#### Specificația tehnică completată

#### Dispozitiv doppler a vaselor extra și intracraniene

Model: Logiq P9; Producător: GE Helthcare si GE ULTRASOUND KOREA; Țara: SUA si KOREA

Specificarea tehnică deplină solicitată de către	Specificarea tehnică deplină solicitată de către
autoritatea contractantă	ofertant
Dispozitiv doppler a vaselor extra și intracraniene	Dispozitiv doppler a vaselor extra și intracraniene DA
APLICAŢII CLINICE Vizualizarea arterei principale	APLICAŢII CLINICE Vizualizarea arterei principale
carotide, venelor vertebrale, vizualizarea vaselor sangvine	carotide, venelor vertebrale, vizualizarea vaselor sangvine
intra și extracraniene	intra și extracraniene <b>DA</b>
Descriere generală	Descriere generală
Tip dispozitiv Staționar	Tip dispozitiv Staționar <b>DA</b>
PROBE PORTURI ≥3	PROBE PORTURI – <b>4 DA</b>
Indicator port activ da	Indicator port activ <b>DA pe display de control</b>
PROBE TIP, MHz Linear pentru vizualizarea arterei	PROBE TIP, MHz Linear pentru vizualizarea arterei
carotide 3 – 11 Mhz	carotide 2 – 11 Mhz <b>DA Model: L3-12-RS</b>
Sectorial pentru vizualizarea vaselor extra și intracraniene	Sectorial pentru vizualizarea vaselor extra și intracraniene
2-5 Mhz	1-5 Mhz DA Model: 3Sc-Rs
Multifrecventa min 9 frecvente da	Multifrecventa min 9 frecvente <b>DA in dependeta de sonda</b>
NUMBER DE CRES 256	si gama de fregventa pentru sonda
NIVELE DE GRI ≥256	NIVELE DE GRI - 256 <b>DA</b>
GAMA DINAMICĂ ≥180dB	GAMA DINAMICĂ - 180dB <b>DA</b>
Adâncimea scanării ≥ 39 cm	Adâncimea scanării - 33 cm <b>DA</b>
Diapazon freeventa ≥1-18 Mhz	Diapazon freeventa \(\geq 1.18\) Mhz <b>DA</b>
Sonde acceptate de sistem convexe, TEE, intra-operationale,	Sonde acceptate de sistem convexe, TEE, intra-operationale,
Sectoriale matriciale, volumetrice matriciale 4D, CW	Sectoriale matriciale, volumetrice matriciale 4D, CW pencil, etc <b>DA</b>
pencil, etc POSTPROCESARE da	POSTPROCESARE <b>DA</b>
IMAGINE MODURI 2D-mod da	IMAGINE MODURI 2D-mod DA
Real time Dual 2-D +Doppler da	Real time Dual 2-D +Doppler <b>DA</b>
Phased Array Inversed Harmonics da	Phased Array Inversed Harmonics <b>DA</b>
Angio da	Angio <b>DA</b>
M-Mode color da	M-Mode color <b>DA</b>
Compunere spatiala da	Compunere spatiala <b>DA</b>
Armonici tisulare	Armonici tisulare <b>DA</b>
Armonici tisulare diferențiale da	Armonici tisulare diferențiale <b>DA</b>
DOPPLER Tip PW, CFM, Tisular, vizualizare micro-	DOPPLER Tip PW, CFM, Tisular, vizualizare micro-
vasculara	vasculara <b>DA</b>
Flux dinamic avansat da	Flux dinamic avansat <b>DA</b>
Masurători automatizate da	Masurători automatizate <b>DA</b>
Power Doppler da	Power Doppler <b>DA</b>
Duplex da	Duplex <b>DA</b>
Triplex da	Triplex DA
FUNCȚIONALITĂȚI	FUNCȚIONALITĂȚI
Măsurători digitale da	Măsurători digitale <b>DA</b>
Diapazon dinamic selectabil da	Diapazon dinamic selectabil <b>DA</b>
Focalizare de transmisie ajustabilă da	Focalizare de transmisie ajustabilă <b>DA</b>
Focalizare de recepție dinamică da	Focalizare de recepție dinamică <b>DA</b>
Vizualizare micro –vasculara cu flux redus da	Vizualizare micro –vasculara cu flux redus <b>DA</b>
Elastografie prin shear wave Da (optional)	Elastografie prin shear wave <b>DA</b> (optional)
Măsurători pe reluarea video da	Măsurători pe reluarea video <b>DA</b>
Determinarea adîncimii vasului la diferite niveluri da	Determinarea adîncimii vasului la diferite niveluri <b>DA</b>
Sa fie posibila vizualizarea emboliilor (trombelor) da	Sa fie posibila vizualizarea emboliilor (trombelor) <b>DA</b>
Determinarea debitului pulsator cardiac da	Determinarea debitului pulsator cardiac <b>DA</b>
PAN/ZOOM imagine în timp real da	PAN/ZOOM imagine în timp real <b>DA</b>
imagine înghețată da	imagine înghețată <b>DA</b>
STOCARE IMAGINI Capacitate ≥1 TB	STOCARE IMAGINI Capacitate - 500Gb si posibilitatea
	inclusa de transfer de date catre server exter.

USB da Cine da

DICOM 3.0 da

Monitor integrat de control touch ≥8"

PACHETE DE ANALIZĂ

Trascranial da

Shear Vawe Elastografie(optional) da

Vascular da Părți mici da

Posibilitate de generare a raportului da POSIBILITATE LA UPGRADE da

Butoane configurabile da

MONITOR ≥21"

DIVIZARE MONITOR da PRINTER INCORPORAT da

Amplasat pe troleu da Roți cu frîne da

Baterie incorporata Min 3-4 ore utilizare continuu Termen de garantie Min 36 luni, pentru echipament

Min 24 luni pentru sonde

Logistică Livrare Da

Manual de utilizare Romina Manual de service Da

Instalare testare și dare în exploatare Da

Training pentru utilizator Da Training pentru inginer Da Cerințe față de furnizor Certificat CE Da

Certificat ISO 13485 Da Reprezentansă oficială Da

Certificat de training de la producător Daa

USB **DA**Cine **DA** 

DICOM 3.0 DA

Monitor integrat de control touch 10,4 "DA

PACHETE DE ANALIZĂ

Trascranial DA

Shear Vawe Elastografie(optional) DA

Vascular **DA** Părți mici **DA** 

Posibilitate de generare a raportului **DA** POSIBILITATE LA UPGRADE **DA** 

Butoane configurabile **DA**MONITOR - 21.5"**DA**DIVIZARE MONITOR **DA**PRINTER INCORPORAT **DA** 

Amplasat pe troleu **DA** 

Roți cu frîne DA

Baterie incorporata Min 3-4 ore utilizare continuu **DA** Termen de garantie Min 36 luni, pentru echipament **DA** 

Min 24 luni pentru sonde **DA** 

Logistică Livrare **DA** 

Manual de utilizare Romina DA

Manual de service **DA** 

Instalare testare și dare în exploatare **DA** 

Training pentru utilizator **DA**Training pentru inginer **DA**Cerințe față de furnizor
Certificat CE **DA**Certificat ISO 13485 **DA**Reprezentantă oficială **DA** 

Certificat de training de la producător DA



Certification Médical-San ( Notified Body N° 0459

#### ATTESTATION / CERTIFICATE N° 7697 rev. 8

Délivrée à Paris le 24 avril 2018 Issued in Paris on April 24th, 2018

#### ATTESTATION CE / EC CERTIFICATE

Approbation du Système Complet d'assurance Qualité/ Approval of full Quality Assurance System ANNEXE II excluant le point 4 Directive 93/42/CEE relative aux dispositifs médicaux ANNEX II excluding section 4 Directive 93/42/EEC concerning medical devices Pour les dispositifs de classe III, un certificat CE de conception est requis For class III devices, a EC design certificate is required

Fabricant / Manufacturer

#### GE ULTRASOUND KOREA, Ltd. 9, Sunhwan-ro 214beon-gil, Jungwon-gu SEONGNAM-SI, GYEONGGI-DO REPUBLIC OF KOREA

Catégorie du(des) dispositif(s) / Device(s) category

Dispositif ou système de diagnostic par ultrasons

Ultrasound diagnostic device or system

Voir détails sur addendum / See attachment for additional information

Le LNE/G-MED atteste qu'à l'examen des résultats figurant dans le rapport référencé P144819-3, le système d'assurance qualité pour la conception, la production et le contrôle final - des dispositifs médicaux énumérés ci-dessus est conforme aux exigences de l'annexe II excluant le point 4 de la Directive 93/42/CEE.

