

Product Data
No. MPDUS0085EAP

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 high throughput.



Ergonomics

The system employs a non-interlace high-definition monitor with excellent viewing 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.

SYSTEM MATRIX OF CUS-AA000

Unit	Model name	Remarks	Note
Main unit	CUS-AA000 Aplio a	21.5-inch or 23-inch wide LCD monitor, DVD/CD drive, Precision Imaging, D-THI, ApliPure+, TSO (Tissue Specific Optimization), Trapezoid Scan, Quick Scan, ADF (Advanced Dynamic Flow), DICOM®, Smart 3D, Software full keyboard, Vascularity Index, BEAM (Biopsy Enhancement Auto Mode), Full Focus, AppLocker® Security Management, Auto E/A, Auto IMT, Auto BPD/HC/AC/FL and Transducer connector holder are included.	-

<Options for main unit>

Unit	Model name	Remarks	Main unit		Note
			CUS-AA000	WH Model	
CW kit	UICW-AA000A	Software and hardware which enable Steering CWD (continuous-wave Doppler). Software license is required.	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 (Electrocardiogram), 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 (Phonocardiogram) and Pulse sensor. (UJUR-AA000A is required.)	OP.	OP.	-
Stress Echo kit	USSE-AI900A/7D, USSE-AI900A/7L	Adds cardiac stress examination function to the system. (UJUR-AA000A is required.)	OP.	OP.	-
2D Wall Motion Tracking kit	USWT-AI900A, USWT-AI900A/EL	Adds cardiac wall motion analysis function to the system. (UJUR-AA000A is required.)	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.)	*1	OP.	-
Auto EF Measurement kit	USEF-AI600A, USEF-AI600A /EL	Software to enable Auto EF LV (left ventricular function). (UJUR-AA000A is required.)	OP.	OP.	-
Workflow Navigator kit	USWN-AA550A, USWN-AA550A/EL	This kit activates automatically and indicates the next procedure based on the ASE guideline after 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 EF LA (left atrial volume) (Auto EF LA. requires USEF-AI600A), Auto TR, Auto LVOT, Auto Ao. Not available in the USA and Canada. (UJUR-AA000A is required.)	OP.	OP.	-
Auto GLS kit	USWT-AI907A, USWT-AI907A/EL	Enables easy full LV assessment including bull's eye, Auto EF and GLS (Quick Strain). (USWT-AI900A is required.)	OP.	OP.	-
Contrast Enhance kit	USCT-AI900A, USCT-AI900A/EL	Enables the examiner to improve visibility of the cavities and thus the delineation of the myocardium (Clarity).	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 control on the operating panel. Using 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 and a CV sticker.	OP.	N/A	-
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)	*1	OP.	-
Measurement Z score kit	USZS-AI900A, USZS-AI900A/EL	This kit enables Z-score analysis for the measurement results.	OP.	OP.	-

*1: Advanced Software kit or Premium Software kit is required.

*2: The Mounting kit for Fusion Sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A.

*3: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit UISN-A500A and Smart Fusion kit USFN-AA550A are required.

*4: Some options are required in addition to UIFR-AA550A.

*5: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFNAA550A are required.

*6: Premium Software kit is required.

*7: 4D kit USMV-AI900A or Smart Sensor 3D kit USSS-AI900A is required.

*8: Option for WH model.

*9: 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.

*10: Only available in the CE marking regions and Malaysia.

Unit	Model name	Remarks	Main unit		Note
			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 MPI (Myocardial Performance Index). The MPI value can be calculated from the time change curve in TDI (Tissue Doppler Imaging).	*1	*1	-
CHI kit	USHI-AA550A, USHI-AA550A/EL	Adds Contrast Imaging function to the system.	*1	*1	-
CHI-Q kit	USCQ-AI900A, USCQ-AI900A/EL	Adds TCA (Time Curve Analysis) 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 with Strain ratio measurement 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.*2	*1	*1	-
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.*3	*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 adapters and magnetic sensors are provided (one set for the PVT-375BT or PVT-375SC, and one set for the PVT-475BT).	*1	*1	-
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.*4	*1	*1	-
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.*5	*1	*1	-
Auto Track CT kit	610-1228	CIVCO omniTRAX™ Active Patient Tracker. Should be purchased directly from CIVCO or its distributors.	formerly UIOT-AI900A	*1	*1
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributors.			
Auto Track MR kit	610-1306	CIVCO omniTRAX MR Active Patient Tracker. Should be purchased directly from CIVCO or its distributors.	formerly UIOT-AI901A	*1	*1
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributors.			
Fusion Pole Cart	UZWT-A500A	This pole cart allows the magnetic field generator included in the system main unit to be positioned independently.	*1	*1	-
Mounting kit for Fusion Sensor	UAFS-001A	For PVT-382BT / PVT-482BT.*4	*1	*1	-
	UAFS-002A	For PVT-350BTP.*4	*1	*1	
	UAFS-003A	For PVT-781VT.*4	*1	*1	
	UAFS-004A	For PLT-1005BT.*4	*1	*1	
	UAFS-005A	For PVL-715RST.*4	*1	*1	
	UAFS-006A	For PVT-781VTE.*4	*1	*1	
	UAFS-007A	For PVT-475BT. One of this kit is included in UIFR-AA550.*4	*1	*1	
	UAFS-008A	For PVT-574BT.*4	*1	*1	
	UAFS-009A	For PST-28BT.*4	*1	*1	
	UAFS-010A	For PLT-1202BT / PLI-2002BT.*4	*1	*1	

*1: Advanced Software kit or Premium Software kit is required.

*2: The Mounting kit for Fusion Sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A.

*3: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit UISN-A500A and Smart Fusion kit USFN-AA550A are required.

*4: Some options are required in addition to UIFR-AA550A.

*5: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFNAA550A are required.

*6: Premium Software kit is required.

*7: 4D kit USMV-AI900A or Smart Sensor 3D kit USSS-AI900A is required.

*8: Option for WH model.

*9: 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.

*10: Only available in the CE marking regions and Malaysia.

Unit	Model name	Remarks	Main unit		Note	
			CUS-AA000	WH Model		
Smart Navigation Sensor kit	610-1059	CIVCO VirtuTRAX™ Instrument Navigator. Should be purchased directly from CIVCO or its distributors.	formerly UISN-A500A	*6	*6	-
	610-1066	CIVCO General Purpose Electromagnetic Sensor. Should be purchased directly from CIVCO or its distributors.				
4D kit	USMV-AI900A, USMV-AI900A/EL	This kit is required for using the 4D transducers or the motor-driven TEE transducers. Pre-installed in WH model.	*1	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.	*1, *7	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 (Superb Micro-vascular Imaging)) is also possible. Premium Software kit is not needed in WH model.	*6, *7	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, e.g., antral follicle count.	*7	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.	*7	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 positional information acquired using the magnetic sensor.*4	*1	*1	-	
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 a 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.	*1	*1	-	
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.	-	
Urology Package	UIUP-AA550A	UIFR-AA550A, UAFS-005A (USUP-AA550A is required.)	Op.	Op.	V6.0 or later	
	USUP-AA550A, USUP-AA550A/EL	USFN-AA550A, USFN-AI901A, USHI-AA550A, USSW-AA550A, USMI-AI600A, USAO-AA000A (UIUP-AA550A is required.)	Op.	Op.		
Neo Package	UINP-AA000A	For USA and Canada: UICW-AA000A, UJUR-AA000A, UJUR-AI901A Except for USA and Canada: UICW-AA000A, UJUR-AA000A, UJUR-AI900A (USNP-AA550A is required.)	Op.	Op.	V6.0 or later	
	USNP-AA000A, USNP-AA000A/EL	USMI-AI600A, USPA-AI900A (UINP-AA550A is required.)	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.	*8	OP.	-	
Ultra High Freq kit	USUH-AA550A, USUH-AA550A/EL	This kit enables to use ultra high frequency transducer, PLI-2002BT.	OP.	OP.	-	
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.*9	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.	-	

*1: Advanced Software kit or Premium Software kit is required.

