



LOGIQ Fortis R4.x HDU

Product Specification Sheet

Last updated on: Thursday, June 27, 2024

1	General Specifications	
2	Dimensions and Weight (Dimensions given with floating keyboard stowed and display tilted for transport)	
3	Height	1250 – 1800 mm (49 – 71 in)
4	Width	530 mm, 20.9" (Caster), 565 mm, 22.2" (Monitor)
5	Depth	885 mm (34.8 in)
6	Weight	85 kg (187.4 lb)
7	Electrical Power	
8	Voltage: 100 – 240 Vac	
9	Frequency: 50/60 Hz	
10	Power consumption maximum of 0.9 kVA with peripherals	
11	Console Design	
12	4 active physical probe ports	
13	1 inactive probe storage port	
14	Wireless probe connection, capable of connecting Vscan Air™ wireless and linear probes	
15	Integrated SSD (1 TB)	
16	Integrated DVD-R Multi Drive	
17	On-board storage of thermal printer	
18	Integrated speaker	
19	Integrated locking mechanism that provides rolling lock and caster swivel lock	
20	Integrated cable management	
21	Front and rear handles	
22	Easily removable air filters	
23	Windows 10 Enterprise LTSC 2019 (64-bit)	
24	User Interface	
25	Operator Keyboard	
26	Operating keyboard adjustable in height and rotation	
27	Ergonomic hard key layout	
28	Interactive back-lighting	
29	Integrated recording keys for remote control of up to 4 peripheral devices or DICOM® devices	
30	Integrated gel warmer	
31	Touch Screen	
32	12.1" High-resolution, color, touch, display screen	
33	Interactive dynamic software menu	
34	Brightness adjustment	
35	User-configurable layout	
36	Monitor	
37	23.8" Wide screen high-resolution HDU display	
38	Display translation (independent of console)	
39	350 mm, (13.7 in) horizontal (both directions)	
40	150 mm, (5.9 in) vertical	
41	90° swivel (both directions)	
42	Fold-down and lock mechanism for transportation	
43	Resolution: 1920 X 1080	
44	Anti-glare	
45	Viewing angle 89/89/89/89°	
46	Contrast Ratio: >25,000:1	

47	System Overview
48	Applications
49	Abdominal
50	Obstetrical
51	Gynecological
52	Breast
53	Small Parts
54	Peripheral Vascular
55	Transcranial (adult and neonatal)
56	Pediatric and Neonatal
57	Musculoskeletal (general and superficial)
58	Urological
59	Cardiac (adult and pediatric)
60	Interventional
61	Pleural
62	Operating Modes
63	B-Mode
64	M-Mode
65	Color Flow Mode (CFM)
66	Microvascular Imaging (MVI)
67	Power Doppler Imaging (PDI)
68	B-Flow (Option)
69	Extended Field of View (LOGIQView)
70	PW Doppler
71	CW Doppler (Option)
72	Volume Modes (3D/4D) (Option)
73	Anatomical M-Mode
74	Contrast Imaging (Option)
75	Strain elastography (Option)
76	Shear wave elastography (Option)
77	UGAP (Option) - Ultrasound Guided Attenuation Parameter Imaging
78	Scanning Methods
79	Electronic sector
80	Electronic convex
81	Electronic linear
82	Mechanical volume sweep
83	Probe Types
84	Sector/Phased array
85	Curved Linear array
86	Microcurved linear array
87	Linear array
88	Matrix array (Linear)
89	Volume probes (4D)
90	Split crystal
91	TEE probe
92	System Standard Features
93	Advanced user interface with high-resolution 12.1" display touch panel
94	Automatic optimization
95	CrossXBeam™ compounding
96	Speckle Reduction Imaging (SRI-HD, Advanced SRI Type 1)
97	Fine angle steer
98	Coded harmonic imaging
99	Virtual convex
100	Patient information database
101	Image archive on hard drive
102	Advanced 3D
103	Raw data analysis
104	Real-time automatic Doppler calculations
105	OB calculations
106	Fetal trending
107	Multi gestational calculations

108	Hip dysplasia calculations
109	Gynecological calculations
110	Vascular calculations
111	Urological calculations
112	Renal calculations
113	Cardiac calculations
114	InSite™ capability
115	On-board electronic documentation
116	Auto Doppler Assist
117	Privacy and security, including user and rights management
118	DICOM
119	LOGIQView
120	External USB printer connection
121	Network printer support
122	HDMI output (available for compatible devices)
123	App Launchpad
124	System Options
125	B-Flow
126	Compare Assistant
127	Auto IMT
128	Scan Assistant
129	Breast productivity package
130	Thyroid productivity package
131	OB measure assistant
132	Quantificative Flow Analysis available with Color Flow/PDI
133	Breast Measure Assistant
134	B Steer+
135	Strain elastography
136	Elastography Quantification
137	Advanced privacy and security (vulnerability scan)
138	Power assistant and scan on battery
139	Storage bins
140	Shear wave Elastography
141	Volume Navigation
142	UGAP
143	Hepatic Assistant
144	Coded Contrast Imaging
145	Stress echo
146	Cardiac Strain (Automatic Function Imaging)
147	On-board reporting
148	TVI
149	Wireless LAN
150	CW
151	DVR
152	Table tools
153	Advanced probes
154	Breast Assistant, Powered by Koios DS™
155	Thyroid Assistant, Powered by Koios DS™
156	SonoNT SonoIT
157	Advanced SRI Type 2
158	Auto Preset Assistant
159	Auto Abdominal Color Assistant
160	Auto Renal Measure Assistant
161	Contrast LI-RADs
162	Raw Data Streaming
163	Peripheral Options
164	Integrated Option for Digital Color thermal Printer
165	Integrated Option for DVD Drive
166	Digital A6 color thermal printer
167	Foot switch, with programmable functionality
168	CRF-200U card reader support (Japan Only)
169	Console protective cover

170	LOGIQ smart device apps	• Photo Assistant • Remote Control
171	Vscan Air™ On-System Charger	
172	Display Modes	
173	Live and stored display format	• Full size and split screen – both w/ thumbnails. For still and CINE
174	Review image format	• 4x4, and thumbnails. For still and CINE
175	Time line display	• Independent Dual B or CrossXBeam/PW Display • CW • Display formats top/bottom selectable format • Side/side selectable format
176	Virtual convex	
177	Simultaneous capability	
178	B or CrossXBeam/PW	
179	B or CrossXBeam/CW (Option)	
180	B or CrossXBeam/CFM or PDI	
181	B/M	
182	B/CrossXBeam	
183	B-Flow/PW	
184	Real-time Triplex Mode - B or CrossXBeam + CFM or PDI/PW	
185	Selectable alternating modes	
186	B or CrossXBeam/PW	
187	B or CrossXBeam + CFM (PDI)/PW	
188	B/CW (Option)	
189	Multi-image (split/quad screen)	
190	Live and/or frozen	
191	B or CrossXBeam + B or CrossXBeam/CFM or PDI or B-Flow (Option)	
192	PW/M	
193	Independent Cine playback	
194	Display Annotation	
195	Patient name: first, last and middle	
196	Patient ID	
197	Alternate patient ID	
198	Age, sex and date of birth	
199	Hospital name	
200	Date format: three types selectable	• MM/DD/YY • DD/MM/YY • YY/MM/DD
201	Time format: 2 types selectable	• 24 hours • 12 hours
202	Gestational age from	• LMP • GA • EDD • BBT
203	Probe name	
204	Map names	
205	Probe orientation	
206	Depth scale marker	
207	Lateral scale marker	
208	Focal zone markers	
209	Image depth	
210	Zoom depth	
211	B-Mode	• Gain • Dynamic range • Imaging frequency • Frame averaging • Gray map • SRI

212	M-Mode	• Gain • Dynamic range • Time scale
213	Doppler Mode	• Gain • Angle • Sample volume depth and width • Wall filter • Velocity and/or frequency scale • Spectrum inversion • Time scale • PRF • Doppler frequency
214	Color Flow Doppler Mode	• Line density • Frame averaging • Color scale, 3 types: Power, directional PDI and symmetrical velocity imaging • Color velocity range and baseline • Color threshold marker • Color gain • PDI • Spectrum inversion • Doppler frequency
215	Digital TGC with 8 independent controls	
216	TGC Curve	
217	Acoustic frame rate	
218	CINE gage, image number/frame number	
219	Body pattern: multiple human and animal types	
220	Application name	
221	Measurement results	
222	Operator message	
223	Displayed acoustic output	• TIS: Thermal Index Soft Tissue • TIC: Thermal Index Cranial (Bone) • TIB: Thermal Index Bone • MI: Mechanical Index
224	% of maximum power output	
225	Biopsy guide line and zone	
226	Heart rate	
227	General System Parameters	
228	System Setup	
229	Pre-programmable categories	
230	User programmable preset capability	
231	Factory default preset data	
232	Languages: English, French, German, Spanish, Italian, Brazilian, Portuguese, Russian, Greek, Swedish, Danish, Dutch, Finnish, Norwegian	
233	OB Report Formats including Tokyo Univ., Osaka Univ., USA, Europe and ASUM and WHO	
234	User defined annotations	
235	Body patterns	
236	Customized comment home position	
237	EZ Imaging: Simplified user interface for high volume workflow	
238	Complete user manual available on board through Help (F1)	
239	User manual and service manual are included in USB stick with each system. A printed manual is available upon request.	
240	CINE Memory/Image Memory	
241	1 GB of CINE memory	
242	Selectable CINE sequence for CINE review	
243	Prospective CINE mark	
244	Measurements/calculations and annotations on CINE playback	
245	Scrolling timeline memory	
246	Dual Image CINE display	
247	Quad Image CINE display	
248	CINE gauge and CINE image number display	
249	CINE review loop	
250	CINE review speed	
251	Image Storage	

