Canon

DIAGNOSTIC ULTRASOUND SYSTEM

Aplio a

Product Data
No. MPDUS0085EAJ

INTRODUCTION

This system achieves high sensitivity and high quality by using state-of-the-art digital technology in the T/R section, which is the core of a diagnostic ultrasound system.
This system features advanced algorithms that run on circuits that incorporate the latest circuit technology, semiconductor technology, and surface-mount technology.
This system is designed to support a full range of applications and can be used as a general purpose system or a specialized system, depending on the installed software.

Full-digital ultrasound beam transmission and reception

This system employs full-digital transmission and reception circuits. The high definition ultrasound beams and data processing technology available with full-digital systems allow high sensitivity and image quality to be achieved simultaneously.

Enhanced diagnostic capabilities

The spatial resolution, contrast resolution, and temporal resolution have been improved through new technologies, resulting in enhanced diagnostic capabilities.

Transducers supporting a wide range of frequencies

Echoes over a wide range of frequencies can be obtained using a single transducer, allowing the optimal sensitivity and quality to be achieved for each region examined. This function permits a single transducer to be utilized for a wide range of applications, greatly improving the throughput and price-to-performance ratio.

Intelligent panel and software

The intelligent panel and software facilitate operation and contribute to a higher throughput.

Ergonomics

The system employs a non-interlace high-definition monitor with excellent view ability. This feature decreases operator fatigue in long examinations.
The ergonomic design of the system ensures comfortable and efficient examinations for operators, physicians, and patients.

Operability

System operability is optimized for the overall clinical workflow in hospitals.

Digitally signed by Matei Vasile
Date: 2022.09.15 09:44:13 EEST
Reason: MoldSign Signature
Location: Moldova

SYSTEM MATRIX OF CUS-AA000

Unit	Model name	Remarks
Main unit	CUS-AA000 Aplio a	21.5-inch or 23-inch wide LCD monitor, DVD/CD drive, Precision Imaging, D-THI, ApliPure+, Tissue Specific Optimization, Trapezoid Scan, Quick Scan, Advanced Dynamic Flow (ADF), DICOM, Smart 3D, Software full keyboard, Vascularity Index, BEAM, Probe connect holder are included.

<Options for main unit>

Unit	Model name	Remarks	Main unit	
			CUS-AA000	WH Model
CW unit	UICW-AA000A	This unit enables Steering CWD.	OP.	OP.
Reference Signal kit	UJUR-AA000A	This kit is used to display reference signals (ECG waveforms etc.). UJUR-AI900A or UJUR-AI901A is required.	OP.	OP.
Reference Signal Cable	UJUR-AI900A	For cardiovascular examinations (for regions other than the USA) : ECG, Respiration, ECG gating, Heart rate. UJUR-AA000A is required.	OP.	OP.
	UJUR-AI901A	For cardiovascular examinations (for the USA and Canada) : ECG, Respiration, ECG gating, Heart rate. UJUR-AA000A is required.	OP.	OP.
Reference Signal Sensor unit	UJUR-AI902A	PCG and Pulse sensor. UJUR-AA000A is required.	OP.	OP.
Stress Echo kit	USSE-AI900A, USSE-AI900A/EL	Adds the cardiac stress examination function to the system.	OP.	OP.
2D Wall Motion Tracking kit	USWT-AI900A, USWT-AI900A/EL	Adds the cardiac wall motion analysis function to the system.	OP.	OP.
2D Wall Motion Tracking Fetal kit	USWT-AI904A, USWT-AI904A/EL	This kit enables cardiac wall motion analysis function for fetal heart using data from a convex transducer. *USWT-AI900A is required.	*5	OP.
Auto EF Measurement kit	USEF-AI600A, USEF-AI600A /EL	Software to enable Ejection Fraction to be measured automatically.	OP.	OP.
Workflow Navigator kit	USWN-AA550A, USWN-AA550A/EL	This kit activates automatically indication of the next procedure based on the ASE guideline after the completing the preceding step in the workflow examination in Cardiology.	OP.	OP.
Measurement Assistant kit	USQM-AA550A, USQM-AA550A/EL	Automatic measurements which supports the reduction in the variability of standard measurements. Following functions are included in the Measurement Assistant: Auto BPD/HC/AC/FL, Auto EF LV/LA, Auto TR, LVOT, Ao, E/A Not available in the USA and Canada.	OP.	OP.
Pencil Connector unit	UIPC-AA550A	This unit is used to add connectors for pencil transducers. UICW-AA000A is required.	OP.	OP.
M-TEE hanger kit	UAEH-AI900A	TEE transducer hanger for PET-512MA, PET-512MC, and PET-512MD.	OP.	OP.
TEE hanger kit	UAEH-AI901A	TEE hanger for PET-508MA.	OP.	OP.
STC kit	UIST-AI900A	This kit is used to add the STC knob on the operating panel. Use in combination with UIUB-AI900 is not possible. *Note that this kit can not be installed if UIUB-AI900A is installed.	OP.	OP.
CV kit	UACV-AA000A	This kit consists of preset data suitable for cardiovascular examinations, a CV sticker, and a startup screen.	OP.	OP.
Smart Fetal Heart kit	USFP-AI900A, USFP-AI900A/EL	This kit enables the automatic generation of standard fetal heart views from a 4 chamber volume data set with mechanical 4D. Not available in the USA and Canada. *USMV-AI900A is required	*5	OP.
Measurement Z score kit	USZS-AI900A, USZS-AI900A/EL	This kit enables Z-score analysis for the measurement results.	OP.	OP.

*1: The Mounting kit for fusion sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A, and Sensor kit for Fusion unit UIFR-A501A are required.
*2: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit and Smart Fusion kit USFN-AA550A are required.
*3: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFN-AA550A are required.
*4: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
*5: Advanced Software kit or Premium Software kit is required.
*6: Premium Software kit is required.
*7: Option for WH model.
*8: Only available in the CE marking regions.
*9: USMV-AI900A or Smart Sensor 3D kit is required.
*10: Some options are required in addition to UIFR-AA550A.

Unit	Model name	Remarks		Main unit	
				CUS-AA000	WH Model
Smart Area Indication OB kit	USSI-AA550A, USSI-AA550A/EL	This kit enables to detect fetal ultrasound screening section in real-time mainly based on ISUOG guidelines. Not available in the USA and Canada.		OP.	OP.
Fetal Heart MPI Measurement kit	USFH-AI600A, USFH-AI600A/EL	This kit enables Myocardial Performance Index (MPI). The MPI value can be calculated from the time change curve in TDI.		*5	*5
CHI kit	USHI-AA550A, USHI-AA550A/EL	Adds the Contrast Imaging function to the system.		*5	*5
CHI-Q kit	USCQ-AI900A, USCQ-AI900A/EL	Adds the Time Curve Analysis (TCA) function to the system. USHI-AA550A and USPO-AA000A are required.		*6	*6
Fitting Curve kit	USCQ-AI901A, USCQ-AI901A/EL	Function for calculating characteristic value parameters by Fitting curve. USHI-AA550A, USCQ-AI900A, and USPO-AA000A are required.		*6	*6
Elastography-FLR kit	USEL-AA551A, USEL-AA551A/EL	This kit enables Elastography (with FLR measurement) with linear and convex transducers. Not available in the USA.		OP.	OP.
Elastography kit	USEL-AA550A, USEL-AA550A/EL	The kit enables Elastography without FLR measurement. Only available in the USA.		OP.	OP.
Shear wave kit	USSW-AA550A, USSW-AA550A/EL	This kit allows tissue stiffness to be visualized by generating images that show shear wave propagation.		OP.	OP.
Shear wave Hard kit	USSW-AA551A USSW-AA551A/EL	Upper limit and range are expanded from 200 kPa to 700 kPa to provide measurements of stiffer targets. USSW-AA550A or USLP-AA550A is required.		OP.	OP.
Smart Fusion kit	USFN-AA550A, USFN-AA550A/EL	CT/MRI/US volume data is loaded, and a CT/MRI/US planar image and an ultrasound image at the same position are displayed together. (*1)		*5	*5
Smart Navigation kit	USSN-AI600A, USSN-AI600A/EL	This kit allows display of a guideline in the image by simulating the pathway of the needle and the position of the needle tip based on positional information acquired using the magnetic sensor. Not available in the USA. (*2)		*6	*6
Magnetic Generator kit	UIFR-AA550A	This kit is used to generate the magnetic field for acquiring positional information for transducers and needles in Smart Fusion, Smart Navigation, and Smart Sensor 3D modes. Sensor securing adaptors and magnetic sensors are provided (one set for the PVT-375BT or PVT-375SC, and one set for the PVT-475BT).		*5	*5
Sensor kit for Fusion unit	UIFR-A501A	This magnetic sensor is added for performing Smart Fusion, Smart Navigation, and Smart Sensor 3D using multiple transducers. (*10)		*5	*5
Auto Registration kit	USFN-AI901A, USFN-AI901A/EL	Used for the Smart Fusion function. Performs automatic position matching between the ultrasound volume data acquired in a previous exam and the real-time 2D ultrasound image. (*3)		*5	*5
Auto Track CT kit	610-1228	CIVCO omniTRAX™ Active Patient Tracker. Should be purchased directly from CIVCO or its distributers.	former UIOT-AI900A	*5	*5
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributers.			
Auto Track MR kit	610-1306	CIVCO omniTRAX MR Active Patient Tracker. Should be purchased directly from CIVCO or its distributers.	former UIOT-AI901A	*5	*5
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributers.			
Fusion Pole Cart	UZWT-A500A	This pole cart allows the magnetic field generator included in the system main unit to be positioned independently.		*5	*5

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*2: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit and Smart Fusion kit USFN-AA550A are required.
*3: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFN-AA550A are required.
*4: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
*5: Advanced Software kit or Premium Software kit is required.
*6: Premium Software kit is required.
*7: Option for WH model.
*8: Only available in the CE marking regions.
*9: USMV-AI900A or Smart Sensor 3D kit is required.
*10: Some options are required in addition to UIFR-AA550A.

Unit	Model name	Remarks		Main unit	
				CUS-AA000	WH Model
Mounting kit for fusion sensor	UAFS-001A	For PVT-382BT / PVT-482BT. (*10)		*5	*5
	UAFS-002A	For PVT-350BTP. (*10)		*5	*5
	UAFS-003A	For PVT-781VT. (*10)		*5	*5
	UAFS-004A	For PLT-1005BT. (*10)		*5	*5
	UAFS-005A	For PVL-715RST. (*10)		*5	*5
	UAFS-006A	For PVT-781VTE. (*10)		*5	*5
	UAFS-007A	For PVT-475BT. One of this kit is included in UIFR-AA550. (*10)		*5	*5
	UAFS-008A	For PVT-574BT. (*10)		*5	*5
	UAFS-009A	For PST-28BT. (*10)		*5	*5
	UAFS-010A	For PLT-1202BT. (*10)		*5	*5
Smart Navigation Sensor kit	610-1059	CIVCO VirtuTRAX™ Instrument Navigator. Should be purchased directly from CIVCO or its distributers.	former UISN-A500A	*6	*6
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributers.			
4D kit	USMV-AI900A, USMV-AI900A/EL	This unit is required for using the 4D transducers or the motor-driven TEE transducers. Pre-installed in WH model.		*5	Std.
Luminance kit	USLM-AI900A, USLM-AI900A/EL	Image processing technology that makes 3D/4D images of fetuses and anatomical structures appear more realistic. Pre-installed in WH model.		*5, *9	Std.
Shadow Glass kit	USSG-AI900A, USSG-AI900A/EL	Both superficial and deep structures in a specific region can be observed simultaneously by superimposing them. Simultaneous display with a color 4D image showing internal blood flow (CDI and SMI) is also possible. Premium Software kit is not needed in WH model.		*6, *9	OP.
Auto Volume Measurement kit	USOB-AI900A, USOB-AI900A/EL	Used for calculation of the volume by extracting the contours for regions with lower brightness in the 3D Volume image acquired in 4D mode. Enables volume measurement, eg, antral follicle count.		*9	OP.
3D printer format export kit	USPF-AI900A, USPF-AI900A/EL	This kit enables output of volume data for Smart 3D, Mecha4D and Smart Sensor 3D to 3D printers.		*9	OP.
Superb Micro Vascular Imaging kit	USMI-AI600A, USMI-AI600A/EL	Visualize Low-velocity blood flow at a high frequency rate. Std. in WH model.		OP.	Std.
Smart Sensor 3D kit	USSS-AI900A, USSS-AI900A/EL	This function is used to display high-precision Smart 3D images by detecting the position of the transducer based on position al information acquired using the magnetic sensor. (*10)		*5	*5
MicroPure kit	USMP-AI900A, USMP-AI900A/E	This kit enables MicroPure, which supports visualization of small structures.		OP.	OP.
Panoramic View kit	USPV-AI900A, USPV-AI900A/EL	B/W images can be obtained with a wider field of view by moving the transducer in the lateral direction.		OP.	OP.
Multi-Reflection Canceller kit	USRC-AI900A, USRC-AI900A/EL	This function is used to visualize images with fewer artifacts by cancelling multiple reflections from the body.		*5	*5
Attenuation Imaging kit	USAT-AI900A, USAT-AI900A/EL	This kit enables visualization of ultrasound frequency-dependent attenuation coefficient within tissue.		OP.	OP.
Liver Package Basic kit	USLP-AA550A, USLP-AA550A/EL	Following optional kits are included. Optional kits: USSW-AA550A, USAT-AI900A		OP.	OP.
Doppler Luminance kit	USLD-AI900A, USLD-AI900A/EL	This kit allows display of the pseudo color doppler in three dimensions.		OP.	OP.
General Imaging kit	USGI-AA550A, USGI-AA550A/EL	This kit allows usage of General Imaging.		*7	OP.