LNE/G-MED certifies that, on the basis of the results contained in the file referenced P144819-3, the quality system - for design, manufacturing, and final inspection - of medical devices listed here above complies with the requirements of the Directive 93/42/EEC, annex Il excluding section 4

La validité du présent certificat est soumise à une vérification périodique ou imprévue The validity of the certificate is subject to periodic or unexpected verification

Début de validité / Effective date : April 24th, 2018 (included) Valable jusqu'au / Expiry date :

October 17th, 2019 (included)

**Lionel DREUX** 

**G-MED Certification Director** 

LNE - 7697 rev. 8 Modifie le certificat 7697-7

Laboratoire national de métrologie et d'essais . Établissement public à caractère industriel et commercial LNE/G-MED . Organisme notifié nº 0459 1, rue Gaston Boissier - 75724 Paris Cedex 15 . Tél.: 01 40 43 37 00 . Fax: 01 40 43 37 37 . www.lne.fr . www.gmed.fr



Certification Médical-Santé

#### Addendum à l'attestation N° 7697 rev. 8 Addendum of the certificate N° 7697 rev. 8 Dossier / File N° P144819-3

page 1 / 2

#### Identification des dispositifs / Identification of devices

Désignation du dispositif / Accessoires marqués CE Device designation / CE marked accessories	Réf commerciale du dispositif ou code article Device commercial reference or article code	Classe du DM MD class
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ P5	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ P6	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ P6 Pro	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ P7	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ P9	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON S6	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON S8	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON S10	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON S10 Expert	Ila
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON P6	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	VOLUSON P8	lla

LNE/G-MED



For the General Director **Lionel DREUX G-MED Certification Director** 

720 DM 0701-31 rev 5 du 28/07/2015



Certification Médical-Santé

#### Addendum à l'attestation N° 7697 rev. 8 Addendum of the certificate N° 7697 rev. 8 Dossier / File N° P144819-3

page 2 / 2

#### Identification des dispositifs / Identification of devices

Désignation du dispositif / Accessoires marqués CE Device designation / CE marked accessories	Réf commerciale du dispositif ou code article Device commercial reference or article code	Classe du DM MD class
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ S8	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ S7 Expert	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ S7 Pro	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ A5	lla
Dispositif ou système de diagnostic par ultrasons Ultrasound diagnostic device or system	LOGIQ A5 Pro	lla

16 alinéas / 16 indented lines.

#### Identification du site couvert et des activités /

Identification of location and activities

GE ULTRASOUND KOREA, Ltd. - 9, Sunhwan-ro 214beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do -REPUBLIC OF KOREA

équivalent à equivalent to

GE ULTRASOUND KOREA, Ltd. - 65-1, Sangdaewon-dong, Jungwon-gu, Seongnam-si, Gyeonggi-do -462-120 REPUBLIC OF KOREA

Conception, fabrication et contrôle final

Design, manufacture and final control

0459 LNE/G-MED



For the General Director Lionel DREUX **G-MED Certification Director** 

720 DM 0701-31 rev 5 du 28/07/2015

Laboratoire national de métrologie et d'essais · Établissement public à caractère industriel et commercial LNE/G-MED + Organisme notifié nº 0459 1, rue Gaston Boissier - 75724 Paris Cedex 15 • Tél. : 01 40 43 37 00 • Fax : 01 40 43 37 37 • www.lne.fr • www.gmed.fr



#### **EC Declaration of Conformity**

Following the provisions of the medical devices directive 93/42/EEC, Annex II and of the directive 2011/65/EU, directive 2012/19/EU, directive 2014/53/EU

Manufacturer:

GE Ultrasound Korea, Ltd. 9, Sunhwan-ro 214beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do Republic of Korea EU Authorized Representative: GE MEDICAL SYSTEMS SCS 283 RUE DE LA MINIERE 78530 BUC FRANCE

Equivalent to 65-1, Sangdaewon-dong, Jungwon-gu, Seongnam-si Gyeonggi-do 462-120 Republic of Korea

We hereby declare under our sole responsibility that the class IIa product:

LOGIQ P7, LOGIQ P9, General Purpose Ultrasound Imaging System including accessories and components (ref: See Addendum)

GMDN Code: 40761 UMDNS Code: 15976

Classification rule (93/42/EC Annex IX): Rule 10

To which this declaration relates, is in conformity with the requirements of:

The medical devices directive 93/42/EEC (MDD)

The directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The directive 2012/19/EU on the waste electrical and electronic equipment (WEEE)

The directive 2014/53/EU on the radio equipment (RED)

The Commission Regulation (EU) No 207/2012 of 9 March 2012 on electronic instructions for use of medical devices

This conformity is based on the following elements:

- Information included in the technical documentation ref.: DOC1587707 /DHF ref.: DOC1412680, of the product to which this declaration relates.
- EC certificate: approval of full quality assurance system (Annex II of the medical devices directive 93/42/EEC) delivered by LNE/G-MED (Notified Body N° 0459) on Certificate Number N° LNE-7697 rev.8.

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- List of harmonized standards applied for CE marking
  - o EN 60601-1:2006/A12:2014 (Edition 3.1)
  - o EN 60601-1-2:2007/AC:2010
  - o EN 60601-1-6:2010/A1:2015
  - o EN 60601-2-18: 2015
  - O EN 60601-2-37: 2008
  - EN 62304:2006/AC: 2008
  - o EN 62366:2008 + A1:2015
  - o EN 1041:2008
  - o EN ISO 15223-1: 2016

This EC declaration of conformity supersedes the previous declaration dated 30-May-2018.

Park, Soyoung

Regulatory Affairs Specialist

GE Healthcare. GE Ultrasound Korea, Ltd. 9, Sunhwan-ro 214beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do Republic of Korea Date/Datum: 22-Oct-2018

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#### ADDENDUM TO THE EC DECLARATION OF CONFORMITY dated 22-Oct-2018

Product Description	HCAT #
Base Systems	
LOGIQ P7 R3	H42872LA —
LOGIQ P9 R3	H42872LB —
Probes	
3Sc-RS Probe	H45041DL (/
6S-RS PROBE	H45021RP √
12S-RS Probe	H44901AB ✓
ML6-15-RS Probe	H40462LM ✓
L3-12-RS Probe	H44901AP —
L4-12t-RS Probe	H48062AB
L12n-RS probe	H48062AH
12L-RS Probe	H40402LY V
L6-12-RS Probe	H48062AC ✓
9L-RS Probe	H40442LL V
L10-22-RS Probe	H48312AH ∨
L8-18i-RS Probe	H40462LF V
C1-5-RS Probe	H40462LA 🗸
4C-RS Probe	H4000SR ✓
8C-RS Probe	H40402LS V
E8C-RS Probe	H40402LN V
F8Cs-RS Probe	H48062AF √
IC9-RS Probe	H48691PJ —
BE9CS-RS Probe	H40482LN \
RAB2-6-RS Probe	H48681WR \/
RIC5-9A-RS Probe	H48701EJ
6Tc-RS Probe	H45551ZE
Doppler P8D Probe	H46312LZ
	H4830JG ∨
P6D	H4830JE —
P2D	H46442LK ~
L3-9i-RS Probe	100
Biopsy Options 3SP MULTI-ANGLE BIOPSY	H46222LC ∨
9L BIO GUIDE STARTER KIT	H4906BK ∨
	H40432LC
12L-RS Biopsy Starter Kit	H40432∐ ∨
ML6-15 Biopsy Starter Kit	H48392LL
12L TRANSVERSE BRACKET	H48392LT
INFINITE 12L BIOPSY KIT	H48302AA
L3-12-D Biopsy starter kit	H40432LE V
C1-5 Biopsy Starter Kit 4C BIOPSY BRACKET	E8385NA \

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E721 STARTER KIT	E8385MJ	V
E8C E721 E8C-RS IC5-9H MTZ Biopsy Kit	E8333JB	V
E8C REUSABLE BIOPSY KIT	H40412LN	V
BE9CS Biopsy Kit 742-339	H42742LH	V
BE9CS Biopsy Kit 742-401	H42742U	V
Reusable Biopsy Needle Guide for GE BE9C Ultrasound Probe	E8387MA	V,
Sterile Disposable Biopsy Needle Guide Kit for GE BE9C Probe	E8387M	V
IC9 reusable Biopsy	H48701MN	_
IC9 Biopsy Starter Kit	H48691YW	
RAB6-D BIOPSY STARTER KIT	H48681ML	V
PEC63 BIOPSY KIT FOR RIC5-9	H46721R	V
RIC STERILE NEEDLE GUIDE	H48681GF	V
TEE accessory		
TEE Cleaning and Storage System	H45551NK	_
TEE Storage Rack	H45551NM	_
TEE Scan Head Protection Cover	H45521CK	-
TEE Clip-on Bite Guard Adult	H45511EE	_
TEE Clip-on Bite Guard Adult OR	H45521CB	_
Conventional Bite Guard Adult	H45521JH	<u> </u>
Bite Hole Indicator	H45531HS	*******
Software options		
LP7 and LP9 Advanced 3D	H42782LK	V
LP7 and LP9 Auto IMT	H42782LL	/
IP7-P9 R3 HD B-Flow	H42892LR	-
LP7-P9 R3 CEUS	H42892LS	
LP7-P9 R3 HRes CEUS	H42892LT	-
LP7 and LP9 DICOM	H42782LR	~
LP7 and LP9 Elastography	H42782LS	V
LP7 and LP9 Elastography Quantification	H42782LT	V
LP7 and LP9 Flow Quantification	H42782LW	V
LP7 and LP9 LOGIQView	H42782LY	V
LP7 and LP9 Report Writer	H42782LZ	~
LP7 and LP9 Scan Assistant	H42792LA	V
LP7 and LP9 Scan Assistant LP7 and LP9 Stress Echo	H42792LB	1
LP7 and LP9 Stress Ectio LP7 and LP9 Tissue Velocity Imaging TVI	H42792LC	V
	H42792LD	V
LP7 and LP9 B Steer+	H42792LF	\
LP7 and LP9 4D TUI Software	H42792LG	1
LP7 and LP9 VCLA Software	H42792LH	V
LP7 and LP9 VCI Static Software	H42822LZ	Ĺ
LP7-P9 STIC	H42832LA	V
LP7-P9 Omniview	H42892LW	_
LP7-P9 R3 HDLive	H42792LJ	V
LP7 and LP9 Auto EF LP7 and LP9 Meas Assist Breast	H42792LK	1/