252	On-board database of patient information from past exams	
253	Storage formats: DICOM	• Compressed/uncompressed • Single/multi-frame • Enhanced (3D/4D) • With/without raw data
254	Exportable DICOM viewer	
255	Export BMP, JPEG, JPEG 2000, PNG, AVI, MP4, WMV formats	
256	Storage devices:	• USB memory stick: 64 MB to 64 GB (for exporting individual images/clips) • CD-R storage: 700 MB • DVD storage: -R (4.7 GB) • Hard drive image storage: ~730GB
257	Compare previous exam images with current exam	
258	Reload of archived date sets	
259	Connectivity	
260	Ethernet network connection	
261	Wireless LAN 802.11ac/a/b/g/n (Option)	
262	DICOM 3.0	• Verify • Print • Store • Modality worklist • Storage commitment • Modality performed procedure step (MPPS) • Media exchange • Off network/mobile storage queue • Query/retrieve
263	Public SR template	
264	Structured Reporting – compatible with vascular and OB, cardiac and breast standard	
265	InSite capability	
266	Advanced privacy and security (Option)	
267	Physiological input panel (Option)	
268	Physiological input	• ECG, 1 channel • PCG, 1 channel • AUX, 1 channel • Dual R-Trigger • Pre-settable ECG R delay time • Pre-settable ECG position • Adjustable ECG gain control • Pre-settable PCG position • Adjustable PCG gain control • Pre-settable AUX position • Adjustable AUX gain control
269	Automatic heart rate display	
270	Auto Ejection Fraction	
271	Report writer (Option)	
272	On-board reporting package automates report writing	
273	Formats various exam results into a report suitable for printing or reviewing on a standard PC	
274	Exam results include patient info, exam info, measurements, calculations, images, and comments Standard templates provided	
275	Customizable templates	
276	Scanning Parameters	
277	cSound™ Imageformer: Infinite number of effective channels	
278	Frame rate: 9,675 Hz (fps) maximum	
279	Displayed imaging depth: 0 – 100 cm	
280	Minimum depth of field: 0 – 2 cm (zoom) (probe dependent)	
281	Maximum depth of field: 0 – 100 cm (probe dependent)	
282	Continuous dynamic receive focus	
283	Continuous dynamic receive aperture	
284	Adjustable dynamic range, infinite upper level	
285	Adjustable field of view (FOV)	
286	System Frequency Range: 0.7-24 MHz	
287	Image reverse: right/left	
288	Image rotation of 0°, 90°, 180°, 270°	

289	8 bits stored per color	
290	256 shades of gray	
291	256 color tones	
292	Digital B-Mode	
293	Adjustable	• Acoustic power • Gain • Dynamic range • Frame averaging • Gray scale map • Frequency • Speed of sound (application dependent) • Framerate • Scanning size (FOV or Angle) – Depending on the probe, see probe specifications • CrossXBeam • B colorization • Rejection • Suppression • SRI
293	Adaptive Contrast Enhancement (ACE)	
294	Available in Abdomen, Cardiac, Thyroid and Obstetric cases	
294	Digital M-Mode	
295	Adjustable	• Acoustic power • Gain • Dynamic range • Gray scale map • Frequency • Sweep speed • M colorization • M display format • Rejection
296	Anatomical M-Mode	
297	M-mode cursor adjustable at any plane	
298	Can be activated from a CINE loop from a live or stored image	
299	M & A capability	
300	Available with Color Flow Mode	
301	Digital Spectral Doppler Mode	
302	Adjustable	• Acoustic power • Gain • Dynamic range • Gray scale map • Transmit frequency • Wall filter • PW colorization • Velocity scale range • Sweep speed • Sample volume length • Angle correction • Steered linear • Spectrum inversion • Trace method • Baseline shift • Doppler auto trace • Time resolution • Compression • Trace direction • Trace sensitivity
303	Digital Color Flow Mode	

304	Adjustable	• Acoustic power • Color maps, including velocity-variance maps • Gain • Velocity scale range • Wall filter • Packet size • Line density • Spatial filter • Steering angle • Baseline shift • Frame average • Threshold • Auto ROI placement and steering on linear • Accumulation mode • Flash suppression • Shortcuts
305	Digital Power Doppler Imaging	
306	Adjustable	• Acoustic power • Color maps, velocity-variance maps • Gain including • Velocity scale range • Wall filter • Packet size • Line density • Spatial filter • Steering angle • Frame average • Threshold • Accumulation mode • Flash suppression • Shortcuts
307	Continuous Wave Doppler (Option)	
308	Available on M5Sc-D, 6S-D, 6Tc-RS, P2D, P6D and P8D probes	
309	Steerable CW mode included	
310	Adjustable	• Acoustic power • Gain • Dynamic range • Gray scale map • Transmit frequency • Wall filter • CW colorization • Velocity scale range • Sweep speed • Angle correction • Spectrum inversion • Trace method • Baseline shift • Doppler auto trace • Compression • Trace direction • Trace sensitivity
311	Automatic Optimization	
312	Optimize B-Mode image to help improve contrast resolution with one button press	
313	Selectable amount of contrast resolution improvement (low, medium, high)	
314	CTO (Continuous Tissue Optimization) – continuously adjusts B-Mode axial and lateral gain uniformity and overall gain level suppressing the noise	
315	CATO (Continuous Auto Tissue Optimization) – continuously adjusts B-Mode axial and lateral gain uniformity and overall gain level suppressing the noise	
316	Auto CF and PW positioning – adjusts ROI position, sample volume position and steering with one button press	
317	Coded Harmonic Imaging	
318	Available on all 2D and 4D probes	
319	B-Flow (Option)	

320	Available on the following probes: C1-6-D, C1-6VN-D, C2-7-D, C2-7VN-D, C2-9-D, C2-9VN-D, C3-10-D, L2-9-D, L2-9VN-D, L3-12-D, L6-24-D ML6-15-D, M5Sc-D, L8-18i-D
321	Background
322	Sensitivity/PRI
323	Acoustic power
324	Frequency
325	Line density
326	Frame average
327	Gray scale map
328	Tint map
329	Dynamic range
330	Rejection
331	Gain
332	Suppression
333	SRI
334	Accumulation
335	Visualization
336	Radiant flow™
337	Easy, fast visualization of tiny vessels, displaying as a 3D effect
338	Available in Color Doppler, Power Doppler and MVI
339	B Steer+ (Option)
340	Available on the following probes: C1-6-D and all linear probes
341	Coded contrast imaging (Option)
342	Available on the following probes: C1-6-D, C1-6VN-D, C2-9-D, C2-9VN-D, C2-7-D, C2-7VN-D, C3-10-D, IC5-9-D, L2-9-D, L2-9VN-D, L3-9i-D, L3-12-D, M5Sc-D, ML6-15-D, RAB6-D, RIC5-9-D, BE9CS-D
343	2 contrast timers
344	Timed updates: 0.05 – 10 seconds
345	Accumulation mode, seven levels
346	Maximum enhance mode
347	Flash
348	Time intensity curve (TIC) analysis
349	Parametric imaging
350	MVI Contrast
351	Ability to save still image during clip acquisition
352	The LOGIQ Fortis is designed for compatibility with most commercially available ultrasound contrast agents. Because the availability of these agents is subject to government regulation and approval, product features intended for use with these agents may not be commercially marketed nor made available before the contrast agent is cleared for use. Contrast related product features are enabled only on systems for delivery to an authorized country or region of use.
353	LOGIQView
354	Extended field of view Imaging
355	Up to 160 cm (63") scan length
356	Available on all 2D imaging probes
357	For use in B-Mode
358	CrossXBeam is available on linear probes
359	Auto detection of scan direction
360	Pre-or post-process zoom
361	Rotation
362	Auto best fit on monitor
363	Measurements in B-Mode
364	3D
365	Allows unlimited rotation and planar translation
366	3D reconstruction from CINE sweep
367	Easy 3D available on all probes
368	Advanced 3D
369	Acquisition of color data
370	Automatic rendering
371	3D landscape technology
372	3D movie
373	Real-time 4D (Option)