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*2: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit and Smart Fusion kit USFN-AA550A are required.
*3: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFN-AA550A are required.
*4: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
*5: Advanced Software kit or Premium Software kit is required.
*6: Premium Software kit is required.
*7: Option for WH model.
*8: Only available in the CE marking regions.
*9: USMV-AI900A or Smart Sensor 3D kit is required.
*10: Some options are required in addition to UIFR-AA550A.

Unit	Model name	Remarks	Main unit	
			CUS-AA000	WH Model
Mounting kit for Peripheral units	UZRI-AI900A	Rack for mounting a B/W printer. (For except for UP-D711MD/ P95DW-DC)	OP.	OP.
	UZRI-AI902A	Rack for mounting a DVD recorder and a color printer on two levels. (Compatible with UIFR-AA550A)	OP.	OP.
	UZRI-AA550A	Rack for mounting a DC B/W printer in the front/back. (For UP-D711/AC or P95DW-DC) When this kits is installed in the back, UZRI-AI902A can be installed same time. (*4)	OP.	OP.
	UZRI-AA551A	One B/W printer and a color printer, or one B/W printer and DVD recorder can be installed.	OP.	OP.
	UZRI-AA000A	Rack for mounting a B/W printer in the front left side.	OP.	OP.
Foot switch	UZFS-004A	Switch used for freezing, printing, and some other operations by foot.	OP.	OP.
Gel warmer	UZGW-008A	This unit warms the ultrasound gel to a suitable temperature.	OP.	OP.
Transducer cable hanger kit	UZMK-AI900A	Long hanger on which the transducer cable is hooked.	OP.	OP.
Transducer Holder kit	UZBK-AI900A	A basket to store transducer connectors is added to the side of the system main unit (one basket is provided in the standard configuration)	OP.	OP.
Wireless LAN kit	UIWL-A500A	This kit used to establish connection to the DICOM network via wireless LAN. Complied with the Radio Law of Japan and applicable laws and regulations of USA, Canada, EU member states, Iceland, Norway, Liechtenstein, and Switzerland.	OP.	OP.
	UIWL-AI900A	This kit enables connection to the DICOM network via wireless LAN. (For Singapore, Malaysia, Saudi Arabia, Russia, Australia, and Turkey.)	OP.	OP.
EV/ER Transducer Holder kit	UZPH-AI900A	This kit is used to add a dedicated holder for endocavitary transducers.	OP.	OP.
Transducer Holder kit (left)	UZPH-AA000A	This kit is used to add transducer holder on the left side.	OP.	OP.
Keyboard kit	UIKB-AI900A	This kit is used to add a hardware full keyboard for entering the patient ID and comments.	OP.	OP.
Local Language Key-Top kit	UZKF-AI900A (French)	This kit is intended for changing the key tops of the full keyboard (UIKB-AI900A) to support specific languages. UIKB-AI900A is required.	OP.	OP.
	UZKG-AI900A (German)			
	UZKI-AI900A (Italian)			
	UZKS-AI900A (Spanish)			
	UZKD-AI900A (Danish)			
	UZKN-AI900A (Norwegian)			
	UZKW-AI900A (Scandinavian)			
	UZKR-AI900A (Russian)			
OLED Monitor unit	UIOM-001A	21.6-inch wide OLED Monitor to replace 23/21.5-inch LCD Monitor with LED back light.	OP.	OP.
VIDEO unit	UIVP-AA550A	This unit enable DVI signal output.	OP.	OP.
DataBase for External HDD kit	USDB-AI900A, USDB-AI900A/EL	Function for setting up the patient database in the USB HDD in order to perform examinations. *UZHI-AI900A is required.	OP.	OP.
Mounting kit for External HDD	UZHI-AI900A	Box with lock for installing the external HDD. HDD itself is not included. *USDB-AI900A is required.	OP.	OP.
ECG Cable Hanger kit	UZMK-AI901A	Hook used to hang the ECG cables on the front of the operating panel.	OP.	OP.
Panel USB Port kit	UIUB-AI900A	Kit for adding a USB port to the operating panel. Note that this kit cannot be installed if the UIST-AI900A is installed.	OP.	OP.

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*3: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFN-AA550A are required.
*4: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
*5: Advanced Software kit or Premium Software kit is required.
*6: Premium Software kit is required.
*7: Option for WH model.
*8: Only available in the CE marking regions.
*9: USMV-AI900A or Smart Sensor 3D kit is required.
*10: Some options are required in addition to UIFR-AA550A.

Unit	Model name	Remarks	Main unit	
			CUS-AA000	WH Model
Battery unit	UEBT-AA550A	A battery kit to provide approximately 30 minutes of operation without being connected to a power outlet.	OP.	OP.
Track Ball kit	UZTB-AI900A	Newly designed (heavier) trackball to improved response to user and therefore workflow.	OP.	OP.
Palm Controller kit	UZPT-001A	Pointing device, dial on track ball allows easier Gain adjustment without reaching out for another buttons.	OP.	OP.
Tilt panel kit	UITP-AA550A	Kit for enabling tilting of the touch panel.	OP.	OP.
Dynamic Micro Slice unit	UIMS-AA550A	For PLT-1204BX. USMS-AA550A is required.	*6	*6
Dynamic Micro Slice kit	USMS-AA550A, USMS-AA550A/EL	For PLT-1204BX. UIMS-AA550A is required.	*6	*6
Online Help kit	USHE-AI900A, USHE-AI900A/EL	Kit for displaying the operation manual on the viewing monitor.	OP.	OP.
Protocol Assistant kit	USPA-AI900A, USPA-AI900A/EL	A sequence of operations is registered, and each operation is executed by single switch operation. Not necessary when USSE-AI900 is installed.	OP.	OP.
MSK Protocol Movie kit	USPA-AI901A, USPA-AI901A/EL	A demonstrating movie by Dr Inigo Iriate, Professor of Ultrasound of the Spanish Society of Rehabilitation & Physical Medicine which tells the practical scanning tips of the anatomy and scanning of the shoulder provides examiners' skill development. USPA-AI900A or USSE-AI900A is required.	OP.	OP.
Multi Parametric Report kit	USDL-AI900A USDL-AI900A/EL	This kit enables a combined report for the abdominal measurement applications. *USSW-AA550A or USLP-AA550A is required.	OP.	OP.
Security Management kit	USSM-AI900A	This kit provides software for security management of the system.	OP.	OP.
RADS kit	USRA-AI900A USRA-AI900A/EL	This kit enables Reporting and Data System.	OP.	OP.
IOTA kit	USIO-AI900A, USIO-AI900A/EL	This kit enables International Ovarian Tumor Analysis. (*8)	OP.	OP.
Network Storage kit	USNA-AI900A, USNA-AI900A/EL	This kit enables large capacity RAW data management with network attached storage (NAS) which is commercially available. (NAS itself is not included)	OP.	OP.
Tricefy Access kit	USTR-AI900A, USTR-AI900A/EL	This kit enables to access the Tricefy which is a cloud service for clinical images.	OP.	OP.
ApliGate kit	UIAG-001A	Video capture unit, HDMI to USB converter. USAG-001A is required.	OP.	OP.
ApliGate Soft kit	USAG-001A, USAG-001A/EL	ApliGate software. UIAG-001A is required.	OP.	OP.
Reference Image kit	USRI-AI600A, USRI-AI600A/EL	Software to enable images from a previous examination to be displayed at the right of the screen.	OP.	OP.
Breast Scan Guide kit	USMB-AI900A, USMB-AI900A/EL	This kit enables that the information in the DICOM data from the digital Mammography MLO/CC images to be used to create an overlay position on the Ultrasound body mark in reference mode. Reference Image kit (USRI-AI600A) is required.	*6	*6
Smart Body Mark kit	USSB-AI900A, USSB-AI900A/EL	It automatically traces and displays the anatomical position of transducer mark based on the transducer position using magnetic sensor. (*10)	OP.	OP.
Breast Package kit	UIBP-AA550A	Package of Fusion unit (UIFR-AA550A) and Fusion adapter(UAFS-004A). USBP-AA550A is required.	*5	*5
Breast Package Soft kit	USBP-AA550A, USBP-AA550A/EL	Breast Package software. Package of USSB-AI900A, USFN-AA550A, USSW-AA550A, and USEL-AA550A or USEL-AA551A. UIBP-AA550A is required.	*5	*5
Probe 4Port kit	USPS-AA000A, USPS-AA000A/EL	This kit activates 4th transducers port.	OP.	OP.
Advanced Software kit	USAO-AA000A USAO-AA000A/EL	This kit enables advanced software kits (same level as Aplio a450).	OP.	OP.
Premium Software kit	USPO-AA000A USPO-AA000A/EL	This kit enables premium software kits (same level as Aplio a550).	OP.	OP.

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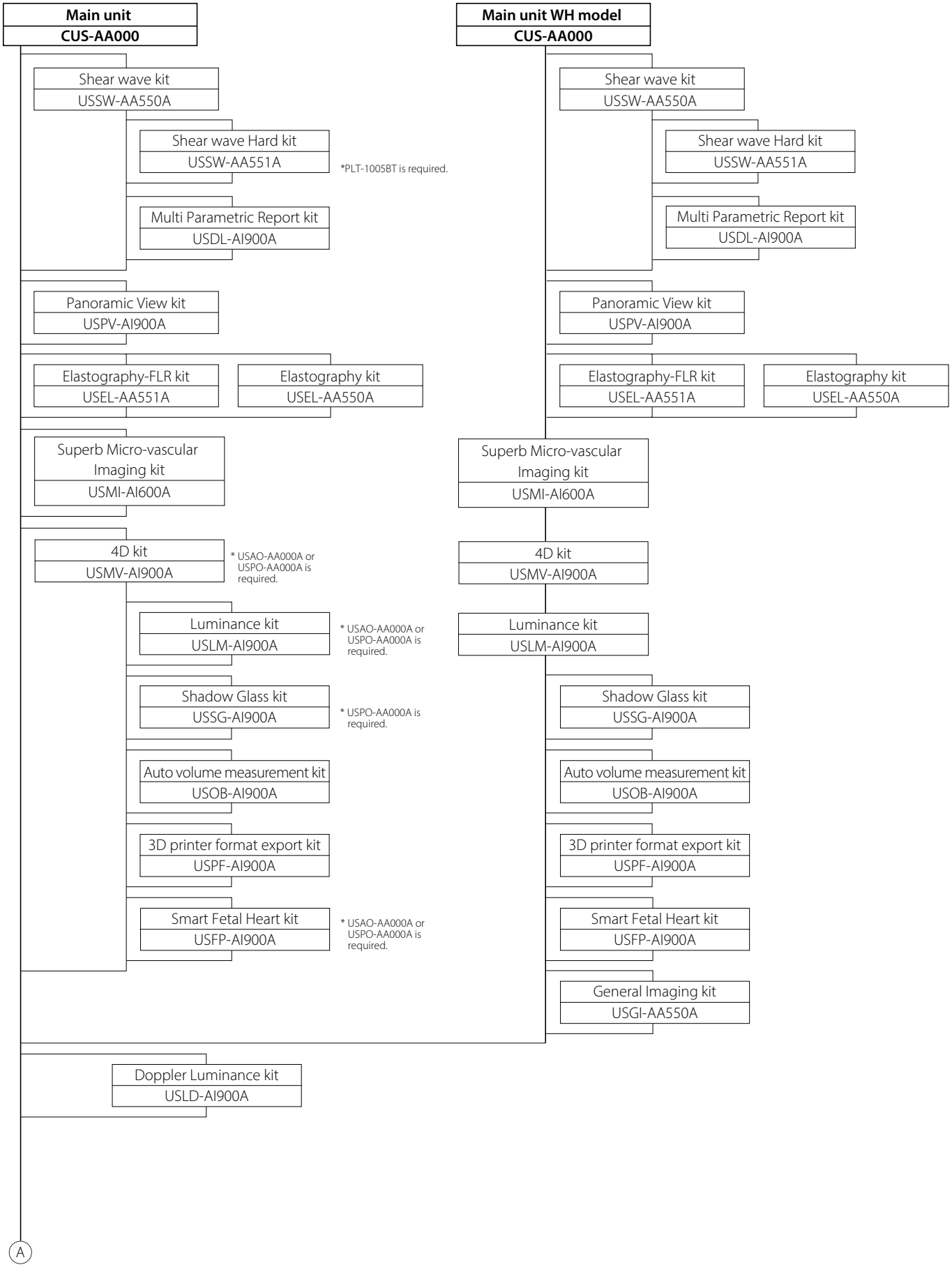
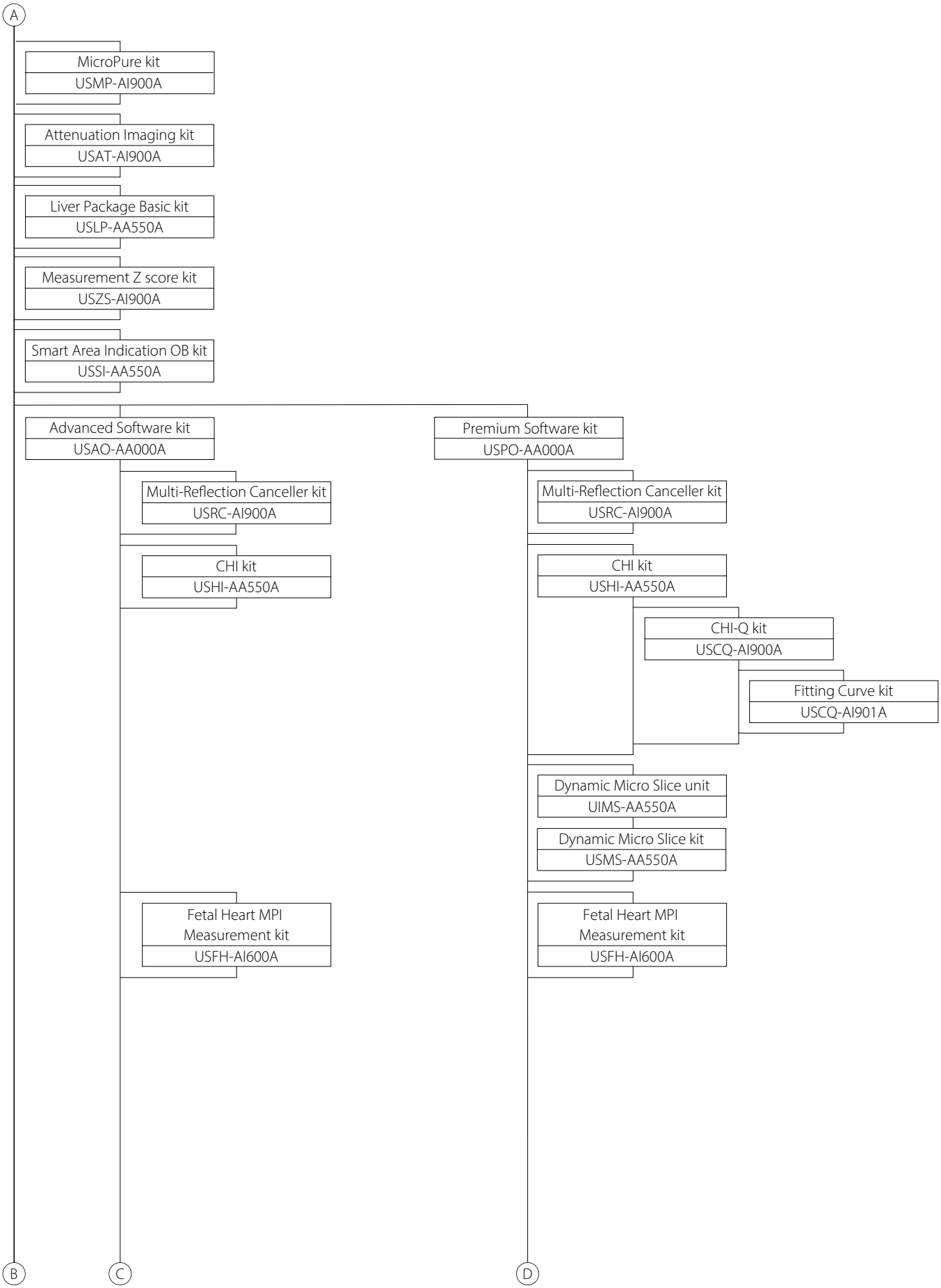
*2: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit and Smart Fusion kit USFN-AA550A are required.
*3: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFN-AA550A are required.
*4: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
*5: Advanced Software kit or Premium Software kit is required.
*6: Premium Software kit is required.
*7: Option for WH model.
*8: Only available in the CE marking regions.
*9: USMV-AI900A or Smart Sensor 3D kit is required.
*10: Some options are required in addition to UIFR-AA550A.

