

Food and Drug Administration 10903 New Hampshire Avenue Document Control Center – WO66-G609 Silver Spring, MD 20993-0002

September 29, 2015

GE Healthcare % Mr. Bryan Behn Sr. Regulatory Affairs Manager 9900 Innovation Drive WAUWATOSA WI 53226

Re: K152195

Trade/Device Name: LOGIQ S8

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Regulatory Class: II

Product Code: IYN, IYO, ITX

Dated: August 4, 2015 Received: August 5, 2015

Dear Mr. Behn:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638 2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<u>http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm</u> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Robert Ochs, Ph.D.

Robert Ods

Director Division of Radiological Health Office of In Vitro Diagnostics

and Radiological Health

Center for Devices and Radiological Health

Enclosure

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

### Indications for Use

Form Approved: OMB No. 0910-0120 Expiration Date: January 31, 2017

See PRA Statement below. 510(k) Number (if known) K152195 **Device Name** LOGIQ S8 Indications for Use (Describe) The device is intended for use by a qualified physician for ultrasound evaluation of Fetal/Obstetrics; Abdominal; Adult Cephalic; Cardiac (adult and pediatric); Peripheral Vascular; Musculo-skeletal Conventional and Superficial; Urology (including prostate); Transrectal; Transvaginal; Transesophageal and Intraoperative (abdominal, thoracic, vascular).

Type of Use (Select one or both, as applicable)	
Prescription Use (Part 21 CFR 801 Subpart D)	Over-The-Counter Use (21 CFR 801 Subpart C)

This section applies only to requirements of the Paperwork Reduction Act of 1995.

CONTINUE ON A SEPARATE PAGE IF NEEDED.

#### \*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\*

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

> Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."



## GE Healthcare 510(k) Premarket Notification Submission

## *Indications for Use Forms*

The following forms represent indications with clinical applications and exam types along with the modes of operation for the LOGIQ S8 system and for all of its probe/mode combinations. Combinations identified by "P" represent those previously cleared with the unmodified LOGIQ S8. "N" is new in this submission and "E" have been added by Appendix E of the FDA Ultrasound Guidance.

The subject modification does not alter the previously cleared system level indications and clinical applications.



## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 Ultrasound System

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					N	lode of Op	eration				
Clinical Application  Anatomy/Region of Interest	В	M	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>	P	P	P	P	P	P	P	P	P	P	5,6,9
Abdominal <sup>[1]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Pediatric	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Small Organ <sup>[2]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Neonatal Cephalic	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Adult Cephalic	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Cardiac	P	P	P	P	P	P	P	P	P	P	
Peripheral Vascular	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Musculo-skeletal Conventional	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Musculo-skeletal Superficial	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Other <sup>[4]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9,10
Exam Type, Means of Access											
Transesophageal	P	P	P	P	P	P	P	P	P	P	
Transrectal	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Transvaginal	P	P	P	P	P	P	P	P	P	P	3,5,6,7,9
Transuretheral											
Intraoperative <sup>[8]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C1-5-D Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					M	lode of Op	eration				
Clinical Application	В	M	PW	CW	Color	Color M	Power	Combined			Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>	P	P	P	P	P	P	P	P	P	P	5,6,9
Abdominal <sup>[1]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Pediatric	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac											
Peripheral Vascular	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>	P	P	P	P	P	P	P	P	P	P	3,5,6,9
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- Notes: [1] Abdominal includes Renal, GYN/Pelvic.
  - [2] Small organ includes breast, testes and thyroid
  - [3] Elastography Imaging Elasticity.
  - [4] Other use includes Urology/Prostate
  - [5] 3D/4D Imaging mode
  - [6] Needle guidance imaging
  - [7] Includes infertility monitoring of follicle development, GYN
  - [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
  - [9] Volume navigation
  - [10] Shear wave elastography
  - [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with 9L-D Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					N	Aode of O	peration				
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>	P	P	P		P	P	P	P	P		5,6,9
Abdominal <sup>[1]</sup>	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Pediatric	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Small Organ <sup>[2]</sup>	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Neonatal Cephalic											
Adult Cephalic											
Cardiac											
Peripheral Vascular	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Musculo-skeletal Conventional	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Musculo-skeletal Superficial	P	P	P		P	P	P	P	P	P	3,5,6,9,10
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with ML6-15-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					M	ode of Op	eration				
Clinical Application	В	M	PW	CW	Color	Color M	Power	Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric	P	P	P		P	P	P	P	P	P	3,5,6,9
Small Organ <sup>[2]</sup>	P	P	P		P	P	P	P	P	P	3,5,6,9
Neonatal Cephalic	P	P	P		P	P	P	P	P	P	9
Adult Cephalic											
Cardiac											
Peripheral Vascular	P	P	P		P	P	P	P	P	P	3,5,6,9
Musculo-skeletal Conventional	P	P	P		P	P	P	P	P	P	3,5,6,9
Musculo-skeletal Superficial	P	P	P		P	P	P	P	P	P	3,5,6,9
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with M5S-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					N	Mode of Op	eration				
Clinical Application  Anatomy/Region of Interest	В	M	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>	P	P	P	P	P	P	P	P	P	P	5,9
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic	P	P	P	P	P	P	P	P	P	P	9
Cardiac	P	P	P	P	P	P	P	P	P	P	
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with IC5-9-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