374	Acquisition modes	• Real Time 4D • Spatio-Temporal Image Correlation (Option) • Static 3D
375	Visualization modes	• 3D rendering (diverse surface and intensity projection modes) • Sectional planes (3 section planes perpendicular to each other) • Omniview (Option) • Volume contrast imaging – Static (Option) • Volume contrast imaging – Omniview (Option) • Tomographic ultrasound imaging (Option) • Volume Analyses – VOCAL: semi-auto/manual segmentation tool (segmentation using touch screen) (Option) – 3D Static only – Threshold Volume: measure volume below and above a threshold
376	Render mode	• Surface texture, surface smooth, max-, min- and X-ray (average intensity projection), mix mode of two render modes • HDlive™
377	SonoRenderlive	
378	Curved 3 point Render start	
379	3D Movie	
380	Scalpel: 3D cut tool	
381	Display format:	• Quad: A-/B-/C-Plane/3D • Dual: A-Plane/3D • Single: 3D or A- or B- or C-Plane
382	Automated Volume Calculation – VOCAL II	
383	Betaview	
384	Volume navigation (Option)	
385	Available on the following probes: C1-6VN-D, C2-9VN-D, C2-7VN-D, C3-10-D, L2-9VN-D, ML6-15-D, IC5-9-D, L8-18i-D, M5Sc-D	
386	Sensor-based acquisition	
387	Position markers	
388	Needle tip tracking	
389	Virtual tracking	
390	Auto image registration	
391	Tru3D feature includes	
392	Render modes: gray surface, texture, min-, max-, average-intensity	
393	Measurements: distance, angle, area, volume	
394	3D Movie	
395	Scan assistant (Option)	
396	Factory programs	
397	User-defined programs	
398	Steps include image annotations, mode transitions, basic imaging controls and measurement initiation	
399	Compare Assistant (Option)	
400	Allows side-by-side comparison of previous ultrasound and other modality exams during live scanning	
401	Breast productivity package	
402	Auto measurement	
403	Worksheet summary includes measurements and locations for lesions and lymph nodes	
404	Feature assessment	
405	BI-RADS™ assessment	
406	User editable	
407	Thyroid productivity package (Option)	
408	Auto measurement	
409	Worksheet summary includes measurements and locations for nodule, parathyroid and lymph nodes	
410	Feature assessment	
411	TI-RADS™ assessment	
412	User editable	
413	Start Assistant	
414	Automatically select category, probe, preset, or scan assistant from worklist exam description	
415	Learn the category, probe, preset, and scan assistant based on exam description	
416	Shear Wave Elastography (Option)	

417	Available on the following probes: C1-6-D, C1-6VN-D, L2-9-D, L2-9VN-D, IC5-9-D, L8-18i-D, ML6-15-D, L3-12-D, L6-24-D	
418	User programmable measurement display in kPa and meters per second	
419	Single and dual view display	
420	Applications: Abdominal, Breast, Musculoskeletal, Small Parts, Prostate, Thyroid, Gynecological	
421	Strain elastography (Option)	
422	Available on the following probes: ML6-15-D, L2-9-D, L2-9VN-D, L3-12-D, IC5-9-D, C2-9-D, C2-9VN-D, C1-6-D, C1-6VN-D, L3-9i-D, L8-18i-D, BE9CS-D, L6-24-D	
423	Relative analysis tool	
424	Applications: Abdominal, Breast, Musculoskeletal, Small Parts, Prostate, Thyroid, Obstetric, Gynecological	
425	UGAP (Option)	
426	Available on the following probes: C1-6-D, C1-6VN-D, C2-9-D, C2-9VN-D	
427	Measures liver attenuation* (attenuation coefficient [dB/cm/MHz]) by auto measure algorithm with reference B-mode	
428	Simple and 2D color map (attenuation color map and Measurement Position Indicator Map)	
429	Quantitative flow analysis (Option)	
430	Available in color and power Doppler	
431	TVI (Option)	
432	Available on the following probes: M5Sc-D, 6Tc-RS, 6S-D probes	
433	Myocardial Doppler imaging with color overlay on tissue image	
434	Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information	
435	Curved anatomical M-Mode: free (curved) drawing of M-Mode generated from the cursor independent from the axial plane	
436	Q-Analysis: multiple time-motion trace display from selected points in the myocardium	
437	Stress echo (Option)	
438	Advanced and flexible stress echo examination capabilities	
439	Provides exercise and pharmacological protocol templates	
440	6 default templates	
441	Template editor for user configuration of existing templates or creation of new templates	
442	Reference scan display during acquisition for stress level comparison (dual screen)	
443	Baseline level/previous level selectable	
444	Raw data continuous capture	
445	Over 100 sec. available	
446	Wall motion scoring (bulls-eye and segmental)	
447	Smart stress: Automatically set up various scanning parameters (e.g. geometry, frequency, gain) according to same projection on previous level	
448	Auto EF (Option)	
449	Allows semi-automatic measurement of the global EF (Ejection Fraction)	
450	User editable	
451	Cardiac AFI (Option)	
452	Allows assessment of the complete left ventricle with all segments at a glance by combining three longitudinal views into one comprehensive bulls-eye view	
453	2D strain based data moves into clinical practice	
454	APP API	
455	The App Launchpad is a tab available on the Utilities+ screen – when selected, various applications (“Apps”) can be launched. This is hidden if no apps are installed.	
456	Only validated and released Apps are supported	
457	3rd-party Apps can be purchased through an AppStore on a GE Healthcare (GEHC) website	
458	Consult with a GE Healthcare (GEHC) representative for more details	
459	Raw Data Streaming (optional)	
460	Provides streaming of raw data out to 3rd-party devices designed to process this data	
461	Virtual Convex	
462	Provides a convex field of view	
463	Compatible with CrossXBeam	
464	Available on all linear and sector probes	
465	SRI-HD and Advanced SRI	
466	Speckle reduction imaging	
467	Provides multiple levels of speckle reduction	
468	Compatible with side-by-side DualView display	
469	Advanced SRI: two types selectable	• Type 1 – Compatible with all linear, convex and sector probes • Type 2 (Option) – Compatible with OB/GYN application
470	CrossXBeam	
471	Provides variable angle spatial compounding	
472	Live side-by-side DualView display	

473	Compatible with	• Color mode • PW • SRI • Coded harmonic imaging • Virtual convex
474	Available on all curved and linear probes	
475	Controls available while “live”	
476	Magnification Zoom: Magnifies the entire image on the screen without zoom ROI, 20x maximum zoom factor	
477	Pan Zoom: Magnifies the display of the data within the ROI	
478	HD Zoom: Magnifies the image within the zoom ROI, with higher spatial resolution than original images	
479	B/M/CrossXBeam-Mode	• Gain • TGC • Dynamic range • Acoustic output • Framerate control • Sweep speed for M-Mode • CrossXBeam angle
480	PW-Mode	• Gain • Dynamic range • Acoustic output • Transmission frequency • PRF • Wall filter • Spectral averaging • Sample volume gate: length, depth • Velocity scale
481	Color Flow-Mode	• CFM gain • CFM velocity range • Acoustic output • Wall echo filter • Packet size • Frame rate control • CFM spatial filter • CFM frame averaging • CFM line resolution • Frequency/velocity baseline shift
482	Controls available on “freeze” or recall	
483	Automatic optimization	
484	SRI	
485	CrossXBeam – display non-compounded and compounded image simultaneously in split screen	
486	3D reconstruction from a stored CINE loop	
487	B/M/CrossXBeam-Mode	• Gray map optimization • TGC • Colorized B and M • Frame average (loops only) • Dynamic range
488	Anatomical M-Mode	
489	Magnification zoom	
490	Pan zoom	
491	Maximum read zoom to 8x	
492	Baseline shift	
493	Sweep speed	

494	PW mode	• Gray map • Post gain • Baseline shift • Sweep speed • Invert spectral wave form • Compression • Rejection • Colorized spectrum • Display format • Doppler audio • Angle correct • Quick angle correct • Auto angle correct
495	Color flow	• Overall gain (loops and stills) • Color map • Transparency map • Frame averaging (loops only) • Flash suppression • CFM display threshold • Spectral invert for color/Doppler
496	Anatomical M-Mode on cine loop	
497	4D	• Gray map, colorize • Post gain • Change display – single, dual, quad sectional or rendered
498	Measurements/Calculations	
499	General B-Mode	
500	Depth and distance	
501	Circumference (ellipse/trace)	
502	Area (ellipse/trace)	
503	Volume (ellipsoid)	
504	% Stenosis (area or diameter)	
505	Angle between two lines	
506	Dual B-mode capability	
507	General M-Mode	
508	M-Depth	
509	Distance	
510	Time	
511	Slope	
512	Heart rate	
513	General Doppler measurements/calculations	
514	Velocity	
515	Time	
516	A/B ratio (velocities/frequency ratio)	
517	PS (Peak Systole)	
518	ED (End Diastole)	
519	PS/ED (PS/ED Ratio)	
520	ED/PS (ED/PS Ratio)	
521	AT (Acceleration Time)	
522	ACCEL (Acceleration)	
523	TAMAX (Time Averaged Maximum Velocity)	
524	Volume flow (TAMEAN and vessel area)	
525	Heart rate	
526	PI (Pulsatility Index)	
527	RI (Resistivity Index)	
528	Real-time Doppler Auto Measurements/Calculations	
529	PS (Peak Systole)	
530	ED (End Diastole)	
531	MD (Minimum Diastole)	
532	PI (Pulsatility Index)	
533	RI (Resistivity Index)	
534	AT (Acceleration Time)	

