ~ 20
- MODULE 4
 - ◆ Global Contrast : -30 ~ 30
 - ◆ Global Brightness : -20 ~ 20
 - ◆ Local Contrast : 0 ~ 20
 - ◆ Small Enhancement : 0 ~ 20
 - ◆ Latitude Reduction : -20 ~ 20
 - ◆ Noise Suppression : 0 ~ 20

◆ Gamma : -20 ~ 20

3) Image Maintenance (All functions are supported by the pop-up menu)

- ROI : Support the creation of up to 30 of ROI by user
- ROI Shape : Support the shape of rectangle, circle and polygon
- MARK : Support the creation of up to 30 of MARKER by user (User preset support)
- Arrow Marker
- Overlay Display On/Off
- Horizontal Flip
- Vertical Flip
- Rotate CW
- Rotate CCW
- Fine Rotation : Rotate the image with fine angle (1,2,3,45 degree)
- Line Rotation: Rotate the image by the line angle.
- Inverse (Black or White)
- Text Annotation
- Ruler : Distance tool
- Angle : Angle measurement tool
- Zoom : Image zoom in/out
- Magnify : Image magnify glass window
- Pan : Image panning
- Fit Image : Auto fitting to window size
- 1:1 View : Display 1:1 mapped image between monitor pixels and detector pixels or the real size on screen
- Image Crop : Image crop function / Supported by left double-click mouse
- Image Recovery : Recover the original image
- Image Bright/Contrast control : Supported by right-click mouse
- Module3 Processing Type function (Soft, Standard, Strong)
- Hip Measurement
- Cardiothoracic Ratio(CTR) function
- Q-Angle function

4) CD Burning

- DICOMDIR based CDR data generation
- Support CD/DVD Recording
- Include internal DICOM Viewer
- Support multi-study data

5) DICOM Features : DICOM PRINT

- DICOM 3.0 compatible
- Support Print Preview
- Support Film Orientation : Portrait / Landscape
- Support Film Size : 8X10 / 10X12 / 10X14 / 11X14 / 14X14 / 14X17 / 24X24 / 24X30 / 25X30
- Support Film Layout : 1:1 / 1:2 / 2:1 / 2:2 / 3:1 / 1:3 / 3:3 / 4:4
- Support Real size printing
- Support image swap in layout

6) DICOM Feature : STORAGE

- DICOM 3.0 compatible
- Support DX/CR modality (can be extended for DR and other)
- Support RDSR(Radiation Dose Structured Report)
- Support the modification of Transfer Syntax

7) DICOM Feature : MPPS

- Support Modality Performed Procedure Step feature
- Provides only three state : FAILED / IN PROGRESS / COMPLETED

8) DICOM Feature : WORKLIST

- Support DICOM Modality Worklist Standard
- Support DICOM Query/Retrieve
- Support Search Filter (ID / Name / Access Number)
- Support Import Filter

9) DICOM Feature : STORAGE COMMITMENT

10) DICOM Feature : QUERY/RETRIEVE

11) DICOM Feature : VERIFICATION

12) DICOM Feature : TLS

13) Overlay Display on image

- Projection description
- Patient Name / Sex / Age
- kV / mA / Time / mAs
- Feed-back mAs / Feed-back Time for AEC
- EI(Exposure Index) / DI(Deviation Index)

- Window Width / Level
- Overlay can be set by user

14) Image Stitching

- Stitches whole spine/long bone images to single image
- Support 2 ~ 5 images stitching
- Support zoom in/out of all images simultaneously
- Moves single image or all images simultaneously
- Support automatic stitching using 2 point
- Support image clipping
- Automatically remove non-exposure area
- Adjust window level of single image or all images simultaneously
- Provide full-spine imaging apparatus

3.2.5 X-RAY GENERATORS

System Model	GXR-32SD	GXR-40SD	GXR-52SD#	GXR-68SD#	GXR-82SD#
Generator Model	GXR-32	GXR-40	GXR-52	GXR-68	GXR-82
Output Rating	32kW	40kW	52kW	68kW	82kW
Line Nominal, Phase	220~230V~, 380/400/480V3~		380/400/480V3~		
Line Voltage Range	±10% (Frequency: 50/60Hz)				
kV Range	40~125kV, 1kV step 40~150kV for 3 phase line power		40~150kV, 1kV step		
mA Range	10 to 400mA	10 to 500mA	10 to 640mA	10 to 800mA	10 to 1,000mA
Timer Range	0.001 to 10 sec, 38 steps				
mAs Range	0.1 to 500mAs (Optional up to 1,000mAs)				
AEC Shortest Irradiation Time	1ms				
Max. Power Output	400mA@80kV 320mA@100kV 250mA@125kV 200mA@150kV(3 Φ)	500mA@80kV 400mA@100kV 320mA@125kV 250mA@150kV(3 Φ)	640mA@81kV 500mA@104kV 400mA@130kV 320mA@150kV	800mA@85kV 640mA@106kV 500mA@136kV 400mA@150kV	1,000mA@82kV 800mA@102kV 640mA@128kV 500mA@150kV
Rotor Supply	Low Speed (Option: LSS Brake, Dual Speed for 3Φ)		Low Speed (Option: LSS Brake, Dual Speed)	Dual Speed	
Technique Selection	4 point display(kV, mA, Time, mAs): kV/mAs, kV/mA/Time, kV/AEC option				
Image Receptors	2 Bucky + 1 Non-Bucky				
Auxiliary Power Supply	External System Power		230VAC, 1A, 230W (PBT-4) 230VAC, 2A, 460W (PBT-6 (Basic, Deluxe))		
			110VAC, 1A, 110W		
	Magnetic Lock(Brake) Power		28VAC, 6.3A, 176W		
	Collimator Lamp Power		24VAC, 6.3A, 150W		
Reproducibility	Coefficient of Variation: kV < 0.005, Time < 0.005, mAs < 0.01				
Accuracy	kV < ±(1%+1kV), mA < ±(3%+1mA), Time < ±(1%+0.5ms), mAs < ±(3%+0.1mAs)				
Linearity	Coefficient of Linearity < 0.01 : CL = (X1-X2)/(X1+X2), where X is mR/mAs				
Dimension / Weight	Main Cabinet		626(W) x 652(H) x 408(D) mm / 92kg(203lbs)		
	Main Cabinet with level foot option		626(W) x 667(H) x 408(D) mm / 92kg(203lbs)		
	PC Interface Module		208(W) x 76(H) x 181(D) mm / 0.8kg(1.76lbs)		
	Touch Console		308(W) x 51(H) x 200(D) mm / 1.5kg(3.31lbs)		

* #: It can be combined with TS-CSP.

System Model	GXR-C32SD		GXR-C40SD	GXR-C52SD#
Generator Model	GXR-C32		GXR-C40	GXR-C52
Power Rating	32kW		40kW	52kW
Line Nominal, Phase	110-120, 220-230V~			
Line Voltage Range	±10% (Frequency: 50*/60Hz) * : Outside North America			
kV Range	40~125kV, 1kV step (Optional 40~150kV)			
mA Range	10 to 400mA		10 to 500mA	10 to 640mA
Timer Range	0.001 to 10 sec, 38 steps			
mAs Range	0.1 to 500mAs			
AEC Shortest Irradiation Time	1ms			
Max. Power Output	400mA@80kV 320mA@100kV 250mA@125kV 200mA@150kV(optional)	500mA@80kV 400mA@100kV 320mA@125kV 250mA@150kV(optional)	640mA@81kV, 500mA@104kV, 400mA@130kV 320mA@150kV(optional)	
Rotor Supply	Low Speed			
Technique Selection	4 point display(kV, mA, Time, mAs): kV/mAs, kV/mA/Time, kV/AEC option			
Image Receptors	2 Bucky + 1 Non-Bucky			
Auxiliary Power Supply	External System Power		230VAC, 1A, 230W (PBT-4)	
			230VAC, 2A, 460W (PBT-6 (Basic, Deluxe))	
	Magnetic Lock Power		110VAC, 1A, 110W	
	Collimator Lamp Power		28VAC, 6.3A, 176W	
24VAC, 6.3A, 150W				
Reproducibility	Coefficient of Variation: kV < 0.005, Time < 0.005, mAs < 0.01			
Accuracy	kV < ±(1%+1kV), mA < ±(3%+1mA), Time < ±(1%+0.5ms), mAs < ±(3%+0.1mAs)			
Linearity	Coefficient of Linearity < 0.01 : CL = (X1-X2)/(X1+X2), where X is mR/mAs			
Dimension / Weight	Main Cabinet	GXR-C32	628(W) x 978(H) x 460(D) mm / 135kg(298lbs)	
		GXR-C40	628(W) x 978(H) x 460(D) mm / 142kg(313lbs)	
		GXR-C52	628(W) x 978(H) x 460(D) mm / 148kg(326lbs)	
	PC Interface Module		208(W) x 76(H) x 181(D) mm / 0.8kg(1.76lbs)	
	Touch Console		308(W) x 51(H) x 200(D) mm / 1.5kg(3.31lbs)	

* #: It can be combined with TS-CSP.