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LP7 and LP9 Meas Assist OB	H42792LL ✓
LP7 and LP9 Breast Prod	H42792LM ✓
LP7 and LP9 Compare Assistant	H42792LN ✓
LP7 and LP9 Thyroid Prod	H42792LP ✓
LP7 and LP9 SWDVR	H42792LR ✓
LP7 MSK Korea	H42762LF ✓
LP7-P9 Cardiac Strain	H42822LY ∨
LP7-P9 R2.5 Pinpoint GT option	H40292LC 🗸
LP7-P9 R3 Shear Wave Elastography	H42892LY —
LOGIQ P Apps	H42892LZ —
Hardware options	
LP7-P9 R3 Card Reader Mounting Kit	H42792LZ V
Art. Monitor Arm white	H42902LB —
LP7-P9 R3 Rear handle	H42902LC —
LP7 and LP9 OPIO tray	H42802LG ✓
LP7 and LP9 Paper tray	H42802LE ✓ H42802LC ✓
LP7 and LP9 Side Tray	H42802LC ✓
LP7-P9 R3 Cable Hook rear	H42902LD —
LP7-P9 R3 Gel Warmer	H42902LE
LP7-P9 R3 4 port kit	H42912LF -
LP7 and LP9 4D Kit	H42802LD ✓
LP7 P9 CW HW Kit	H46432LN V
LP7 P9 Pencil CW HW Kit	H42802LB ✓
USB FOOTSWITCH 3 BUTTON	H46732LF ∨
LP7 P9 W. LESS LAN KIT-J	H42812LD ∨
LP7 P9 W. LESS LAN KIT	H42802LL ∨
LP7 P9 UVC	H42832U —
LP7 P9 UVC for Japan	H42832LK —
ISOLATION TRANSFORMER	H48671WN ✓
Pwr supply noise filter	H46162LH ∨
Pinpoint GT Practice kit	H48672AB V
Barcode reader	H48872LG V
LP7-P9 R3 ODD Option	H42912LE -
ECG options	
LP7 P9 ECG module only	H42792LS V
LS8 ECG CABLE - AHA	H46102LW ✓
LS8 ECG CABLE - ATIA	H45302LZ
Veterinary Use Only	1
Vet kit	H46832LC
Probe Vet Label	H48992LR \
Peripherals	
Printers	
UP-D898 BW Printer Kit	H46992LS ∨
LP7 LP9 BW INSTALL KIT	H46432LP \
LEA PAN HARIAGE KII	

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Just



UP-D25MD PRINTER	H44642LW ✓	
Cabinet	Set.	
LP7-P9 R3 HIGH CABINET	H42902LG	_
LP7-P9 R3 DRAWER	H42902LH	_
LP7-P9 R3 Low Cabinet	H42902U	-
Accessories		
LP7-P9 R3 Multi P. holder	H42902LK -	
LOGIQ S7 R3 Small Probe Holder	H46302LB	-
PROBE CABLE HANGER	H44412LA	V
Batteries		
LP7-P9 R2 Battery option	H42832LG	V
LP7-P9 R3 ext battery	H42902LM	
Power Cords		
POWER CORD FIX BRKT 220V	H42812U	V
POWER CORD FIX BRKT 110V	H42812LK	V
Destination Sets		
DESTINATION SET UK	H46712LM	_
DESTINATION SET S AFRICA	H46712LN	_
DESTINATION SET ARGENTINA	H46712LP	_
DESTINATION SET ISRAEL	H46712LR	_
DESTINATION SET SWISS	H46712LS	
DESTINATION SET DENMARK	H46712LT	_
DESTINATION SET US	H46712LW	1
DESTINATION SET OS  DESTINATION KIT AUS_NZ	H46712LZ	
DESTINATION KIT AGS_NE DESTINATION SET CHINA	H46722LA	_
DESTINATION SET INDIA	H46722LB	
DESTINATION SET ITALY	H46722LD	_
DESTINATION SET BRAZIL	H46752LW	_
DESTINATION SET Taiwan	H44512LY	_
Keyboards and Key Cap Language Kits		
AN Keyb. Greek black	H42902LR	-
	H42902LS	-
AN Keyb. Norwegian black	H42902LT	_
AN Keyb. Russian black	H42902LW	_
AN Keyb. French black	H42902LY	
AN Keyb. Swedish black	H42902LZ	
AN Keyb. German black AN Keyb. English black	H42912LA	-

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#### Notes:

[1] Catalog number identifies the device(s) in the manufacturer's catalog and is usually included on commercial documents like sales contract, order processing documents and shipping documents.

[2] Probes and accessories may carry the CE-mark and when applicable, the Notified Body number corresponding to the EC Declaration under which the products are CE-marked by their manufacturer. GE Ultrasound Korea Ltd. has verified the mutual compatibility of the devices in combination with LOGIQ P9 and LOGIQ P7 and included relevant information to users with the LOGIQ P9 and LOGIQ P7 instructions for use.

End of Document

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Product Service

#### **EU Quality Management System Certificate (MDR)**

Pursuant to Regulation (EU) 2017/745 on Medical Devices, Annex IX Chapters I and III (Class IIa and Class IIb Devices)

No. G10 075707 0078 Rev. 00

Manufacturer: GE Healthcare Austria GmbH & Co OG

Tiefenbach 15 4871 Zipf AUSTRIA

The Certification Body of TÜV SÜD Product Service GmbH certifies that the manufacturer has established, documented and implemented a quality management system as described in Article 10 (9) of the Regulation (EU) 2017/745 on medical devices. Details on device categories covered by the quality management system are described on the following page(s).

The Report referenced below summarises the result of the assessment and includes reference to relevant CS, harmonized standards and test reports. The conformity assessment has been carried out according to Annex IX Chapter I and III of this regulation with a positive result.

The quality management system assessment was accompanied by the assessment of technical documentation for devices selected on a representative basis.

The certified quality management system is subject to periodical surveillance by TÜV SÜD Product Service GmbH. The surveillance assessment shall also include an assessment of the technical documentation for the device or devices concerned on the basis of further representative samples.

**Report No.:** 713175299

Preceding certificate No.: this certificate is issued for the first time

 Valid from:
 2020-05-14

 Valid until:
 2025-05-13

Date of initial issuance / Rev.00: 2020-05-13

Christoph Dicks

Issue date: 2020-05-14 Head of Certification/Notified Body



#### **EU Quality Management System Certificate (MDR)**

Pursuant to Regulation (EU) 2017/745 on Medical Devices, Annex IX Chapters I and III (Class IIa and Class IIb Devices)

No. G10 075707 0078 Rev. 00

**Device Group Echographic Instruments**  **Risk Classification** lla

The validity of this certificate depends on conditions and/or None is limited to the following:

**Revision History including Changes:** 

00 / 2020-05-13 / 713175299



#### **Certificate of Completion**

This certifies that

Ion Negru

has successfully completed

Proficient\_UL Service Training (DL)

Completed on 3/26/2021 (date format: mm/dd/yyyy)



#### **Certificate of Completion**

This certifies that

Ion Negru

has successfully completed

Proficient\_UL Exam (DL)

Completed on 4/1/2021 (date format: mm/dd/yyyy)



#### Certificate

#### The Certification Body of TÜV Rheinland LGA Products GmbH

hereby certifies that the organization

#### **GE ULTRASOUND KOREA, Ltd.** 9, Sunhwan-ro 214beon-gil, Jungwon-gu SEONGNAM-SI, GYEONGGI-DO Republic of Korea

has established and applies a quality management system for medical devices for the following scope:

(see attachment for scope and additional site included)

Proof has been furnished that the requirements specified in

EN ISO 13485:2016

are fulfilled. The quality management system is subject to yearly surveillance.

Effective Date:

2020-03-17

Certificate Registration No.:

SX 60146260 0001

An audit was performed, Report No.: 32090188 001

This Certificate is valid until:

2021-11-04

**Certification Body** 



Date 2020-03-17



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

Tel.: +49 221 806-1371 Fax: +49 221 806-3935 e-mail:cert-validity@de.tuv.com http://www.tuv.com/safety



#### **TÜV Rheinland LGA Products GmbH** Tillystraße 2, 90431 Nürnberg

Attachment to Certificate

Registration No.: Report No.:

SX 60146260 0001

32090188 001

Organization:

**GE ULTRASOUND KOREA, Ltd.** 

9, Sunhwan-ro 214beon-gil, Jungwon-gu SEONGNAM-SI, GYEONGGI-DO

Republic of Korea

Scope:

Design and Development, Manufacture and Final Test of

Ultrasound Diagnostic Devices and Systems

Site Included:

GE Ultrasound Korea, Ltd.

65-1, Sangdaewon-dong, Jungwon-gu

Seongnami-si, Gyeonggi-do 462-120 Republic of Korea

Design and Development, Manufacture and Final Test of

Ultrasound Diagnostic Devices and Systems

**Certification Body** 

Akkreditierungsstelle D-ZM-14169-01-02

Date: 2020-03-17

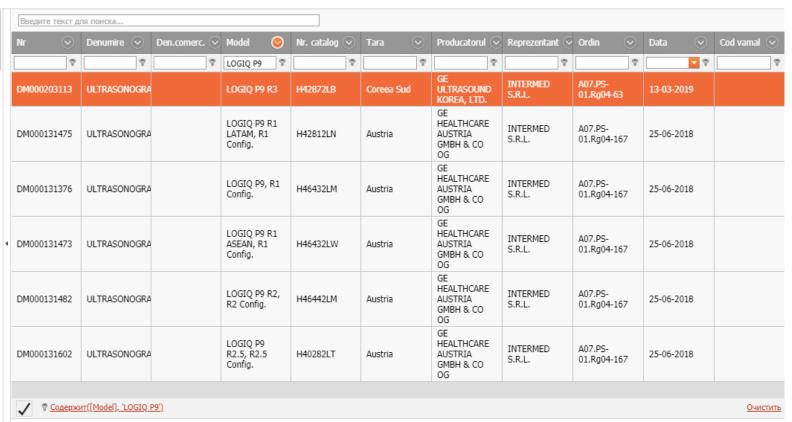


**Balazs Bozsik** 



#### REGISTRUL DE STAT AL DISPOZITIVELOR MEDICALE

Tip	Denumire
I.3. Certificatul CE	Certificat CE
I.2. Declarația de conformitate CE	Declaratie de conformitate CE







GE HEALTHCARE

# LOGIQ<sup>™</sup> P9

MAKE IT EASY. MAKE IT YOUR OWN.