535	ACC (Acceleration)	
536	PS/ED (PS/ED Ratio)	
537	ED/PS (ED/PS Ratio)	
538	HR (Heart Rate)	
539	TAMAX (Time Averaged Maximum velocity)	
540	PVAL (Peak Velocity value)	
541	Volume flow (TAMEAN and vessel area)	
542	Abdominal measurements/calculations	
543	Shear Elasto velocity	
544	Shear Elasto stiffness	
545	Attenuation rate	
546	Attenuation coefficient	
547	Summary reports	
548	Small Parts measurements/calculations	
549	Breast Lesion	
550	Thyroid	
551	Parathyroid	
552	Lymph Node	
553	Nodule	
554	Isthmus AP	
555	Shear Elasto velocity	
556	Shear Elasto stiffness	
557	Summary reports	
558	OB measurements/calculations	
559	Gestational age by	• GS (Gestational Sac) • CRL (Crown Rump Length) • FL (Femur Length) • BPD (Biparietal Diameter) • AC (Abdominal Circumference) • HC (Head Circumference) • APTD x TTD (Anterior/Posterior Trunk Diameter by Transverse Trunk Diameter) • FTA (Fetal Trunk Cross-sectional Area) • HL (Humerus Length) • BD (Binocular Distance) • FT (Foot Length) • OFD (Occipital Frontal Diameter) • TAD (Transverse Abdominal Diameter) • TCD (Transverse Cerebellum Diameter) • THD (Thorax Transverse Diameter) • TIB (Tibia Length) • ULNA (Ulna Length) • OOD (Outer Orbital Diameter) • IOD (Inner Orbital Diameter) • FIB (Fibula length) • Radius (Radius length) • LV (Lateral Ventricle width) (= SL)
560	Estimated Fetal Weight (EFW) by:	• AC, BPD • AC, BPD, FL • AC, BPD, FL, HC • AC, FL • AC, FL, HC • AC, HC • BPD, APTD, TTD, FL • BPD, APTD, TTD, SL
561	Fetal graphical trending	
562	Growth percentiles	
563	Multi-gestational calculations (4)	
564	Fetal qualitative description (anatomical survey)	
565	Fetal environmental description (biophysical profile)	
566	Programmable OB tables	
567	Over 20 selectable OB calculations	

568	Expanded worksheets
569	Summary Reports
570	OB Calculations and ratios
571	FL/BPD
572	FL/AC
573	FL/HC
574	HC/AC
575	CI (Cephalic Index)
576	AFI (Amniotic Fluid Index)
577	CTAR (Cardio-Thoracic Area Ratio)
578	Measurements/calculations by: Alexander, ASUM, ASUM 2001, Bahlmann, Baschat, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chervenak, Chitty, Doubilet, Ebing, Eik-Nes Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kramer, Kurmanavicius, Kurtz, Mari, Mayden, Mercer, Merz, Moore, Nelson, Osaka University, Paris, Pexsters, Rempen, Robinson, Shepard, Shepard/Warsoff, Sonek, Tokyo University, Tokyo/Shinozuka, WHO, Williams, Yarkoni
579	OB measure assistant
580	Allows automatic measurement of BPD, HC, FL, AC and HL
581	User editable
582	SonoNT and SonoIT
583	SonoNT measures the contour detection of the NT border
584	SonoIT is a system supported measurement for Intracranial Translucency
585	GYN measurements/calculations
586	Right ovary length, width, height
587	Left ovary length, width, height
588	Uterus length, width, height
589	Cervix length, trace
590	Ovarian volume
591	ENDO (Endometrial thickness)
592	Ovarian RI
593	Uterine RI
594	Follicular measurements
595	Fibroid measurements
596	Qualitative description (anatomical survey)
597	Mean Uterine Artery (Gomez) Doppler Measurement
598	Summary reports
599	Vascular measurements/calculations
600	SYS DCCA (Systolic Distal Common Carotid Artery)
601	DIAS DCCA (Diastolic Distal Common Carotid Artery)
602	SYS MCCA (Systolic Mid Common Carotid Artery)
603	DIAS MCCA (Diastolic Mid Common Carotid Artery)
604	SYS PCCA (Systolic Proximal Common Carotid Artery)
605	DIAS PCCA (Diastolic Proximal Common Carotid Artery)
606	SYS DICA (Systolic Distal Internal Carotid Artery)
607	DIAS DICA (Diastolic Distal Internal Carotid Artery)
608	SYS MICA (Systolic Mid Internal Carotid Artery)
609	DIAS MICA (Diastolic Mid Internal Carotid Artery)
610	SYS PICA (Systolic Proximal Internal Carotid Artery)
611	DIAS PICA (Diastolic Proximal Internal Carotid Artery)
612	SYS DECA (Systolic Distal External Carotid Artery)
613	DIAS DECA (Diastolic Distal External Carotid Artery)
614	SYS PECA (Systolic Proximal External Carotid Artery)
615	DIAS PECA (Diastolic Proximal External Carotid Artery)
616	VERT (Systolic Vertebral Velocity)
617	SUBCLAV (Systolic Subclavian Velocity)
618	Auto IMT (Option)
619	Summary reports
620	Urological measurements/calculations
621	Bladder volume
622	Prostate volume
623	Left/right renal volume
624	Generic volume
625	Post-void bladder volume
626	Pelvic floor measurements
627	Summary reports

628	TCD measurements/calculations	
629	MCA, ACA, PCA, ICA	
630	AComA, PCom A	
631	Vert	
632	Basilar	
633	MCA/ICA Ratio	
634	Summary reports	
635	Pediatric and Neonatal measurements/calculations	
636	Hip angle	
637	Hip orientation	
638	Summary reports	
639	Probes (All Optional)	
640	XDclear Technology includes Single Crystal, Acoustic Amplifier and Cool Stack Technologies	
641	6S-D, sector probe	
642	Applications	Pediatric cardiac, pediatric abdomen
643	Bandwidth	2.0 – 8.0 MHz
644	Number of elements	96
645	Field of view (max.)	115°
646	Physical foot print	15 x 9 mm
647	B-Mode frequency	4.0, 4.2, 5.0, 5.5, 6.5 MHz
648	Harmonic frequency	4.7, 4.9, 5.3, 5.7, 6.1, 6.3 MHz
649	PW Doppler frequency	2.8, 3.1, 3.6, 4.2 MHz
650	Color Doppler frequency	2.7, 3.1, 4.2, 5.0 MHz
651	6Tc-RS, trans-esophageal probe	
652	Applications	Adult cardiac
653	Bandwidth	2.0 – 8.0 MHz
654	Number of elements	64
655	Field of view (max.)	90°
656	Physical foot print	37 x 13 x 10 mm
657	B-Mode frequency	5.0, 6.0, 6.5 MHz
658	Harmonic frequency	6.0 MHz
659	PW Doppler frequency	3.1, 3.6, 4.2, 5.0, 6.3 MHz
660	Color Doppler frequency	3.3, 4.1, 4.7, 5.5 MHz
661	BE9CS-D, Bi-plane micro convex probe	
662	Applications	Urology
663	Biopsy guide	Single angle, disposable (E8013AW); Single angle, reusable (E8013AX)
664	Bandwidth	3.0 - 12.0 MHz
665	Number of elements	96 x 2
666	Field of view (max.)	133°
667	Physical foot print	19 x 19 mm
668	B-Mode frequency	6.0, 7.0, 8.0, 9.0 MHz
669	Harmonic frequency	7.0, 8.0, 9.0, 10.0 MHz
670	PW Doppler frequency	4.2, 5.0, 6.3 MHz
671	Color Doppler frequency	4.3, 6.3, 8.2 MHz
672	C1-6-D, XDclear™ convex probe	
673	Applications	Abdomen, OB/GYN, pediatric, peripheral vascular, general musculoskeletal
674	Biopsy guide	Multi-angle, disposable with a reusable bracket (H4917VB)
675	Bandwidth	1.0 – 6.0 MHz
676	Number of elements	192
677	Field of view (max.)	80°
678	Physical foot print	67 x 11 mm
679	B-Mode frequency	2.0, 2.5, 3.0, 4.0 MHz
680	Harmonic frequency	1.5, 2.5, 3.0, 4.5, 6.0, 6.5 MHz
681	PW Doppler frequency	1.7, 2.1, 2.5, 3.6 MHz
682	Color Doppler frequency	1.8, 2.1, 2.5, 2.8, 3.0 MHz
683	C1-6VN-D, VNav inside XDclear convex probe	
684	VNav sensor inside probe for Volume Navigation tracking without sensor cables	
685	Applications	Abdomen, OB/GYN, pediatric, peripheral vascular, general musculoskeletal
686	Biopsy guide	Multi-angle, disposable with a reusable bracket (H4917VB)