System Model	GXR-U32SD		GXR-U40SD	
Generator model	GXR-U32		GXR-U40	
Power Rating	32kW		40kW	
Line Nominal, Phase	100-240V~			
Line Voltage Range	±10% (Frequency: 50/60Hz)			
kV Range	40~125Kv(optional 150kV), 1kV step			
mA Range	10 to 400mA		10 to 500mA	
Timer Range	0.001 to 10 sec, 38 steps			
mAs Range	0.1 to 500mAs(Optional up to 1,000mAs)			
AEC Shortest Irradiation Time	1ms			
Max. Power Output	400mA@80kV 320mA@100kV 250mA@125kV Optional 200mA@150kV		500mA@80kV 400mA@100kV 320mA@125kV Optional 250mA@150kV	
Power Requirement	900VA			
Rotor Supply	Low Speed (Optional LSS Brake)			
Technique Selection	4 point display(kV, mA, Time, mAs): kV/mAs, kV/mA/Time, kV/AEC option			
Image Receptors	2 Bucky + 1 Non-Bucky			
Auxiliary Power Supply	External System Power		230VAC, 1A, 230W (PBT-4)	
			230VAC, 2A, 460W (PBT-6 (Basic))	
			110VAC, 1A, 110W	
	Magnetic Lock Power		28VAC, 6.3A, 176W	
Collimator Lamp Power		24VAC, 6.3A, 150W		
Reproducibility	Coefficient of Variation: kV < 0.005, Time < 0.005, mAs < 0.01			
Accuracy	kV < ±(1%+1kV), mA < ±(3%+1mA), Time < ±(1%+0.5ms), mAs < ±(3%+0.1mAs)			
Linearity	Coefficient of Linearity < 0.01 : CL = (X1-X2)/(X1+X2), where X is mR/mAs			
Dimension / Weight	Main Cabinet	GXR-U32	628(W) x 1075(H) x 460(D) mm / 203kg (448lbs)	
		GXR-U40	628(W) x 1187(H) x 460(D) mm / 255kg(562lbs)	
	PC Interface Module		208(W) x 76(H) x 181(D) mm / 0.8kg(1.76lbs)	
	Touch Console		308(W) x 51(H) x 200(D) mm / 1.5kg(3.31lbs)	

3.2.6 TABLE

Model		PBT-6 (Basic)			
Movement	Tabletop	Longitudinal		Stroke	Tabletop Size(W)
			Standard	1,000(±500)mm ± 10mm	Tabletop 2,200mm
				800(±400)mm ± 10mm	Tabletop 2,000mm
				600(±300)mm ± 10mm	Tabletop 1,800mm
			Extended (Option)	1100(±550)mm ± 10mm	Tabletop 2,660mm
				840(±420)mm ± 10mm	Tabletop 2,400mm
				640(±320)mm ± 10mm	Tabletop 2,200mm
	Transverse (Lateral)		250(±125)mm ± 5mm		
	Vertical	Travel	Standard	285(575~860)mm ± 5mm	
			Extended (Option)	300(560~860)mm ± 5mm	
		Speed		17mm/sec ± 15%	
		Operating		Motorized movement by Foot Switch DC-motor (Linear Actuator)	
	Bucky	Standard	Mechanical	-350mm ± 10mm with standard tray -295mm ± 10mm with rotating tray	
			Table Tracking	-340mm ± 10mm with standard tray -290mm ± 10mm with rotating tray	
		Extended (Option)	Mechanical	-740mm ± 10mm with standard tray -690mm ± 10mm with rotating tray	
			Table Tracking	-730mm ± 10mm with standard tray -680mm ± 10mm with rotating tray	
Tabletop		Inherent Filtration		Laminate : 1.2mmAl at 100kV Carbon(Option) : 0.5mmAL at 100kV	
		Max. Patient Weight		300kg(660lbs)	
		Size	Standard	2,200(W) x 878(D) x 45(H) mm 2,000(W) x 878(D) x 45(H) mm 1,800(W) x 878(D) x 45(H) mm	
			Extended (Option)	2,660(W) x 878(D) x 45(H) mm 2,400(W) x 878(D) x 45(H) mm 2,200(W) x 878(D) x 45(H) mm	
Bucky Type		Oscillating (Optional built in charger)		Fixed (Optional built in charger)	
Grid		FD 100cm, 103 lpi, 150 lpi, ratio 8~12:1		FD 100cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)	
Lock(Brake)		EM Lock, Foot Switch on/off			
Center indication		Transverse center, height center			
Side Cover		2-story telescopic Cover			
Electrical Rating		100–240VAC, 400VA, 50/60Hz			
Option		Patient Compression Belt, Patient hand grips, Cassette holders, Mechanical Table Bucky Tracking (with TS-FM6)			

Dimension / Weight	Standard	Laminate	2200(W) x 878(D) x 860(H) mm / 255.2kg(562.6lbs) 2000(W) x 878(D) x 860(H) mm / 252.2kg(556lbs) 1800(W) x 878(D) x 860(H) mm / 248.2kg(547.2lbs)
		Carbon	2200(W) x 878(D) x 860(H) mm / 249.1kg(549.2lbs) 2000(W) x 878(D) x 860(H) mm / 246.9kg(544.3lbs) 1800(W) x 878(D) x 860(H) mm / 243.6kg(537lbs)
	Extended (Option)	Laminate	2660(W) x 878(D) x 860(H) mm / 310kg(683.4lbs) 2400(W) x 878(D) x 860(H) mm / 306kg(674.6lbs) 2200(W) x 878(D) x 860(H) mm / 303kg(668lbs)
		Carbon	2660(W) x 878(D) x 860(H) mm / 302.2kg(666.2lbs) 2400(W) x 878(D) x 860(H) mm / 299.2kg(659.6lbs) 2200(W) x 878(D) x 860(H) mm / 296.9kg(654.6lbs)