BLOCK CHART SYSTEMS




A
MicroPure kit
USMP-AI900A
Attenuation Imaging kit
USAT-AI900A
Liver Package Basic kit
USLP-AA550A
Measurement Z score kit
USZS-AI900A
Smart Area Indication OB kit
USSI-AA550A
Advanced Software kit
USAO-AA000A
Multi-Reflection Canceller kit
USRC-AI900A
CHI kit
USHI-AA550A
Fetal Heart MPI Measurement kit
USFH-AI600A
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USPO-AA000A
Multi-Reflection Canceller kit
USRC-AI900A
CHI kit
USHI-AA550A
CHI-Q kit
USCQ-AI900A
Fitting Curve kit
USCQ-AI901A
Dynamic Micro Slice unit
UIMS-AA550A
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USMS-AA550A
Fetal Heart MPI Measurement kit
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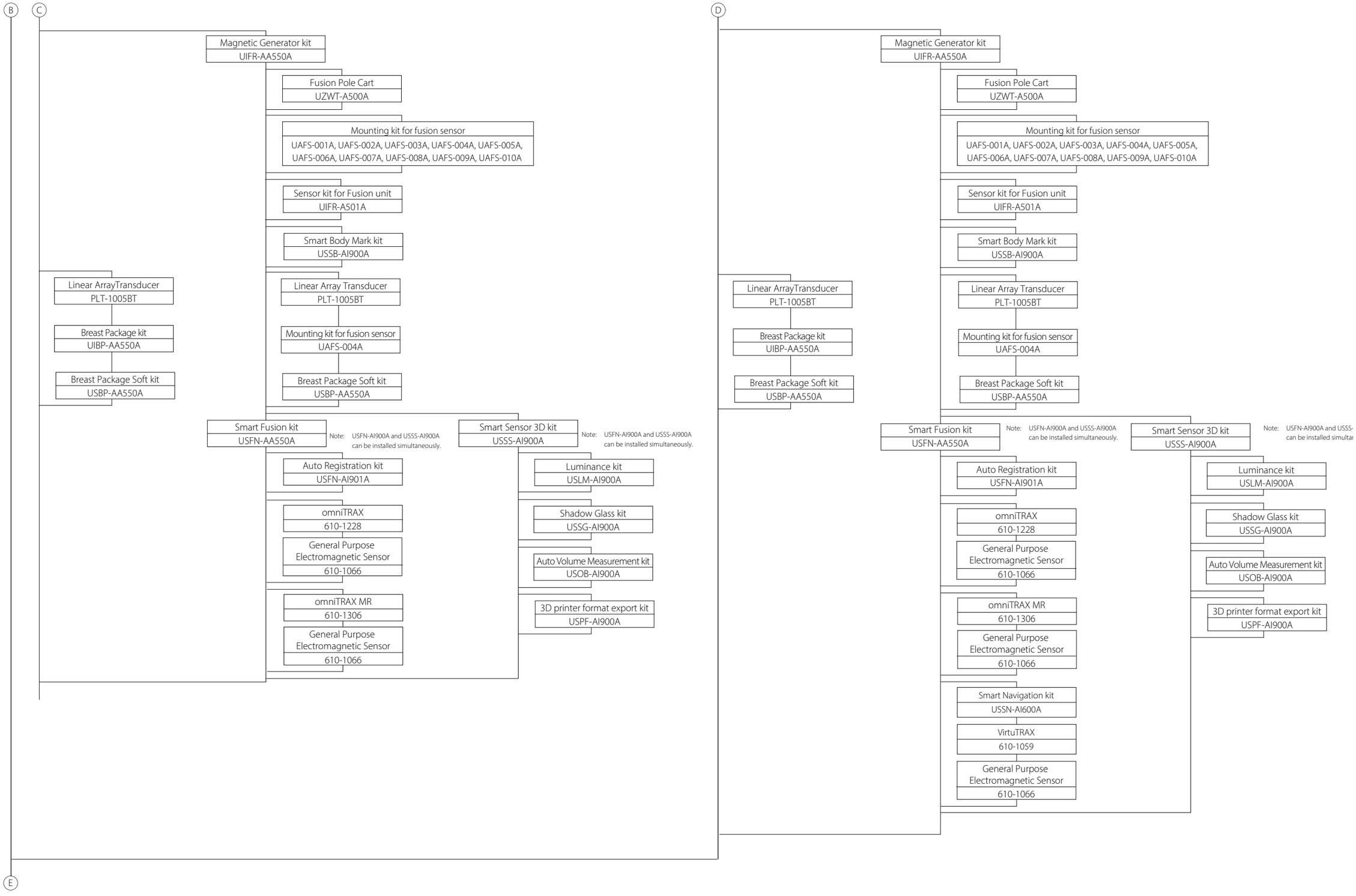
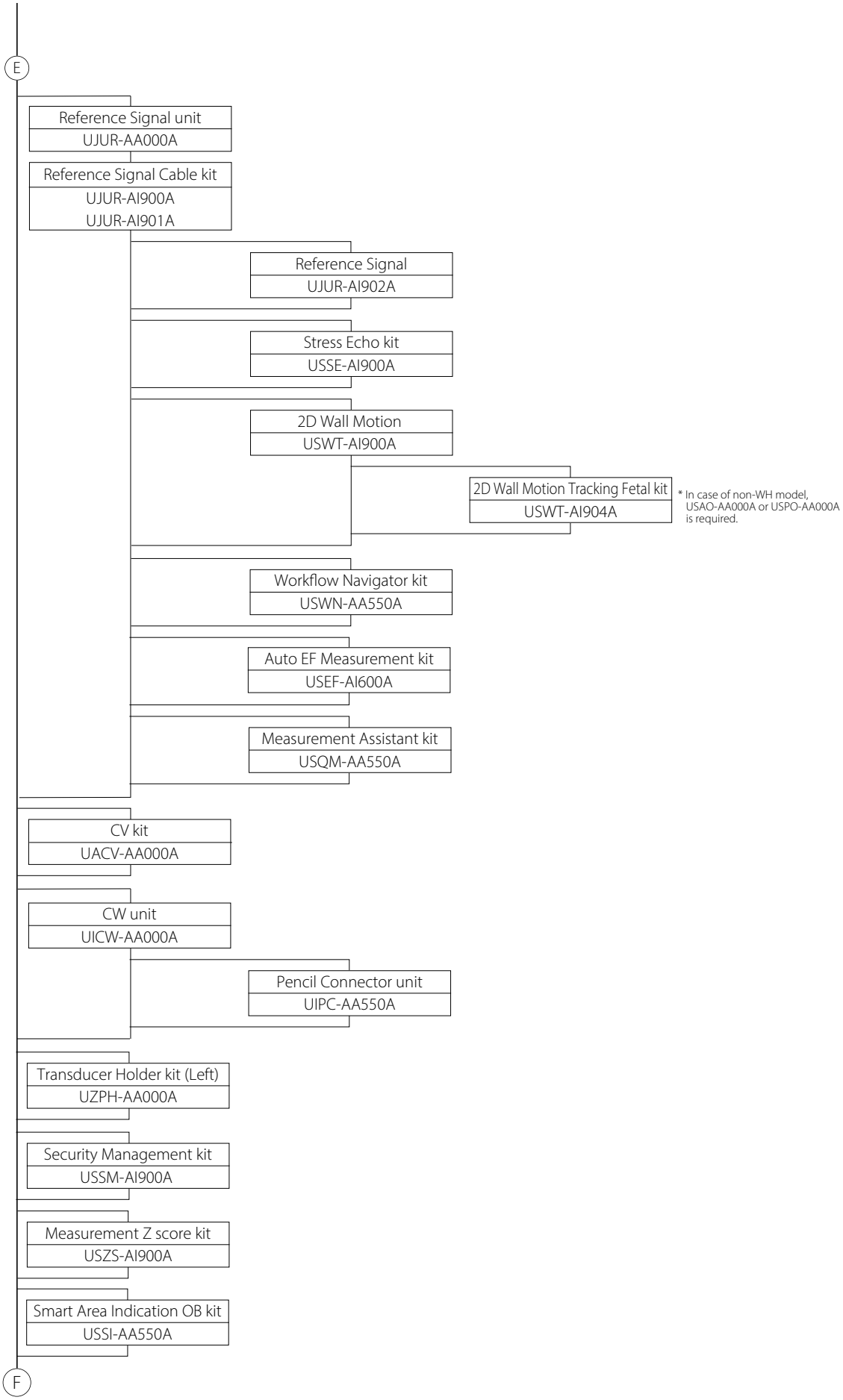
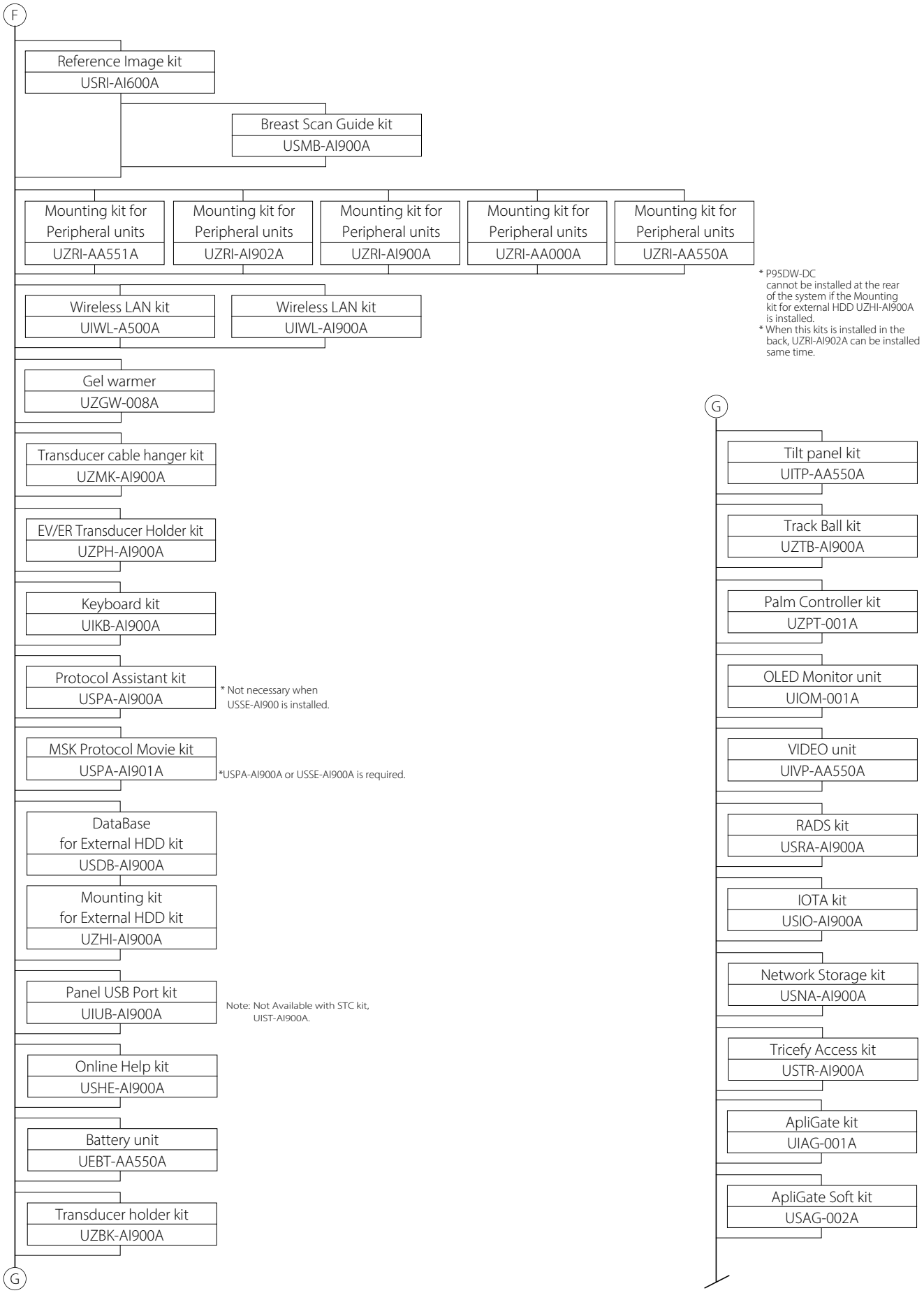