*2: The Mounting kit for Fusion Sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A.

*3: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit UISN-A500A and Smart Fusion kit USFN-AA550A are required.

*4: Some options are required in addition to UIFR-AA550A.

*5: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFNAA550A are required.

*6: Premium Software kit is required.

*7: 4D kit USMV-AI900A or Smart Sensor 3D kit USSS-AI900A is required.

*8: Option for WH model.

*9: 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.

*10: Only available in the CE marking regions and Malaysia.

Unit	Model name	Remarks	Main unit		Note
			CUS-AA000	WH Model	
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. Complies 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, 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 to change 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)				
	UZKP-AI900A (Portuguese)				
	UZKH-AI900A (Hungarian)				V6.2 or later
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.	–
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 user response 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	UIPT-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.	–

*1: Advanced Software kit or Premium Software kit is required.

*2: The Mounting kit for Fusion Sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A.

*3: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit UISN-A500A and Smart Fusion kit USFN-AA550A are required.

*4: Some options are required in addition to UIFR-AA550A.

*5: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFNAA550A are required.

*6: Premium Software kit is required.

*7: 4D kit USMV-AI900A or Smart Sensor 3D kit USSS-AI900A is required.

*8: Option for WH model.

*9: 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.

*10: Only available in the CE marking regions and Malaysia.

Unit	Model name	Remarks	Main unit		Note
			CUS-AA000	WH Model	
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 demonstration movie by Dr Inigo Iriate, Professor of Ultrasound of the Spanish Society of Rehabilitation & Physical Medicine which demonstrates practical scanning and the anatomy of the shoulder for the purposes of 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.*10	OP.	OP.	-
Network Storage kit	USNA-AI900A, USNA-AI900A/EL	This kit enables large capacity RAW data management with NAS (Network Attached Storage) which is commercially available. (NAS itself is not included.)	OP.	OP.	-
Tricefy Access kit	USTR-AI900A, USTR-AI900A/EL	This kit enables to access 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.	-
ApliCam kit	USWC-AI900A, USWC-AI900A/EL	Video clip captured by the camera which is connected to the main unit can be displayed on the screen as picture-in-picture.	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 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 when in reference mode. Reference Image kit (USRI-AI600A) is required.	*6	*6	-
Smart Body Mark kit	USSB-AI900A, USSB-AI900A/EL	This kit automatically traces and displays the anatomical position of the transducer mark based on the transducer position using a magnetic sensor. (UIFR-AA550A is required.)	OP.	OP.	-
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.	-

*1: Advanced Software kit or Premium Software kit is required.

*2: The Mounting kit for Fusion Sensor supporting the transducer used, Magnetic Generator kit UIFR-AA550A.

*3: Magnetic Generator kit UIFR-AA550A, Smart Navigation Sensor kit UISN-A500A and Smart Fusion kit USFN-AA550A are required.

*4: Some options are required in addition to UIFR-AA550A.

*5: Magnetic Generator kit UIFR-AA550A and Smart Fusion kit USFNAA550A are required.

*6: Premium Software kit is required.