* APPLIED PART

* Optional Rotating tray

Model		PBT-6 (Deluxe)#		
Movement	Tabletop	Longitudinal	Stroke	Tabletop Size(W)
			1,100(±550)mm ± 10mm	Tabletop 2,660mm
			840(±420)mm ± 10mm	Tabletop 2,400mm
			640(±320)mm ± 10mm	Tabletop 2,200mm
		Transverse (Lateral)	300(±150)mm ± 10mm	
	Vertical	Travel	350(510~860)mm ± 5mm	
		Speed	13~ 19mm/sec ± 10% (Full load to no load)	
		Operating	Motorized movement by Foot/Hand grip Switch Linear Actuator	
	Bucky	Mechanical	-740mm ± 10mm with standard tray -500mm ± 10mm with rotating tray	
		Table Tracking	-710mm ± 10mm with standard tray (automatically move only)	
Tabletop		Inherent Filtration	Laminate : 1.2mmAl at 100kV Carbon : 0.5mmAL at 100kV	
		Max. Patient Weight	400kg(881lbs)	
		Size	2,660(W) x 878(D) x 45(H) mm 2,400(W) x 878(D) x 45(H) mm 2,200(W) x 878(D) x 45(H) mm	
Bucky Type		Oscillating (Optional built in charger)	Fixed (Optional built in charger)	
Grid		FD 100cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 100cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)	
Lock(Brake)		EM Lock, Foot Switch on/off, Hand Grip Switch on/off, Hand Switch on/off (Bucky)		
Center indication		Transverse center, height center		
Electrical Rating		230VAC, 550VA, 50/60Hz		
Option		Patient Compression Belt, Patient hand grips, Cassette holders, Mechanical Table Bucky Tracking (with TS-FM6), Hand grip switch, FS-WP3(Wireless Foot Switch), FS-PP3(Wire Foot Switch), 45° rotating Bucky		
Dimension / Weight		Laminate	2660(W) x 878(D) x 860(H) mm / 240kg(529.1lbs) 2400(W) x 878(D) x 860(H) mm / 236kg(520.3lbs) 2200(W) x 878(D) x 860(H) mm / 227kg(500.4lbs)	
		Carbon	2660(W) x 878(D) x 860(H) mm / 232kg(511.5lbs) 2400(W) x 878(D) x 860(H) mm / 229kg(504.9lbs) 2200(W) x 878(D) x 860(H) mm / 221kg(487.2lbs)	

* APPLIED PART

* Optional Rotating Bucky (45 Degree only for FVF Bucky)

* #: It can be combined with TS-CSP.

Model		PBT-4		
Movement	Tabletop	Longitudinal	Stroke	Tabletop Size(W)
			1,000(±500)mm ± 10mm	Tabletop 2,200mm
			800(±400)mm ± 10mm	Tabletop 2,000mm
			600(±300)mm ± 10mm	Tabletop 1,800mm
	Transverse (Lateral)	250(±125)mm ± 5mm		
Bucky	Longitudinal	350mm ± 10mm with standard tray 295mm ± 10mm with rotating tray		
Tabletop		Inherent Filtration	Laminate : 1.2mmAl at 100kV Carbon(Optional) : 0.5mmAL at 100kV	
		Max. Patient Weight	300kg (660lbs)	
		Size	2,200(W) x 818(D) x 45(H) mm 2,000(W) x 818(D) x 45(H) mm 1,800(W) x 818(D) x 45(H) mm	
Bucky Type		Oscillating (Optional built in charger)	Fixed (Optional built in charger)	
Grid		FD 100cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 100cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)	
Lock(Brake)		EM Lock, beam sensor on/off		
Center indication		Transverse Buzzer sound and LED		
Electrical Rating		100~240VAC, 200VA, 50/60Hz		
Option		Patient Compression Belt, Patient hand grips, Cassette holders, Mechanical Table Bucky Tracking (with TS-FM6)		
Dimension / Weight		Laminate	2,200(W) x 818(D) x 660(H) mm / 145.7kg(321.2lbs) 2,000(W) x 818(D) x 660(H) mm / 142.7kg(314.6lbs) 1,800(W) x 818(D) x 660(H) mm / 139.7kg(308lbs)	
		Carbon	2,200(W) x 818(D) x 660(H) mm / 140.3kg(309.3lbs) 2,000(W) x 818(D) x 660(H) mm / 137.9kg(304lbs) 1,800(W) x 818(D) x 660(H) mm / 134.6kg(296.7lbs)	

* APPLIED PART

* Optional Rotating tray

Model	PBT-1
Max. Patient Weight	Max. 215kg (474lbs)
Grid	Focal distance 100cm, 103 lpi, ratio 10:1
Inherent Filtration	1.2mmAl at 100kV
Electrical Rating	DC 24V/ 64VA
Caster	Max height 172 mm / Max work load 90 kg (198lb)
Bucky Type	Spring Oscillating
Dimension / Weight	2005(W) x 662(D) x 700(H) mm / 75kg(165lbs)

* APPLIED PART

Model	PDT-1
Max. Patient Weight	Max. 200kg (441lbs)
Inherent Filtration	1.2mmAl at 100kV
Dimension / Weight	2005(W) x 650(D) X 700(H)mm / 62kg (137lb)

* APPLIED PART

3.2.7 WALL BUCKY STAND

Model	WBS(Manual)	
Stroke	Vertical	1,070mm (300~1,370mm from floor to Bucky center) $\pm$ 10mm 1,220mm (300~1,520mm from floor to Bucky center) $\pm$ 10mm 1,390mm (300~1,690mm from floor to Bucky center) $\pm$ 10mm 1,640mm (300~1,940mm from floor to Bucky center) $\pm$ 10mm
Vertical Movement	Manual	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Vertical Balance	Counter Weight	
Electrical Rating	24VDC, 1A	
Option	Patient Overhead hand grips, Patient Lateral hand grips, Cassette holders, Right side drawer tray	
Dimension / Weight	1,599(H) x 659(W) x 445(D) mm / 110kg(242lbs) 1,749(H) x 659(W) x 445(D) mm / 113kg(249lbs) 1,919(H) x 659(W) x 445(D) mm / 116kg(255lbs) 2,169(H) x 659(W) x 445(D) mm / 120kg(264lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS-TM(Manual)	
Cassette Stroke	Vertical	1,492mm (286~1,778mm from floor to Bucky center) $\pm$ 10mm
	Tilted 90°	1,500mm (658~2,158mm from floor to Bucky surface) $\pm$ 10mm
Vertical Movement	Manual	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Tilting Angle	-30 ~ 90°	
Tilting Movement	Manual	
Withstanding load (at tilting angle 90°)	20kgf at the point 150mm from the side.	
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off by foot switch(Vertical movement, Tilting)	
Balance	Vertical	Counter Weight
	Tilting	Spring
Electrical Rating	24VDC, 2.5A	
Option	Patient Overhead hand grips, Cassette holders, Right side drawer tray	
Dimension/Weight	Max. 2,169(H) x 674(W) x 732(D) mm / 187kg(412lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS(Manual Plus)	
Cassette stroke	1,220mm (300~1,520mm from floor to Bucky center) $\pm$ 10mm 1,390mm (300~1,690mm from floor to Bucky center) $\pm$ 10mm 1,640mm (300~1,940mm from floor to Bucky center) $\pm$ 10mm	
Vertical Movement	Manual	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100-240VAC, 160VA, 50/60Hz	
Option	Patient Overhead hand grips, Patient Lateral hand grips, Cassette holders, Right side drawer tray	
Dimension / Weight	1,749(H) x 659(W) x 445(D) mm / 113kg(249lbs) 1,919(H) x 659(W) x 445(D) mm / 116kg(255lbs) 2,169(H) x 659(W) x 445(D) mm / 120kg(264lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS(Motorized)	
Cassette stroke	Vertical	970mm (300~1,270mm from floor to Bucky center) $\pm$ 10mm 1,120mm (300~1,420mm from floor to Bucky center) $\pm$ 10mm 1,290mm (300~1,590mm from floor to Bucky center) $\pm$ 10mm 1,540mm (300~1,840mm from floor to Bucky center) $\pm$ 10mm
Vertical movement	Manual and Motorized movement	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100-240VAC, 160VA, 50/60Hz	
Vertical Speed	6.2 cm/s $\pm$ 15% (Normal up), 5.6cm/s $\pm$ 15% (Normal down)	
Option	Patient Overhead hand grips, Patient Lateral hand grips, Cassette holders, Right side drawer tray, Emergency Stop Switch for operation room, Vertical Up/Down foot switch or hand switch for operation room	
Dimension / Weight	1,614(H) x 659(W) x 549(D) mm / 126kg(277lbs) 1,764(H) x 659(W) x 549(D) mm / 130kg(286lbs) 1,934(H) x 659(W) x 549(D) mm / 132kg(291lbs) 2,184(H) x 659(W) x 549(D) mm / 135kg(297lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS-TM(Motorized)	
Cassette Stroke	Vertical	1,492mm (286~1,778mm from floor to Bucky center) ± 10mm
	Tilted 90°	1,517mm (645~2,162mm from floor to Bucky surface) ± 10mm
Vertical movement	Manual and Motorized	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Tilting Angle	-30 ~ 90°	
Tilting Movement	Manual	
Withstanding load (at tilting angle 90°)	20kgf at the point 150mm from the side.	
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off by foot switch(Vertical movement, Tilting)	
Balance	Vertical	Counter Weight
	Tilting	Spring
Electrical Rating	100-240VAC, 160VA, 50/60Hz	
Vertical Speed	6.2 cm/s ± 15% (Normal up), 5.6cm/s ± 15% (Normal down)	
Option	Patient Overhead hand grips, Cassette holders, Right side drawer tray, Vertical Up/Down foot switch or hand switch for operation room, Emergency Stop Switch for operation room,	
Dimension/ Weight	2,184(H) x 674(W) x 831(D) mm / 218kg(480lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS-TA(Motor type)	
Cassette stroke	Vertical	1,526mm (326~1,852mm from floor to Bucky center) ± 10mm
	Tilted 90°	1,526mm (440~1,966mm from floor to Bucky surface) ± 10mm
Vertical Movement	Manual and Motorized	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Tilting Angle	-30° ~ 90°	
Tilting Movement	Motorized	
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100–240VAC, 200VA, 50/60Hz	
Vertical Speed	Normal	6.2 cm/s ± 15% (Up), 5.6cm/s ± 15% (Down)
	Fast	12.1cm/s ± 15% (Up), 11.8cm/s ± 15% (Down)
Tilting Speed	Tilting up	11.3°/s
	Tilting down	11.7°/s
Option	Patient Overhead hand grips, Patient Lateral hand grips, Cassette holders, Right side drawer tray, Vertical Up/Down foot switch or hand switch for operation room, Emergency Stop Switch for operation room, Remote control	
Dimension / Weight	2,184(H) x 659(W) x 990(D) mm / 195kg(430lbs)	