B
C
D
E
Magnetic Generator kit
UIFR-AA550A
Fusion Pole Cart
UZWT-A500A
Mounting kit for fusion sensor
UAFS-001A, UAFS-002A, UAFS-003A, UAFS-004A, UAFS-005A,
UAFS-006A, UAFS-007A, UAFS-008A, UAFS-009A, UAFS-010A
Sensor kit for Fusion unit
UIFR-A501A
Smart Body Mark kit
USSB-AI900A
Linear ArrayTransducer
PLT-1005BT
Breast Package kit
UIBP-AA550A
Breast Package Soft kit
USBP-AA550A
Linear Array Transducer
PLT-1005BT
Mounting kit for fusion sensor
UAFS-004A
Breast Package Soft kit
USBP-AA550A
Smart Fusion kit
USFN-AA550A
Note: USFN-AI900A and USSS-AI900A can be installed simultaneously.
Smart Sensor 3D kit
USSS-AI900A
Note: USFN-AI900A and USSS-AI900A can be installed simultaneously.
Auto Registration kit
USFN-AI901A
omniTRAX
610-1228
General Purpose
Electromagnetic Sensor
610-1066
omniTRAX MR
610-1306
General Purpose
Electromagnetic Sensor
610-1066
Luminance kit
USLM-AI900A
Shadow Glass kit
USSG-AI900A
Auto Volume Measurement kit
USOB-AI900A
3D printer format export kit
USPF-AI900A
Smart Navigation kit
USSN-AI600A
VirtuTRAX
610-1059
General Purpose
Electromagnetic Sensor
610-1066


E
Reference Signal unit
UJUR-AA000A
Reference Signal Cable kit
UJUR-AI900A
UJUR-AI901A
Reference Signal
UJUR-AI902A
Stress Echo kit
USSE-AI900A
2D Wall Motion
USWT-AI900A
2D Wall Motion Tracking Fetal kit
USWT-AI904A
* In case of non-WH model, USAO-AA000A or USPO-AA000A is required.
Workflow Navigator kit
USWN-AA550A
Auto EF Measurement kit
USEF-AI600A
Measurement Assistant kit
USQM-AA550A
CV kit
UACV-AA000A
CW unit
UICW-AA000A
Pencil Connector unit
UIPC-AA550A
Transducer Holder kit (Left)
UZPH-AA000A
Security Management kit
USSM-AI900A
Measurement Z score kit
USZS-AI900A
Smart Area Indication OB kit
USSI-AA550A
F


F
Reference Image kit
USRI-AI600A
Breast Scan Guide kit
USMB-AI900A
Mounting kit for Peripheral units
UZRI-AA551A
Mounting kit for Peripheral units
UZRI-AI902A
Mounting kit for Peripheral units
UZRI-AI900A
Mounting kit for Peripheral units
UZRI-AA000A
Mounting kit for Peripheral units
UZRI-AA550A
* P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.
* When this kits is installed in the back, UZRI-AI902A can be installed same time.
Wireless LAN kit
UIWL-A500A
Wireless LAN kit
UIWL-AI900A
Gel warmer
UZGW-008A
Transducer cable hanger kit
UZMK-AI900A
EV/ER Transducer Holder kit
UZPH-AI900A
Keyboard kit
UIKB-AI900A
Protocol Assistant kit
USPA-AI900A
* Not necessary when USSE-AI900 is installed.
MSK Protocol Movie kit
USPA-AI901A
*USPA-AI900A or USSE-AI900A is required.
DataBase for External HDD kit
USDB-AI900A
Mounting kit for External HDD kit
UZHI-AI900A
Panel USB Port kit
UIUB-AI900A
Note: Not Available with STC kit, UIST-AI900A.
Online Help kit
USHE-AI900A
Battery unit
UEBT-AA550A
Transducer holder kit
UZBK-AI900A
G
G
Tilt panel kit
UITP-AA550A
Track Ball kit
UZTB-AI900A
Palm Controller kit
UZPT-001A
OLED Monitor unit
UIOM-001A
VIDEO unit
UIVP-AA550A
RADS kit
USRA-AI900A
IOTA kit
USIO-AI900A
Network Storage kit
USNA-AI900A
Tricefy Access kit
USTR-AI900A
ApliGate kit
UIAG-001A
ApliGate Soft kit
USAG-002A

TRANSDUCER OPTIONS/OPERATION MODES

Model name	Label	Freq. (MHz)	Displayed range of frequency (MHz)	2D	Precision Imaging	ApliPure	MicroPure*1	BEAM	M	CDI	Power
PSI-70BT	i10S4	7.0	3.5~9.0	✓	✓				✓	✓	✓
PST-25BT	5S1	2.5	1.7~4.7	✓	✓				✓	✓	✓
PST-28BT	6S1	3.0	1.7~6.0	✓	✓				✓	✓	✓
PST-30BT	5S2	3.0	1.7~5.2	✓	✓				✓	✓	✓
PST-50BT	6S3	5.0	3.0~8.2	✓	✓				✓	✓	✓
PST-65BT	12S4	7.0	3.5~12.0	✓	✓				✓	✓	✓
PVT-350BTP	6CP1	3.5	2.0~4.5	✓	✓	✓			✓	✓	✓
PVT-375BT	6C1	3.5	1.5~6.1	✓	✓	✓			✓	✓	✓
PVT-375SC *7	6Cs1	3.5	1.5~6.0	✓	✓	✓			✓	✓	✓
PVT-382BT	6MC1	3.5	2.0~5.0	✓	✓	✓			✓	✓	✓
PVT-475BT *7	8C1	4.0	1.8~6.4	✓	✓	✓			✓	✓	✓
PVT-482BT *7	8MC1	4.0	1.8~6.0	✓	✓	✓			✓	✓	✓
PVT-574BT	10C1	5.0	2.0~9.5	✓	✓	✓			✓	✓	✓
PVT-674BT	10C3	6.0	3.5~9.7	✓	✓	✓			✓	✓	✓
PVT-675MVL	9CV2	6.0	2.5~7.0	✓	✓	✓			✓	✓	✓
PVT-675MVS	9CV2	6.0	2.5~7.5	✓	✓	✓			✓	✓	✓
PVT-681MVL	11CV3	6.0	3.6~11.0	✓	✓	✓			✓	✓	✓
PVT-712BT	11MC4	7.0	4.3~11.0	✓	✓	✓			✓	✓	✓
PVT-745BTF	11CI4	7.0	3.0~10.0	✓	✓	✓			✓	✓	✓
PVT-745BTH	11CI4	7.0	3.0~10.0	✓	✓	✓			✓	✓	✓
PVT-745BTV	11CI4	7.0	3.2~10.0	✓	✓	✓			✓	✓	✓
PVT-770RT	10C5	7.0	4.7~10.0	✓	✓	✓			✓	✓	✓
PVT-781VT	11C3	7.0	3.6~10.5	✓	✓	✓			✓	✓	✓
PVT-781VTE	11C3	7.0	3.6~10.5	✓	✓	✓			✓	✓	✓
PVL-715RST Convex	11CL4	7.5	4.5~9.0	✓	✓	✓			✓	✓	✓
PVL-715RST Linear		7.5	4.5~9.0	✓	✓	✓			✓	✓	✓
PLT-308BTP	6LP3	3.75	2.0~5.5	✓	✓	✓			✓	✓	✓
PLT-704SBT	11L4	7.5	4.0~10.0	✓	✓	✓		✓	✓	✓	✓
PLT-705BT	11L3	7.0	3.0~8.0	✓	✓	✓		✓	✓	✓	✓
PLT-705BTF	11LI4	7.0	3.8~8.5	✓	✓	✓			✓	✓	✓
PLT-705BTH	11LI4	7.0	3.8~8.4	✓	✓	✓			✓	✓	✓
PLT-1005BT	14L5	10.0	4.2~14.0	✓	✓	✓	✓	✓	✓	✓	✓
PLT-1202BT	17LH7	12.0	4.5~17.0	✓	✓	✓			✓	✓	✓
PLT-1204BT	18L7	12.0	4.5~18.0	✓	✓	✓	✓	✓	✓	✓	✓
PLT-1204BX *8	18LX7	12.0	4.5~18.0	✓	✓	✓	✓	✓	✓	✓	✓
PET-508MA	7S3	5.0	2.5~7.0	✓	✓				✓	✓	
PET-609MA	8S3	6.0	3.6~7.5	✓	✓				✓	✓	✓
PET-512MA	8S2	5.0	3.0~6.5	✓	✓				✓	✓	
PET-512MB *4	8S2	5.0	2.2~8.5	✓	✓				✓	✓	
PET-512MC *5	8SM2	5.0	3.0~6.5	✓	✓				✓	✓	
PET-512MD *5	8SM2	5.0	3.0~8.5	✓	✓				✓	✓	
PET-805LA	12LI4	8.0	3.5~9.0	✓	✓	✓			✓	✓	✓
PC-20M	P2	2.0	2.0								
PC-50M	P5	5.0	5.0								

*1: Optional software is required.
*2: Depends on the preset.
*3: Not available in the USA.
*4: Not available in the USA and Canada.
*5: Optional software USMV-AI900A is required.
*6: Advanced Software kit or Premium Software kit is required.
*7: Using Single Crystal technology.
*8: USMS-AA550A and UIMS-AA550A are required.
*9: UICW-AA000A and UIPC-AA550A are required.
*10: UICW-AA000A is required.