						Mode of O	peration				
Clinical Application	В	M	PW	CW	Color	Color M	Power	Combined Modes*		Coded Pulse	Other
Anatomy/Region of Interest			Doppier	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Puise	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>	P	P	P		P	P	P	P	P	P	5,6,9
Abdominal <sup>[1]</sup>	P	P	P		P	P	P	P	P	P	3,5,9
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>	P	P	P		P	P	P	P	P	P	3,5,6,9
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>	P	P	P		P	P	P	P	P	P	3,5,6,9
Transvaginal	P	P	P		P	P	P	P	P	P	3,5,6,7,9
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with 3CRF-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application	В	M	PW	CW	Color	Color M		Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>	P	P	P		P	P	P	P	P	P	5,6,9
Pediatric	P	P	P		P	P	P	P	P	P	5,6,9
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form** GE LOGIQ S8 with L8-18i-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					N	Mode of Op	eration				
Clinical Application	В	M	PW	CW	Color	Color M	Power	Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric											
Small Organ <sup>[2]</sup>	P	P	P		P	P	P	P	P	P	5,9
Neonatal Cephalic											
Adult Cephalic											
Cardiac											
Peripheral Vascular	P	P	P		P	P	P	P	P	P	5,9
Musculo-skeletal Conventional	P	P	P		P	P	P	P	P	P	5,9
Musculo-skeletal Superficial	P	P	P		P	P	P	P	P	P	5,9
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>	P	P	P		P	P	P	P	P	P	5,9
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- Notes: [1] Abdominal includes Renal, GYN/Pelvic.
  - [2] Small organ includes breast, testes and thyroid
  - [3] Elastography Imaging Elasticity.
  - [4] Other use includes Urology/Prostate
  - [5] 3D/4D Imaging mode
  - [6] Needle guidance imaging
  - [7] Includes infertility monitoring of follicle development, GYN
  - [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
  - [9] Volume navigation
  - [10] Shear wave elastography
  - [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with S4-10-D Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application	В	M	PW	CW	Color	Color M		Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric	P	P	P	P	P	P	P	P	P	P	5,9
Small Organ <sup>[2]</sup>											
Neonatal Cephalic	P	P	P	P	P	P	P	P	P	P	5,9
Adult Cephalic											
Cardiac	P	P	P	P	P	P	P	P	P	P	
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- Notes: [1] Abdominal includes Renal, GYN/Pelvic.
  - [2] Small organ includes breast, testes and thyroid
  - [3] Elastography Imaging Elasticity.
  - [4] Other use includes Urology/Prostate
  - [5] 3D/4D Imaging mode
  - [6] Needle guidance imaging
  - [7] Includes infertility monitoring of follicle development, GYN
  - [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
  - [9] Volume navigation
  - [10] Shear wave elastography
  - [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with P2D Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M	Power	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic				P							
Cardiac				P							
Peripheral Vascular				P							
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- Notes: [1] Abdominal includes Renal, GYN/Pelvic.
  - [2] Small organ includes breast, testes and thyroid
  - [3] Elastography Imaging Elasticity.
  - [4] Other use includes Urology/Prostate
  - [5] 3D/4D Imaging mode
  - [6] Needle guidance imaging
  - [7] Includes infertility monitoring of follicle development, GYN
  - [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
  - [9] Volume navigation
  - [10] Shear wave elastography
  - [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with P6D Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Harmonic Imaging	Coded Pulse	Other [Notes)
Ophthalmic										
Fetal / Obstetrics <sup>[7]</sup>										
Abdominal <sup>[1]</sup>										
Pediatric										
Small Organ <sup>[2]</sup>										
Neonatal Cephalic										
Adult Cephalic				P						
Cardiac				P						
Peripheral Vascular				P						
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other <sup>[4]</sup>										
Exam Type, Means of Access										
Transesophageal										
Transrecta1 <sup>[8]</sup>										
Transvaginal										
Transuretheral										
Intraoperative <sup>[8]</sup>										
Intraoperative Neurological										
Intravascular										
Laparoscopic		<u> </u>								