* APPLIED PART

* Optional Rotating tray

Model	WBS-TA(Actuator type)#	
Cassette stroke	Vertical	1,526mm (283~1,809mm from floor to Bucky center)±10mm
	Tilted 90°	1,526mm (450~1,976mm from floor to Bucky surface)±10mm
Vertical movement	Manual and Motorized	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Tilting range	-20° ~ 90°	
Tilting Movement	Motorized	
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100–240VAC, 200VA, 50/60Hz	
Vertical Speed	Normal	6.2 cm/s ± 15% (Up), 5.6cm/s ± 15% (Down)
	Fast	12.1cm/s ± 15% (Up), 11.8cm/s ± 15% (Down)
Tilting Speed	0° ~ 90°	8.2°/s
	-20° ~ 0°	5.1°/s
Option	Patient Overhead hand grips, Patient Lateral hand grips, Cassette holders, Right side drawer tray, Vertical Up/Down foot switch or hand switch for operation room, Emergency Stop Switch for operation room, Remote control	
Dimension / Weight	2,184(H) x 659(W) x 893(D) mm / 186kg(410lbs)	

* APPLIED PART

* Optional Rotating tray

* #: It can be combined with TS-CSP.

Model	WBS-TA(Deluxe)#	
Cassette stroke	Vertical	1,566mm (283~1,849mm from floor to Bucky center)±10mm
	Tilted 90°	1,566mm (591~2,157mm from floor to Bucky surface)±10mm
Vertical Movement	Manual and Motorized	
Bucky type	Oscillating (Optional built in charger)	Fixed (Optional built in charger)
Grid	FD 130,150,180cm, 103 lpi, 150 lpi, ratio 8~12:1	FD 130,150,180cm, 103lpi, 200lpi, 215lpi, 230 lpi, 250 lpi, ratio 8~13:1 (Optional removable grid)
Tilting Angle	-20° ~ 90°	
Tilting Movement	Motorized	
Inherent Filtration	0.5mmAl at 100kV	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100–240VAC, 200VA, 50/60Hz	
Vertical Speed	Normal	6.2 cm/s ± 15% (Up), 5.6cm/s ± 15% (Down)
	Fast	12.1cm/s ± 15% (Up), 11.8cm/s ± 15% (Down)
Tilting Speed	0° ~ 90°	10.5°/s ± 15% (Up), 10.5°/s ± 15% (Down)
	-20° ~ 0°	7.5°/s ± 15% (Up), 5.5°/s ± 15% (Down)
Option	Cassette holders, Right side drawer tray, Vertical Up/Down foot switch or hand switch for operation room, Emergency Stop Switch for operation room, 45° rotating Bucky, 10.1inch THU screen	
Dimension / Weight	2,184(H) x 659(W) x 787(D) mm / 170kg(375lbs)	

* APPLIED PART

* Optional Rotating tray

* #: It can be combined with TS-CSP.

3.2.8 TUBE STAND (WITH TUBE & COLLIMATOR)

- Tube Stand

Model	TS-FM6(Motorized)	
Tube Rotation Angle	Horizontal axis	±135°
	Vertical axis	±180° (mechanical detents at every 90°)
Tube stroke	Longitudinal	2,100mm ± 10mm (Floor rail 3.0m) (Optional 2,900mm ± 10mm (Floor rail 3.8m)) (Optional 3,600mm ± 10mm (Floor rail 4.5m)) (Floor rail 3.8m and 4.5m are recommended for WBS-TM or WBS-TA)
	Lateral	250mm ± 5mm
	Vertical	1,526mm (420~1,946mm from floor to focus) ± 10mm
Vertical Movement	Manual and Motorized Optional vertical synchronization with wall stand and table	
Tube Rotation	Manual or Motorized(Optional) Motorized option supports the source tilting type image stitching operation	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	EM lock, Switch on/off	
Tube OP	7 inch Touch Screen LCD with control buttons Optional 15.6 inch Touch Screen with control buttons	
Electrical Rating	100–240VAC, 160VA, 50/60Hz	
Option	Cable chain for TS-FM6 (3.0m, 3.8m, 4.5m rails) Extend HV cable length for TS-FM6 (10m, 15m, 20m, 25m), Ceiling rail for TS-FM6 (3.0m, 3.8m, 4.5m rails), Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,327(H) x 3,006(W) x 1,458(D) mm / 255kg(562lbs) 2,327(H) x 3,806(W) x 1,458(D) mm / 268kg(591lbs) 2,327(H) x 4,506(W) x 1,458(D) mm / 278kg(613lbs) Option(Tube Head Motorized Rotation): 2,327(H) x 3,006(W) x 1,458(D) mm / 265kg(584lbs) 2,327(H) x 3,806(W) x 1,458(D) mm / 278kg(613lbs) 2,327(H) x 4,506(W) x 1,458(D) mm / 288kg(635lbs)	

Model	TS-FC6 (Motorized)	
Tube Rotation Angle	$\pm 135^{\circ}$	
Tube stroke	Longitudinal	2,500mm $\pm$ 10mm
	Lateral	250mm $\pm$ 5mm
	Vertical	1,330mm (430~1,760mm from floor to focus) $\pm$ 10mm Optional 1,580mm (430~2,010mm from floor to focus) $\pm$ 10mm
Vertical Movement	Manual and Motorized Optional vertical synchronization with wall stand and table	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	90° step, Foot Lock	
Tube OP	7 inch Touch Screen LCD with control buttons Optional 15.6 inch Touch Screen with control buttons	
Electrical Rating	100~240VAC, 160VA, 50/60Hz	
Option	Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,070(H) x 3600(W) x 1,458(D) mm / 220kg(485lbs) 2,320(H) x 3600(W) x 1,458(D) mm / 227kg(500lbs)	