687	Bandwidth	1.0 – 6.0 MHz
688	Number of elements	192
689	Field of view (max.)	80°
690	Physical foot print	67 x 11 mm
691	B-Mode frequency	2.0, 2.5, 3.0, 4.0 MHz
692	Harmonic frequency	1.5, 2.5, 3.0, 4.5, 6.0, 6.5 MHz
693	PW Doppler frequency	1.7, 2.1, 2.5, 3.6 MHz
694	Color Doppler frequency	1.8, 2.1, 2.5, 2.8, 3.0 MHz
695	C2-7-D, micro convex biopsy probe	
696	Applications	Abdomen, pediatric
697	Biopsy guide	Multi-angle, disposable with a reusable bracket (H40482LK), Multi-Angle, reusable stainless bracket (H40482LL)
698	Bandwidth	1.0 – 6.0 MHz
699	Number of elements	144
700	Field of view (max.)	110°
701	Physical foot print	31 x 10 mm
702	B-Mode frequency	2.5, 4.0, 6.0 MHz
703	Harmonic frequency	3.0, 4.0, 5.0, 6.0 MHz
704	PW Doppler frequency	1.8, 2.1, 2.5, 3.1 MHz
705	Color Doppler frequency	2.1, 2.4, 3.1, 3.7 MHz
706	C2-7VN-D, VNav inside micro convex biopsy probe	
707	VNav sensor inside probe for Volume Navigation tracking without sensor cables	
708	Applications	Abdomen, pediatric
709	Biopsy guide	Multi-angle, disposable with a reusable bracket (H40482LK), Multi-Angle, reusable stainless bracket (H40482LL)
710	Bandwidth	1.0 – 6.0 MHz
711	Number of elements	144
712	Field of view (max.)	110°
713	Physical foot print	31 x 10 mm
714	B-Mode frequency	2.5, 4.0, 6.0 MHz
715	Harmonic frequency	3.0, 4.0, 5.0, 6.0 MHz
716	PW Doppler frequency	1.8, 2.1, 2.5, 3.1 MHz
717	Color Doppler frequency	2.1, 2.4, 3.1, 3.7 MHz
718	C2-9-D, XDclear convex probe	
719	Applications	Abdomen, OB/GYN, pediatric, peripheral vascular, neonatal, neonatal transcranial, general musculoskeletal
720	Biopsy guide	Multi-angle, disposable with a reusable bracket (H4913BA)
721	Bandwidth	2.0 – 9.0 MHz
722	Number of elements	192
723	Field of view (max.)	80°
724	Physical foot print	52 x 9 mm
725	B-Mode frequency	3.0, 4.5, 6.0, 7.0 MHz
726	Harmonic frequency	2.5, 3.5, 5.0, 7.0, 9.0 MHz
727	PW Doppler frequency	2.5, 3.1, 3.6, 4.2, 5.0, 6.3 MHz
728	Color Doppler frequency	3.1, 4.2, 4.6, 5.4 MHz
729	C2-9VN-D, VNav inside XDclear convex probe	
730	VNav sensor inside probe for Volume Navigation tracking without sensor cables	
731	Applications	Abdomen, OB/GYN, pediatric, peripheral vascular, neonatal, neonatal transcranial, general musculoskeletal
732	Biopsy guide	Multi-angle, disposable with a reusable bracket (H4913BA)
733	Bandwidth	2.0 – 9.0 MHz
734	Number of elements	192
735	Field of view (max.)	80°
736	Physical foot print	52 x 9 mm
737	B-Mode frequency	3.0, 4.5, 6.0, 7.0 MHz
738	Harmonic frequency	2.5, 3.5, 5.0, 7.0, 9.0 MHz
739	PW Doppler frequency	2.5, 3.1, 3.6, 4.2, 5.0, 6.3 MHz
740	Color Doppler frequency	3.1, 4.2, 4.6, 5.4 MHz
741	C3-10-D, XDclear micro convex probe	
742	Applications	Abdomen, neonatal, pediatric, peripheral vascular, neonatal transcranial, small part
743	Bandwidth	2.0 – 11.0 MHz
744	Number of elements	192

745	Field of view (max.)	95°
746	Physical foot print	26 x 5 mm
747	B-Mode frequency	4.0, 6.0, 8.0 MHz
748	Harmonic frequency	6.0, 8.0, 10.0 MHz
749	PW Doppler frequency	3.1, 4.2, 6.3, 7.1 MHz
750	Color Doppler frequency	3.9, 5.3, 6.6 MHz
751	IC5-9-D, micro convex probe	
752	Applications	OB/GYN, urology
753	Biopsy guide	Single angle, disposable with a disposable bracket (E8385MJ) or reusable bracket (H40412LN)
754	Bandwidth	3.0 – 10.0 MHz
755	Number of elements	192
756	Field of view (max.)	180°
757	Physical foot print	26 x 6 mm
758	B-Mode frequency	4.5, 5.0, 5.5, 6.0, 7.0, 8.0 MHz
759	Harmonic frequency	6.0, 6.5, 7.0, 9.0 MHz
760	PW Doppler frequency	3.6, 4.2, 5.0 MHz
761	Color Doppler frequency	4.6, 5.9, 6.7 MHz
762	L2-9-D, XDclear linear probe	
763	Applications	Peripheral vascular, pediatric, abdomen, OB/GYN, general musculoskeletal, superficial musculoskeletal, neonatal, neonatal transcranial and small parts including breast, thyroid and scrotal
764	Biopsy guide	Multi-angle, disposable with a reusable bracket (H44901AM)
765	Bandwidth	2.0 – 10.0 MHz
766	Number of elements	192
767	Field of view (max.)	44 mm
768	Physical foot print	53 x 14 mm
769	B-Mode frequency	4.0, 4.5, 5.0, 6.0, 7.0 MHz
770	Harmonic frequency	5.0, 6.0, 7.0, 8.0, 9.0, 9.4 MHz
771	PW Doppler frequency	2.5, 2.8, 3.1, 3.6, 4.2, 5.0 MHz
772	Color Doppler frequency	3.1, 4.0, 4.6, 5.3 MHz
773	L2-9VN-D, VNNav inside XDclear linear probe	
774	VNNav sensor inside probe for Volume Navigation tracking without sensor cables	
775	Applications	Peripheral vascular, pediatric, abdomen, OB/GYN, general musculoskeletal, superficial musculoskeletal, neonatal, neonatal transcranial and small parts including breast, thyroid and scrotal
776	Biopsy guide	Multi-angle, disposable with a reusable bracket (H44901AM)
777	Bandwidth	2.0 – 10.0 MHz
778	Number of elements	192
779	Field of view (max.)	44 mm
780	Physical foot print	53 x 14 mm
781	B-Mode frequency	4.0, 4.5, 5.0, 6.0, 7.0 MHz
782	Harmonic frequency	5.0, 6.0, 7.0, 8.0, 9.0, 9.4 MHz
783	PW Doppler frequency	2.5, 2.8, 3.1, 3.6, 4.2, 5.0 MHz
784	Color Doppler frequency	3.1, 4.0, 4.6, 5.3 MHz
785	L3-9i-D, linear probe	
786	Applications	Abdomen, intraoperative
787	Bandwidth	2.0 – 10.0 MHz
788	Number of elements	192
789	Field of view (max.)	38 mm
790	Physical foot print	38 x 5 mm
791	B-Mode frequency	3.0, 5.0, 7.0 MHz
792	Harmonic frequency	3.0, 6.0, 9.0 MHz
793	PW Doppler frequency	3.1, 3.6, 5.0, 6.3, 7.1 MHz
794	Color Doppler frequency	2.6, 2.9, 4.1, 5.4 MHz
795	L3-12-D, linear probe	
796	Applications	Abdomen, OB, general musculoskeletal, superficial musculoskeletal, neonatal, neonatal transcranial, small parts, vascular, pediatrics, breast
797	Biopsy guide	Multi-angle, disposable with a reusable bracket (H78652PA)
798	Bandwidth	3.0 – 11.0 MHz
799	Number of elements	256
800	Field of view (max.)	51 mm