TRANSDUCER OPTIONS/OPERATION MODES

Model name		TDI	Elasto-graphy*1	SMI*1/ ADF	Shear wave*1	ATI	PWD	CWD*6,10	CHI*1					4D*5	Volume color*5
									2D	SMI*1	ADF	MFI	VRI		
PSI-70BT		✓		✓			✓	✓	✓			✓			
PST-25BT		✓		✓			✓	✓							
PST-28BT		✓		✓			✓	✓	✓			✓			
PST-30BT		✓		✓			✓	✓	✓			✓			
PST-50BT		✓		✓			✓	✓							
PST-65BT		✓					✓	✓							
PVT-350BTP				✓			✓		✓	✓	✓	✓			
PVT-375BT			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		
PVT-375SC *7			✓	✓	✓		✓		✓	✓	✓	✓	✓		
PVT-382BT				✓			✓		✓	✓	✓	✓			
PVT-475BT *7		✓*4	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		
PVT-482BT *7				✓			✓		✓	✓	✓	✓			
PVT-574BT		✓		✓	✓		✓		✓	✓	✓	✓			
PVT-674BT		✓*4		✓			✓		✓	✓		✓			
PVT-675MVL				✓			✓							✓	✓
PVT-675MVS				✓			✓							✓	✓
PVT-681MVL			✓	✓			✓		✓	✓		✓		✓	✓
PVT-712BT				✓			✓								
PVT-745BTF				✓			✓		✓			✓			
PVT-745BTH				✓			✓		✓			✓			
PVT-745BTV				✓			✓								
PVT-770RT				✓			✓								
PVT-781VT			✓	✓	✓		✓		✓	✓		✓			
PVT-781VTE			✓	✓	✓		✓		✓	✓		✓			
PVL-715RST	Convex		✓	✓			✓		✓			✓			
	Linear			✓			✓								
PLT-308BTP				✓			✓								
PLT-704SBT				✓			✓		✓	✓		✓			
PLT-705BT				✓			✓		✓	✓		✓			
PLT-705BTF				✓			✓		✓*3			✓*3			
PLT-705BTH				✓			✓		✓*3			✓*3			
PLT-1005BT			✓	✓	✓		✓		✓	✓	✓	✓	✓		
PLT-1202BT			✓	✓			✓								
PLT-1204BT			✓	✓			✓		✓	✓		✓			
PLT-1204BX *8			✓	✓			✓		✓	✓		✓			
PET-508MA		✓					✓	✓							
PET-609MA		✓					✓	✓							
PET-512MA		✓					✓	✓							
PET-512MB *4		✓					✓	✓							
PET-512MC *5		✓					✓	✓							
PET-512MD *5		✓					✓	✓							
PET-805LA			✓	✓			✓		✓	✓*4		✓			
PC-20M								✓							
PC-50M								✓							

*1: Optional software is required.
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*3: Not available in the USA.
*4: Not available in the USA and Canada.
*5: Optional software USMV-AI900A is required.
*6: Advanced Software kit or Premium Software kit is required.
*7: Using Single Crystal technology.
*8: USMS-AA550A and UIMS-AA550A are required.
*9: UICW-AA000A and UIPC-AA550A are required.
*10: UICW-AA000A is required.

TRANSDUCER OPTIONS/OPERATION MODES

Model name		STIC*5	STIC Color*5	Smart 3D	Sensor 3D*1	Fusion*1	Smart Navigation*1	2D*1 WMT	Applicable Version	Remarks
PSI-70BT								✓		
PST-25BT								✓		
PST-28BT *7					✓	✓		✓		
PST-30BT								✓		
PST-50BT								✓		
PST-65BT								✓	V3.0 or later	
PVT-350BTP				✓	✓	✓	✓			*4
PVT-375BT				✓	✓	✓	✓			
PVT-375SC *7				✓	✓	✓	✓			
PVT-382BT				✓	✓	✓	✓			
PVT-475BT *7				✓	✓	✓	✓			
PVT-482BT *7				✓	✓	✓	✓			
PVT-574BT *7				✓	✓	✓	✓	✓		
PVT-674BT				✓						
PVT-675MVL		✓*2	✓*2							*5
PVT-675MVS		✓*2	✓*2							*5
PVT-681MVL										*5
PVT-712BT				✓						
PVT-745BTF				✓						
PVT-745BTH				✓						
PVT-745BTV				✓						
PVT-770RT										
PVT-781VT				✓	✓	✓	✓			
PVT-781VTE				✓	✓	✓	✓			
PVL-715RST	Convex				✓	✓	✓			
	Linear				✓	✓	✓			
PLT-308BTP				✓						*4
PLT-704SBT				✓						
PLT-705BT				✓						
PLT-705BTF				✓						
PLT-705BTH				✓						
PLT-1005BT				✓	✓	✓	✓			
PLT-1202BT				✓	✓	✓				
PLT-1204BT				✓						
PLT-1204BX				✓						*8
PET-508MA								✓		
PET-609MA								✓	V3.0 or later	*4
PET-512MA								✓		*4
PET-512MB								✓	V4.0 or later	*4
PET-512MC								✓		*5
PET-512MD								✓		*5
PET-805LA										
PC-20M										*9
PC-50M										*9

*1: Optional software is required.
*2: Depends on the preset.
*3: Not available in the USA.
*4: Not available in the USA and Canada.
*5: Optional software USMV-AI900A is required.
*6: Advanced Software kit or Premium Software kit is required.
*7: Using Single Crystal technology.
*8: USMS-AA550A and UIMS-AA550A are required.
*9: UICW-AA000A and UIPC-AA550A are required.
*10: UICW-AA000A is required.

SPECIFICATIONS

System

- Scan methods: Linear scan (some transducers can perform oblique scanning)
  Sector scan
  Convex scan
  Trapezoid scan
  Curved vector scan
- Monitor:
  – High-definition 21.5-inch Wide LCD monitor with LED backlight
    · Resolution: 1920 × 1080 (Full HD)
    · Viewing angle: 178 degrees
    · Contrast ratio: typ. 1000: 1
    · Response time (ms): typ. 14
    · Luminance (cd/m^2): typ. 300
    · Conformance Standard: DICOM Part 14
  – High-definition 23-inch Wide LCD monitor with LED backlight
    · Resolution: 1920 × 1080 (Full HD)
    · Viewing angle: 178 degrees
    · Contrast ratio: typ. 1000: 1
    · Response time (ms): typ. 14
    · Luminance (cd/m2): typ. 300
    · Conformance Standard: DICOM Part 14
  – 4K 21.6-inch Wide OLED monitor
    · Resolution: 3840 × 2160
    · Viewing angle: 178 degrees *CR≧10
    · Contrast ratio: typ. 1000000: 1
    · Response time (µs): typ. 40 (30 + 10)
    *Black-> White-> Black
    · Luminance (cd/m^2): typ. 200 (7500 K)
    typ. 145 (13000 K)
    · Conformance Standard: DICOM Part 14
- Presets
  – System preset: 1 type

Compatible Peripheral Devices

- Black-and-white digital printer
  – UP-D711MD/WO: AC (100 V to 240 V, SONY)
  – UP-D898MD: AC (100 V to 240 V, SONY)
  – P95DW: AC (100 V to 240 V, MITSUBISHI)
  – P95DW-DC: DC (24 V, MITSUBISHI)
- Color digital printer
  – UP-D25MD: AC (100 V to 240 V, SONY)
  – CP30DW: AC (120 V, 220 V to 240 V, MITSUBISHI)
- DVD video recorder
  – HVO-550MD/FHD: AC (100 V to 240 V, NTSC/PAL, SONY)
- USB flash drive
- External HDD
- Barcode reader

2D mode (B mode)

- Viewing Depth
  The viewing depth depends on the transducer used.
  – Convex
    · Minimum depth: 2 cm
    · Maximum depth: 50 cm
  – Linear
    · Minimum depth: 1 cm
    · Maximum depth: 14 cm
  – Sector
    · Minimum depth: 1 cm
    · Maximum depth: 28 cm
- Line density
  – The line density differs depending on the transducer used.
  – The line density can be changed.
- Ultrasound Frame Rate
  – The ultrasound frame rate can be adjusted by using the following in combination.
    · Line density
    · Parallel signal processing
- Scan Angle and Scan Width
  – Adjustment of the field width (scan width, scan angle) is possible.
  – Adjustment of beam steering (scanning position) is possible.
  – Adjustment of linear beam steering is possible.
- PAN/EXPAND
  Real-time PAN/EXPAND
  – Scale enlargement/reduction using the encoder is possible.
  – Movement to the desired section using the trackball is possible.
  – The transmission focus is optimized in steps above.
  – The specified range of an image can be magnified. (Spot Zoom)
- Transmission Focus
  Transmission conditions: A maximum of 8 steps
- Transmission Frequency
  Multi frequency: 3 frequencies can be selected from 13 types.
- GAIN
  – The display brightness for 2D can be changed. (Also available when the image is frozen)
  – The display brightness for 2D and M can be changed simultaneously.
- STC
  – Software STC
    · Depth direction from the body surface: 8-step slide controls (common for 2D and M)
    · Lateral direction in the image: 6-step slide controls (common for 2D and M)
  – Hardware STC (UIST-AI900A is required.)
    8-step slide controls (common for 2D and M)

- Acoustic Output
  Adjustment is possible to 100%.
- Adjusting the 2D Image Quality
  – Dynamic range (also available when the image is frozen)
  – Time-smoothing (persistence)
  – Gamma (also available when the image is frozen)
  – Frame rate
  – ApliPure
  – Precision
  – Reverb (USRC-AI900A is required.)
- 2D Map
  – The grayscale pattern can be changed and virtual color setting for the 2D image is possible.
  – Settings can also be changed when the image is frozen.
- 2D Quick Scan
  The gain and STC can be adjusted automatically.
- THI (Tissue Harmonic Imaging)
  THI signal processing methods
  – Pulse subtraction method
  – Filtering method
  – Differential method
- Display Orientation
  – Top/bottom reversal is possible.
  – Left/right reversal is possible.
- Image Size
  The displayed image size can be switched between small and large.
- ApliPure
  – ApliPure
    This function reduces ultrasound wave interference within tissues, which appear as speckle patterns or speckle noise on 2D images.
  – ApliPure+
    This function can display the boundaries between tissues more clearly and reduce speckle noise and acoustic shadows.
- MicroPure (USMP-AI900A is required.)
  – Small structures can be extracted by performing filtering for 2D-mode images.
  – Visualization of very small calcifications and other extremely small lesions can be improved.
- Precision Imaging
  – Precision+
    · Structures in 2D-mode images can be displayed more clearly and the background can be displayed more smoothly.
    · Saturation in high-intensity regions of tissue structures is reduced, allowing the tissue structures to be displayed in a more natural manner.
- TSO (Tissue Specific Optimization)
  – Reception focus compensation can be performed.
  – Automatic reception focus compensation can be performed. (Auto TSO)
- BEAM (Biopsy Enhancement Auto Mode)
  – Display of the needle can be enhanced in the image.
  – The enhancement level can be adjusted.
- Doppler Luminance (USLD-AI900A is required.)
  – Doppler Luminance is a function for displaying 3D images created from 2D color images acquired in color modes (CDI/Power/ADF/SMI).

M mode

- M Transmission Frequency
  Multi frequency: 5 types (at maximum)
- M Sweep Speed
  The Sweep Speed can be changed in M mode.
- M Gain
  M gain can be corrected for 2D gain.
- M Image Processing Parameters
  – M dynamic range (can be changed even after the image has been frozen).
  – M auto gain control
  – M gamma (can be changed even after the image has been frozen).
- M Map
  M image virtual color setting is possible. The setting can be changed even after the image has been frozen.
- THI (Tissue Harmonic Imaging)
  2D mode and THI mode are linked, and M images can be displayed in THI mode.
  – Pulse subtraction method
  – Filtering method
  – Differential method
- M Mark
  – The M cursor can be displayed on 2D or C images.
  – The M cursor displayed position can be adjusted.
- Flex-M
  Any desired plane can be set on the 2D-mode image and the M-mode image for the set plane can be reconstructed.

Doppler (Spectrum Doppler)

- Doppler Mode
  – PWD (pulsed-wave Doppler)
  – HPRF PWD (can be switched to HPRF mode)
  – CWD (continuous-wave Doppler)
  (UICW-AA000A, UIPC-AA550A, USAO-AA000A or USPO-AA000A are required.)
  – Pencil CWD (pencil-type transducer)
  (UICW-AA000A and UIPC-AA550A are required.)
- Doppler Pulse Repetition Frequency (PRF)
  – PWD: 0.3 kHz to 52.1 kHz
  – CWD: 1.4 kHz to 52.1 kHz
- Doppler Scan
  – 2D/D simultaneous scan
  – D only scan

- Doppler Sampling Volume
  The Doppler range gate width can be changed. (Minimum 0.3 mm)
- Doppler Sampling Shift
  0 cm to the maximum depth
- Doppler Cursor Mode
  Operation for the 2D live image is possible with the Doppler sampling volume displayed in it.
- Doppler Filter
  The Doppler filter cutoff can be changed.
- Doppler Gain
  The display brightness for Doppler can be changed.
- Doppler Quick Scan
  The Doppler scale and baseline shift can be adjusted automatically.
- Doppler Frequency Analysis and Image Processing
  – Method: FFT
  – No. of data items: 255 (maximum)
- Indication of Doppler Spectrum Direction
  Reverse display of the velocity spectrum is possible.
- Doppler Baseline Shift (Zero Shift)
  – The velocity baseline of Doppler images can be shifted.
  – The baseline shift setting can also be adjusted when images that were frozen are displayed.
- Doppler Audio
  Stereo output (blood flow toward and away from the transducer)
- Doppler Map
  The brightness conversion table and the virtual color for Doppler images can be set.
- Display of Doppler Scale
  2 types (velocity, Doppler shift frequency)
- Doppler Focus
  Automatically follows the sample position.
- Doppler Angle Mark
  This mark is displayed for measuring the angle between the direction of the velocity and the direction of the ultrasound beam.
- Doppler Oblique Scan (PWD Steering)
  – Oblique scans are possible using a specific linear transducer.
  – Auto Invert function
- Doppler Multifrequency
  The PWD transmission frequency can be changed.
- Doppler Sweep Speed
  The Sweep Speed can be changed in Doppler mode.
- Doppler Display Dynamic Range
  The display dynamic range of the Doppler image can be changed.
- Doppler Auto Trace (measurement performed after freezing the image)
  Measurement of peak velocity and mean velocity is possible by automatic velocity tracing.
  The following Doppler waveform trace is possible.
  – Trace style: Waveform Peak, Mean, Peak + Mean
  – Trace area specified: Forward, Reverse, Full, Auto
  – Measurement item: Max, Min, Mean, PI, RI, etc.