Model	TS-FC4 (Motorized)	
Tube Rotation Angle	$\pm 135^{\circ}$	
Tube stroke	Longitudinal	2,536mm $\pm$ 10mm
	Lateral	N/A
	Vertical	1,410mm (420~1,830mm from floor to focus) $\pm$ 10mm Optional 1,660mm (420~2,080mm from floor to focus) $\pm$ 10mm
Vertical Movement	Manual and Motorized Optional vertical synchronization with wall stand and table	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Tube OP	7 inch Touch Screen LCD with control buttons Optional 15.6 inch Touch Screen with control buttons	
Electrical Rating	100~240VAC, 160VA, 50/60Hz	
Option	Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,048(H) x 3,600(W) x 830(D)mm / 190kg(419lbs) 2,298(H) x 3,600(W) x 830(D)mm / 200kg(441lbs)	

Model	TS-FC2 (Motorized)	
Tube Direction	Right-angle or Straight	
Tube Rotation Angle	N/A	
Tube stroke	Longitudinal	N/A
	Lateral	N/A
	Vertical	1,080mm(324mm~1,404mm from floor to focus) $\pm$ 10mm 1,230mm(324mm~1,554mm from floor to focus) $\pm$ 10mm 1,400mm(324mm~1,724mm from floor to focus) $\pm$ 10mm 1,650mm(324mm~1,974mm from floor to focus) $\pm$ 10mm
Vertical Movement	Motorized Optional vertical synchronization with wall stand	
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Electrical Rating	100~240VAC, 160VA, 50/60Hz	
Dimension / Weight	1) Right-angle type: 1,614(H) x 659 (W) x 770(D) mm / 162kg(357lbs) Straight type: 1,614(H) x 659 (W) x 859(D) mm / 162kg(357lbs) 2) Right-angle type: 1,764(H) x 659 (W) x 770(D) mm / 165kg(363lbs) Straight type: 1,764(H) x 659 (W) x 859(D) mm / 165kg(363lbs) 3) Right-angle type: 1,934(H) x 659(W) x 770(D) mm / 168kg(370lbs) Straight type: 1,934(H) x 659(W) x 859(D) mm / 168kg(370lbs) 4) Right-angle type: 2,184(H) x 659(W) x 770(D) mm / 171kg(377lbs) Straight type: 2,184(H) x 659(W) x 859(D) mm / 171kg(377lbs)	

Model	TS-FM6 (Manual)	
Tube Rotation Angle	$\pm 135^\circ$	
Tube stroke	Longitudinal	2,200mm $\pm$ 10mm (Optional 3,000mm and 3,700mm) $\pm$ 10mm
	Lateral	220mm $\pm$ 5mm (Optional 250mm) $\pm$ 5mm
	Vertical	1,330mm (440~1,770mm from floor to focus) $\pm$ 10mm Optional 1,580mm (440~2,020mm from floor to focus) $\pm$ 10mm
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	90° step, Foot Lock	
Electrical Rating	24VDC, 3A	
Option	Column rotation by electrical release, Cable chain for TS-FM6 (3.0m, 3.8m, 4.5m rails) Extend HV cable length for TS-FM6 (10m, 15m, 20m, 25m), Ceiling rail for TS-FM6 (3.0m, 3.8m, 4.5m rails), Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,067(H) x 3,006(W) x 1,388(D) mm / 217kg(478lbs) 2,067(H) x 3,006(W) x 1,418(D) mm / 217kg(478lbs) 2,067(H) x 3,806(W) x 1,388(D) mm / 230kg(507lbs) 2,067(H) x 3,806(W) x 1,418(D) mm / 230kg(507lbs) 2,067(H) x 4,506(W) x 1,388(D) mm / 240kg(529lbs) 2,067(H) x 4,506(W) x 1,418(D) mm / 240kg(529lbs) 2,317(H) x 3,006(W) x 1,388(D) mm / 225kg(496lbs) 2,317(H) x 3,006(W) x 1,418(D) mm / 225kg(496lbs) 2,317(H) x 3,806(W) x 1,388(D) mm / 238kg(525lbs) 2,317(H) x 3,806(W) x 1,418(D) mm / 238kg(525lbs) 2,317(H) x 4,506(W) x 1,388(D) mm / 248kg(547lbs) 2,317(H) x 4,506(W) x 1,418(D) mm / 248kg(547lbs)	

Model	TS-FC6 (Manual)	
Tube Rotation Angle	$\pm 135^\circ$	
Tube stroke	Longitudinal	2,000mm $\pm$ 10mm (Optional 2,500mm) $\pm$ 10mm (Optional 1,400mm) $\pm$ 10mm
	Lateral	220mm $\pm$ 5mm (Optional 250mm) $\pm$ 5mm
	Vertical	1,330mm (430~1,760mm from floor to focus) $\pm$ 10mm Optional 1,580mm (430~2,010mm from floor to focus) $\pm$ 10mm
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	90° step, Foot Lock	
Electrical Rating	24VDC, 3A	
Option	Column rotation by electrical release, Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,056(H) x 2,480(W) x 1,388(D) mm / 178.5kg(393.5lbs) 2,056(H) x 2,480(W) x 1,418(D) mm / 178.5kg(393.5lbs) 2,056(H) x 3,080(W) x 1,388(D) mm / 182kg(401lbs) 2,056(H) x 3,080(W) x 1,418(D) mm / 182kg(401lbs) 2,056(H) x 3,600(W) x 1,388(D) mm / 186kg(410lbs) 2,056(H) x 3,600(W) x 1,418(D) mm / 186kg(410lbs) 2,306(H) x 2,480(W) x 1,388(D) mm / 186.5kg(411.2lbs) 2,306(H) x 2,480(W) x 1,418(D) mm / 186.5kg(411.2lbs) 2,306(H) x 3,080(W) x 1,388(D) mm / 190kg(419lbs) 2,306(H) x 3,080(W) x 1,418(D) mm / 190kg(419lbs) 2,306(H) x 3,600(W) x 1,388(D) mm / 194kg(428lbs) 2,306(H) x 3,600(W) x 1,418(D) mm / 194kg(428lbs)	

Model	TS-FC4 (Manual)	
Tube Rotation Angle	$\pm 135^\circ$	
Tube stroke	Longitudinal	2,000mm $\pm$ 10mm (Option: 2,536mm $\pm$ 10mm)
	Lateral	N/A
	Vertical	1,410mm (420~1,830mm from floor to focus) $\pm$ 10mm Optional 1,660mm (420~2,080mm from floor to focus) $\pm$ 10mm
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	N/A	
Electrical Rating	24VDC, 3A	
Option	Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension / Weight	2,048(H) x 3,080(W) x 778(D) mm / 187kg(412lbs) 2,298(H) x 3,080(W) x 778(D) mm / 195kg(430lbs) 2,048(H) x 3,600(W) x 778(D) mm / 191kg(421lbs) 2,298(H) x 3,600(W) x 778(D) mm / 199kg(439lbs)	

Model	TS-FC2 (Manual)	
Tube Rotation Angle	$\pm 135^\circ$	
Tube stroke	Longitudinal	N/A
	Lateral	N/A
	Vertical	1,243mm (294mm~1,537mm from floor to focus) $\pm$ 10mm 1,413mm (294mm~1,707mm from floor to focus) $\pm$ 10mm 1,663mm (294mm~1,957mm from floor to focus) $\pm$ 10mm
Lock(Brake)	EM Lock, Switch on/off	
Balance	Counter Weight	
Column Rotation	N/A	
Electrical Rating	24VDC, 3A	
Option	Built-in laser of Tube Stand Handlebar	
Dimension / Weight	1,749(H) x 659(W) x 790(D) mm / 145kg(320lbs) 1,919(H) x 659(W) x 790(D) mm / 150kg(331lbs) 2,169(H) x 659(W) x 790(D) mm / 158kg(348lbs)	