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- Notes: [1] Abdominal includes Renal, GYN/Pelvic.
  - [2] Small organ includes breast, testes and thyroid
  - [3] Elastography Imaging Elasticity.
  - [4] Other use includes Urology/Prostate
  - [5] 3D/4D Imaging mode
  - [6] Needle guidance imaging
  - [7] Includes infertility monitoring of follicle development, GYN
  - [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
  - [9] Volume navigation
  - [10] Shear wave elastography
  - $\begin{tabular}{l} [*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD. \end{tabular} \label{table_equation}$

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C2-9-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

Olivia di Assalia di G						Mode of	Operatio	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6,9]
Abdominal <sup>[1]</sup>	Р	Р	Р		Р	Р	Р	Р	Р	Р	[3,5,6,9]
Pediatric	Р	Р	Р		Р	Р	Р	Р	Р	Р	[3,5,6,9]
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6,9]
Peripheral Vascular	Р	Р	Р		Р	Р	Р	Р	Р	Р	[3,5,6,9]
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- $\label{eq:continuous} \mbox{[3] Elastography Imaging Elasticity.}$
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.
- System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with 11L-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

			-			Mode of	Operatio	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric	Р	Р	Р		Р	Р	Р	Р	Р	Р	[3,5,6]
Small Organ <sup>[2]</sup>	Р	Р	Р		Р	Р	Р	Р	Р	Р	[3,5,6]
Neonatal Cephalic	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6]
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular	Р	Р	Р		Р	Р	P	P	P	Р	[3,5,6]
Musculo-skeletal Conventional	Р	Р	Р		Р	Р	P	P	P	Р	[3,5,6]
Musculo-skeletal Superficial	Р	Р	Р		Р	Р	P	P	P	Р	[3,5,6]
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



### 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form** GE LOGIQ S8 with 6S-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

						Mode of	f Operation	n			
Clinical Application	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Anatomy/Region of Interest			Боррісі	Боррісі	Боррісі	Боррісі	Боррісі	Wiodes	iiiagiiig	1 disc	[NOIC3]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	Р	Р	Р	Р	Р	Р	Р	Р	P	Р	5
Abdominal <sup>[1]</sup>											
Pediatric	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	5
Small Organ <sup>[2]</sup>											
Neonatal Cephalic	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	5
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	5
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with S1-5-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

						Mode of	Operatio	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	Р	Р	Р	Р	Р	Р	P	P	P	Р	[5,6,9]
Abdominal <sup>[1]</sup>	Р	Р	Р	Р	Р	Р	P	P	P	Р	[5,6,9]
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	[5,6,9]
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with RAB6-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