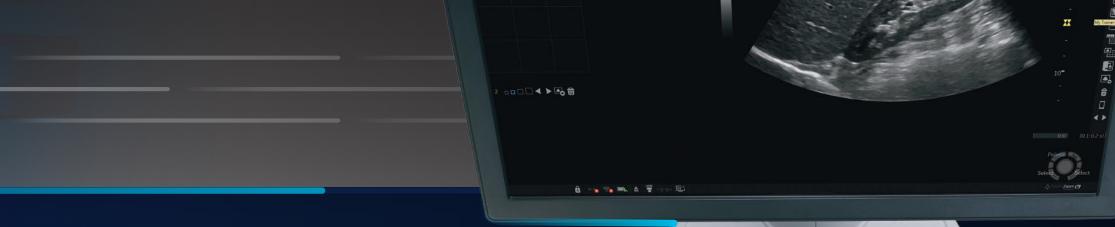
# YOU ASKED FOR SIMPLICITY. We delivered.

The LOGIQ™ P9 ultrasound system is ideal for the clinical and workflow demands of general imaging. From triage to comprehensive exams, the budget-friendly LOGIQ P9 delivers consistent image quality, comprehensive application coverage, and ease of use that enable timely, confident decisions.

32% Faster exam time<sup>1</sup>



80% Fewer hard keys<sup>1</sup>



# PERSONALIZED for customized workflow

Easy to learn and use, the LOGIQ P9 supports high efficiency for busy schedules.

**Touch Control** – Manipulate images on the touch panel with your fingertips, even when gloved. Zoom, magnify, freeze—all with a touch, similar to using a tablet or smartphone. Excellent cleanability as well.

My Page – Personalized digital user interface enables customization of workflow preferences and use case presets. Simply log in, select the appropriate exam type, and begin scanning.

**Photo Assistant App** – Integrates anatomical photos, taken from an Android™ device, into the ultrasound study to assist clinicians in confirming findings, documenting clinical symptoms, and reporting.



## PATIENT-CENTRIC for excellent care

The LOGIQ P9 supports your diagnostic confidence across a wide range of patient exams.

**Excellent image quality** with minimal tweaking required, and superb B-Mode spatial and contrast resolution.

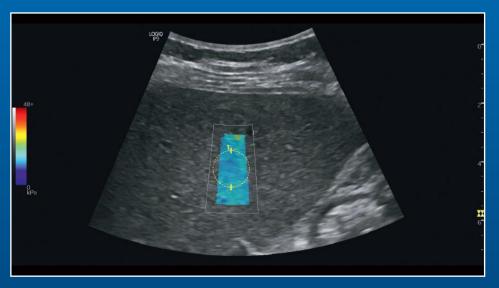
**Wide selection of high quality probes** for excellent exam coverage including abdominal, cardiac, OB/GYN, musculoskeletal, vascular, small parts, pediatrics, urology and intra-operative procedures.

#### Advanced imaging and visualization tools, including:

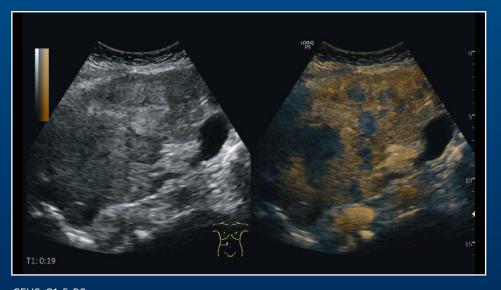
- B-Flow<sup>™</sup>
- HD Color
- 3D/4D
- HDlive<sup>™</sup>
- STIC/Omniview
- Strain and 2D Shear Wave Elastography

- Stress Echo
- TVI/TVD
- Cardiac Strain
- CEUS
- Enhanced B-Steer+
- Simultaneous display for urology

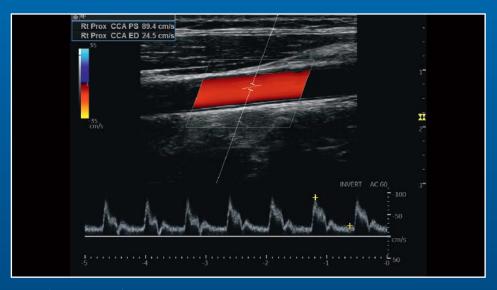
**Easily share and archive images** with Tricefy<sup>™</sup> cloud-based storage, especially useful for OB imaging.



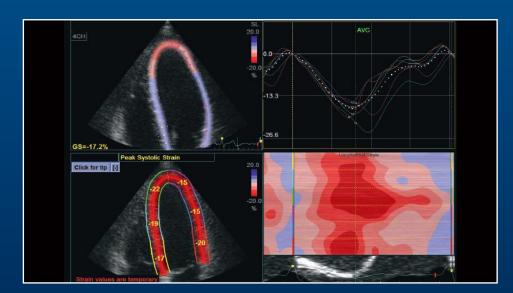
Liver Shear Wave Elastography, C1-5-RS



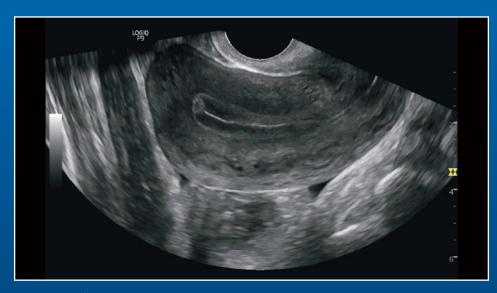
CEUS, C1-5-RS



Carotid Artery CF and PW, L4-12t-RS



Cardiac Strain, 3Sc-RS



Uterus B-Mode, IC9-RS



HD*live*, RAB2-6-RS

#### PRACTICAL for everyday and investment value

The LOGIQ P9 system easily adjusts to your working style, preferences and variable needs throughout your workday.





#### **AUTOMATED EFFICIENCY**

- Remote Control App enables operation from an Android<sup>™</sup> device with the LOGIQ Apps
- Automated tools include Auto TGC, Auto IMT, AutoEF, Measure Assistant, Compare Assistant, and Scan Assistant
- Pre-programmed L4-12t-RS button probe functions without accessing the touch panel to help preserve the sterile field

#### **DATA MANAGEMENT**

- Easy data migration supported by DICOM®
- Volume Navigation Import to merge real-time ultrasound with CT and MR datasets





→ Digital TGC and digital keyboard³

- SonoDefense built on the Windows® 10 IoT operating system provides multi-layer security to protect system integrity and patient data privacy
- My Trainer on-board training modules help accelerate operational confidence
- $\bullet \ \ \mathsf{LOGIQ} \ \mathsf{Club} \ \mathsf{website} \ \mathsf{offers} \ \mathsf{educational} \ \mathsf{resources} \ \mathsf{to} \ \mathsf{help} \ \mathsf{optimize} \ \mathsf{system} \ \mathsf{utilization}$
- Purchasable service agreement options<sup>2</sup> including remote service capabilities



### Now even more ADVANCED



**Touch Control** – Easily adjust imaging parameters on touch panel, even wearing gloves



**Photo Assistant App** – Combine anatomical photos and images in same report



**HD Color** – Sensitivity for visualizing small vessels and slow flow



**2D Shear Wave Elastography** – Quantitative estimate of tissue elasticity displayed in color-coded elastograms



**Remote Control App** – Operate the system from an Android phone or tablet



**SonoDefense** – Powerful data security features to help guard against costly breaches



Personalized
Customizable workflow
features deliver high
efficiency your way





Quality images and advanced tools support diagnostic confidence across a wide range of patient exams





The LOGIQ P9 has been designed for compatibility with most commercially available ultrasound contrast agents. Availability of these agents is subject to government regulation and approval. Contrast imaging should be performed within the approved indications for use of the contrast agent used in the exam.

#### Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit www.gehealthcare.com/promotional-locations.

Data subject to change.

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September 2018 JB60493XX 300-19-U001E

- Internal GE engineering study using standardized protocols for an abdominal exam compared with prior version GE LOGIQ P6 ultrasound system.
- Availability varies; please contact your GE Healthcare Representative for more information.
- 3. Optional physical keyboard.



## LOGIQ P9

Make it easy. Make it your own.

#### **Product description**

The LOGIQ™ P9 is a workhorse for the demanding physician. Its flagship imaging engine is the foundation for finding the root of the patient's problem, even in difficult patients. Buttons on the transducer turn three-handed procedures into two-handed procedures, giving the physician more control. It all adds up to a system that's walk-up easy-to-use on day one and for the most challenging procedures.

The Pinpoint™ GT Needle Guidance Technology is used under license from C.R. Bard, Inc.