Model	TS-CSA	
Tube Rotation Angle	Horizontal axis	$\pm 180^\circ$ (LCD display)
	Vertical axis	$\pm 180^\circ$ (mechanical detents at every 90°)
Tube stroke (with 3x4m rails - Transverse x Longitudinal)	Longitudinal	3,280mm(with 4m rail) ± 10 mm 4,280mm(with 5m rail) ± 10 mm
	Lateral	2,200mm(with 3m rail) ± 10 mm 3,200mm(with 4m rail) ± 10 mm
	Vertical	1,500mm or 1,600mm ± 10 mm (1,500mm is possible up to the weight of E7252X plus R108)
Lock(Brake)	EM Lock, Switch on/off	
Balance	Spring	
Vertical Movement	Manual or Motorized(Optional) Motorized option supports vertical sync with table and wall stand	
Tube Rotation	Manual or Motorized(Optional) Motorized option supports the source tilting type image stitching operation	
SID Indication	7 inch Touch Screen LCD with control buttons Optional 15.6 inch Touch Screen with control buttons	
Electrical Rating	220–230VAC, 200VA, 50/60Hz	
Option	Cable chain (3x4m, 3x5m, 4x4m, 4x5m), Extend HV cable (20m, 25m) Mechanical detent, Built-in laser of Tube Stand Handlebar, Fail-safe	
Dimension	4,010(W) mm x 2,766(H) x 3,022(D) mm 4,010(W) mm x 2,766(H) x 4,022(D) mm 4,010(W) mm x 2,866(H) x 3,022(D) mm 4,010(W) mm x 2,866(H) x 4,022(D) mm 5,010(W) mm x 2,766(H) x 3,022(D) mm 5,010(W) mm x 2,766(H) x 4,022(D) mm 5,010(W) mm x 2,866(H) x 3,022(D) mm 5,010(W) mm x 2,866(H) x 4,022(D) mm Option(Tube Head Motorized Rotation): 4,010(W) mm x 2,722(H) x 3,022(D) mm 4,010(W) mm x 2,722(H) x 4,022(D) mm 4,010(W) mm x 2,822(H) x 3,022(D) mm 4,010(W) mm x 2,822(H) x 4,022(D) mm 5,010(W) mm x 2,722(H) x 3,022(D) mm 5,010(W) mm x 2,722(H) x 4,022(D) mm	

	5,010(W) mm x 2,822(H) x 3,022(D) mm 5,010(W) mm x 2,822(H) x 4,022(D) mm
Weight	Main body(Vertical movement Manual): 160kg(353lbs) Main body(Vertical movement Motorized): 170kg(375lbs) except tube and collimator Rails: 115kg(254lbs, 3x4m rails)

Model	TS-CSP	
Tube Rotation Angle	Horizontal axis	±180° (LCD display)
	Vertical axis	±180° (mechanical detents at every 90°)
Tube stroke (with 3x4m rails - Transverse x Longitudinal)	Longitudinal	3,280mm (with 4m rail) ± 10mm, 4,280mm (with 5m rail) ± 10mm
	Lateral	2,200mm (with 3m rail) ± 10mm 3,200mm (with 4m rail) ± 10mm
	Vertical	1,600mm ± 10mm
Lock(Brake)	EM Lock, Switch on/off	
Balance	Spring	
Operation	Manual and Vertical Motorized Vertical synchronization with Wall stand and Table for motorized stand	
Indication / Control	7 inch Touch Screen LCD with control buttons Optional 15.6 inch Touch Screen with control buttons	
Electrical Rating	220-230V~, 500VA, 50/60Hz	
Option	Mechanical detent	
Dimension	4,214(W)mm x 2,849(H)mm x 3,182(D)mm 4,214(W)mm x 2,849(H)mm x 4,182(D)mm 5,214(W)mm x 2,849(H)mm x 3,182(D)mm 5,214(W)mm x 2,849(H)mm x 4,182(D)mm	
Weight	Main body: 175kg(386lbs) except tube, Rails: 122kg(269lbs, 3x4m rails)	

Model	TS-CSE	
Tube Rotation Angle	Horizontal axis	$\pm 180^\circ$
	Vertical axis	$\pm 180^\circ$ (mechanical detents at every 90°)
Tube stroke with 3x4m rails	Longitudinal	3,280mm (with 4m rail) ± 10 mm, 4,280mm (with 5m rail) ± 10 mm
	Transverse	2,200mm ± 10 mm
	Vertical	1,500mm ± 10 mm
Lock(Brake)	EM Lock, Switch on/off	
Vertical Balance	Spring	
Vertical Movement	Manual	
Tube Rotation	Manual	
SID Indication	LED lamp and 7-Segment display	
Electrical Rating	100-240Vac, 150VA, 50/60Hz	
Option	Mechanical detent, Handle bar	
Dimension	4,010(W) mm x 2,688(H) mm x 3,022(D) mm	
	5,010(W) mm x 2,688(H) mm x 3,022(D) mm	
Weight	Main body: 135kg(298lbs) except tube, Rails: 100kg(220lbs)	

- **X-ray Tube**

Tube Model	E7239X	DXT-8M	E7242X	DXT-11M
Manufacturer	CANON	DRGEM	CANON	DRGEM
Focal Spot Size	1.0/2.0mm	1.0/2.0mm	0.6/1.5mm	0.6/1.5mm
Rating(0.1s)	22.5/47kW@60Hz	22.5/47kW@60Hz	18/50kW@60Hz	18/50kW@60Hz
Max. Anode HU	140kHU(100kJ)	140kHU(100kJ)	200kHU(142kJ)	200kHU(142kJ)
Target Angle	16°	16°	14°	14°
Max. kV	125kV	125kV	125kV	125kV
Weight	16kg(35.3lbs)	16kg(35.3lbs)	16kg(35.3lbs)	16kg(35.3lbs)
Inherent Filtration	0.9mmAl/75kV	1.0mmAl/75kV	0.9mmAl/75kV	1.0mmAl/75kV
Half Value Layer	More than 2.9mmAl eq. at 80kVp			
Leakage Radiation	Less than 100mR/hr			

Tube Model	E7843X	DXT-10M	E7876X
Manufacturer	CANON	DRGEM	CANON
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	22/50kW@60Hz	17/48kW@60Hz	22/54kW@60Hz
Max. Anode HU	150kHU(111kJ)	150kHU(111kJ)	230kHU(163kJ)
Target Angle	12°	12°	12°
Max. kV	150kV	125kV	150kV
Weight	16kg(35.3lbs)	16kg(35.3lbs)	18kg (39.7lbs)
Inherent Filtration	1.3mmAl/75kV	1.0mmAl/75kV	1.3mmAl/75kV
Half Value Layer	More than 2.9mmAl eq. at 80kVp		
Leakage Radiation	Less than 100mR/hr		

Tube Model	E7884X#	DXT-12M#	E7252X#
Manufacturer	CANON	DRGEM	CANON
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	22/54kW@60Hz	22/54kW@60Hz	27/75kW
Max. Anode HU	300kHU(210kJ)	300kHU(210kJ)	300kHU(210kJ)
Target Angle	12°	12°	12°
Max. kV	150kV	150kV	150kV
Weight	16kg(35.3lbs)	16kg(35.3lbs)	18kg(39.7lbs)
Inherent Filtration	0.9mmAl/75kV	1.0mmAl/75kV	0.9mmAl/75kV
Half Value Layer	More than 2.9mmAl eq. at 80kVp		
Leakage Radiation	Less than 100mR/hr		

Tube Model	DXT-14U#	RAD-14#	DXT-15U *#
Manufacturer	DRGEM	VAREX	DRGEM
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	27/75kW	32/77kW	32/77kW
Max. Anode HU	300kHU(212kJ)	300kHU(212kJ)	300kHU(210kJ)
Target Angle	12°	12°	12°
Max. kV	150kV	150kV	150kV
Weight	17kg(37.5lbs)	17kg(37.5lbs)	16.4kg(36.2lbs)
Inherent Filtration	0.7mmAl/75kV	0.7mmAl/75kV	0.7mmAl/75kV
Additional Filtration		0.5mmAl	0.5mmAl
Half Value Layer	More than 2.9mmAl eq. at 80kVp		
Leakage Radiation	Less than 100mR/hr		

* Including VAREX RAD-14 Insert.