O'' : ! A !! !!						Mode of	Operation	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6]
Abdominal <sup>[1]</sup>	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6]
Pediatric	Р	Р	Р		Р	Р	Р	Р	Р	Р	[5,6]
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication;  $P^*$  = previously cleared by FDA; E = added under Appendix E

Notes: [1

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with RIC5-9-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

O'' :						Mode of	Operation	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	[5,6]
Abdominal <sup>[1]</sup>											
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	[3,5,6]
Exam Type, Means of Access											
Transesophageal											
Transrectal	Р	Р	Р	Р	Р	Р	P	Р	P	Р	[3,5,6]
Transvaginal	Р	Р	Р	Р	Р	Р	P	P	P	Р	[3,5,6]
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication;  $P^*$  = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

## **Diagnostic Ultrasound Indications for Use Form** GE LOGIQ S8 with 6Tc-RS Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

O" '   A   "   ('						Mode of	Operatio	n			
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	
Cardiac Pediatric											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



### 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with 3Sp-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application	В	M	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes)
Anatomy/Region of Interest			Doppler	Doppier	Doppier	Doppier	Doppier	Modes	imaging	Puise	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>	P	P	P	P	P	P	P	P	P	P	5
Pediatric											
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic	P	P	P	P	P	P	P	P	P	P	
Cardiac Adult & Pediatric	P	P	P	P	P	P	P	P	P	P	
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C2-6b-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application	В	М	PW	CW	Color	Color M	Power	Combined		Coded	Other
Anatomy/Region of Interest		141	Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>	P	P	P		P		P	P	P	P	5,6,9
Pediatric	N	N	N		N		N	N	N	N	5,6,9
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult & Pediatric											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)



### 510(k) Premarket Notification Submission

# Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with 10C-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

					Mod	de of Oper	ation				
Clinical Application	В	M	PW	CW	Color	Color M	Power	Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes*	Imaging	Pulse	[Notes)
Ophthalmic											
Fetal / Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric	P	P	P		P		P	P	P	P	5
Small Organ <sup>[2]</sup>											
Neonatal Cephalic	P	P	P		P		P	P	P	P	5
Adult Cephalic											
Cardiac Adult & Pediatric											
Peripheral Vascular	P	P	P		P		P	P	P	P	5
Musculo-skeletal Conventional											
Musculo-skeletal Superficial	P	P	P		P		P	P	P	P	5,6
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal <sup>[8]</sup>											
Transvaginal											
Transuretheral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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### 510(k) Premarket Notification Submission

#### Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with RSP6-16-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

0"   1   1   1						Mode of	Operatio	ņ	_		
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>											
Abdominal <sup>[1]</sup>											
Pediatric											
Small Organ <sup>[2]</sup>	Е	Е	Е		Е	E	Е	Е	Е	Е	[5,6]
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular	E	Е	E		Е	E	E	E	E	Е	[5,6]
Musculo-skeletal Conventional	Е	Е	Е		Е	E	E	E	E	E	[5,6]
Musculo-skeletal Superficial	E	Е	Е		Е	E	E	E	E	Е	[5,6]
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added via Appendix E (previously cleared by FDA on LOGIQ E9 K142160)

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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### 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C1-6-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

O'' '   A     '   '			Doppler Dopp  E E E E  E E E			Mode of	Operatio	n			
Clinical Application	В	М		CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]
Anatomy/Region of Interest	-		Боррісі	Боррісі	Боррісі	Боррісі	Боррісі	Wiodes	iiiagiiig	1 disc	[NOICS]
Ophthalmic											
Fetal/Obstetrics <sup>[7]</sup>	E	Е	E	E	Е	Е	E	E	Е	Е	[5,6,9]
Abdominal <sup>[1]</sup>	E	Е	E	E	Е	E	E	E	E	Е	[3,5,6,9,10]
Pediatric	Е	Е	Е	E	Е	E	E	E	E	Е	[3,5,6,9,10]
Small Organ <sup>[2]</sup>											
Neonatal Cephalic											
Adult Cephalic											
Cardiac Adult											
Cardiac Pediatric											
Peripheral Vascular	Е	Е	Е	E	Е	E	E	E	E	Е	[3,5,6,9,10]
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>	Е	Е	Е	E	Е	Е	E	E	E	Е	[3,5,6,9,10]
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transurethral											
Intraoperative <sup>[8]</sup>											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added via Appendix E (previously cleared by FDA on LOGIQ E9 K142160)