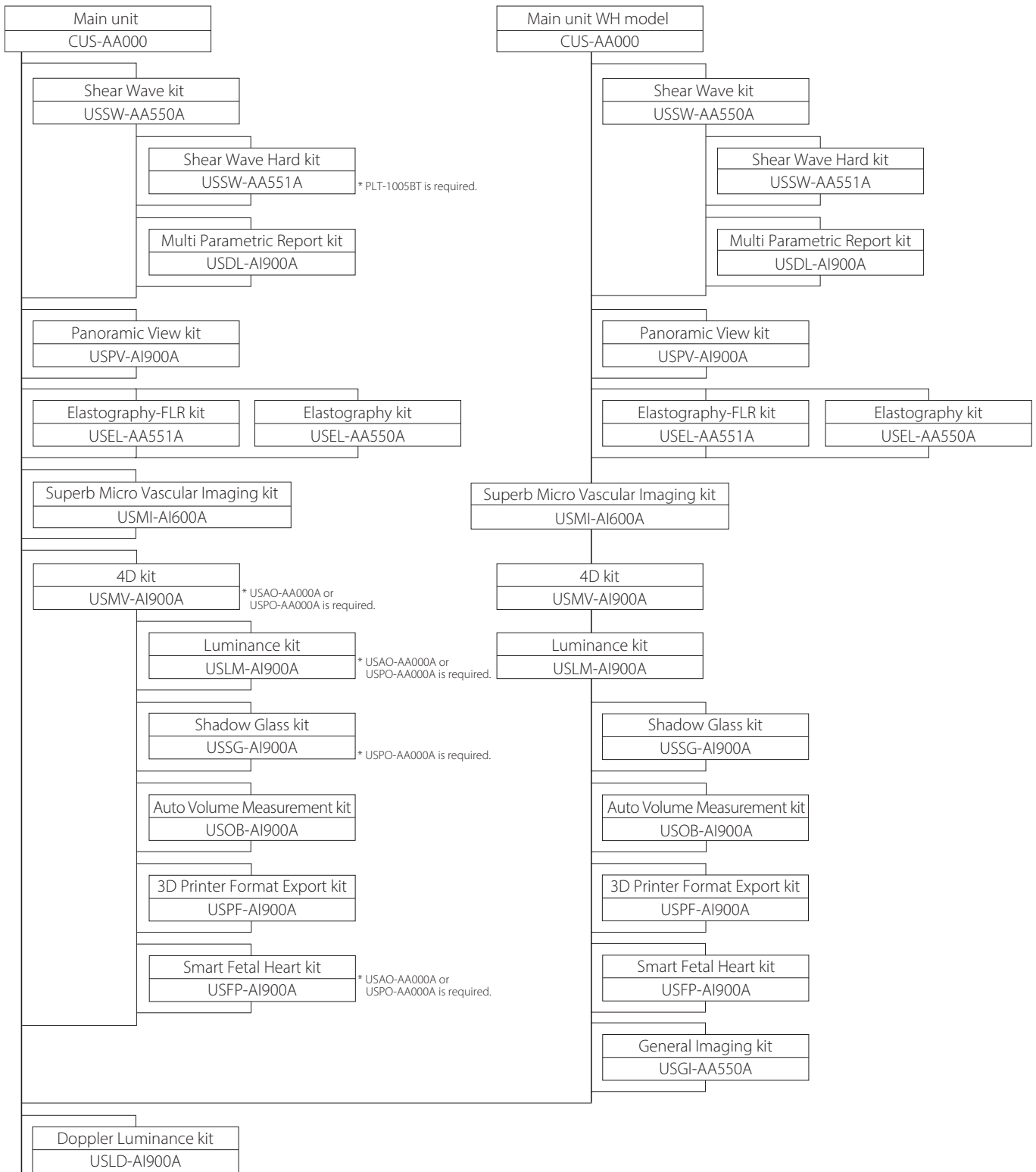
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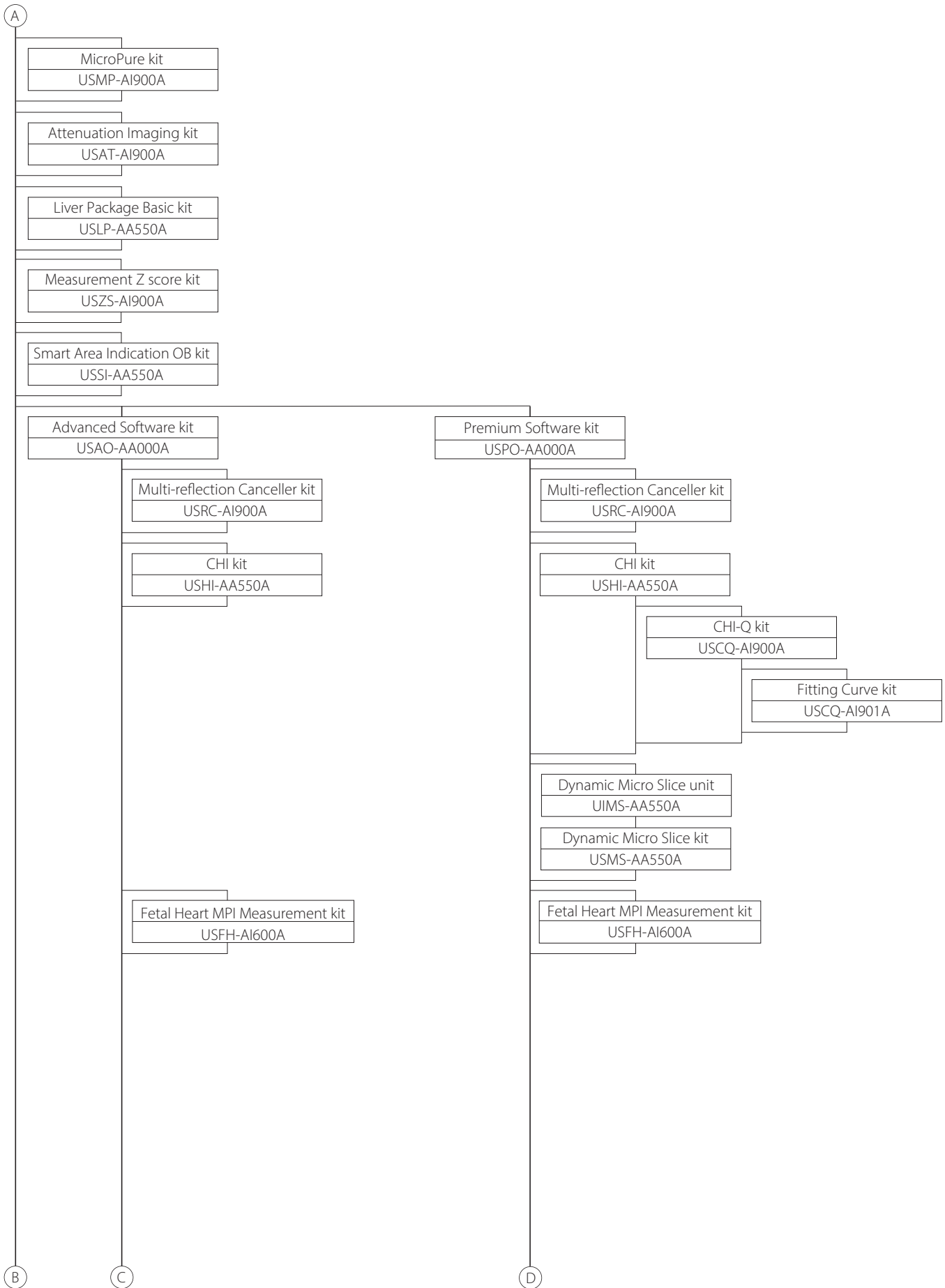
*8: Option for WH model.