#### **General Specification**

# Dimensions and Weight Height Articulating monitor arm 1320 mm ~ 1570 mm (52.0 in ~ 61.8 in) Width Keyboard: 430 mm (16.9 in) Foot cover: 495 mm (19.5 in) Monitor: 525 mm (20.7 in) Depth Foot cover: 685 mm (27.0 in) Rear handle: 740 mm (29.1 in) Weight (max. load) 83 kg/183 lbs Weight (min. load) 68 kg/150 lbs

# Frequency 100 - 240 Vac 50/60 Hz Power consumption maximum of 500 VA with peripherals

#### **Console Design**

4 active probe ports

Integrated solid state drive

Integrated DVD multi-drive (option)

On board storage for BW printer

Integrated speakers

Probe holders

Front handle

Gel warmer (option)

Rear handle (option)

Probe light

#### **User Interface**

#### **Operator Keyboard**

Ergonomic full size keyboard

Swivel-adjustable, height-adjustable

Digital TGC and digital A/N keyboard

Physical A/N keyboard (option)

10.4" LCD touch screen

#### **Monitor**

21.5" widescreen LCD with high resolution

#### System Overview

#### **Applications**

Abdominal

Obstetrical

Gynecological

Breast

Small parts

Musculoskeletal

Vascular

Urological

Pediatric & neonatal

Intraoperative

Cardiac

Transcranial

Endocavitary (transvaginal, transrectal)

Transesophageal

#### **Scanning Methods**

Electronic sector

Electronic convex

Electronic micro convex

Electronic linear

Real-time 4D volume sweep

#### **Transducer Types**

Sector phased array

Convex array

Microconvex array

Linear array

Matrix array

Single CW (pencil) probes

Volume probes (4D)

#### **Operating Modes**

B-Mode

Coded harmonic imaging

M-Mode

Color Flow Mode (CFM)

Power Doppler Imaging (PDI)

#### System Overview (cont.)

System Overview (cont.)	
Operating Modes (cont.)	System Standard Features (cont.)
PW Doppler with high PRF	InSite <sup>™</sup> capability
M-Color Flow Mode	IOTA (International Ovarian Tumor Analysis) LR2 worksheet
Anatomical M-Mode	Vnav Import
Curved anatomical M-Mode	
B-Flow <sup>™</sup> /B-Flow color (option)	System Options
Extended Field of View (LOGIQView Option)	Auto IMT
Coded Contrast Imaging <sup>2</sup> (option)	Advanced 3D
CW Doppler Mode (option)	Cable hook rear
TVI Mode (option)	Card reader mounting kit
Strain Elastography (option)	Strain Elastography
3D/4D Volume Modes (option)	Elastography Quantification <sup>3</sup>
Shear Wave Elastography (option)	DICOM® 3.0 connectivity
HD <i>live</i> ™ (option)	LOGIQView
	B-Flow/B-Flow Color
System Standard Features	CF/PDI quantification (FlowQA)
Advanced user interface with high resolution 10.4" wide LCD touch screen	Breast productivity package
Automatic optimization	Thyroid productivity package
CrossXBeam <sup>™</sup> compounding	Measure assist OB
Speckle Reduction Imaging (SRI-HD)	AutoEF
Fine angle steering	B Steer+
Coded harmonic imaging	Stress echo
Virtual convex	Tissue Velocity Imaging (TVI) with Q-Analysis
Advanced 3D (option)	Scan assistant
Patient information database	Compare assistant
Image archive on integrated CD/DVD (option) and SSD	Report writer
	Cardiac strain
Raw data analysis	STIC
Real-time automatic doppler calculations	OmniView
OB calculations Fetal trending	Guidance Technology (Pinpoint™ GT Needle Guidance Technology)
Email to MMS	Shear Wave Elastography
Mytrainer+	LOGIQ P apps

HDlive

HRES CEUS

Coded Contrast (CEUS)

Tricefy™

Privacy and security

Qpath

Multigestational Touch control

#### System Overview (cont.)

#### **Peripheral Options**

Integrated options for

- Digital BW thermal printer
- HDMI output available for compatible devices
- S-Video output available for compatible devices
- Wireless LAN card for wireless data transfer
- External USB printer connection
- Power Assistant (battery or extended battery option) for offline scanning

Digital color thermal printer

Foot switch with programmable functionality

Universal video converter

Barcode reader (for reading needle information)

LOGIQ Papps (Bluetooth)

#### **Display Modes**

Live and stored display format: full size and split screen – both with "thumbnails" for still and Cine

Review image format: 4x4 and "thumbnails" for still and Cine

Simultaneous capability

B or CrossXBeam/PW

B or CrossXBeam/CFM or PDI

B/M

B/CrossXBeam

Real-time Triplex Mode (B or CrossXBeam + CFM or PDI/PW or CW (option)

Selectable alternating modes

B or CrossXBeam/PW

B or CrossXBeam + CFM (PDI)/PW(CW (option))

B/CW (option)

Multi-image (split/quad screen)

Live and/or frozen

B or CrossXBeam + B or CrossXBeam/CFM or PDI

Independent Cine playback

Timeline display

Independent dual B or CrossXBeam/PW display

CW

Display formats

- Top/bottom selectable format
- · Side/side selectable format

#### **Display Modes** (cont.)

Virtual convex

Timeline only

#### **Display Annotation**

Patient name: first, last and middle

Patient ID

Alternate patient ID

Age, sex and birth date

Hospital name

Date format:

3 types selectable

MM/DD/YY

DD/MM/YYYY/MM/DD

Time format: 2 types selectable

• 24 hours

Gestational age from • LMP

• 12 hours

• GA

• EDD

• BBT

Displayed acoustic output

• TIS: Thermal Index Soft Tissue

• TIC: Thermal Index Cranial (Bone)

• TIB: Thermal Index Bone

MI: Mechanical Index

% of maximum power output

Probe name

Map names

Probe orientation

Depth scale marker

Lateral scale marker

Focal zone markers

Image depth

Zoom depth

B-Mode

Gain

Dynamic range

Imaging frequency

Frame averaging

Acoustic frame rate

Gray map

SRI-HD

M-Mode

#### System Overview (cont.)

#### **Display Annotation (cont.)**

Gain

Dynamic range

Time scale

Doppler mode

Gain

Angle

Sample volume depth and width

Wall filter

Velocity and/or frequency scale

Spectrum inversion

Time scale

**PRF** 

Doppler frequency

Color Flow Mode

Line density

Frame averaging

Packet size

Color scale: 3 types

- Power
- Directional PDI
- Symmetrical velocity imaging

Color velocity range and baseline

Color threshold marker

Color gain

PDI

Inversion

Doppler frequency

TGC curve

Cine gage, image number/frame number

Body pattern: multiple human and animal types

Application name

Measurement results

Operator message

Biopsy guide line and zone

Heart rate

#### **General System Parameters**

#### **System Setup**

Pre-programmable categories

User programmable preset capability

Factory default preset data

Languages: English, French, German, Spanish, Italian, Portuguese, Russian, Greek, Swedish, Danish, Dutch, Finnish, Norwegian, Japanese (message only), Chinese (message only)

OB report formats including Tokyo Univ., Osaka Univ., USA, Europe, and ASUM

User defined annotations

Body patterns

Customized comment home position

Reset

#### **Complete User Manual Available On-Board Through** Help (F1)

User manual and service manual are included on USB with each system. A printed manual is available upon request.

#### **CINE Memory/Image Memory**

776 MB of Cine memory

Selectable cine sequence for Cine review

Prospective Cine mark

Measurements/calculations and annotations on Cine playback

Scrolling timeline memory

Dual image Cine display

Quad image Cine display

Cine gauge and Cine image number display

Cine review loop

Cine review speed

#### **Image Storage**

On-board database of patient information from past exams

Storage formats	<ul> <li>DICOM – compressed/uncompressed, single/multiframe, with/without raw data</li> <li>Export JPEG, JPEG2000, WMV, MPEG 4 and AVI formats</li> </ul>
Storage devices	<ul> <li>USB memory Stick: 64 MB to 4 GB (for exporting individual images/clips)</li> </ul>

- CD-R storage: 700 MB
- DVD storage: -R (4.7 GB)
- Solid state drive image storage: ~345 GB

#### Image Storage (cont.)

Compare old images with current exam

Reload of archived data sets

#### **Connectivity & DICOM**

Ethernet network connection

DICOM 3.0 (option)

Wireless LAN (option)

Verify

Print

Store

Modality worklist

Storage commitment

Modality Performed Procedure Step (MPPS)

Media exchange

Off network/mobile storage queue

Query/retrieve

Public SR template

- Structured reporting compatible with vascular and OB standard
- Direct export DICOM SR and XML

Remote capability InSite™ ExC

DICOM directory import

LOGIQ P apps

#### **Physiological Input Panel (Option)**

Physiological input

ECG, 2 lead

**Dual R-Trigger** 

Pre-settable ECG R delay time

Pre-settable ECG position

Adjustable ECG gain control

Automatic heart rate display

#### **Report Writer (Option)**

On-board reporting package automates report writing

Formats various exam results into a report suitable for printing or reviewing on a standard PC

#### **Report Writer (Option)** (cont.)

Exam result reports can include patient info, exam info, measurements, calculations, images, comments and physician diagnosis

Standard templates provided

Customizable templates

Thyroid reporting template

#### **Scanning Parameters**

Displayed imaging depth: 0 - 33 cm

Minimum depth of field: 0 - 2 cm (zoom) (probe dependent)

Maximum depth of field: 0 - 33 cm (probe dependent)

Continuous dynamic receive focus/continuous dynamic

Receive aperture

Adjustable dynamic range

Adjustable Field of View (FOV)