* #: It can be combined with TS-CSP.

Tube Model	RAD-21#	RAD-60#	RAD-92#
Manufacturer	VAREX	VAREX	VAREX
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	36/100kW	40/100kW	40/100kW
Max. Anode HU	300kHU(212kJ)	400kHU(300kJ)	600kHU(444kJ)
Target Angle	12°	12°	12°
Max. kV	150kV	150kV	150kV
Weight	18.9kg(41.6lbs)	18.9kg(41.6lbs)	18.9kg(41.6lbs)
Inherent Filtration	0.7mmAl/75kV	1.5mmAl/75kV	0.7mmAl/75kV
Additional Filtration	0.5mmAl		
Half Value Layer	More than 2.9mmAl eq. at 80kVp		
Leakage Radiation	Less than 100mR/hr		

Tube Model	E7255FX#	E7254FX#	E7869X#
Manufacturer	CANON	CANON	CANON
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	40/102kW	40/102kW	40/100kW
Max. Anode HU	300kHU(210kJ)	400kHU(300Kj)	600kHU(444kJ)
Target Angle	12°	12°	12°
Max. kV	150kV	150kV	150kV
Weight	20kg(44.1lbs)	25kg(55.1lbs)	24kg(52.9lbs)
Inherent Filtration	0.8mmAl/75kV	0.8mmAl/75kV	1.1mmAl/75kV
Additional Filtration	0.5mmAl	0.5mmAl	
Half Value Layer	More than 2.9mmAl eq. at 80kVp		
Leakage Radiation	Less than 100mR/hr		

* #: It can be combined with TS-CSP.

Tube Model	RTM90HS#	RTM101HS#	RTC600HS#	UH-6FC-31E#
Manufacturer	IAE	IAE	IAE	FUJIFILM
Focal Spot Size	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm	0.6/1.2mm
Rating(0.1s)	35/85kW	41/97kW	43/100kW	40/100kW
Max. Anode HU	300kHU(225kJ)	400kHU(300kJ)	600kHU(450kJ)	300kHU(210kJ)
Target Angle	12.5°	12.5°	13°	12°
Max. kV	150kV	150kV	150kV	150kV
Weight	22.7kg(50lbs)	22.8kg(50.3lbs)	23kg(50.7lbs)	24kg(52.9lbs)
Inherent Filtration	1.2+0.3mmAl/75kV	1.2+0.3mmAl/75kV	1.2+0.3mmAl/75kV	1.0mmAl/75kV
Half Value Layer	More than 2.9mmAl eq. at 80kVp			
Leakage Radiation	Less than 100mR/hr			

* #: It can be combined with TS-CSP.

NOTE

Total filtration including X-ray tube assembly and collimator will be matched by appropriate additional filters to within the range from 2.9 to 3.5mmAl. eq.

NOTE

If the target angle of the applied tube is 12° and 12.5°, the field size (43cm X 43cm) cannot be realized by SID 100cm when combined with a collimator. To use the field size (43cm X 43cm), please use SID 105cm or 110cm.

- Collimator

Model	R108	DXC-RML
Manufacturer	RALCO	DRGEM
Control	Manual with 30 s lamp timer	30 sec timer (option 15, 45, 60 sec)
Field shape	Square X-ray field	Square X-ray field
Max. field size	43cm x 43cm (at SID 100 cm)	44cm x 44cm (at SID 100 cm)
Leakage radiation	< 40mR/h ($\cong$ 0.4 mGy/h) (at SID 100cm, 150kVp / 4mA)	< 40mR/h (at SID 100 cm, 150kVp / 4mA)
Max. kVp shield	150 kV	
Inherent filtration	Min. 2.0 mm Al eq. (at 75kV)	Min. 2 mm Al (at 75kV)
Luminosity	> 160 lux (at SID 100 cm, 35x35cm)	> 160 lux (at SID 100 cm, 35x35cm)
Light source	LED (Luxeon V with heatsink mounting)	LED (XHP50D with heatsink mounting)
Standard	Tape measure, Metal Rotating mounting flange	Rotating mounting flange with fixing knob
Option	Single laser line, Near focus shutters	Single Line laser +shutter, Tape measure, Moving near port shutter, Mounting flange mechanical detent(0°), Mounting flange spacer, Accessory guide spring, Additional Filter, DAP rail, Live streaming camera
Input rating	24V DC/AC - 2A	12~45V DC 42VA / 20~30VAC 42VA - 50~60Hz
Dimension / weight	223(W) x 246(D) x 140(H) mm / 6.8 kg (15 lbs)	196(W) x 250(D) x 171(H) mm / 4.5 kg (with Flange)

Model	R302MLP/A #
Manufacturer	RALCO
Field shape	Square X-ray field
Max. field size	48 cm x 48 cm (at SID 100 cm)
Leakage Radiation	< 40mRh (at SID 100 cm, 150kVp / 4mA)
Max. kVp shield	150 kV
Inherent Filtration	Min. 2.0mm Al eq. (at 75kV)
Luminosity	> 160 Lux (at SID 100 cm, 35 x 35 cm)
Light source	LED (heatsink mounting)
Standard	Metal fixed mounting flange
Option	Additional variable filtration - automatic selection
Input rating	24 V AC/DC - 2 A, 50/60 Hz
Dimension / Weight	195.5(W) x 250(D) x 206.5(H) mm / 9.5 kg (21lb)

* #: It can be combined with TS-CSP.

NOTE

The weight may vary according to the optional items mounted to the collimator.

3.2.9 FOOT SWITCH

Model	FS-WP3#
Electrical Rating	3VDC (1.5V Battery x 4ea), 3mA

* # : It is the basic component of PBT-6 (Deluxe).

* # : It can only be used in combination with PBT-6 (Deluxe).

Model	FS-PP3#
Electrical Rating	-

* # : It is the option component of PBT-6 (Deluxe).

* # : FS-PP3 can only be used in combination with PBT-6 (Deluxe).

3.2.10 OPTION & ACCESSORIES

- **Option**

- AEC Ion Chamber

: A device that terminates X-ray exposure when the necessary amount has been reached, preventing unnecessary exposure of patients to X-rays.

Model	9890 000 70006 (Amplimat 5-Field)
Manufacturer	Philips
Field	3 Fields
X-ray Energy Range	40~150kV
Exposure time Range	1ms to 6s
Inherent Filtration	0.8 mm Al eq.
Weight	1.8kg (4lb)

NOTE

9890 000 70006 supports up to 5 fields, but we only utilize 3 fields.

- Stitching Stand

: A device that assists in creating stitching radiography images.

Model	STITCHING STAND
Dimension / Weight	927.6(W) x 945.9(D) X 2064.7(H)mm / 47.1kg (103.8lb)

- Live streaming camera

: A device attached to the collimator that transmits real-time image signals to RADMAX.

Model	HU205
Manufacturer	HUENTEK
Display resolution	1920×1080
Max. Image Transfer Rate	30FPS @ FHD
Electrical Rating	5VDC, 210mA

NOTE

Live streaming camera images are used only for reference.

- **Accessory**

- **DAP (Dose Area Product) meter**

: A device that is installed on X-ray equipment to measure the radiation dose received by patients during exposure.

Model	120-131HS (RS485)
Manufacturer	IBA
DAP Resolution	0.01 μGym^2
Interface	RS485
Active area	115 x 115mm / 140 x 140mm
Dimension	158 x 134.5 x 17mm / 179 x 156 x 17mm
Inherent Filtration	0.31 mm Al / 70kV / 2.5 mm Al
Power input	12 – 29 VDC, 100mA
Measurement Uncertainty	$\pm 25\%$
Option	Display

- **Grid**

: A device that reduces scatter radiation dose to achieve clear image acquisition.