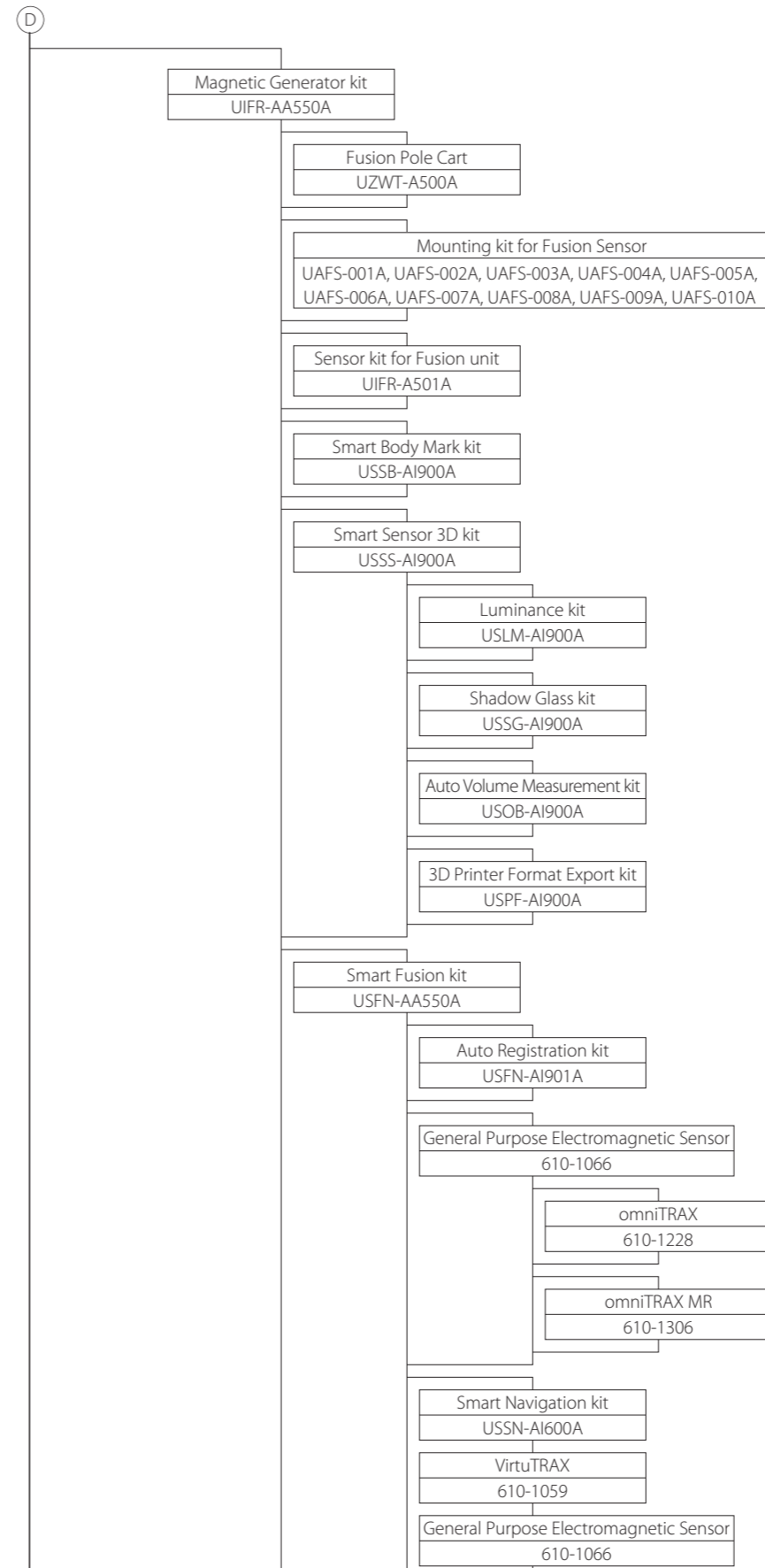
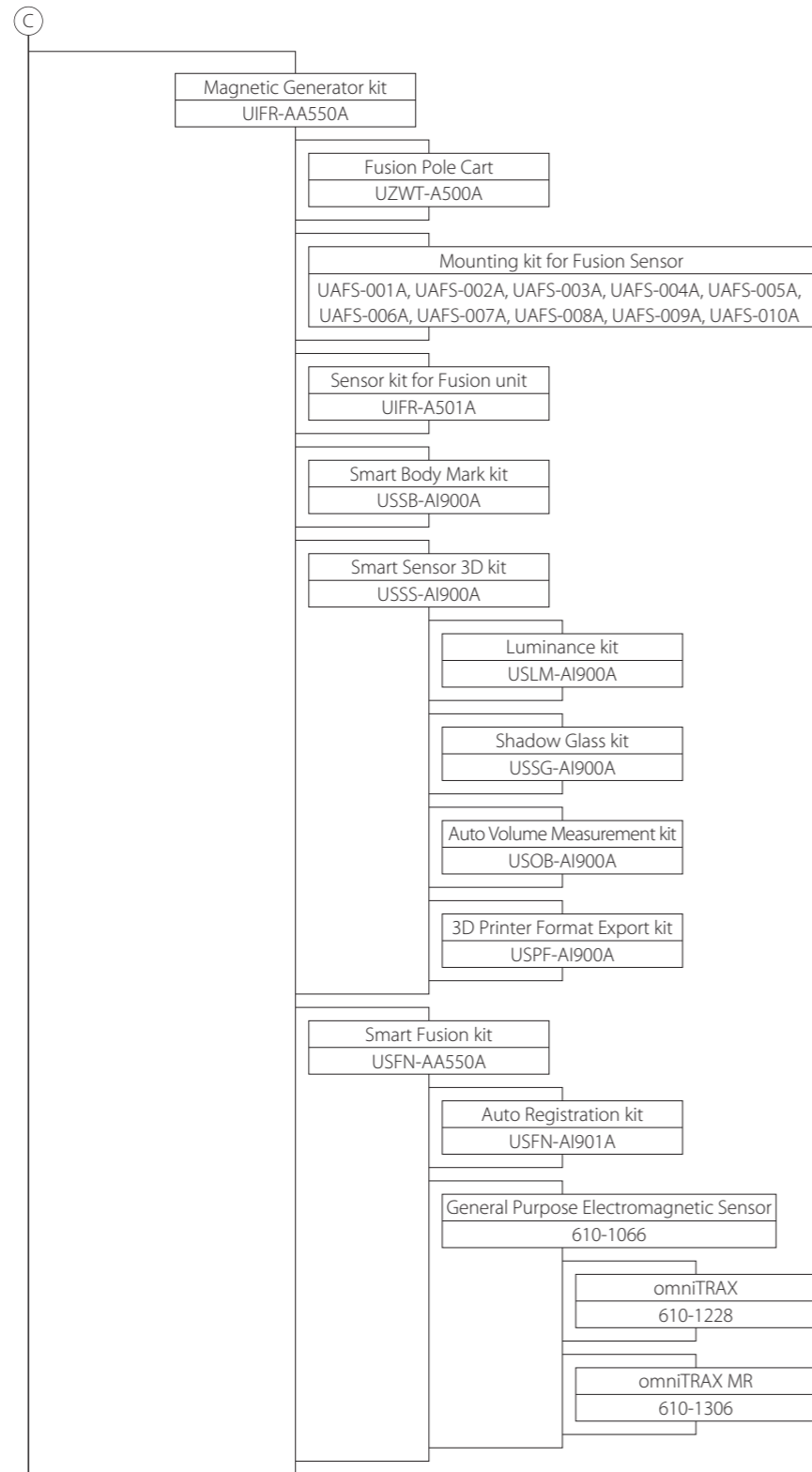
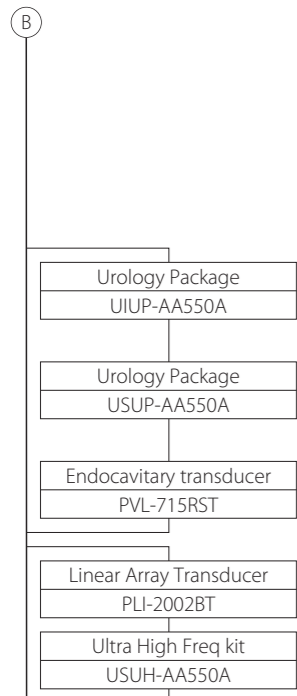
*9: The black-and-white digital printer P95DW-DC cannot be installed at the rear of the system if the Mounting kit for external HDD UZHI-AI900A is installed.

*10: Only available in the CE marking regions and Malaysia.