Image reverse: right/left

Image rotation of 0°, 90°, 180°, 270°

#### **Digital B-Mode**

Λ.	dп	usta	h	

- Acoustic power
- Dynamic range
- · Gray scale map
- Line density
- B colorization
- Reject Suppression
- SRI-HD
- Edge enhance

- Gain
- · Frame averaging
- Frequency
- Scanning size (FOV or angle
  - depending on the probe, see probe specifications)

#### **Digital M-Mode**

#### Adjustable

- Acoustic power
- Dynamic range
- Frequency
- M colorization
- Rejection
- Gain
- Gray scale map
- Sweep speed
- M display format

#### **Anatomical M-Mode**

M-Mode cursor adjustable at any plane

Can be activated from a Cine loop from a live or stored image

M and A capability

Available with Color Flow Mode

Curved Anatomical M-Mode

#### **Digital Spectral Doppler Mode**

#### Adjustable

- Acoustic power
- · Dynamic range
- Transmit frequency
- PW colorization
- Sweep speed
- Sample volume
- length • Spectrum inversion • Trace method
- Baseline shift
- Time resolution
- Compression
- Trace sensitivity

- Gain
- · Gray scale map
- Wall filter
- Velocity scale range
- Angle correction
- Steered linear
- Doppler auto trace
- Trace direction

#### **Automatic Optimization**

Optimize B-Mode image to improve contrast resolution

Selectable amount of contrast resolution improvement (low, medium, high)

#### Auto TGC

Auto-s	spectral	Baseline	• Invert
optimi	ze adjusts	• PRF (on live image)	<ul> <li>Angle correction</li> </ul>

#### **Coded Harmonic Imaging**

Available on all 2D and 4D probes

#### **Digital Color Flow Mode**

#### Adjustable

- Acoustic power
- Gain
- Velocity scale range velocity-variance

- Sample volume
- Flash suppression

- Wall filter
- Packet size
- Spatial filter
- Baseline shift
- Threshold
- control

- · Color maps,
  - including

  - maps
  - Line density
  - Steering angle
  - Frame average
  - Accumulation mode
  - Quantification (option)

#### **Digital Power Doppler Imaging**

#### Adjustable

- Acoustic power
- Gain
- Velocity scale range
- Wall filter
- Packet size
- Spatial filter
- Frame average
- Accumulation mode Sample volume
- including velocity-variance maps

Color maps

- Line density
- Steering angle
- Threshold
- control
- Flash suppression

#### **Continuous Wave Doppler (Option)**

#### Adjustable

- Acoustic power
- · Dynamic range
- Transmit frequency Wall filter
- CW colorization
- Sweep speed
- Angle correction
- Trace method
- Baseline shift
- Compression
- Trace direction

- Gain
- Gray scale map
- Velocity scale
- range
- Spectrum inversion
- Doppler auto trace
- Trace sensitivity

Available on the following probes: 3Sc-RS, 6S-RS, 12S-RS, 6Tc-RS, P2D, P6D and P8D

#### **B-Flow/B-Flow Color (Option)**

Available on C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8CS-RS, BE9CS-RS, L3-12-RS and IC59-RS probes

#### Background: on/off

Sensitivity/PRI

#### Line density

Edge enhance

#### Frame average

Gray scale map

#### Tint map

Dynamic range

#### Rejection

#### Gain

Hybrid B-Flow	• Supported on C1-5-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS and
	L12n-RS
	• B & B-Flow simultaneous dual display
	B & B-Flow overlay display

#### B-Flow Color (BFC)

B-Flow High Definition	Supported on C1-5-RS, 12L-RS, ML6-15-RS,
Color (HD Color)	L4-12t-RS, L3-12-RS and L12n-RS

Accumulation

#### **Coded Contrast Imaging (Option)**

Available on C1-5-RS, 9L-RS, 3Sc-RS, IC9-RS and BE9CS-RS probes

#### 2 contrast timers

Timed updates: 0.05 - 10 seconds

Accumulation mode, six levels

Maximum Enhance Mode

#### Coded Contrast Imaging (Option) (cont.)

Flash

Time Intensity Curve (TIC) Analysis

Auto MI control

The LOGIQ P9 is designed for compatibility with 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.

#### **LOGIQ View (Option)**

Extended Field of View imaging

Available on the following probes: C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8C-RS, E8CS-RS, IC9-RS, BE9CS-RS, RIC5-9A, 6Tc-RS, RAB2-6-RS, 3SC-RS,6S-RS,12S-RS

For use in B-Mode

CrossXBeam is available on linear probes

Auto detection of scan direction

Pre or post-process zoom

Rotation

Auto fit on monitor

Measurements in B-Mode

#### **3D**

Allows unlimited rotation and planar translations

3D reconstruction from Cine sweep

#### **Advanced 3D (Option)**

Acquisition of color data

Automatic rendering

3D landscape technology

3D movie

#### Real-time 4D (Option)

Acquisition modes

• Real-time 4D

Static 3D

#### Real-time 4D (Option) (cont.)

Visualization modes

- 3D rendering (diverse surface and intensity projection modes)
- Sectional planes (three section planes perpendicular to each other)
- Volume contrast imaging-static (option)
- Tomographic ultrasound imaging (option)

Render mode

Surface texture, surface smooth, max-, min- and X-ray (average intensity projection), mix mode of two render modes

Curved 3 point render start

3D movie

Scalpel: 3D cut tool

Display format

- Quad: A-/B-/C-Plane/3D
- Dual: A-Plane/3D
- Single: 3D or A- or B- or C-Plane

Automated Volume Calculation - VOCAL II (option)

Betaview

Auto sweep

STIC (option)

HDlive (option)

Omniview (option)

VCI OmniView

#### **Scan Assistant (Option)**

Factory programs

User defined programs

Steps include image annotations, mode transitions, basic imaging controls and measurement initiation

#### **Shear Wave Elastography (Option)**

Available on the following probes: C1-5-RS, L3-12-RS

User programmable measurement display in kPa and meters per sec.

Single and dual view display

#### **B Steer+ (Option)**

Available on the following probes: C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS, L12n-RS, RAB2-6-RS

#### **Strain Elastography (Option)**

Available on C1-5-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L12n-RS, E8CS-RS, BE9CS-RS, L3-12-RS and IC9-RS probes

Semi-Quantification<sup>2</sup>

#### **TVI (Option)**

Myocardial doppler imaging with color overlay on tissue image

Available on the sector probes

Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information

Curved anatomical M-Mode: free (curved) drawing of M-Mode generated from the cursor independent from the axial plane

Q-Analysis: multiple time motion trace display from selected points in the myocardium

#### Stress Echo (Option)

Advanced and flexible Stress Echo examination capabilities

Provides exercise and pharmacological protocol templates

8 default templates

Template editor for user configuration of existing templates or creation of new templates

Reference scan display during acquisition for stress level comparison (dual screen)

Baseline level/previous level selectable

Raw data continuous capture

Over 100 sec. available

Wall motion scoring (bulls-eye and segmental)

Smart stress: automatically set up various scanning parameters (for instance, geometry, frequency, gain, etc.) according to same projection on previous level

#### Scan Assistant (Option)

Factory programs

User-defined programs

Steps include image annotations, mode transitions, basicimaging controls and measurement initiation

#### **Compare Assistant (Option)**

Allows side-by-side comparison of previous ultrasound and other modality exams during live scanning

#### **Power Assistant (Option)**

Allows moving the system without a complete system shutdown and boot-up power cycle

Extended battery for off line scanning (option) provides battery powered live scanning

#### **Breast Productivity Package (Option)**

Worksheet summary includes measurements and locations for nodule, parathyroid and lymph node

Feature assessment

BI-RADS® assessment

User editable

#### **Thyroid Productivity Package (Option)**

Worksheet summary includes measurements and locations for nodule, parathyroid and lymph node

Feature assessment

User editable

#### **Auto EF (Option)**

Allows semi-automatic measurement of the global EF (Ejection fraction)

User editable

#### **Cardiac Strain (Cardiac AFI) (Option)**

Allows assessing the left ventricle with all segments at a glance by combining three longitudinal views into one comprehensive bulls-eye view

2D strain based data moves into clinical practice

#### **Virtual Convex**

Provides a convex Field of View

Compatible with CrossXBeam

Available on all linear and sector transducers

#### **SRI-HD**

Speckle Reduction Imaging

Provides multiple levels of speckle reduction

Compatible with side-by-side DualView display

Compatible with all linear, convex and sector transducers

Compatible with B-Mode, color, contrast agent and 3D imaging

#### CrossXBeam

Provides 3, 5, 7 or 9 angles of spatial compounding

Live side-by-side DualView display

Compatible with

- Color Mode
- SRI-HD
- Virtual convex
- PW
- Coded harmonic

imaging

Available on C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8C-RS, E8CS-RS, BE9CS-RS, RIC5-9A-RS, IC9-RS, L3-12-RS and RAB2-6-RS probes

#### **Controls Available While "Live"**

Write zoom

B/M/CrossXBeam Mode

Gain

**TGC** 

Dynamic range

Acoustic output

Transmission focus position

Transmission focus number

Line density control

Sweep speed for M-Mode

Number of angles for CrossXBeam

PW-Mode

Gain

Dynamic range

Acoustic output

Transmission frequency

PRF

Wall filter

Spectral averaging

Sample volume gate

Length

Depth

Velocity scale

Color Flow Mode

CFM gain

CFM velocity range

Acoustic output

#### **Controls Available While "Live" (cont.)**

Wall echo filter

Packet size

Frame rate control

CFM spatial filter

CFM frame averaging

CFM line resolution

Frequency/velocity baseline shift

#### Controls Available on "Freeze" or Recall

Automatic optimization

SRI-HD

CrossXBeam – display non-compounded and compounded image simultaneously in split screen