Color Doppler

Color Doppler Mode

- Display mode
  – CDI mode
    · Flow velocity
    · Flow velocity/variance
    · Power
  – Power Angio mode
  – TDI mode
  – TwinView
    Simultaneous dual-screen display with 2D mode is available.
  – SMI (Superb Micro vascular Imaging) mode
    (USMI-AI600A is required.) Pre-installed in WH model.
    · Clutter suppressed
    · Blood flow enhanced
  – ADF (Dynamic Flow) mode
    · Direction display
- C Map
  – C map can be selected for each color Doppler mode.
  – Changes can also be made when the image is frozen.
- C Scale (Switching the Velocity Range)
  The velocity range can be changed.
- C Time-Smoothing (Persistence)
  The result of temporal correlation processing between the previous image and current image can be displayed.
- C Baseline (Zero Shift)
  – The velocity baseline of color Doppler images can be shifted.
  – The baseline shift setting can also be adjusted when images that were frozen or images in the image memory are displayed.
- Reverse C Display
  – Coloring is reversed.
  – Changes can also be made when the image is frozen.
- Black and White/Color Balance
  – By comparing the color Doppler images and B/W images, color weighting to B/W can be set.
  – Changes can also be made when the image is frozen.
- C Gain
  The display brightness of color Doppler images can be changed.
- C Multifrequency
  The transmission frequency for color Doppler image acquisition can be changed.
- C Line density
  The color Doppler image line density can be changed.

- C ROI (Region of Interest)
  Position, size, and steering adjustment is possible for color Doppler ROIs.
- C Transmit Focus
  Automatically follows the color Doppler ROI position.
- C Filter
  Color Doppler low-cut filter can be changed.
- Variance Curve
  – The display of the color variance component can be adjusted.
- Color Quick Scan
  The following operations are possible when a linear transducer is used.
  · The position of a color ROI and angle of color steering are adjusted automatically.
  · When PWD sampling volume is displayed, the Doppler gate position, Doppler steering angle, and Doppler angle are adjusted automatically.

Color Doppler M mode (MDF Mode)

- Display mode
  – MCDI mode
  · Velocity display
  · Velocity/variance display
  · Power display
  – M-TDI mode
- M Color Doppler Map (CDI MAP)
  Color Doppler map can be selected for each mode.
- M Color Doppler Velocity Range Selection (C Scale)
  The velocity range can be selected.
- M Color Doppler Baseline (C Baseline)
  – The zero-velocity line on the M Color Doppler image can be shifted.
  – The baseline shift setting can also be adjusted when images that were frozen are displayed or when the image in the image memory is played back.
- Color Reverse Display
  – The colors can be reversed.
  – Changes can also be made when the image is frozen.
- Black and White/Color Balance
  – Color weighting for B/W images can be set by comparing the M Color Doppler images and B/W images.
  – Changes can also be made when the image is frozen.
- Color Gain
  The display brightness of the M Color Doppler image can be changed.
- M Color Doppler Multi-Frequency
  Doppler transmission frequency can be selected in M Color Doppler image acquisition.
- M Color Doppler Filter
  M Color Doppler low-cut filter can be changed.

Reference Signals

- Type
  – Electrocardiogram (ECG)
  · Lead I is the standard connection.
  · External input is possible.
  · DC IN
  The connected device must comply with IEC 60601-1.
  · Top/bottom inversion is possible.
  · Lead switching
  · Pacemaker
  · INST
  – Phonocardiogram (PCG)
  (UJUR-AA000A and UJUR-AI902A are required.)
  · PCG microphone: Acceleration type
  · Filter: Switching is possible.
  – Pulse (UJUR-AA000A and UJUR-AI902A are required.)
  Pulse transducer: Air conduction type
  – Respiration
  Impedance method using the reference signal cable
- Heart Rate
  The heart mark blinks in synchronization with the heart beat detected by the ECG.
  The heart rate is displayed.
- Reference Signal Sweep Speed
  This changes the reference signal sweep speed.

Other Diagnostic Function

- CHI (Contrast Harmonic Imaging) (USHI-AA550A is required.)
  The second-harmonic wave signals from the microbubbles in the contrast medium can be effectively visualized.
  – The following image modes can be selected.
  · PS (Pulse Subtraction) -Low, PS-Low2
  · VRI (Vascular Recognition Imaging)
  · Fundamental
  · CHI ADF
  · SMI (Superb Micro Vascular Imaging)
  (USMI-AI600 is required.) Pre-installed in WH model.
  – The following functions can be selected.
  · 2D TwinView
  · Micro Flow Imaging (MFI)
  · Image Stabilizer
  · MI Constant function
- Parametric MFI
  – Temporal information can be displayed as a color map superimposed on images acquired by 2D mode (without CHI starting up), ADF/SMI mode, and CHI mode (contrast image for the period from the start of contrast medium injection to the time when the contrast medium reaches the target region).
  – The following functions are available.
  · Micro Flow Imaging (MFI)
  · Image Stabilizer

- Mechanical 4D (Advanced Software kit or Premium Software kit and USMV-AI900A are required.) Pre-installed in WH model.
  Three-dimensional image data (volume data) can be generated and displayed by using image data acquired for three-dimensional image reconstruction.
  – The following functions can be used.
    · Volume Color
    · Multi View
    · Magic Cut
    · VolPure
    · Volume View
    · STIC/STIC Color
    · 4D CHI (USHI-AA550A is required.)
    · 4D Biopsy
    · Luminance (USLM-AI900A is required.) Pre-installed in WH model.
    · Shadow Glass (USSG-AI900A is required.) Premium Software kit is not needed in WH model.
    · OmniView
    · Auto flexible cut line
    · STL export (USPF-AI900A is required.)
    · Smart Fetal Heart (USFP-AI900A is required.)
  – The following measurements can be performed.
    · MPR
    · Multi Auto Volume measurement (USOB-AI900A is required.)

4D OPERATION MODES

The optional software USMV-AI900A is required.

Transducer name	4D Live	Single Sweep	STIC	STIC Color
PVT-675MVL	✓	✓	✓*2	✓*2
PVT-675MVS	✓	✓	✓*2	✓*2
PVT-681MVL	✓	✓		

Transducer name	Volume color	4D Biopsy
PVT-675MVL	✓	
PVT-675MVS	✓	
PVT-681MVL	✓	✓

Transducer name	Luminance*1	Shadow Glass*1	Max sweep range (deg)
PVT-675MVL	✓	✓	90
PVT-675MVS	✓	✓	90
PVT-681MVL	✓	✓	150

*1: Optional software is required.
*2: Depends on the preset.

- Stress Echo (Advanced Software kit or Premium Software kit and USSE-AI900A are required.)
  Exercise and pharmacological stress echo examinations can be performed.
  – Data acquisition mode
    This mode is intended for selecting and creating protocols.
  – Review mode
    This mode provides playback function/data output function/Wall Motion Scoring (WMS) function.
- Panoramic View (USPV-AI900A is required.)
  – A continuous image can be acquired by moving the transducer horizontally on the body surface.
  – Measurement using Panoramic View can be performed.
- Elastography (USEL-AA551A or USEL-AA550A is required.)
  – Tissue stiffness can be visualized based on the changes in velocity resulting from physical compression and decompression of the target region.
  – FLR measurement can be performed to calculate the strain within the set ROI. (Not available in the USA.)
- VI (Vascularity Index)
  The number of pixels in the Power/ SMI image and within the ROI, the area of the Power/ SMI image and of the ROI, and the ratio of the number of pixels in the Power/ SMI image to the number of pixels within the ROI can be displayed for an image acquired in Power/ SMI mode.
  Available on all linear transducers.
- Fusion (Smart Fusion) (Advanced Software kit or Premium Software kit and USFN-AA550A etc. are required.)
  Synchronization of ultrasound scanning with CT/MRI image display adjusted according to the examination position determined using a magnetic sensor attached to the transducer can be performed.
  Prostate biopsy report is available.
  – The following video modes can be selected.
    · 2D mode (B mode)
    · Color Doppler
    · PWD (pulsed-wave Doppler)
    · CWD (continuous-wave Doppler)
    · CHI (Contrast Harmonic Imaging) (USHI-AA550A is required.)
    · Elastography (USEL-AA551A or USEL-AA550A is required.)
  – The following image data can be referred to.
    · CT
    · MR
    · PET
    · 3D US (USSS-AI900A is required.)
  – The following functions can be used.
    · Blend display
    · Segment display
    · Multiplane display (Triple display)
    · Multivolume display (Quad display)
    · 3D body mark display (Quad display)
    · Comparative display (Quad display)
    · Auto Registration (USFN-AI901A is required.)
    · Auto Track (Auto Track kit is required.)

– The following measurements can be performed.
  · Basic measurement
  · Cardiac measurement (for ultrasound live image)
- Protocol Assistant (USPA-AI900A is required.)
  A series of operations (a protocol) that has been created for the intended examination can be executed automatically. Protocols can be created and edited.
- Shear wave (USSW-AA550A is required.)
  Images representing the speed of propagation of tissue displacement (shear wave speed) can be visualized (shear wave scan) by locally displacing tissues by transmitting a burst wave with high acoustic pressure.
  – The following Shear wave display modes are available.
    · Speed: shear wave speed display (m/s)
    · Elasticity: elasticity display (kPa)
    · Propagation: propagation display
  – ECG Sync Acquisition function can be used.
  – Shear wave measurement can be performed.
  – ATI (Attenuation Imaging) (USAT-AI900A is required.)
    The ultrasound wave attenuation can be displayed in color parametric and measured.
- Smart Navigation (USSN-AI600A etc. are required.)
  A needle navigation line can be superimposed on the ultrasound image based on the positional relationship between the magnetic sensor attached to the transducer and the magnetic sensor attached to the puncture needle.
- Smart Sensor 3D (Advanced Software kit or Premium Software kit and USSS-AI900A, UIFR-AA550A, and UIFR-AI501A are required.)
  Generation of 3D images can be performed based on the positional information obtained using the magnetic sensor attached to the transducer.
  – The following functions can be used.
    · Volume Color
    · Multi View
    · Volume View
    · Magic Cut
    · CHI (USHI-AA550A is required.)
    · Luminance (USLM-AI900A is required.)
    · Shadow Glass (USSG-AI900A is required.)
    · Shear Wave (USSW-AA550A is required.)
    · OmniView
    · ECG Sync Construction
    · STL export (Advanced Software kit or Premium Software kit and USPF-AI900A are required.)
  – The following measurements can be performed.
    · MPR
    · Multi Auto Volume Measurement (USOB-AI900A is required.)
- Smart 3D
  3D image can be generated from the 2D image and any input volume shape.
  – The following functions can be used.
    · Volume Color
    · Multi View
    · Volume View
    · Magic Cut
    · Omni View
    · CHI (Advanced Software kit or Premium Software kit and USHI-AA550A are required.)
    · Shear Wave (USSW-AA550A is required.)
    · STL export (Advanced Software kit or Premium Software kit and USPF-AI900A are required.)
- Reference (USRI-AI600A is required.)
  The ultrasound images of the current examination and the previously acquired image of the patient can be displayed simultaneously.
  – The following video modes can be selected.
    · 2D mode (B mode)
    · Color Doppler
  – The following image data can be referred to.
    · US image (still image)
    · Raw data acquired using CUS-AA000
    · CT
    · MR
    · MG
    · PET
  – The following measurement can be performed.
    Basic measurement
  – The following measurements are available.
    · BPD
    · HC
    · AC
    · FL
  – The following transducer supports Smart Area Indication (OB).
    · PVI-475BX

Display-Related Features

- Display Method
  – Images on the main unit: 60 Hz non-interlaced display
  – Images from external playback devices: 60 Hz non-interlaced display
- Monitor Display/Character Display
  – ID area
    · Patient ID
    · Patient name
    · Hospital name

· Date: Selected from among the formats shown below.
YYYY/MM/DD
MM/DD/YYYY
DD/MM/YYYY
YYYY: Western calendar year
MM: Month
DD: Day

· Time: Selected from among the formats shown below.
hh:mm:ss: AM (PM)
hh:mm:ss: 24-hour representation
hh: Hour
mm: Minute
ss: Second

· VIDEO mark, VCR counter
· Age
· Sex
· Heart rate display (heart-shaped mark/heart rate)
· Name of the Imaging Preset
· Name of the operator
· Gestational age

– Acoustic power display area
· Acoustic power value (%)
· TI value

– Auto data
· Frame rate
· Acoustic power index = MI indication
· Transducer frequency
· Depth
· Dynamic range
· GAIN
· CDI filter
· PRF
· Doppler filter
· Doppler angle
· Doppler gate size

– Thumbnail area
· Image data acquired during the current examination is displayed.
· Information from a previous examination of the patient currently being examined is displayed.

– Information message display area
An operation guide and other messages are displayed.