801	Physical foot print	51 x 4 mm
802	B-Mode frequency	6.0, 8.0, 10.0, 12.0 MHz
803	Harmonic frequency	4.0, 6.0, 8.0, 10.0, 12.0 MHz
804	PW Doppler frequency	4.2, 5.0, 6.3, 8.3 MHz
805	Color Doppler frequency	4.3, 4.9, 5.4, 6.1, 7.2, 8.0 MHz
806	L4-20t-D, XDClear linear probe	
807	Applications	General musculoskeletal, superficial musculoskeletal, vascular
808	Biopsy guide	Multi-angle, disposable with a reusable bracket (H45201BLF)
809	Bandwidth	4.0 - 15.0 MHz
810	Number of elements	256
811	Field of view (max.)	39 mm
812	Physical foot print	48 x 12 mm
813	B-Mode frequency	10, 14, 18 MHz
814	Harmonic frequency	10, 13, 14, 16, 18, 19, 20 MHz
815	PW Doppler frequency	5.6, 7.1, 8.3, 10.0 MHz
816	Color Doppler frequency	5.7, 6.3, 6.6, 6.8, 7.5, 8.0, 9.0, 9.5, 10.0 MHz
817	L6-24-D, linear probe	
818	Applications	General musculoskeletal, superficial musculoskeletal, neonatal, small parts, breast, peripheral vascular, abdomen
819	Bandwidth	6.0 – 20.0 MHz
820	Number of elements	192
821	Field of view (max.)	26 mm
822	Physical foot print	32 x 8 mm
823	B-Mode frequency	12.0, 16.0, 21.0 MHz
824	Harmonic frequency	12.0, 18.0, 20.0, 24.0 MHz
825	PW Doppler frequency	8.3, 10.0, 12.5 MHz
826	Color Doppler frequency	9.2, 11.2, 12.2 MHz
827	L8-18i-D, linear probe	
828	Applications	Small parts, peripheral vascular, neonatal, neonatal transcranial, general musculoskeletal, superficial musculoskeletal, intraoperative
829	Bandwidth	4.0 – 15.0 MHz
830	Number of elements	168
831	Field of view (max.)	25 mm
832	Physical foot print	35 x 10 mm
833	B-Mode frequency	7.0, 9.0, 13.0, 16.0 MHz
834	Harmonic frequency	14.0, 16.0, 18.0 MHz
835	PW Doppler frequency	5.0, 6.3, 7.1, 8.3 MHz
836	Color Doppler frequency	6.3, 6.7, 9.6, 10.5 MHz
837	M5Sc-D, XDclear sector probe	
838	Applications	Adult cardiac, pediatric cardiac, adult cephalic, abdominal
839	Biopsy guide	Multi-angle, disposable with a reusable bracket (H45561FC)
840	Bandwidth	1.0 – 5.0 MHz
841	Number of elements	288
842	Field of view (max.)	120°
843	Physical foot print	28 x 17 mm
844	B-Mode frequency	2.0, 2.5, 3.5, 4.5 MHz
845	Harmonic frequency	2.4, 3.0, 3.2, 3.3, 3.7, 4.0, 4.5 MHz
846	PW Doppler frequency	1.6, 1.7, 1.8, 1.9, 2.1, 2.5, 3.1, 3.6 MHz
847	Color Doppler frequency	1.7, 1.8, 1.9, 2.2, 2.4, 2.5, 3.0, 3.1, 3.7, 3.8 MHz
848	ML6-15-D, matrix array linear probe	
849	Applications	Abdomen, peripheral vascular, neonatal, pediatric, neonatal transcranial, general musculoskeletal, superficial musculoskeletal and small parts including breast, thyroid and scrotal
850	Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LJ)
851	Bandwidth	4.0 – 16.0 MHz
852	Number of elements	1008
853	Field of view (max.)	50 mm
854	Physical foot print	50 x 10 mm

855	B-Mode frequency	7.0, 9.0, 10.0, 11.0, 12.0, 15.0 MHz
856	Harmonic frequency	10.0, 12.0, 14.0, 15.0 MHz
857	PW Doppler frequency	5.0, 6.3, 8.3 MHz
858	Color Doppler frequency	5.1, 6.1, 7.3, 8.2, 9.2, 10.3, 11.4, 12.4 MHz
859	P2D, CW split crystal probe	
860	Applications	Adult cardiac, pediatric cardiac, peripheral vascular, adult cephalic
861	Frequency	2.1 MHz
862	P6D, CW split crystal probe	
863	Applications	Adult cardiac, pediatric cardiac, peripheral vascular, adult cephalic
864	Frequency	6.3 MHz
865	P8D, CW split crystal probe	
866	Applications	Adult cardiac, pediatric cardiac, peripheral vascular, adult cephalic
867	Frequency	8.3 MHz
868	RAB6-D, convex volume probe	
869	Applications	Abdomen, OB/GYN, pediatric, neonatal
870	Biopsy guide	Single angle, reusable bracket (H46701AE)
871	Bandwidth	2.0 – 8.0 MHz
872	Number of elements	192
873	Field of view (max.)	80°
874	Physical foot print	62 x 34 mm
875	B-Mode frequency	3.5, 5.0, 8.0 MHz
876	Harmonic frequency	4.0, 5.0, 6.5, 8.0 MHz
877	PW Doppler frequency	3.1, 4.2, 5.0 MHz
878	Color Doppler frequency	2.8, 3.5, 3.8 MHz
879	RIC5-9-D, convex volume probe	
880	Applications	OB/GYN, urology
881	Biopsy guide	Single angle, reusable (H46721R)
882	Bandwidth	3.0 – 10.0 MHz
883	Number of elements	192
884	Field of view (max.)	180°
885	Physical foot print	32 x 27 mm
886	B-Mode frequency	5.0, 5.5, 6.0, 6.5, 7.0, 8.0 MHz
887	Harmonic frequency	6.0, 6.5, 7.0, 9.0 MHz
888	PW Doppler frequency	3.6, 4.2, 5.0 MHz
889	Color Doppler frequency	4.3, 6.1, 7.3 MHz
890	Vscan Air CL, Convex probe	
891	Applications	Abdomen, OB, peripheral vascular, general musculoskeletal, superficial musculoskeletal, cardiac, pleural
892	Bandwidth	2 - 5 MHz
893	Number of elements	128
894	Field of view (max.)	67°
895	Physical foot print	64 x 16 mm
896	B-Mode frequency	3.3, 4.4 MHz
897	Harmonic frequency	4.4 MHz
898	PW Doppler frequency	Not Supported
899	Color Doppler frequency	2.7 MHz
900	Vscan Air CL, Linear probe	
901	Applications	Peripheral Vascular, Thyroid, Scrotal, Breast, general musculoskeletal, superficial musculoskeletal, pediatric cephalic, pleural
902	Bandwidth	3 - 12 MHz
903	Number of elements	192
904	Field of view (max.)	38 mm
905	Physical foot print	38 x 12 mm
906	B-Mode frequency	8 MHz
907	Harmonic frequency	8.5 MHz
908	PW Doppler frequency	Not Supported
909	Color Doppler frequency	6 MHz
910	External Inputs and outputs (not including on-board peripherals)	
911	HDMI	
912	Ethernet	
913	Multiple USB 3.0 ports	

914	Safety Conformance	
915	The LOGIQ Fortis is:	
916	Classified to ANSI/AAMI ES60601-1 Medical Electrical Equipment, Part 1: General Requirements for Safety by a Nationally Recognized Test Lab	
917	Certified to CSA CAN/CSA-C22.2 NO. 60601-1 General requirements for safety	
918	CE Marked to EU Medical Device Regulation MDR 2017/745	
919	Certified to CSA CAN/CSA-C22.2 NO. 60601-1 General requirements for safety:	
920	• IEC/EN 60601-1 Medical electrical equipment – Part 1: General requirements for basic safety and essential performance	
921	• IEC/EN 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for safety – Collateral Standard: Electromagnetic compatibility – requirements and tests	
922	• IEC/EN 60601-1-6 Medical electrical equipment Part 1 -6: General requirements for basic safety and essential performance – Collateral Standard: Usability	
923	• IEC/EN 60601-1-9 Medical electrical equipment Part 1 -9: General requirements for basic safety and essential performance – Collateral Standard: Requirements for environmentally conscious design	
924	• IEC/EN 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment	
925	• IEC/EN 62366-1 Application of usability engineering to medical devices	
926	• IEC/EN 62304 Software Life Cycle Processes	
927	• IEC/EN 62359 Ultrasonic – Field characterization – Test methods for the determination of thermal and mechanical indices related to medical diagnostic ultrasonic fields	
928	• EN ISO 15223-1: Symbols to be used with medical device labels, labelling and information to be supplied	
929	• ISO 10993-1 Biological evaluation of medical devices – Part 1 Evaluation and testing	
930	• ISO 17664-2 : Processing of health care products – Information to be provided by the medical device manufacturer for the processing of medical devices	
931	• ISO 14971 (Medical devices – Application of risk management to medical devices)	
932	• EMC Emissions Group 1, class A device requirements as per Sub clause 4.2 of CISPR 11	
933	• WEEE (Waste Electrical and Electronic Equipment)	
934	• RoHS according to 2011/65 EU 2015/863 EU Including national deviations	
935	• Wireless equipment shall be certified to FCC, RED and Japan Radio Law	
936	• Medical Device Good Manufacturing Practice Manual issued by the FDA (Food and Drug Administration, Department of Health, USA)	
937	Supplement: cardiac measurements/calculations	
938	B-Mode measurements	
939	Aorta	• Aortic Root Diameter (Ao Root Diam) • Aortic Arch Diameter (Ao Arch Diam) • Ascending Aortic diameter (Ao Asc) • Descending Aortic Diameter (Ao Desc Diam) • Aorta Isthmus (Ao Isthmus) • Aorta (Ao st junct)
940	Aortic valve	• Aortic Valve Cusp Separation (AV Cusp) • Aortic Valve Area Planimetry (AVA Planimetry) • (Trans AVA)
941	Left atrium	• Left Atrium Diameter (LA Diam) • LA Length (LA Major) • LA Width (LA Minor) • Left Atrium Diameter to Ao Root Diameter Ratio (LA/Ao ratio) • Left Atrium Area (LAA(d), LAA(s)) • Left Atrium Volume, Single Plane, Method of Disk (LAEDV A2C, LAESV A2C) (LAEDV A4C, LAESV A4C), (LAEDV A-L, LAEDV Index A-L, LAESV A-L, LAESV Index A-L)