3D reconstruction from a stored Cine loop

B/M/CrossXBeam Mode

Gray map optimization

**TGC** 

Colorized B and M

Frame average (loops only)

Dynamic range: Anatomical M-Mode

Max read zoom to 8x: baseline shift

Sweep speed

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

#### **Controls Available on "Freeze" or Recall (cont.)**

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

Anatomical M-Mode on Cine loop

#### Measurements/Calculations

#### **General B-Mode**

Depth and distance

Circumference (ellipse/trace)

Area (ellipse/trace)

Volume (ellipsoid)

% Stenosis (area or diameter)

Angle between two lines

#### **General M-Mode**

M-Depth

Distance

Time

Slope

Heart rate

#### **General Doppler Measurements/Calculations**

Velocity

Time

A/B ratio (velocities/frequency ratio)

PS (Peak Systole)

ED (End Diastole)

PS/ED (PS/ED ratio)

ED/PS (ED/PS ratio)

AT (Acceleration Time)

#### **General Doppler Measurements/Calculations** (cont.)

ACCEL (Acceleration)

TAMAX (Time Averaged Maximum Velocity)

Volume Flow (TAMEAN and vessel area)

Heart rate

PI (Pulsatility Index)

RI (Resistivity Index)

#### **Real-time Doppler Auto Measurements/Calculations**

PS (Peak Systole)

ED (End Diastole)

MD (Minimum Diastole)

PI (Pulsatility Index)

RI (Resistivity Index)

AT (Acceleration Time)

ACC (Acceleration)

PS/ED (PS/ED ratio)

ED/PS (ED/PS ratio)

HR (Heart Rate)

TAMAX (Time Averaged Maximum Velocity)

PVAL (Peak Velocity Value)

Volume Flow (TAMEAN and vessel area)

#### **OB Measurements/Calculations**

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)
- BD (Binocular Distance)
- HL (Humerus Length)
- 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)

#### Measurements/Calculations (cont.)

#### **OB Measurements/Calculations** (cont.)

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

Calculations and ratios

- FL/BPD
- FL/AC
- FL/HC
- HC/AC
- CI (Cephalic Index)
- AFI (Amniotic Fluid Index)
- CTAR (Cardio-Thoracic Area Ratio)
- MCA PS (Middle Cerebral Artery Peak Systolic Velocity)
- MCA CP (Middle Cerebral Artery Pulsatility Index Over Umbilical Artery Pulsatility Index Ratio)
- MCA PI (Middle Cerebral PI)
- MCA RI (Middle Cerebral RI)
- UmbArt PI (Umbilical artery PI)
- UmbArt RI (Umbilical artery RI)
- UtArt PI (Uterine artery PI)
- UtArt RI (Uterine artery RI)

Measurements/calculations by: ASUM, ASUM 2001, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chitty, Eik-Nes, Ericksen, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurtz, Mayden, Mercer, Merz, Moore, Nelson, Osaka University, Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo University, Tokyo/Shinozuka, Yarkoni

Fetal graphical trending

Growth percentiles

Multi-gestational calculations (4)

Fetal qualitative description (anatomical survey)

Fetal environmental description (biophysical profile)

Programmable OB tables

Over 20 selectable OB calculations

Expanded worksheets

#### **GYN Measurements/Calculations**

Right ovary length, width, height

Left ovary length, width, height

Uterus length, width, height

Cervix length, trace

Ovarian volume

ENDO (Endometrial Thickness)

Ovarian RI

#### **GYN Measurements/Calculations** (cont.)

Uterine RI

Follicular measurements

Summary reports

IOTA (International Ovarian Tumor Analysis) LR2 worksheet

#### **Vascular Measurements/Calculations**

SYS DCCA (Systolic Distal Common Carotid Artery)

DIAS DCCA (Diastolic Distal Common Carotid Artery)

SYS MCCA (Systolic Mid Common Carotid Artery)

DIAS MCCA (Diastolic Mid Common Carotid Artery)

SYS PCCA (Systolic Proximal Common Carotid Artery)

DIAS PCCA (Diastolic Proximal Common Carotid Artery)

SYS DICA (Systolic Distal Internal Carotid Artery)

DIAS DICA (Systolic Distal Internal Carotid Artery)

SYS MICA (Systolic Mid Internal Carotid Artery)

DIAS MICA (Diastolic Mid Internal Carotid Artery)

SYS PICA (Systolic Proximal Internal Carotid Artery)

DIAS PICA (Diastolic Proximal Internal Carotid Artery)

SYS DECA (Systolic Distal External Carotid Artery)

DIAS DECA (Diastolic Distal External Carotid Artery)

SYS PECA (Systolic Proximal External Carotid Artery)

DIAS PECA (Diastolic Proximal External Carotid Artery)

VERT (Systolic Vertebral Velocity)

SUBCLAV (Systolic Subclavian Velocity)

Automatic IMT

**Summary Reports** 

#### **Urological Calculations**

Bladder volume

Prostate volume

Left/right renal volume

Generic volume

Post-void bladder volume

#### **Probes**

#### **LOGIQ P9**

C1-5-RS, 8C-RS, E8C-RS, E8CS-RS, BE9CS-RS, 9L-RS, 12L-RS, L8-18i-RS, L6-12-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, ML6-15-RS, L12n-RS, 3Sc-RS, 6S-RS, 12S-RS, RAB2-6-RS, RIC5-9A-RS, P6D, P8D, L3-12-RS, IC9-RS, 6Tc-RS, P2D

#### C1-5-RS

Convex pro	be
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Applications	Abdomen, Vascular, OB/GYN, Urology
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LE)

#### 8C-RS

#### Micro convex probe

Applications	Neonatal, Pediatrics
Biopsy guide	No

#### E8C-RS

#### Endocavitory micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

#### E8CS-RS

#### Endocavitory micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

#### IC9-RS

#### Endocavitory micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal)	
Biopsy Guide	Single-angle, disposable with a disposable bracket (H48691YW), single-angle, reusable bracket (H48701MN)	le

#### **BE9CS-RS**

Endocavitory micro convex probe

Applications	Urology, Transrectal
Applications	Olology, Halistectal

#### BE9CS-RS (cont.)

Single-angle, disposable with a disposable bracket (E8387M, H42742LH, H42742LJ), single-angle, reusable bracket (E8387MA)

#### RAB2-6-RS

#### Convex volume probe

Applications	Abdomen, OB/GYN, Urology
Biopsy guide	Multi-angle, disposable with reusable bracket (H48681ML)

#### RIC5-9A-RS

Endocavitory micro convex volume probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (H48681GF), single-angle, reusable bracket (H46721R)

#### 9L-RS

#### Linear probe

Applications	Vascular, Small Parts, Pediatric, Abdomen
Biopsy guide	Multi-angle, disposable with a reusable bracket (H4906BK)

#### 12L-RS

#### Linear probe

1	
Applications	Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC)

#### L8-18i-RS

#### Linear probe

Applications	Vascular, Small Parts, Neonatal, Pediatrics, Intraoperative
Biopsy guide	No

#### L6-12-RS

#### Linear probe

Applications	Abdomen, Vascular, Small Parts, Pediatrics, Neonatal, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC)

#### Probes (cont.)

L12n-RS	
Linear probe	
Applications	Interventional Guidance, Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket. Infinite-angle (in plane biopsy kit), disposable with a reusable bracket. 4 configurable buttons to support various operation.

L4-12t-RS	
Linear probe	
Applications	Small Parts, Vascular, Pediatrics, Neonatal, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC). Single-angle, disposable with a reusable bracket (H48392LT: free hand, H48392LL: transverse)

L10-22-RS	
Linear probe	
Applications	Small Parts, Musculoskeletal, Neonatal
Biopsy guide	N/A

L3-9i-RS	
Linear probe	
Applications	Small Parts, Vascular, Musculoskeletal , Intraoperative
Biopsy guide	N/A

# ML6-15-RS Matrix array linear probe Applications Small Parts, Vascular, Neonatal, Pediatrics, Musculoskeletal Biopsy guide Multi-angle, disposable with a reusable bracket (H40432LJ)

L3-12-RS	
Linear Probe	
Applications	Vascular, Small Parts, Neonatal, Pediatrics, Abdomen
Biopsy Guide	Multi-angle, disposable with a reusable bracket (H48302AA)

#### 3Sc-RS

Phased array sector probe

Applications	Cardiac, Transcranial, Abdomen
Biopsy guide	Multi-angle, disposable with a reusable bracket (H46222LC)

#### 6S-RS

Phased array sector probe

Applications	Cardiac Neonatal, Pediatrics
Biopsy guide	No

#### 12S-RS

Phased array sector probe

Applications	Pediatrics, Neonatal
Biopsy guide	N/A

#### 6Tc-RS

TEE Sector (Trans-esophageal) Probe

Applications	Cardiac (Transesophageal)
Biopsy Guide	None

#### P6D

CW split crystal probe

#### P8D

CW split crystal probe

Applications	Cardiac, Vascular
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#### P2D

CW Split Crystal Probe

Applications C	Cardiac, Vascular
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#### **Inputs and Outputs**

HDMI out

Ethernet network (RJ45)

S-video out

Composite video out

USB (2x in front (USB 3.0), 3x in rear, 2x monitor)

AC power input

#### Pinpoint<sup>™</sup> GT Needle Guidance Technology

#### **Needle Guidance Technology - Optional**

Accurate magnetic needle tracking (±1.45 mm)