– Status area
The following system statuses can be displayed.
· Battery capacity
· DVD/CD write status
· Network use status
· PACS use status
· Used space on HDD
· Saving dynamic/ still image
· DICOM printer status/ peripheral device status
· USB flash drive status display

– Multifunction display area
Assignment statuses for trackball and surrounding switches and dials

• Annotation
– Manual input using the keyboard is possible.
– Auto annotation (previously specified text) is possible.

• Pictograms
Body icons and transducer mark

• Biopsy Guide Mark
Biopsy guide mark display is possible.

• Touch Panel (TCS: Touch Command Screen)
– 12.1-inch LCD monitor: SXGA (1280 × 800)
– The touch panel tilt angle can be changed by 15°. (UITP-AA550A is required.)

• Language
The following languages are supported for the display of some screens and keyboard entry.

Supported language	Screen display	Input by software keyboard	Input by hardware keyboard*
English	○	○	○
English (UK)	○	○ (same as"English")	○ (same as"English")
German	○	○	○
French	○	○	○
Italian	○	○	○
Spanish	○	○	○
Danish	○	○	○
Dutch	○	×	×
Norwegian	○	○	○
Swedish	○	○	○
Finnish	○	○	○
Portuguese	○	×	×
Icelandic	○	×	×
Russian	○	○	○
Japanese	○	○	○
Chinese	○	×	×

○: Applicable ×: Not applicable
*: UIKB-AI900A is required.

Measurement Functions

Basic Measurement Functions

• 2D-mode measurements
– Distance
· Distance
· Trace Length
· Mean-IMT

  - Area
  - Angle
    - Angle
    - Joint
  - Volume
  - Stenosis ratio
    - %Stenosis (Distance)
    - %Stenosis (Area)
- 4D-mode measurements (USMV-AI900A is required.)
  - Distance
    - Distance
    - Trace Length
    - Mean-IMT
  - Area
  - Angle
    - Angle
    - Joint
  - Volume
    - Volume
    - Auto Volume Measurement (Advanced Software kit or Premium Software kit and USOB-AI900A are required.)
  - Stenosis ratio
    - %Stenosis (Distance)
    - %Stenosis (Area)
  - Shear Wave measurement
- M-mode measurements
  - Slope
  - Distance
  - Time
  - Heart rate
- PW/CW Doppler measurements
  - Velocity
  - Acceleration
  - Time
  - Heart rate
  - PI
  - RI
  - S/D
  - Flow volume
  - Doppler trace

Application Measurement Functions

- Cardiac measurements
  - 2D-mode measurements
    - LV (left ventricular function) measurements
    - LA (left atrial volume) measurements
    - AV (aortic valve) measurements
    - MV (mitral valve) measurements
    - PV (pulmonary valve) measurements
    - LV MASS measurements
    - Auto EF measurements (USEF-AI600A is required.)
  - M-mode measurements
    - LV (left ventricular function) measurements
    - AV (aortic valve) measurements
    - MV (mitral valve) measurements
  - Doppler measurements
    - Trans-Aortic valve flow measurement
    - Trans-Mitral valve flow measurement
    - Trans-Pulmonary vein flow measurement
    - Trans-Tricuspid valve flow measurement
    - Trans-Pulmonary valve flow measurement
    - Blood flow waveform auto measurements
    - Coronary measurements
    - PISA measurements
  - OB (obstetrics) measurements
    - The data for determining fetal growth based on the measured fetal size is displayed.
    - The list of measured data or a graph of the measured value development (fetal growth conditions) is displayed.
    - Week function (gestational age)
    - Measurement data saving is possible.
    - Auto NT measurement
    - Fetal heart MPI measurement (USFH-AI600A is required.)
    - Anatomy
    - User chart registration
  - Vascular measurement
    - CCA (Common Carotid Artery) measurement
    - ECA (External Carotid Artery) measurement
    - ICA (Internal Carotid Artery) measurement
    - Vert A (Vertebral Artery) measurement
    - Subclav A (Subclavian Artery) measurement
    - Auto-IMT measurement
    - IMT-C10 measurement
  - User-registered measurements registration function.
    - Measurement items and calculation items based on the measured values
    - Layout setting on the Worksheet screen
    - Switch layout setting of the touch panel
    - Measurement package DICOM code registration

Advanced Measurement Functions

- 2D wall motion tracking (Advanced Software kit or Premium Software kit and USWT-AI900A are required.)
  Wall motion can be analyzed by semi-automatically extracting the left ventricular myocardium from the image data acquired by the system and displaying it for the evaluation of myocardial motion.
  - Wall motion tracking in 2D dynamic images
  - Wall motion information display
  - Polar map display
  - Local/whole myocardial wall motion parameter curve display
  - Parameter setting display of various parameters
  - Analytical data output to a file
  - Fetus mode ((USAO-AA000A or USPO-AA000A) and USWT-AI904AT are required.)
- TCA (Premium Software kit and Time Curve Analysis) (USHI-AA550A and USCQ-AI900A are required.)
  Quantitative analysis can be performed using a graph showing the changes in intensity over time of images

acquired in CHI mode.
– Generation of a graph from the changes in intensity over time
– Motion Tracking function
– Function for calculating characteristic value parameters by Curve Fitting (USCQ-AI901A is required.)
– Analytical data output to a file

Measurement of Stored Image Data

The following measurements can be performed for the DICOM data (DICOM, with raw data, and without raw data) stored in HDD.

- Basic measurement
- Application measurement

Report Function

- Worksheet functions
  – The measurement and calculation items can be displayed for each application measurement.
  – Data editing is possible (except for some items).
  – Display of the following values can be set to ON or OFF. Mean value, latest value, maximum value, minimum value
  – Trend graphs can be displayed (OB measurement worksheet).
  – Comment entry is possible.
  – Multi Parametric Report, which allows organization of results acquired using multiple abdominal measurement applications in a worksheet, can be displayed. (USDL-AI900A is required.)
  – Analysis results of RADS used during an examination can be displayed on the Worksheet. (USRA-AI900A is required.)
- Report function (On Board Report)
  – Reports can be created on the system.
  – The created reports can be printed.
  – The created reports can be output as PDF files.
  – The report template can be edited.

Cine Memory (large-capacity image memory)

- Memory Capacity
  960 MB
- Record/Playback Mode
  – Loop playback is possible.
  – Frame advance playback is possible.
  – Cine playback is possible in Doppler or M mode.
  – Live images can be recorded. (Clips, Auto Store)

Video Recording

The following DVD remote control operations are possible: Record, stop, play, fast-forward, rewind, forward search, reverse search, and freeze (pause).

Recording Function

- Printers (option)
  – Black-and-white printer: USB connection
  – Color printer: USB connection
- Video Recording Units (Option)
  – DVD Video
- Electronic Filing
  – Hard disk drive
    · Built-in HDD (SATA)
    · External HDD (USB3.0)
    * UZHI-AI900A and USDB-AI900A are required.

    The HDDs should meet the following specifications:

Capacity:	500 GB to 6 TB
Speed:	7200 rpm or higher
Interface:	USB 3.0 (bus power)
External dimension:	117 (W) × 81 (D) × 22.5 (H) mm or less
Format:	The following windows® formats (read/write compatible) NTFS FAT32 (up to 2 TB)
Other:	Single partition

  – DVD/CD drive
  – USB flash drive
  – Network: DICOM connection
- Network Attached Storage (NAS)
  (USNA-AI900A is required.)
  Only NAS that satisfies the following specifications can be used:
  – Protocol: SMB2.0 or later
  – LAN port: 1000BASE-T or higher
  – Capacity: 12 TB or less

Security Function

- Security Control
  This system supports a function for recording the user's authorization and access log in order to protect personal information.
  – User authentication
  – Audit Log
  – De-identification (live image/ stored image)
- Antivirus
  Whitelist-based antivirus software is employed. The software permits only executable files registered in the whitelist to be executed, preventing execution of malware.

Maintenance Function

- Remote Maintenance (Option)
  This function makes it possible to remotely control the above systems for maintenance.

Image Format to Export

- Still: BMP/ JPEG
- Movie: WMV9/ H.264

Network
- Ethernet: 10BASE-T/ 100BASE-TX/ Gigabit Ethernet
- Network client system

Wireless Network
(UIWL-A500A is required or UIWL-AI900A is required.)
Wireless network connection is possible with this function.
- Standard
  – IEEE 802.11 b/g/n 2.4 GHz (UIWL-A500A, UIWL-AI900A)
  – IEEE 802.11 a/n/ac 5 GHz (UIWL-A500A)
- Security
  – WPA2-PSK [AES]
  – WPA2-Enterprise [AES] (conformed)
- Frequency
  – 2.4 GHz to 2.5 GHz CCK/OFDM modulation (UIWL-A500A, UIWL-AI900A)
  – 5 GHz OFDM, 802.11 n MCS0-7, 802.11 ac MCS0-9 code system (UIWL-A500A)

DICOM Function
- DICOM data type
  – US Image (still image)
  – US Multi Frame (dynamic image)
  – SC Image (storage in a separate file)
  – Enhanced US Volume (Volume data image)
  – Structured Report (measurement result information)
- Server connection
  – Storage (Server/Media)
  – MWM (Modality Worklist Management)
  – MPPS (Modality Performed Procedure Step)
- Storage function
  – Storage Commitment
  – Query/retrieve
- Standard conformity check function
  – Verification (export/import)
- Print function
  – DICOM Print

Signal I/O
- Transducer Connectors
  – Transducer connectors: 4
  – Pencil transducer connector: 1
- VCR Input/Output Signals
  – Audio output: L, R
  – Audio input: L, R
  – DVI signals for TCS
- External Video Output Signals
  – DVI
- Internal USB
  – 2.0 for printer: 2 ch
  – 2.0 for panel: 1 ch
- External USB
  5 USB ports (2 on the rear of the main unit, 2 on the front of the main unit (support of USB 3.0), and 1 on the monitor side)
- Ethernet
  10BASE-T/100BASE-TX/Gigabit Ethernet: 1 ch
- SATA
  – For connecting the built-in HDD: supporting 1 HDD
  – For connecting the built-in SSD: supporting 1 SSD
  – For DVD drive: 1 ch
- Footswitch (UZFS-004A is required.)
  3-switch footswitch
- Battery Mode (option) (UEBT-AA550A is required.)
  The system can be operated in battery mode if the power supply from the outlet is interrupted due to power failure etc.

Operating Conditions
Power Supply Requirements
- Line voltage
  – Japan 100 VAC ±10%
  – USA, Canada 120 VAC ±10%
  – Europe 220 to 240 VAC ±10%
  – Other 1 110 to 120 VAC ±10%
  – Other 2 220 to 240 VAC ±10%
- Line frequency 50/60 Hz ± 1 Hz
- Power capacity
  – Japan 1500 VA
  – USA, Canada 1440 VA
  – Europe 1500 VA
  – Other 1 1500 VA
  – Other 2 1500 VA

Environmental Conditions
- Operating conditions
  – Ambient temperature: 10°C to 35°C (20°C to 35°C when a 4D transducer is used)
  – Relative humidity: 35% to 80% (no condensation)
  – Atmospheric pressure: 700 hPa to 1060 hPa
- Storage conditions
  – Ambient temperature: -10°C to 50°C
  – Relative humidity: 30% to 90% (no condensation)
  – Atmospheric pressure: 700 hPa to 1060 hPa

Safety Classification
- According to the type of protection against electric shock: CLASS I or Internally Powered Equipment
- According to the degree of protection against electric shock: EQUIPMENT WITH TYPE-BF APPLIED PARTS (Transducer, ECG electrodes, PCG sensor, Pulse sensor)
- According to the degree of protection against harmful ingress of water: IPX0 (enclosed EQUIPMENT without protection against ingress of water)
  However, the footswitch is IPX8 and the transducers are IPX7 (excluding the connector part).
- According to the degree of safety of application in the

presence of a FLAMMABLE ANESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE: EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE

- According to the mode of operation: CONTINUOUS OPERATION
- Sterilization method
  - System main unit: Not suitable for sterilization.
  - Transducers: Sterilization methods are specified in the relevant operation manuals.

Conformance Standards

- Canada
  - General: CAN/CSA-C22.2 No. 60601-1: 14
  - Collateral: IEC 60601-1-2: 2014
    CAN/CSA-C22.2 NO. 60601-1-6A: 11
  - Particular: IEC 60601-2-37: 2007 + A1: 2015
- EU and other regions requiring compliance with European Directive 93/42/EEC and subsequent amendments
  - General: EN 60601-1: 2006 + A1: 2013
  - Collateral: EN 60601-1-2: 2015
  - Particular: EN 60601-2-37: 2008 + A1: 2015
- USA
  - General: AAMI ES 60601-1: 2005 + C1: 2009 + A2: 2010 + A1: 2012
  - Collateral: IEC 60601-1-2: 2014
    IEC 60601-1-6: 2010 + A1: 2013
  - Particular: IEC 60601-2-37: 2007 + A1: 2015
- Other regions requiring compliance with IEC 60601-1 Ed. 2
  - General: IEC 60601-1: 1988 + A1: 1991 + A2: 1995
  - Collateral: IEC 60601-1-1: 2000
    IEC 60601-1-2: 2001 + A1: 2004
    IEC 60601-1-4: 1996 + A1: 1999
  - Particular: IEC 60601-2-37: 2001 + A1: 2004 + A2: 2005
- Other regions requiring compliance with IEC 60601-1 Ed. 3
  - General: IEC 60601-1: 2005
  - Collateral: IEC 60601-1-2: 2007
  - Particular: IEC 60601-2-37: 2007
- Other regions requiring compliance with IEC 60601-1 Ed. 3.1
  - General: IEC 60601-1: 2005 + A1: 2012
  - Collateral: IEC 60601-1-2: 2007
  - Particular: IEC 60601-2-37: 2007 + A1: 2015

* The above standards are applicable to the ultrasound system at the time of purchase.
These standards continue to remain applicable even if the system configuration is changed as a result of using options in combination.
The standards of the ultrasound system are applicable to transducers.