942	Left ventricle	• Left Ventricle Mass (LVPWd, LVPWs) • Left Ventricle Volume, Teichholz/Cubic (LVIDd, LVI Ds) • Left Ventricle Internal Diameter (LVIDd, LVI Ds) Left Ventricle Length (LVLD, LVLs) • Left Ventricle Outflow Tract Diameter (LVOT Diam) • Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs) • Left Ventricle Length (LV Major) • Left Ventricle Width (LV Minor) • Left Ventricle Outflow Tract Area (LVOT) • Left Ventricle Area, Two Chamber/Four Chamber/Short Axis (LVA (d), LVA (s)) • Left Ventricle Endocardial Area, Width (LVA (d), LVA(s)) • Left Ventricle Epicardial Area, Length (LVAepi (d), LVAepi (s)) • Left Ventricle Mass Index (LVPWd, LVPWs) • Ejection Fraction, Teichholz/Cube (LVIDd, LVIDs)
943	Left ventricle continued	• Left Ventricle Posterior Wall Fractional Shortening (LVPWd, LVPWs) • Left Ventricle Stroke Index, Teichholz/Cube (LVIDd, LVIDs and Body Surface Area) • Left Ventricle Fractional Shortening (LVIDd, LVIDs) • Left Ventricle Stroke Volume, Teichholz/Cubic (LVIDd, LVIDs) • Left Ventricle Stroke Index, Single Plane, Two Chamber, Method of Disk (LVI Dd, LVIDs, LVSD, LVSS) • Left Ventricle Stroke Index, Single Plane, Four Chamber, Method of Disk (LVI Dd, LVIDs, LVSD, LVSS) • Left Ventricle Stroke Index, Bi-Plane, Bullet, Method of Disk (LVAd, LVAs) • Interventricular Septum (IVS) • Left Ventricle Internal Diameter (LVI D) • Left Ventricle Posterior Wall Thickness (LVPW)
944	Mitral valve	• Mitral Valve Annulus Diameter (MV Ann Diam) • E-Point-to-Septum Separation (EPSS) • Mitral Valve Area Planimetry (MVA Planimetry)
945	Pulmonic valve	• Pulmonic Valve Area (PV Planimetry) • Pulmonic Valve Annulus Diameter (PV Annulus Diam) • Pulmonic Diameter (Pulmonic Diam)
946	Right atrium	• Right Atrium Diameter, Length (RAD Ma) • Right Atrium Diameter, Width (RAD Mi) • Right Atrium Area (RAA) • Right Atrium Volume, Single Plane, Method of Disk (RAAd) • Right Atrium Volume, Systolic, Single Plane, Method of Disk (RAAs)
947	Right ventricle	• Right Ventricle Outflow Tract Area (RVOT Planimetry) • Left Pulmonary Artery Area (LPA Area) • Right Pulmonary Artery Area (RPA Area) • Right Ventricle Internal Diameter (RVIDd, RVIDs) • Right Ventricle Diameter, Length (RVD Ma) • Right Ventricle Diameter, Width (RVD Mi) • Right Ventricle Wall Thickness (RVAWd, RVAWs) • Right Ventricle Outflow Tract Diameter (RVOT Diam) • Left Pulmonary Artery (LPA) • Main Pulmonary Artery (MPA) • Right Pulmonary Artery (RPA)
948	System inferior vena cava	• Systemic Vein Diameter (Systemic Diam) • Patent Ductus Arteriosis Diameter (PDA Diam) • Pericard Effusion (PEs) • Patent Foramen Ovale Diameter (PFO Diam) • Ventricular Septal Defect Diameter (VSD Diam) • Interventricular Septum (IVS) Fractional Shortening (IVSd, IVSS)
949	Tricuspid valve	• Tricuspid Valve Area (TV Panimetry) • Tricuspid Valve Annulus Diameter (TV Annulus Diam)
950	M-Mode measurements	

951	Aorta	• Aortic Root Diameter (Ao Root Diam) • Aortic Valve • Aortic Valve Diameter (AV Diam) • Aortic Valve Cusp separation (AV Cusp) • Aortic Valve Ejection Time (LVET)
952	Left atrium	• Left Atrium Diameter to AoRoot Diameter Ratio (LA/Ao Ratio) • Left Atrium Diameter (LA Diam)
953	Left ventricle	• Left Ventricle Volume, Teichholz/Cubic (LVIDd, LVI Ds) • Left Ventricle Internal Diameter (LVIDd, LVI Ds) • Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs) • Left Ventricle Ejection Time (LVET) • Left Ventricle Pre-Ejection Period (LVPEP) • Interventricular Septum (IVS) • Left Ventricle Internal Diameter (LVI D) • Left Ventricle Posterior Wall Thickness (LVPW)
954	Mitral valve	• E-Point-to-Septum Separation (EPSS) • Mitral Valve Leaflet Separation (D-E Excursion) • Mitral Valve Anterior Leaflet Excursion (D-E Excursion) • Mitral valve D-E Slope (D-E Slope) • Mitral Valve E-F Slope (E-F Slope) • Mitral Annular Plane Systolic Excursion (MAPSE)
955	Pulmonic valve	• QRS Complex to End of Envelope (Q-PV close)
956	Right ventricle	• Right Ventricle Internal Diameter (RVIDd, RVIDs) • Right Ventricle Wall Thickness (RVAWd, RVAWs) • Right Ventricle Outflow Tract Diameter (RVOT Diam) • Right Ventricle Ejection Time (RVET) • Right Ventricle Pre-Ejection Period (RVPEP)
957	System	• Pericard Effusion (PE (d))
958	Tricuspid valve	• QRS Complex to End of Envelope (Q-TV close) • Tricuspid Annular Plane Systolic Excursion (TAPSE)
959	Doppler Mode measurements	
960	Aortic valve	• Aortic Insufficiency Mean Pressure Gradient (AR Trace) • Aortic Insufficiency Peak Pressure Gradient (AR Vmax) • Aortic Insufficiency End Diastole Pressure Gradient (AR Trace) • Aortic Insufficiency Mean Velocity (AR Trace) • Aortic Insufficiency Velocity Time Integral (AR Trace) • Aortic Valve Mean Velocity (AV Trace) • Aortic Valve Velocity Time Integral (AV Trace) • Aortic Valve Mean Pressure Gradient (AV Trace) • Aortic Valve Peak Pressure Gradient (AR Vmax) • Aortic Insufficiency Peak Velocity (AR Vmax) • Aortic Insufficiency End-Diastolic Velocity (AR Trace) • Aortic Valve Peak Velocity (AV Vmax) • Aortic Valve Peak Velocity at Point E (AV Vmax)
961	Aortic valve continued	• Aorta Proximal Coarctation (Coarc Pre-Duct) • Aorta Distal Coarctation (Coarc Post-Duct) • Aortic Valve Insufficiency Pressure Half Time (AR PHT) • Aortic Valve Flow Acceleration (AV Trace) • Aortic Valve Pressure Half Time (AV Trace) • Aortic Valve Acceleration Time (AV Acc Time) • Aortic Valve Deceleration Time (AV Dec Time) • Aortic Valve Ejection Time (AVET) • Aortic Valve Acceleration to Ejection Time Ratio (AV Acc Time, AVET) • Aortic Valve Area(VTI): AVA (Vmax)
962	Left ventricle	• Left Ventricle Outflow Tract Peak Pressure Gradient (LVOT Vmax) • Left Ventricle Outflow Tract Peak Velocity (LVOT Vmax) • Left Ventricle Outflow Tract Mean Pressure Gradient (LVOT Trace) • Left Ventricle Outflow Tract Mean Velocity (LVOT Trace) • Left Ventricle Outflow Tract Velocity Time Integral (LVOT Trace) • Left Ventricle Ejection Time (LVET)