Model	Grid 1000
Manufacturer	JPI
Focal distance	100, 130, 150, 180cm
Line number	103 lpi, 200 lpi, 215 lpi, 230 lpi, 250 lpi
Reason	8:1 ~ 13:1

- Grid Holder

: A device for securing a grid to the detector.

WARNING

Maximum force of Overhead grip is 10kgf. Otherwise, the equipment may topple over, causing injury or damage.

WARNING

Bucky tilting and Auto positioning is not available with Overhead grip. Otherwise, the equipment may collide and break down.

3.2.11 SOFTWARE FIRMWARE INFORMATION

- **Software Version**

1) RADMAX

Software/Firmware	Version	Description
RADMAX	1.02	RADMAX is the main software provides top level graphics user interface on whole system control and imaging process. RADMAX consists of System Control Module, Imaging Module, DICOM Module, Database Module, System Diagnosis Module and Display Module.

2) X-ray Generators

Software/Firmware	Version	Description
GXR SDK	1.06	GXR SDK is the software provides user interface on generator control. GXR SDK consists of generator control Module and Display Module.
GXR HT Control Board(GXR)	1.5a	GXR_HTC at HT control board in x-ray generator controls whole x-ray generation process by the control of System Control Module in RADMAX. This module controls x-ray parameters such as kV, mA and exposure time, and controls the filament and rotor driving and detector interfacing.
GXR DSS Board (GXR)	1.00	GXR DSS board at x-ray generator controls starter operation which drives tube's anode rotation by the control of GXR HT Control Board at x-ray generator.
PC Interface Board	1.00	Relays communication between GXR HT Control Board and RADMAX
Touch Console (Touch Console)	1.00	Touch Console at console board in control console consist of generator control module and remote diagnosis function. Touch Console display the state of X-ray parameter and generator.

3) GXR-C X-ray Generators

Software/Firmware	Version	Description
GXR SDK	1.06	GXR SDK is the software provides user interface on generator control. GXR SDK consists of generator control Module and Display Module.
GXR HT Control Board(GXR-C)	1.2a	GXR_HTC at HT control board in x-ray generator controls whole x-ray generation process by the control of System Control Module in RADMAX. This module controls x-ray parameters such as kV, mA and exposure time, and controls the filament and rotor driving and detector interfacing.
GXR Charger board (GXR-C)	1.00	GXR Charger board is X-ray generator charges the capacitor modules in the power stack of the generator to save the energy for X-ray exposure. This module detects voltage and current of capacitor modules to protect capacitor modules.
PC Interface Board	1.00	Relays communication between GXR HT Control Board and RADMAX
Touch Console (Touch Console)	1.00	Touch Console at console board in control console consist of generator control module and remote diagnosis function. Touch Console display the state of X-ray parameter and generator.

4) GXR-U X-ray Generators

Software/Firmware	Version	Description
GXR SDK	1.06	GXR SDK is the software provides user interface on generator control. GXR SDK consists of generator control Module and Display Module.
GXR HT Control Board(GXR-U)	1.6a	GXR_HTC at HT control board in x-ray generator controls whole x-ray generation process by the control of System Control Module in RADMAX. This module controls x-ray parameters such as kV, mA and exposure time, and controls the filament and rotor driving and detector interfacing.
GXR Inverter board (GXR-U)	1.01	GXR Inverter board in x-ray generator supplies AC mains voltage to the generator, and monitors the voltage of battery modules to control charging level of battery modules.
PC Interface Board	1.00	Relays communication between GXR HT Control Board and RADMAX
Touch Console (Touch Console)	1.00	Touch Console at console board in control console consist of generator control module and remote diagnosis function. Touch Console display the state of X-ray parameter and generator.

5) Patient Table

Software/Firmware	Version	Description
PBT-6 Auto Control	1.00	PBT-6 (Basic) and PBT-6 (Deluxe) auto control at integrated control board controls the Tabletop table and Vertical movement of patient table.
Auto Tracking	1.01	Module for motorized or manual tracking rail movement control of Auto tracking.
PBT-4 Auto Control	1.00	PBT-4 Auto Control at integrated control board controls the Tabletop table.
FS-WP3	1.00	Wireless footswitch board controls the Tabletop lock and Vertical movement of PBT-6 (Deluxe) patient table.

6) Wall Bucky Stand Manual

Software/Firmware	Version	Description
PBT-4 Control Board	1.00	PBT-4 Control Board at integrated control board in Wall Bucky Stand controls the each lock

7) Wall Bucky Stand Motorized

Software/Firmware	Version	Description
WBS MOTORIZED CONTROL BOARD Motor Driving Board	1.00	WBS MOTORIZED CONTROL BOARD and Motor Driving Board (for WBS-TA (Deluxe)) at integrated control board in Wall Bucky Stand controls the each lock and DC Motors.
WBS PANEL BOARD Display Board	1.00	WBS PANEL BOARD and Display Board (for WBS-TA (Deluxe)) at integrated control board in Wall Bucky Stand controls the each switch and Display the information of Vertical movement and Tilting Angles.
COMMUNICATION BOARD	1.00	COMMUNICATION BOARD at integrated control board in Wall Bucky Stand controls the communication of GXR, PC interface module and Tube stand.
THU CONTROL Board	1.00	WBS-TA (Deluxe) 10.1inch THU screen is displayed for system's information that SID, Tube angle, Detector state etc.

8) Tube stand Manual

Software/Firmware	Version	Description
Tube Stand Control Board	1.00	Tube stand board controls the position of the tube.

9) Tube stand Motorized

Software/Firmware	Version	Description
Tube Stand Control Board	1.00	Tube Stand Control Board is motorized radiographic stand controls the motorized radiographic stand, controls the motorized x-ray collimator by the control THU.
LS210 Board (7inch)	1.00	LS210 Board is system status display and collimator control signal transfer to Tube Stand Control Board and x-ray control signal transfer to generator.
OP Switch Control Board	1.00	OP Switch Control Board is switch signal transfer to Tube Stand Control Board and receive remote control signal.
Angle Board (Stitch system option)	1.03	Angle Board uses Tube Rotation signal received from OP Switch board to rotate the tube in CW or CCW direction.
Head Unit (15.6inch)	1.00	Head Unit is displayed for system's information that SID, Tube angle, Detector state etc.

10) TS-CSP

Software/Firmware	Version	Description
Ceiling Main Control	1.00	Ceiling Main Control at integrated control board in the TS-CSP measures the angle of TS-CSP OP control
TS-CSP OP Control	1.00	TS-CSP OP Control at integrated control board displays the information of conventional stand, generator and image.
TS-CSP Switch Control	1.00	TS-CSP Switch Control at integrated control board control the lock switch and measures the angle of tube head.
TS-CSP Sensor Board	1.00	Control to the sensor station for preventing the collision.
TS-CSP Head Unit (7inch / 15.6inch)	1.00	TS-CSP Head Unit is displayed for system's information that SID, Tube angle, Detector state etc.

11) TS-CSA

Software/Firmware	Version	Description
Ceiling Main Control	1.00	Ceiling Main Control at integrated control board in the TS-CSA measures the angle of TS-CSA OP control
TS-CSA OP Control	1.00	TS-CSA OP Control at integrated control board displays the information of conventional stand, generator and image.
TS-CSA Switch Control	1.00	TS-CSA Switch Control at integrated control board control the lock switch and measures the angle of tube head.
Angle Board (Stitch system option)	1.02	Angle Board uses Tube Rotation signal received from OP Switch board to rotate the tube in CW or CCW direction.
TS-CSA Head Unit (7inch / 15.6inch)	1.00	TS-CSA Head Unit is displayed for system's information that SID, Tube angle, Detector state etc.

12) TS-CSE

Software/Firmware	Version	Description
TS-CSE Main Board	1.00	Ceiling Main Control at integrated control board in the TS-CSE measures the angle of TS-CSE OP control
TS-CSE Display Board	1.00	TS-CSE Display Board transmits the switch status to the Main Board and displays the Vertical height information.