DIMENSIONS, MASS, AND POWER CONSUMPTION

Unit	Model name	External dimensions mm (in)						Mass kg (lb) (approx.)		Power consumption (approx.)
		Width		Height		Depth				
Main unit	CUS-AA000	595[*1]	(23.5)	1188 to 1768	(46.8) to (69.6)	812 to 878	(31.9) to (34.6)	91	(200.6)	359 VA 28 VA[*2]
	CUS-AA000 elevated panel height model	595[*1]	(23.5)	1248 to 1,828	(49.1) to (71.9)	812 to 878	(31.9) to (34.6)	91	(200.6)	359 VA 28 VA[*2]
DVD video recorder	Sony HVO-550MD/FHD [NTSC/PAL]	212	(8.4)	105.5	(4.2)	287.7 (including the projection section)	(11.3)	3.2	(7.1)	43.2 W
B/W digital printer	Sony UP-D711MD/AC	140	(5.5)	70	(2.8)	125	(4.0)	1.0	(2.2)	72 VA (printing)
	Sony UP-D898MD	154	(6.1)	88	(3.5)	240	(9.4)	2.6	(5.7)	190 VA (printing)
	Mitsubishi P95DW, P95DE	154	(6.1)	84.5	(3.3)	239	(9.4)	2.6	(5.7)	190 VA (printing)
	Mitsubishi P95DW-DC	154	(6.1)	84.5	(3.3)	130	(5.1)	1.6	(3.5)	68 VA (printing)
Color digital printer	Mitsubishi CP30DW	212	(8.3)	125	(4.9)	425	(16.7)	7.3	(16.1)	180 VA (printing)
	Sony UP-D25MD	212	(8.3)	98	(3.9)	398	(15.7)	5.5	(12.1)	240 VA (printing)

*1: 533 mm when the provided transducer connector holder is removed. (Main unit only; monitor width not included.)
*2: In Standby mode with internal battery UEBT-AA550A.

MASS

Model name	Name of component	Mass [kg] (lb)
System main unit		
CUS-AA000	Aplio a	96 (211.6)
Options/Accessories for main unit		
UICW-AA000A	CW unit	1.1 (2.4)
UJUR-AA000A	Reference Signal unit	2.2 (4.8)
UJUR-AI900A	Reference Signal Cable kit	0.3 (0.7)
UJUR-AI901A	Reference Signal Cable kit	0.1 (0.2)
UJUR-AI902A	Reference Signal Sensor unit	0.4 (0.9)
USSE-AI900A	Stress Echo kit	0.1 (0.2)
USWT-AI900A	2D Wall Motion Tracking kit	0.1 (0.2)
USWT-AI904A	2D Wall Motion Tracking Fetal kit	0.1 (0.2)
USEF-AI600A	Auto EF Measurement kit	0.1 (0.2)
USWN-AA550A	Workflow Navigator kit	0.1(0.2)
USQM-AI900A	Measurement Assistant kit	0.1(0.2)
UIPC-AA550A	Pencil Connector unit	0.3 (0.7)
UAEH-AI900A	M-TEE hanger kit	1.5 (3.3)
UAEH-AI901A	TEE hanger kit	1.2 (2.6)
UIST-AI900A	STC kit	0.1 (0.2)
UACV-AA000A	CV kit	1.0 (2.2)
USFP-AI900A	Smart Fetal Heart kit	0.1 (0.2)
USZS-AI900A	Measurement Z score kit	0.1 (0.2)
USSI-AA550A	Smart Area Indication OB kit	0.1(0.2)
USFH-AI600A	Fetal Heart MPI Measurement kit	0.1 (0.2)
USHI-AA550A	CHI kit	0.1 (0.2)
USCQ-AI900A	CHI-Q kit	0.1 (0.2)
USCQ-AI901A	Fitting Curve kit	0.1 (0.2)
USEL-AA551A	Elastography-FLR kit	0.1 (0.2)
USEL-AA550A	Elastography kit	0.1 (0.2)
USSW-AA550A	Shear wave kit	0.1 (0.2)
USSW-AA551A	Shear wave Hard kit	0.1(0.2)
USFN-AA550A	Smart Fusion kit	0.1 (0.2)
USSN-AI600A	Smart Navigation kit	0.1 (0.2)
UIFR-AA550A	Magnetic Generator kit	15.0 (33.0)
UIFR-A501A	Sensor kit for Fusion unit	0.1 (0.2)
USFN-AI901A	Auto Registration kit	0.1 (0.2)
UZWT-A500A	Fusion Pole Cart	26 (57.3)
UAFS-001A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-002A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-003A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-004A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-005A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-006A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-007A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-008A	Mounting kit for fusion sensor	0.1 (0.2)
UAFS-009A	Mounting kit for fusion sensor	0.1 (0.2)

Model name	Name of component	Mass [kg] (lb)
UAFS-010A	Mounting kit for fusion sensor	0.1 (0.2)
USMV-AI900A	4D kit	0.1 (0.2)
USLM-AI900A	Luminance kit	0.1 (0.2)
USSG-AI900A	Shadow Glass kit	0.1 (0.2)
USOB-AI900A	Auto Volume Measurement kit	0.1 (0.2)
USPF-AI900A	3D printer format export kit	0.1 (0.2)
USMI-AI600A	Superb Micro Vascular Imaging kit	0.1 (0.2)
USSS-AI900A	Smart Sensor 3D kit	0.1 (0.2)
USMP-AI900A	MicroPure kit	0.1 (0.2)
USPV-AI900A	Panoramic View kit	0.1 (0.2)
USRC-AI900A	Multi-Reflection Canceller kit	0.1 (0.2)
USAT-AI900A	Attenuation Imaging kit	0.1 (0.2)
USLP-AA550A	Liver Package Basic kit	0.1 (0.2)
USLD-AI900A	Doppler Luminance kit	0.1 (0.2)
USGI-AA550A	General Imaging kit	0.1 (0.2)
UZRI-AI900A	Mounting kit for peripheral unit	1.1 (2.4)
UZRI-AI902A	Mounting kit for peripheral unit	3.1 (6.8)
UZRI-AA550A	Mounting kit for peripheral unit	2.8 (6.2)
UZRI-AA551A	Mounting kit for peripheral unit	4.5 (9.9)
UZRI-AA000A	Mounting kit for Peripheral units	2.4 (5.3)
UZFS-004A	Footswitch	0.6 (1.3)
UZGW-008A	Gel warmer	1.0 (2.2)
UZMK-AI900A	Transducer cable hanger kit	0.9 (2.0)
UZBK-AI900A	Transducer Holder kit	0.3 (0.7)
UIWL-A500A	Wireless LAN kit	0.5 (1.1)
UIWL-AI900A	Wireless LAN kit	0.5 (1.1)
UZPH-AI900A	EV/ER Transducer Holder kit	1.6 (3.5)
UZPH-AA000A	Transducer Holder kit (left)	0.8 (1.8)
UIKB-AI900A	Keyboard kit	1.1 (2.4)
UZKF-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKG-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKI-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKS-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKD-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKN-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKW-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKR-AI900A	Local Language Key-Top kit	0.5 (1.1)
UIOM-001A	OLED Monitor unit	4.1 (9.0)
UIVP-AA550A	VIDEO unit	1.23 (2.7)
USDB-AI900A	DataBase for External HDD kit	0.1 (0.2)
UZHI-AI900A	Mounting kit for External HDD kit	1.0 (2.2)
UZMK-AI901A	ECG Cable Hanger kit	0.1 (0.2)
UIUB-AI900A	Panel USB Port kit	0.1 (0.2)
UEBT-AA550A	Battery unit	13 (28.7)
UZTB-AI900A	Track Ball kit	0.2 (0.4)

Model name	Name of component	Mass [kg] (lb)
UZPT-001A	Palm Controller kit	0.2 (0.4)
UITP-AA550A	Tilt panel kit	1.5 (3.3)
UIMS-AA550A	Dynamic Micro Slice unit	4.3 (9.5)
USMS-AA550A	Dynamic Micro Slice kit	0.1 (0.2)
USHE-AI900A	Online Help kit	0.1 (0.2)
USPA-AI900A	Protocol Assistant kit	0.1 (0.2)
USPA-AI901A	MSK Protocol Movie kit	0.1(0.2)
USDL-AI900A	Multi Parametric Report kit	0.1 (0.2)
USSM-AI900A	Security Management kit	0.1 (0.2)
USRA-AI900A	RADS kit	0.1 (0.2)
USIO-AI900A	IOTA kit	0.1(0.2)
USNA-AI900A	Network Storage kit	0.1(0.2)
USTR-AI900A	Tricefy Access kit	0.1(0.2)
UIAG-001A	ApliGate kit	0.1 (0.2)
USAG-001A	ApliGate Soft kit	0.1 (0.2)
USRI-AI600A	Reference Imaging kit	0.1 (0.2)
USMB-AI900A	Breast Scan Guide kit	1.0 (2.2)
USSB-AI900A	Smart Body Mark kit	0.1(0.2)
UIBP-AA550A	Breast Package kit	15.0 (33.1)
USBP-AA550A	Breast Package Soft kit	0.1 (0.2)
USPS-AA000A	Transducer connector	0.1 (0.2)
USAO-AA000A	Advanced Software kit	2.1 (4.6)
USPO-AA000A	Premium Software kit	2.1 (4.6)
HVO-550MD/ FDH	DVD video recorder	3.2 (7.1)
UP-D711MD/AC	B/W printer	1.0 (2.2)
UP-D898MD	B/W printer	2.6 (5.7)
P95DW	B/W printer	2.6 (5.7)
P95DW-DC	B/W printer	1.6 (3.5)
CP30DW	Color printer	7.3 (16.1)
UP-D25MD	Color printer	5.5 (12.1)
Transducers		
PSI-70BT	Phased array transducer	0.65 (1.4)
PST-25BT	Phased array transducer	0.8 (1.8)
PST-28BT	Phased array transducer	0.67 (1.5)
PST-30BT	Phased array transducer	0.8 (1.8)
PST-50BT	Phased array transducer	0.8 (1.8)
PST-65BT	Phased array transducer	0.73 (1.61)
PVT-350BTP	Convex array biopsy transducer	0.95 (2.1)
PVT-375BT	Convex array transducer	0.95 (2.1)

Model name	Name of component	Mass [kg] (lb)
PVT-375SC	Convex array transducer	0.95 (2.1)
PVT-382BT	Convex array transducer	0.8 (1.8)
PVT-475BT	Convex array transducer	0.8 (1.8)
PVT-482BT	Convex array transducer	0.75 (1.7)
PVT-574BT	Convex array transducer	0.75 (1.7)
PVT-674BT	Convex array transducer	0.9 (2.0)
PVT-675MVL	Convex array transducer	1.1 (2.4)
PVT-675MVS	Convex array transducer	1.05 (2.3)
PVT-681MVL	Endocavitary transducer	1.15 (2.5)
PVT-712BT	Convex array transducer	0.8 (1.8)
PVT-745BTF	Convex array transducer	0.8 (1.8)
PVT-745BTH	Convex array transducer	0.8 (1.8)
PVT-745BTV	Convex array transducer	0.78 (1.7)
PVT-770RT	Endocavitary transducer	2.0 (4.4)
PVT-781VT	Endocavitary transducer	0.97 (2.1)
PVT-781VTE	Endocavitary transducer	0.97 (2.1)
PVL-715RST	Endocavitary transducer	1.04 (2.3)
PLT-308BTP	Linear array biopsy transducer	0.8 (1.8)
PLT-704SBT	Linear array transducer	0.9 (2.0)
PLT-705BT	Linear array transducer	0.85 (1.9)
PLT-705BTF	Linear array transducer	0.78 (1.7)
PLT-705BTH	Linear array transducer	0.78 (1.7)
PLT-1005BT	Linear array transducer	0.85 (1.9)
PLT-1202BT	Linear array transducer	0.75 (1.7)
PLT-1204BT	Linear array transducer	0.85 (1.9)
PLT-1204BX	Linear array transducer	0.92 (2.0)
PET-508MA	Multi-plane transesophageal transducer	1.2 (2.6)
PET-609MA	Multi-plane transesophageal transducer	1.3 (2.87)
PET-512MA	Multi-plane transesophageal transducer	1.32 (2.9)
PET-512MB	Multi-plane transesophageal transducer	1.44 (3.2)
PET-512MC	Multi-plane transesophageal transducer	1.6 (3.5)
PET-512MD	Multi-plane transesophageal transducer	1.5 (3.3)
PET-805LA	Linear array transducer	1.17 (2.6)
PC-20M	CW Doppler pencil transducer	0.085 (0.2)
PC-50M	CW Doppler pencil transducer	0.08 (0.2)

CANON MEDICAL SYSTEMS CORPORATION
1385, Shimoishigami, Otawara-shi, Tochigi 324-8550, Japan
https://global.medical.canon

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