963	Mitral valve	• E' Early diastolic mitral valve annular velocity (E') • E' Avg Averaged early diastolic mitral valve annular velocity (E' Avg) • E' Lat Early diastolic mitral valve lateral annular velocity (E' Lat) • E' Medial Early diastolic mitral valve medial annular velocity (E' Medial) • E' Sept Early diastolic mitral • Mitral inflow E velocity to E' ratio (E/E') • Mitral inflow E velocity to E' Avg ratio (E/E' Avg) • Mitral inflow E velocity to E' Lat ratio (E/E' Lat) • Medial Mitral inflow E velocity to E' Medial ratio (E/E') • Mitral inflow E velocity to E' Sept ratio (E/E' Sept) • Mitral Valve Regurgitant Flow Acceleration (MR Trace) • Mitral Valve Regurgitant Mean Velocity (MR Trace)
964	Mitral valve continued	• Mitral Regurgitant Mean Pressure Gradient (MR Trace) • Mitral Regurgitant Velocity Time Integral (MR Trace) • Mitral Valve Mean Velocity (MV Trace) • Mitral Valve Velocity Time Integral (MV Trace) • Mitral Valve Mean Pressure Gradient (MV Trace) • Mitral Regurgitant Peak Pressure Gradient (MR Vmax) • Mitral Valve Peak Pressure Gradient (MV Vmax) • Mitral Regurgitant Peak Velocity (MR Vmax) • Mitral Valve Peak Velocity (MV Vmax) • Mitral Valve Velocity Peak A (MV A Velocity) • Mitral Valve Velocity Peak E (MV E Velocity)
965	Mitral valve continued	• Mitral Valve Area According to PHT (MV PHT) • Mitral Valve Flow Deceleration (MV DecT) • Mitral Valve Pressure Half Time (MV PHT) • Mitral Valve Flow Acceleration (MV AccT) • Mitral Valve E-Peak to A-Peak Ratio (A-C and D-E) (MV E/ARatio) • Mitral Valve Acceleration Time • (MV Acc Time) • Mitral Valve Deceleration Time (MV Dec Time) • Mitral Valve Ejection Time ((MVET) • Mitral Valve A-Wave Duration (MV A Dur) • Mitral Valve Time to Peak (MV TTP) • Mitral Valve Acceleration Time/Deceleration Time Ratio (MVAcc/Dec Time) • Stroke Volume Index by Mitral Flow (MVA Planimetry, MVTrace)
966	Pulmonic Valve	• Pulmonic Insufficiency Peak Pressure Gradient (PR Vmax) • Pulmonic Insufficiency End-Diastolic Pressure Gradient (PRTrace) • Pulmonic Valve Peak Pressure Gradient (PV Vmax) • Pulmonic Insufficiency Peak Velocity (PR Vmax) • Pulmonic Insufficiency End-Diastolic Velocity (Prend Vmax) • Pulmonic Valve Peak Velocity (PV Vmax) • Pulmonary Artery Diastolic Pressure (PV Trace) • Pulmonic Insufficiency Mean Pressure Gradient (PR Trace)
967	Pulmonic valve continued	• Pulmonic Valve Mean Pressure Gradient (PV Trace) • Pulmonic Insufficiency Mean Square Root Velocity (PR Trace) • Pulmonic Insufficiency Velocity Time Integral (PR Trace) • Pulmonic Valve Mean Velocity (PV Trace) • Pulmonic Valve Velocity Time Integral (PV Trace) • Pulmonic Insufficiency Pressure Half Time (PR PHT) • Pulmonic Valve Flow Acceleration (PV Acc Time) • Pulmonic Valve Acceleration Time (PV Acc Time) • Pulmonic Valve Ejection Time (PVET) • QRS Complex to End of Envelope (Q-to-PV Close) • Pulmonic Valve Acceleration to Ejection Time Ratio (PV Acc Time, PVET)

968	Right ventricle	• Right Ventricle Outflow Tract Peak Pressure Gradient (RVOT Vmax) • Right Ventricle Outflow Tract Peak Velocity (RVOT Vmax) • Right Ventricle Outflow Tract Velocity Time Integral (RVOTTrace) • Right Ventricle Ejection Time (RV Trace) • Stroke Volume by Pulmonic Flow (RVOT Planimetry, RVOTTrace) • Right Ventricle Stroke Volume Index by Pulmonic Flow (RVOT Planimetry, RVOT Trace)
969	System	• Pulmonary Artery Peak Velocity (PV Vmax) • Pulmonary Vein Velocity Peak A (Reverse) (P Vein A) • Pulmonary Vein Peak Velocity (P Vein D, P Vein S) • Systemic Vein Peak Velocity (PDA Diastolic, PDA Systolic) • Ventricular Septal Defect Peak Velocity (VSD Vmax) • Atrial Septal Defect (ASD Diastolic, ASD Systolic) • Pulmonary Vein A-Wave Duration (P Vein A Dur) • IsoVolumetric Relaxation Time (IVRT) • IsoVolumetric Contraction Time (IVCT) • Pulmonary Vein S/D Ratio (P Vein D, P Vein S) • Ventricular Septal Defect Peak Pressure Gradient (VSD Vmax) • Pulmonic-to-Systemic Flow Ratio (Qp/Qs)
970	Tricuspid valve	• Tricuspid Regurgitant Peak Pressure Gradient (TR Vmax) • Tricuspid Valve Peak Pressure Gradient (TV Vmax) • Tricuspid Regurgitant Peak Velocity (TR Vmax) • Tricuspid Valve Peak Velocity (TV Vmax) • Tricuspid Valve Velocity Peak A (TV A Velocity) • Tricuspid Valve Velocity Peak E (TV E Velocity) • Tricuspid Regurgitant Mean Pressure Gradient (TR Trace) • Tricuspid Valve Mean Pressure Gradient (TV Trace)
971	Tricuspid valve continued	• Tricuspid Regurgitant Mean Velocity (TR Trace) • Tricuspid Regurgitant Velocity Time Integral (TR Trace) • Tricuspid Valve Mean Velocity (TV Trace) • Tricuspid Valve Velocity Time Integral (TV Trace) • Tricuspid Valve Time to Peak (TV TTP) • Tricuspid Valve Ejection Time (TV Acc/Dec Time) • Tricuspid Valve A-Wave Duration (TV A Dur) • QRS Complex to End of Envelope (Q-TV Close) • Tricuspid Valve Pressure Half Time (TV PHT) • Stroke Volume by Tricuspid Flow (TV Planimetry, TV Trace) • Tricuspid Valve E-Peak to A-Peak Ratio (TV E/A Velocity)
972	Color Flow Mode measurements	
973	Aortic valve	• Proximal Isovelocity Surface Area: Regurgitant Orifice Area (AR Radius) • Proximal Isovelocity Surface Area: Radius of Aliased Point (AR Radius) • Proximal Isovelocity Surface Area: Regurgitant Flow (AR Trace) • Proximal Isovelocity Surface Area: Regurgitant Volume Flow (AR Trace) • Proximal Isovelocity Surface Area: Aliased Velocity (AR Vmax)
974	Mitral valve	• Proximal Isovelocity Surface Area: Regurgitant Orifice Area (MR Radius) • Proximal Isovelocity Surface Area: Radius of Aliased Point (MR Radius) • Proximal Isovelocity Surface Area: Regurgitant Flow (MR Trace) • Proximal Isovelocity Surface Area: Regurgitant Volume Flow (MR Trace) • Proximal Isovelocity Surface Area: Aliased Velocity (MR Vmax)
975	Combination Mode measurements	

976	Aortic valve	• Aortic Valve Area (Ao Root Diam, LVOT Vmax, AV Vmax) • Aortic Valve Area by Continuity Equation by Peak Velocity (Ao Root Diam, LVOT Vmax, AV Vmax) • Stroke Volume by Aortic Flow (AVA Planimetry, AV Trace) • Cardiac Output by Aortic Flow (AVA Planimetry, AV Trace, HR) • Aortic Valve Area by Continuity Equation VTI (Ao Root Diam, LVOT Vmax, AV Trace)
977	Left ventricle	• Cardiac Output, Teichholz/Cubic (LVIDd, LVI Ds, HR) • Cardiac Output Two Chamber, Single Plane, Area-Length/Method of Disk (Simpson) (LVAd, LVAs, HR) • Cardiac Output Four Chamber, Single Plane, Area-Length/Method of Disk (Simpson) (LVAd, LVAs, HR) • Ejection Fraction Two Chamber, Single Plane, Area-Length/Method of Disk (Simpson) (LVAd, LVAs) • Ejection Fraction Four Chamber, Single Plane, Area-Length/Method of Disk (Simpson) (LVAd, LVAs) • Left Ventricle Stroke Volume, Single Plane, Two Chamber/Four Chamber, Area-Length (LVAd, LVAs)
978	Left ventricle continued	• Left Ventricle Stroke Volume, Single Plane, Two Chamber/Four Chamber, Method of Disk (Simpson) (LVIDd, LVIDs, LVAd, LVAs) • Left Ventricle Volume, Two Chamber/Four Chamber, Area-Length (LVAd, LVAs) • Ejection Fraction, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH) • Left Ventricle Stroke Volume, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH) • Left Ventricle Volume, Bi-Plane, Method of Disk (LVAd, LVAs, 2CH, 4CH) • Left Ventricle Stroke Index, Single Plane, Two Chamber/Four Chamber, Area-Length (LVSD, LVSS and BSA) • Left Ventricle Volume, Single Plane, Two Chamber/Four Chamber, Method of Disk (LVAd, LVAs) • Left Ventricle Volume, Apical View, Long Axis, Method of Disk (LVAd, LVAs)
979	Mitral valve	• Stroke Volume by Mitral Flow (MVA Planimetry, MV Trace) • Cardiac Output by Mitral Flow (MVA Planimetry, MV Trace, HR)
980	Pulmonic valve	• Stroke Volume by Pulmonic Flow (PV Planimetry, PV Trace) • Cardiac Output by Pulmonic Flow (PV Planimetry, PV Trace, HR)
981	Tricuspid valve	• Cardiac Output by Tricuspid Flow (TV Planimetry, TV Trace, HR)
982	Combination Mode measurements	
983	Parameter: lists the mode, the measurement folder and the specific measurement	
984	Measured Value: Up to six measurement values for each item. Average, maximum, minimum or last	
985	Generic study in cardiology	
986	Stroke Volume (SV)	
987	Cardiac Output (CO)	



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