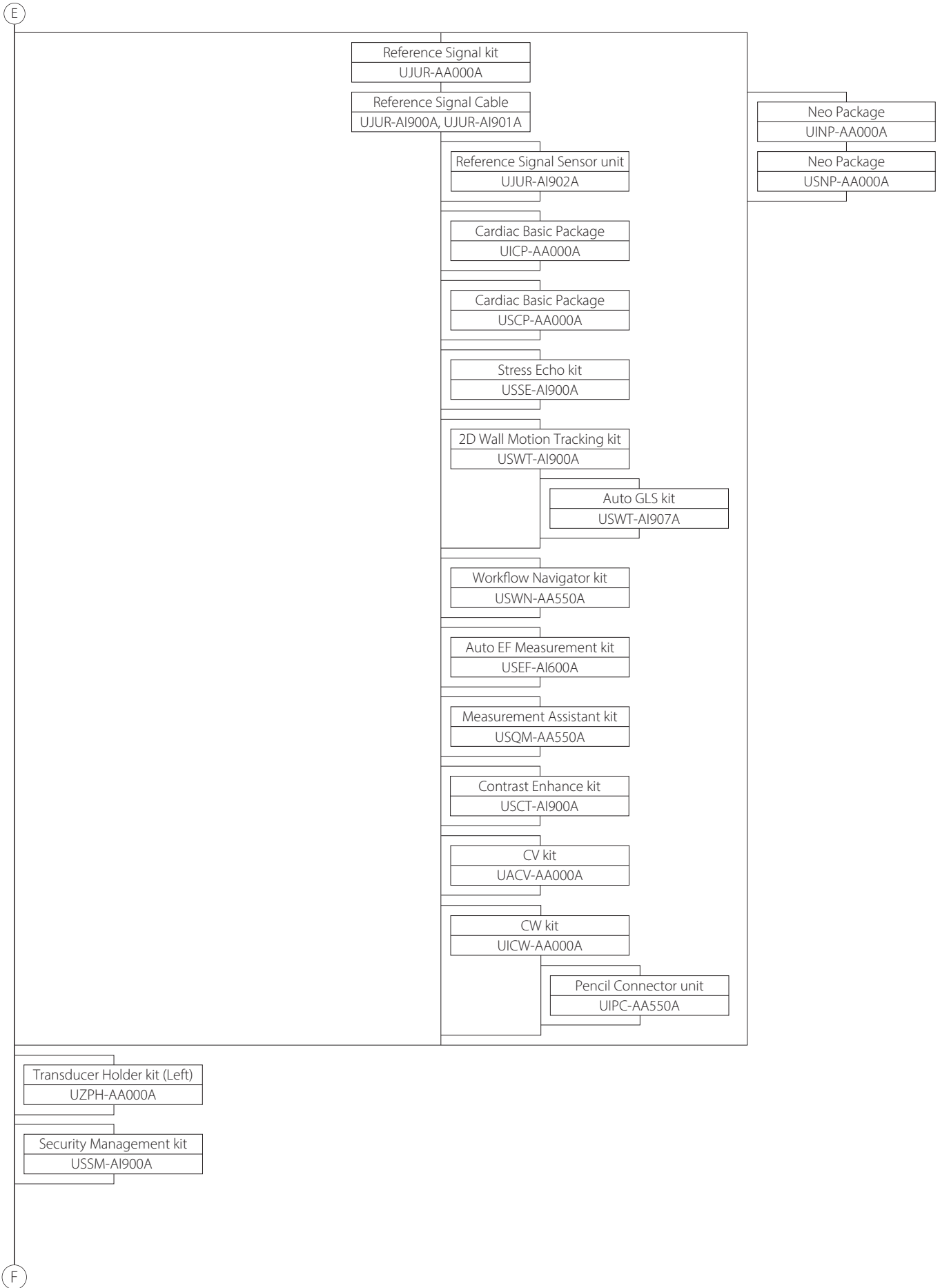
BLOCK CHART SYSTEMS

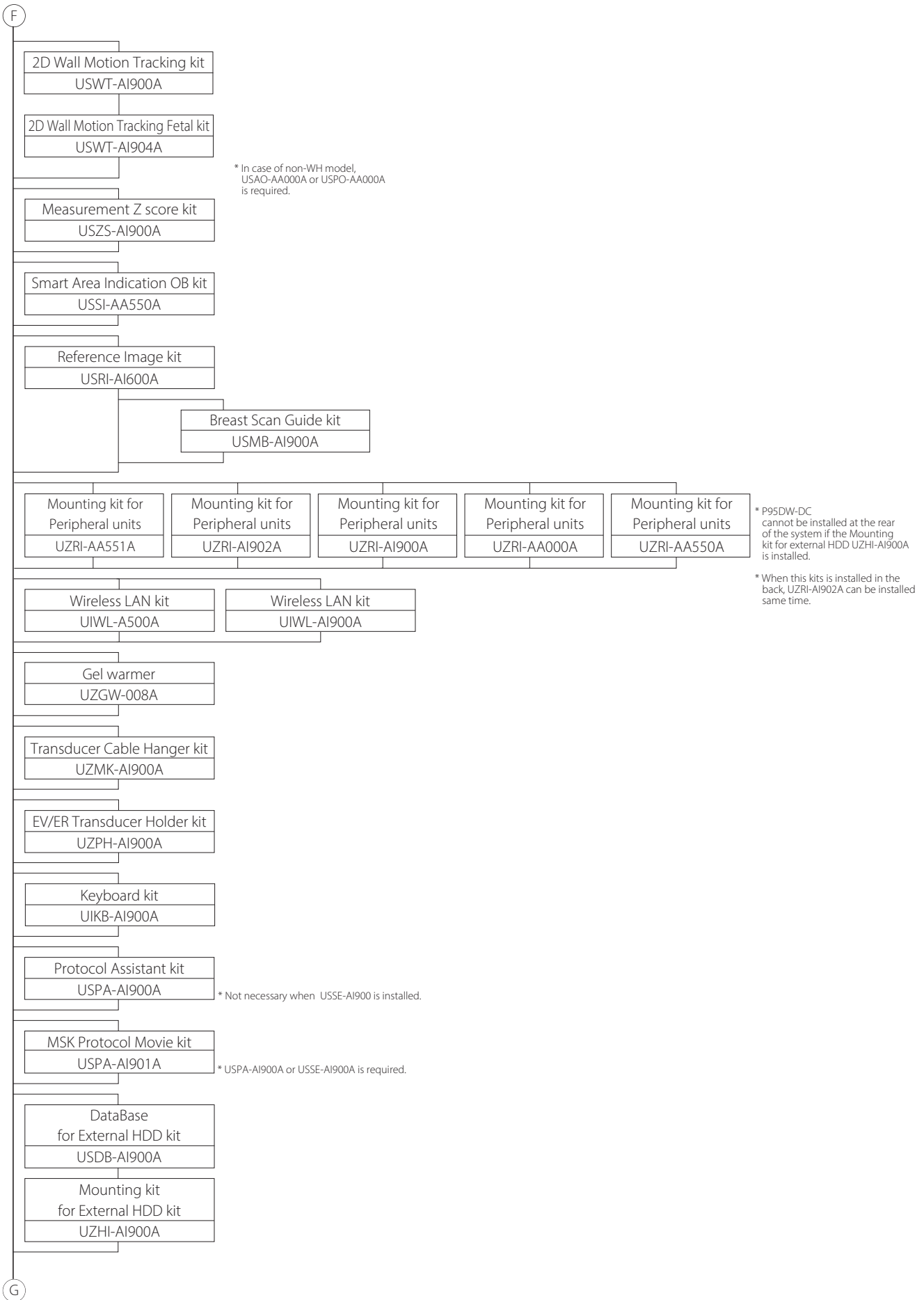






E





G

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

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

Tricify Access kit

USTR-AI900A

ApliGate kit

UIAG-001A

ApliGate Soft kit

USAG-001A

ApliCam kit

USWC-AI900A

TRANSDUCER OPTIONS/OPERATION MODES

Model name	Number of elements	Label	Freq. (MHz)	Displayed range of frequency (MHz)	2D	Precision Imaging	ApliPure	Ultra Wide View	Micro Pure*1	BEAM	M	
PSI-70BT	128	i10S4	7.0	3.5~9.0	✓	✓	–	–	–	–	✓	
PST-25BT	90	5S1	2.5	1.7~4.7	✓	✓	–	–	–	–	✓	
PST-28BT	96	6S1	3.0	1.5~6.0	✓	✓	–	–	–	–	✓	
PST-30BT	96	5S2	3.0	1.7~5.2	✓	✓	–	–	–	–	✓	
PST-50BT	96	6S3	5.0	3.0~8.2	✓	✓	–	–	–	–	✓	
PST-65BT	128	12S4	7.0	3.5~12.0	✓	✓	–	–	–	–	✓	
PVT-350BTP	160	6CP1	3.5	2.0~4.5	✓	✓	✓	–	–	–	✓	
PVT-375BT	160	6C1	3.5	1.5~6.1	✓	✓	✓	–	–	–	✓	
PVT-375SC	160	6Cs1	3.5	1.5~6.0	✓	✓	✓	–	–	–	✓	
PVT-382BT	128	6MC1	3.5	2.0~5.0	✓	✓	✓	–	–	–	✓	
PVT-475BT	192	8C1	4.0	1.8~6.4	✓	✓	✓	✓	–	–	✓	
PVT-482BT	160	8MC1	4.0	1.8~6.0	✓	✓	✓	–	–	–	✓	
PVT-574BT	192	10C1	5.0	2.0~9.7	✓	✓	✓	✓	–	–	✓	
PVT-674BT	192	10C3	6.0	3.5~9.7	✓	✓	✓	–	–	–	✓	
PVT-675MVL	192	9CV2	6.0	2.5~7.0	✓	✓	✓	–	–	–	✓	
PVT-675MVS	192	9CV2	6.0	2.5~7.5	✓	✓	✓	✓	–	–	✓	
PVT-681MVL	192	11CV3	6.0	3.6~11.0	✓	✓	✓	–	–	–	✓	
PVT-712BT	128	11MC4	7.0	4.3~11.0	✓	✓	✓	–	–	–	✓	
PVT-745BTF	128	11C14	7.0	3.0~10.0	✓	✓	✓	–	–	–	✓	
PVT-745BTH	128	11C14	7.0	3.0~10.0	✓	✓	✓	–	–	–	✓	
PVT-745BTV	128	11C14	7.0	3.2~10.0	✓	✓	✓	–	–	–	✓	
PVT-770RT	128	10C5	7.0	4.7~10.0	✓	✓	✓	–	–	–	✓	
PVT-781VT	150	11C3	7.0	3.6~10.5	✓	✓	✓	–	–	–	✓	
PVT-781VTE	150	11C3	7.0	3.6~10.5	✓	✓	✓	–	–	–	✓	
PVL-715RST	Convex	128	11CL4	7.5	4.5~9.0	✓	✓	✓	–	–	–	✓
	Linear			7.5	4.5~9.0	✓	✓	✓	–	–	–	–
PLT-308BTP	128	6LP3	3.75	2.0~5.5	✓	✓	✓	–	–	–	✓	
PLT-704SBT	192	11L4	7.5	4.0~10.0	✓	✓	✓	–	–	✓	✓	
PLT-705BT	192	11L3	7.0	3.0~8.5	✓	✓	✓	–	–	✓	✓	
PLT-705BTF	192	11L4	7.0	3.8~8.4	✓	✓	✓	–	–	–	✓	
PLT-705BTH	192	11L4	7.0	3.8~8.4	✓	✓	✓	–	–	–	✓	
PLT-1005BT	192	14L5	10.0	4.2~14.0	✓	✓	✓	–	✓	✓	✓	
PLT-1202BT	128	17LH7	12.0	4.5~17.0	✓	✓	✓	–	–	–	✓	
PLT-1204BT	192	18L7	12.0	4.5~18.0	✓	✓	✓	–	✓	✓	✓	
PLT-1204BX	–	18LX7	12.0	4.5~18.0	✓	✓	✓	–	✓	✓	✓	
PLI-2002BT	160	i22LH8	20.0	8.8~22	✓	✓	✓	–	–	–	✓	
PET-508MA	48	7S3	5.0	2.5~7.0	✓	✓	–	–	–	–	✓	