Pinpoint <sup>™</sup> GT Nee	dle Guidance	Technolog	gy practice kit
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Application with Pinpoint™ GT Needle Guidance Technology	Anesthesia, Musculoskeletal, Nerve Block
Flexible needle selection	<ul><li>From list manually</li><li>From label with Barcode Reader automatically</li></ul>
Comprehensive multi-view	<ul><li>Front View</li><li>Side View</li><li>Top View</li></ul>

#### Safety Conformance

Classified to ANSI/AAMI ES60601-1 2005 R1 2012 Medical Electrical Equipment, Part 1: General Requirements for Safety by a Nationally Recognized Test Lab

Certified to CSA CAN/CSA-C22.2 NO. 60601-1:14 General requirements for safety

CE Marked to Council Directive 93/42/EEC on Medical Devices Conforms to the following standards for safety:

IEC/EN 60601-1 2nd Edition Medical electrical equipment – Part 1: General requirements for safety

IEC/EN 60601-1 3.1 Edition. Medical electrical equipment – Part 1: General requirements for basic safety and essential performance

IEC/EN 60601-1-1 Medical electrical equipment – Part 1-1: General requirements for safety – Collateral Standard: Safety requirements for medical electrical systems

IEC/EN 60601-1-2 Medial electrical equipment – Part 1-2: General requirements for safety – Collateral Standard: Electromagnetic compatibility – requirements and tests

IEC/EN 60601-1-4 Medical electrical equipment Part 1- 4: General requirements for safety – Collateral Standard: programmable electrical medical systems

IEC/EN 60601-1-6 Medical electrical equipment Part 1 -6: General requirements for basic safety and essential performance – Collateral Standard: Usability

IEC/EN 60601-2-18 Medical electrical equipment – Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment

IEC/EN 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment

IEC/EN 62366 Application of usability engineering to medical devices

IEC/EN 62304 Software Life Cycle Processes

IEC/EN 62359 Ultrasonic – Field characterization – Test methods for the determination of thermal and mechanical indices related to medical diagnostic ultrasonic fields

EN ISO 15223-1: Symbols to be used with medical device labels, labelling and information to be supplied

ISO 10993-1 Biological evaluation of medical devices – Part 1 Evaluation and testing

NEMA UD2 Acoustic output measurement standard for diagnostic ultrasound equipment

NEMA UD3 Standard for real time display of thermal and mechanical acoustic output indices on diagnostic ultrasound equipment (MI, TIS, TIB, TIC)

EMC Emissions Group 1, Class B device requirements as per Sub clause 4.2 of CISPR 11

WEEE (Waste Electrical and Electronic Equipment)

ROHS according to 2011/65/EU Including national deviations

- The LOGIQ P9 is a highly mobile and easy to use, performance multi-purpose color Doppler imaging system, designed for Abdominal, Small Parts, Musculoskeletal, Breast, Vascular, Cardiology, Transcranial, Urology, Pediatric, Neonatal, Obstetrics and Gynecology applications.
- 2. Contrast Enhanced Ultrasound is available in the U.S. for characterization of focal liver lesions and left ventricle opacity only.
- Elastography with semi-Quantification (Elastography Quantification) described in this material has not been cleared by the U.S. FDA and is not available for promotion or sale in the United States.

#### Imagination at work

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# LOGIQ<sup>™</sup> P9/P7

Probe Guide



The LOGIQ P9/P7 is a highly capable ultrasound system that provides excellent image quality and productivity through easy to use tools across a wide range of applications in a portable, ergonomic, budget-friendly system design.

	Description	Applications	FOV	Bandwidth	Biopsy Guide	System
	Convex Array					
C1-5-RS 0462LA	Wideband convex array probe	Abdomen, OB/GYN, Urology, Vascular	70°	1 – 6 MHz	Multi-angle, disposable with a reusable bracket (H40432LE)	LOGIQ P9
4C-RS 0402LS	Wideband convex array probe	Abdomen, OB/GYN, Urology, Vascular	58°	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (E8385NA)	LOGIQ P7
	Micro-convex Arra	у				
RS LS	Wideband micro-convex array probe	Neonatal, Pediatrics	132°	3 – 11 MHz	No	LOGIQ P9 LOGIQ P7
RS LN	Wideband micro-convex intra-cavitary array probe	OB/GYN, Urology, Endocavity	132°	3 – 11 MHz	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), Single-angle, reusable bracket (H40412LN)	LOGIQ P9 LOGIQ P7
-RS 2AF	Wideband micro-convex intra-cavitary array probe	OB/GYN, Urology, Endocavity	168°	3 – 11 MHz	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)	LOGIQ P9 LOGIQ P7
!S PJ	Wideband micro-convex intracavity array probe	OB/GYN, Urology, Endocavity	168°	2 – 11 MHz	Single-angle, disposable with a disposable bracket (H48691YW), Single-angle, reusable bracket (H48701MN)	LOGIQ P9 LOGIQ P7
RS _N	Wideband micro-convex intra-cavitary bi-plane array probe	Urology, Transrectal	127°×2	3 – 12 MHz	Single-angle, reusable (E8387MA), disposable (E8387M), disposable starter kit (H42742LH), disposable starter kit (H42742LJ)	LOGIQ P9 LOGIQ P7
	Linear Array					
-RS	Wideband linear matrix array probe	Small Parts, Vascular, Neonatal, Pediatrics, Musculoskeletal	50 mm	4 – 15 MHz	Multi-angle, disposable with a reusable bracket (H40432LJ)	LOGIQ P9
RS AP	Wideband Linear Array Probe	Vascular, Small Parts, Neonatal, Pediatrics, Abdomen	51.2 mm	2 – 11 MHz	Multi-angle, disposable with a reusable bracket (H48032AA)	LOGIQ P7 LOGIQ P9
S H	Wideband linear array probe	Small Parts, Neonatal, Musculoskeletal	13 mm	7 – 20 MHz	No	LOGIQ P9

	Description	Applications	FOV	Bandwidth	Biopsy Guide	System
	Linear Array (cont.)					
12L-RS H40402LY	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Musculoskeletal	38 mm	3 – 12 MHz	Multi-angle, disposable with a reusable bracket (H40432LC)	LOGIQ P9
L12n-RS H48062AH	Wideband linear array probe	Interventional Guidance, Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal	38 mm	3 – 12 Mhz	Multi-angle, disposable with a reusable bracket (H40432LC), multi-angle, disposable with a reusable bracket (H48392LL), multi-angle, disposable with a reusable bracket (H48392LT)	LOGIQ P9 LOGIQ P7
L4-12t-RS H48062AB	Wideband linear array probe	Small Parts, Vascular, Pediatric, Neonatal, Musculoskeletal	38 mm	3 – 12 MHz	Multi-angle, disposable with a reusable bracket (H40432LC), multi-angle, disposable with a reusable bracket (H48392LL), multi-angle, disposable with a reusable bracket (H48392LT)	LOGIQ P9 LOGIQ P7
9L-RS H40442LL	Wideband linear array probe	Vascular, Small Parts, Pediatrics, Abdomen	44 mm	2 – 8 MHz	Multi-angle, disposable with a reusable bracket (H4906BK)	LOGIQ P9 LOGIQ P7
L6-12-RS H48062AC	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Abdomen	38.4 mm	5 – 11 MHz	Multi-angle, disposable with a reusable bracket (H40432LC)	LOGIQ P9 LOGIQ P7
L8-18i-RS H40462LF	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Intraoperative	25 mm	4 – 15 MHz	No	LOGIQ P9
L3-9i-RS H46442LK	Wideband linear array probe	Small Parts, Vascular, Musculoskeletal, Intraoperative	38 mm	2 – 9 MHz	No	LOGIQ P9
	Sector Array					
3Sc-RS H45041DL	Wideband sector array probe	Cardiac, Abdomen, Transcranial	120°	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (H46222LC)	LOGIQ P9 LOGIQ P7
6S-RS H45021RP	Wideband sector array probe	Cardiac, Neonatal, Pediatric	90°	2 – 8 MHz	No	LOGIQ P9 LOGIQ P7
12S-RS H44901AB	Wideband sector array probe	Pediatric, Neonatal	90°	4 – 12 MHz	No	LOGIQ P9 LOGIQ P7

	Description	Applications	FOV	Bandwidth	Biopsy Guide	System	
	Sector Array (cont.)						
6Tc-RS H45551ZE	TEE probe	Cardiac	90°	2 – 8 MHz	No	LOGIQ P9	
	Real-time 4D						
RAB2-6-RS H48681WR	Wideband real-time 4D probe	Abdomen, OB/GYN, Urology	66° (B), 85° (Volume scan)	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (H48681ML)	LOGIQ P9 LOGIQ P7	
RIC5-9A-RS H48701EJ	Wideband real-time 4D intra-cavitary probe	Endocavity, OB/GYN, Urology	146° (B) 120° (Volume angle)	3 – 10 MHz	Single-angle, reusable bracket (H46721R), Single-angle, disposable (H48681GF)	LOGIQ P9 LOGIQ P7	
	Specialty						
P8D H46312LZ	CW split crystal pencil probe	Cardiac, Vascular	N/A	8 MHz	No	LOGIQ P9 LOGIQ P7	
P6D H4830JG	CW split crystal pencil probe	Cardiac, Vascular	N/A	6 MHz	No	LOGIQ P9 LOGIQ P7	
P2D H4830JE	CW split crystal pencil probe	Cardiac, Vascular		2 MHz	No	LOGIQ P9 LOGIQ P7	

#### Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit www.gehealthcare.com/promotional-locations. Data subject to change.

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