PET-609MA	32	8S3	6.0	3.6~7.5	✓	✓	–	–	–	–	✓	
PET-512MA	64	8S2	5.0	3.0~6.5	✓	✓	–	–	–	–	✓	
PET-512MB	64	8S2	5.0	2.2~8.5	✓	✓	–	–	–	–	✓	
PET-512MC	64	8SM2	5.0	3.0~6.5	✓	✓	–	–	–	–	✓	
PET-512MD	64	8SM2	5.0	3.0~8.5	✓	✓	–	–	–	–	✓	
PET-805LA	128	12L14	8.0	3.5~9.0	✓	✓	✓	–	–	–	✓	
PET-835LA	–	12C14	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: Using Single Crystal technology.

*3: USMS-AA550A and UIMS-AA550A are required.

*4: Not available in the USA and Canada.

*5: Optional software USMV-AI900A is required.

*6 UICW-AA000A is required.

*7: Not available in the USA.

*8: Depends on the preset.

*9: UICW-AA000A and UIPC-AA550A are required.

*10: USUH-AA550A is required.

TRANSDUCER OPTIONS/OPERATION MODES

Model name	CDI	Power	TDI	Elasto- graphy*1	SMI*1 /ADF	Shear Wave*1	ATI	PWD	CWD*6	CHI*1				
										2D	SMI*1	ADF	MFI	VRI
PSI-70BT	✓	✓	✓	-	✓	-	-	✓	✓	✓	-	-	✓	-
PST-25BT	✓	✓	✓	-	✓	-	-	✓	✓	-	-	-	-	-
PST-28BT	✓	✓	✓	-	✓	-	-	✓	✓	✓	-	-	✓	-
PST-30BT	✓	✓	✓	-	✓	-	-	✓	✓	✓	-	-	✓	-
PST-50BT	✓	✓	✓	-	✓	-	-	✓	✓	-	-	-	-	-
PST-65BT	✓	✓	✓	-	-	-	-	✓	✓	-	-	-	-	-
PVT-350BTP	✓	✓	-	-	✓	-	-	✓	-	✓	✓	✓	✓	-
PVT-375BT	✓	✓	-	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
PVT-375SC	✓	✓	-	✓	✓	✓	-	✓	-	✓	✓	✓	✓	✓
PVT-382BT	✓	✓	-	-	✓	-	-	✓	-	✓	✓	✓	✓	-
PVT-475BT	✓	✓	✓*4	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
PVT-482BT	✓	✓	-	-	✓	-	-	✓	-	✓	✓	✓	✓	-
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	✓	✓	-	-	✓	-	-	✓	-	✓*7	-	-	✓*7	-
PLT-705BTH	✓	✓	-	-	✓	-	-	✓	-	✓*7	-	-	✓*7	-
PLT-1005BT	✓	✓	-	✓	✓	✓	-	✓	-	✓	✓	✓	✓	✓
PLT-1202BT	✓	✓	-	✓	✓	-	-	✓	-	-	-	-	-	-
PLT-1204BT	✓	✓	-	✓	✓	-	-	✓	-	✓	✓	-	✓	-
PLT-1204BX	✓	✓	-	✓	✓	-	-	✓	-	✓	✓	-	✓	-
PLI-2002BT	✓	✓	-	✓	✓	-	-	✓	-	✓	✓	-	✓	-
PET-508MA	✓	-	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-609MA	✓	✓	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-512MA	✓	-	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-512MB	✓	-	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-512MC	✓	-	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-512MD	✓	-	✓	-	-	-	-	✓	✓	-	-	-	-	-
PET-805LA	✓	✓	-	✓	✓	-	-	✓	-	✓	✓*4	-	✓	-
PET-835LA	✓	✓	-	✓	✓	-	-	✓	-	✓	✓*4	-	✓	-
PC-20M	-	-	-	-	-	-	-	-	✓	-	-	-	-	-
PC-50M	-	-	-	-	-	-	-	-	✓	-	-	-	-	-

*1: Optional software is required.

*2: Using Single Crystal technology.

*3: USMS-AA550A and UIMS-AA550A are required.

*4: Not available in the USA and Canada.

*5: Optional software USMV-AI900A is required.

*6 UICW-AA000A is required.

*7: Not available in the USA.

*8: Depends on the preset.

*9: UICW-AA000A and UIPC-AA550A are required.

*10: USUH-AA550A is required.

TRANSDUCER OPTIONS/OPERATION MODES

Model name	4D*5	Volume color*5	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	-	-	-	-	-	✓	✓	-	✓	-	*2
PST-30BT	-	-	-	-	-	-	-	-	✓	-	-
PST-50BT	-	-	-	-	-	-	-	-	✓	-	-
PST-65BT	-	-	-	-	-	-	-	-	✓	V3.0 or later	-
PVT-350BTP	-	-	-	-	✓	✓	✓	✓	-	-	*4
PVT-375BT	-	-	-	-	✓	✓	✓	✓	-	-	-
PVT-375SC	-	-	-	-	✓	✓	✓	✓	-	-	*2
PVT-382BT	-	-	-	-	✓	✓	✓	✓	-	-	-
PVT-475BT	-	-	-	-	✓	✓	✓	✓	-	-	*2
PVT-482BT	-	-	-	-	✓	✓	✓	✓	-	-	*2
PVT-574BT	-	-	-	-	✓	✓	✓	✓	✓	-	*2
PVT-674BT	-	-	-	-	✓	-	-	-	-	-	-
PVT-675MVL	✓	✓	✓*8	✓*8	-	-	-	-	-	-	*5
PVT-675MVS	✓	✓	✓*8	✓*8	-	-	-	-	-	-	*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	-	-	-	-	✓	-	-	-	-	-	*3
PLI-2002BT	-	-	-	-	✓	✓	✓	-	-	V5.0 or later	*10
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	-	-	-	-	✓	-	-	-	-	-	-
PET-835LA	-	-	-	-	✓	-	-	-	-	V6.2 or later	*4
PC-20M	-	-	-	-	-	-	-	-	-	-	*9
PC-50M	-	-	-	-	-	-	-	-	-	-	*9

*1: Optional software is required.

*2: Using Single Crystal technology.

*3: USMS-AA550A and UIMS-AA550A are required.

*4: Not available in the USA and Canada.

*5: Optional software USMV-AI900A is required.

*6 UICW-AA000A is required.

*7: Not available in the USA.

*8: Depends on the preset.

*9: UICW-AA000A and UIPC-AA550A are required.

*10: USUH-AA550A 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/m²): 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/m²): 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
- Camera
 - Applicable OS: Windows® 10
 - Interface: USB2.0 type-A
 - Aspect ratio: 4:3
 - Resolution: 640:480 pixel or more
 - Driver: Compatible with the driver installed in Windows® 10.

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 (The Advanced Option kit or Premium Option kit and USRC-AI900A are 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 (The Advanced Option kit, Premium Option kit and USMP-AI900A are 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
 - Reception focus compensation can be performed.
 - Automatic reception focus compensation can be performed (Auto TSO).
 - BEAM
 - Display of the needle can be enhanced in the image.
 - The enhancement level can be adjusted.
 - Doppler Luminance (The Advanced Option kit or Premium Option kit and USLD-AI900A are required.)
 - Doppler Luminance is a function for displaying 3D images created from 2D color images acquired in color modes (CDI/Power/ADF/SMI (Superb Micro-vascular Imaging)).
- 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
 - 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
 - (UICW-AA000A is required.)
 - Pencil CWD (pencil-type transducer)
 - (UICW-AA000A and UIPC-AA550A are required.)
- Doppler PRF (Pulse Repetition Frequency)
 - 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
 - M-mode CDI
 - 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
 - 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
 - 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) (The Advanced Option kit or Premium Option kit and USHI-AA550A are 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
 - MFI (Micro Flow Imaging)
 - 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 (Superb Micro-vascular Imaging) 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.
 - MFI
 - Image Stabilizer
- Mechanical 4D (The 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.)
- Stress Echo (The Advanced Option kit or Premium Option 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/WMS (Wall Motion Scoring) 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 Angio/SMI (Superb Micro-vascular Imaging) and within the ROI, the area of the Power Angio/SMI (Superb Micro-vascular Imaging) and of the ROI, and the ratio of the number of pixels in the Power Angio/SMI (Superb Micro-vascular Imaging) to the number of pixels within the ROI can be displayed for an image acquired in Power Angio/SMI (Superb Micro-vascular Imaging) mode. Available on all linear transducers.
- Histogram

The number of pixels, average gradation, standard deviation, and brightness distribution inside the ROI in the image acquired with 2D mode are displayed.
- Fusion (Smart Fusion) (The 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
 - CWD
 - CHI (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.)

4D OPERATION MODES

The optional software USMV-AI900A is required.

Transducer name	4D Live	Single Sweep	STIC	STIC Color
PVT-675MVL	✓	✓	✓*1	✓*1
PVT-675MVS	✓	✓	✓*1	✓*1
PVT-681MVL	✓	✓	–	–

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

Transducer name	Luminance*2	Shadow Glass*2	Max sweep range (deg)
PVT-675MVL	✓	✓	90
PVT-675MVS	✓	✓	90
PVT-681MVL	✓	✓	150

*1: Depends on the preset.

*2: Optional software 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 (CIVCO omniTRAX and the sensor are 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 (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
 - OmniView
 - CHI (Advanced Software kit or Premium Software kit and USHI-AA550A are required.)
 - Shear Wave (USSW-AA550A is required.)
 - STL export (The 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
 - MicroPure (USMP-AI900A is required.)
 - The following image data can be referred to.
 - US image (still image)
 - Raw data acquired using CUS-AA000
 - CT
 - MR
 - MG
 - PET
 - The following function is available.
 - Breast scan guide (USMB-AI900A is required.)
 - The following measurement can be performed.
 - Basic measurement
- Smart Area Indication OB (USSI-AA550A is required.)
Not available in the USA and Canada
The Smart Area Indication OB function is used in obstetrics to detect fetal measurement regions based on signals in images.
 - The following measurements are available.
 - BPD
 - HC
 - AC
 - FL
 - OFD
 - APAD
 - TAD
 - HL
 - Rad
 - Ulna
 - Tib
 - Fib

- The following transducer supports Smart Area Indication (OB).
 - PVT-475BT, PVT-574BT
- Smart Body Mark (USSB-AI900A and UIFR-AA550A are required.)

Smart Body Mark is a function to display positional information of the transducer on the screen using a magnetic sensor attached to the transducer for breast and for abdomen.

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 languages	Screen display	Input by software keyboard	Input by hardware keyboard*
English	✓	✓	✓
English (UK)	✓	✓ (same as "English")	✓ (same as "English")
German	✓	✓	✓
French	✓	✓	✓
Italian	✓	✓	✓
Spanish	✓	✓	✓
Danish	-	✓	✓
Norwegian	-	✓	✓
Swedish	-	✓	✓
Finnish	-	✓	✓
Portuguese	✓	✓	✓
Hungarian	✓	✓	✓
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 measurements
 - LA 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 measurements
 - AV measurements
 - MV 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 (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.)
 - Automatic analysis and synchronization of planes (USWT-AI907A is 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.
 - Comment entry is possible.

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).

Option kit	Application							
	Adult & pediatric heart				Fetal heart *3			
	LV	LA	RV	RA	LV	LA	RV	RA
USWT-AI900A	✓	✓	-	-	-	-	-	-
USWT-AI900A + USWT-AI904A	✓	✓	-	-	✓	✓*1	✓*2	-

*1: Not available in the USA and Canada

*2: In the USA and Canada, only basic 2DWMT RV for fetal heart is available.
Basic 2DWMT for heart does not support measurements for EDA, ESA, FAC and TAPSE.

*3: For fetal heart, only manual trace and 3 point ACT is available. (Auto trace is not available.)

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
- NAS (USNA-AI900A is required.)
 - Only NAS that satisfies the following specifications can be used
 - Protocol: SMB2.0 or later
 - LAN port: 1000 BASE-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-type software is used for protection against computer viruses.

 - Protection against computer viruses using Windows functions (standard configuration).
Security is established using the whitelist-type software that is included in Windows functions.
 - USSM-AI900A (security management kit) (option)
McAfee Embedded Control (MEC) is used as the security management software. MEC is security software that employs whitelist protection. This software prevents execution of malware by allowing only executable files that have been registered in a whitelist to start.

- Disk Encryption Function

The following disks can be encrypted to prevent leakage of personal information.

 - HDD in the system
 - USB flash drive

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 PEAP-MsChap v2 [AES] (conformed)
For WPA2-Enterprise, authentication is performed based on communication with the authenticated server. Depending on the authenticated server used in combination, authentication may fail. Perform a connection test in advance.
- 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
 - Composite video
 - S-Video
 - HDMI
- Internal USB
 - 2.0 for printer: 2 ch
 - 2.0 for panel: 1 ch
- External USB
 - 5 USB ports (two on the rear of the main unit, two on the front of the main unit (support of USB 3.0), and one 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 \pm 10%
 - USA, Canada: 120 VAC \pm 10%
 - Europe: 220 to 240 VAC \pm 10%
 - Other 1: 110 to 120 VAC \pm 10%
 - Other 2: 220 to 240 VAC \pm 10%
- Line frequency 50/60 Hz \pm 1 Hz

- Power capacity
 - Japan: 1500 VA
 - USA, Canada: 1440 VA
 - Europe: 1500 VA
 - Other 1: 1500 VA
 - Other 2: 1500 VA

Note: The system includes the power cable for Type G or Type B plug. Depending on the type of medical outlet in the hospital, a conversion plug that conforms to the regulations of each country shall be provided.

Cord sets including power cable and plug shall be provided with specifications that ensure the impedance of the protecting grounding conductor is 100 m Ω or less.

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 Regulation (EU) 2017/745
 - General: EN 60601-1: 2006 + A1: 2013 + A2: 2021
 - Collateral: EN 60601-1-2: 2015 + A1: 2021
 - Particular: EN 60601-2-37: 2008 + A1: 2015
- USA : Ed. 3.2
 - General: AAMI ES 60601-1: 2005 + C1: 2009 + A2: 2010 + A1: 2012 + A2: 2021
 - Collateral: IEC 60601-1-2: 2014 + A1: 2020
IEC 60601-1-6: 2010 + A1: 2013 + A2: 2020
 - 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

Note: 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 (46.8) to 1768 (69.6)	812 (31.9) to 878 (34.6)	91 (200.6)	359 W 28 VA*2
	CUS-AA000 elevated panel height model	595*1 (23.5)	1248 (49.1) to 1828 (71.9)	812 (31.9) to 878 (34.6)	91 (200.6)	359 W 28 VA*2
DVD video recorder	Sony HVO-550MD/FHD [NTSC/PAL]	212 (8.4)	105.5 (4.2)	287.7 (11.3) (including the projection section)	3.2 (7.1)	43.2 W
B/W digital printer	Sony UP-D711MD/WO	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 UEFT-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 kit	1.2 (2.6)
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-AA550A	Measurement Assistant kit	0.1 (0.2)
USWT-AI907A	Auto GLS kit	0.1 (0.2)
USCT-AI900A	Contrast Enhance 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	0.2 (0.4)
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)

*1: For the USA and Canada

*2: For countries except the USA and Canada

Model name	Name of component	Mass [kg] (lb)
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)
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)
UIUP-AA550A	Urology Package	15.1 (33.3)
USUP-AA550A	Urology Package	0.1 (0.2)
UINP-AA000A	Neo Package	3.4 (7.5)* ¹
		3.6 (7.9)* ²
USNP-AA000A	Neo Package	0.1 (0.2)
USLD-AI900A	Doppler Luminance kit	0.1 (0.2)
USGI-AA550A	General Imaging kit	0.1 (0.2)
USUH-AA550A	Ultra High Freq 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	Foot switch	0.6 (1.3)
UZGW-008A	Gel warmer	1.0 (2.2)
UZMK-AI900A	Transducer Cable Hanger kit	0.9 (2.0)

Model name	Name of component	Mass [kg] (lb)
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)
UZKP-AI900A	Local Language Key-Top kit	0.5 (1.1)
UZKH-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)
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	Tricify Access kit	0.1 (0.2)
UIAG-001A	ApliGate kit	0.1 (0.2)
USAG-001A	ApliGate Soft kit	0.1 (0.2)
USWC-AI900A	ApliCam kit	0.1 (0.2)

Model name	Name of component	Mass [kg] (lb)
USRI-AI600A	Reference Image 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)
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)

Model name	Name of component	Mass [kg] (lb)
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)
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)

Model name	Name of component	Mass [kg] (lb)
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)
PLI-2002BT	Linear array transducer	0.75 (1.7)
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)
PET-835LA	Convex array transducer	1.2 (2.6)
PC-20M	CW Doppler pencil transducer	0.085 (0.2)
PC-50M	CW Doppler pencil transducer	0.08 (0.2)

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 Design and specifications are subject to change without notice.
 Model number: CUS-AA000 MPDUS0085EAP V6.2 2024-04 CMSC/Produced in Japan

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