Notes: [

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

System provides real-time 3D and 4D acquisition when used with special 4D probes

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### 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with L3-12-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation												
Clinical Application  Anatomy/Region of Interest	В	M	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes)		
Ophthalmic													
Fetal / Obstetrics <sup>[7]</sup>	Е	Е	Е		Е	Е	Е	Е	E	Е	5,6		
Abdominal <sup>[1]</sup>	Е	Е	Е		Е	Е	Е	E	E	Е	3,5,6		
Pediatric	Е	Е	Е		Е	Е	Е	E	E	Е	3,5,6		
Small Organ <sup>[2]</sup>	Е	Е	Е		Е	Е	Е	E	E	Е	3,5,6		
Neonatal Cephalic													
Adult Cephalic													
Cardiac Adult & Pediatric													
Peripheral Vascular	Е	Е	E		E	E	E	E	E	Е	3,5,6		
Musculo-skeletal Conventional	Е	Е	E		E	E	E	E	E	Е	3,5,6		
Musculo-skeletal Superficial	Е	Е	E		E	E	E	E	E	Е	3,5,6		
Other <sup>[4]</sup>													
Exam Type, Means of Access													
Transesophageal													
Transrectal													
Transvaginal													
Transuretheral													
Intraoperative <sup>[8]</sup>													
Intraoperative Neurological													
Intravascular													
Laparoscopic													

N = new indication; P = previously cleared by FDA; E = added via Appendix E (previously cleared by FDA on LOGIQ S7 K141261)

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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### 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with P8D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application  Anatomy/Region of Interest	Mode of Operation											
	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]	
Ophthalmic												
Fetal/Obstetrics <sup>[7]</sup>												
Abdominal <sup>[1]</sup>												
Pediatric												
Small Organ <sup>[2]</sup>												
Neonatal Cephalic												
Adult Cephalic												
Cardiac Adult												
Cardiac Pediatric												
Peripheral Vascular				E								
Musculo-skeletal Conventional												
Musculo-skeletal Superficial												
Other <sup>[4]</sup>												
Exam Type, Means of Access												
Transesophageal												
Transrectal												
Transvaginal												
Transurethral												
Intraoperative <sup>[8]</sup>												
Intraoperative Neurological												
Intravascular												
Laparoscopic												

N = new indication; P = previously cleared by FDA; E = added via Appendix E (previously cleared by FDA on LOGIQ P9 K143452)

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.
- System provides real-time 3D and 4D acquisition when used with special 4D probes

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## 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with BE9CS-D Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation  PW CW Color Color M Power Combined Harmonic Coded C												
Clinical Application	В	M	PW Doppler	CW Doppler	Color Doppler	Color M Doppler			Harmonic Imaging	Coded Pulse	Other [Notes)		
Anatomy/Region of Interest			TI	TI	TI	· FF	·FF				[		
Ophthalmic			1										
Fetal / Obstetrics <sup>[7]</sup>													
Abdominal <sup>[1]</sup>													
Pediatric													
Small Organ <sup>[2]</sup>													
Neonatal Cephalic													
Adult Cephalic													
Cardiac Adult & Pediatric													
Peripheral Vascular													
Musculo-skeletal Conventional													
Musculo-skeletal Superficial													
Other <sup>[4]</sup>	E	E	E		E		E	E	E	E	5, 6		
Exam Type, Means of Access													
Transesophageal													
Transrectal <sup>[8]</sup>	E	E	E		E		E	E	E	E	5, 6		
Transvaginal	E	E	E		E		E	E	E	E	5, 6		
Transuretheral													
Intraoperative <sup>[8]</sup>													
Intraoperative Neurological													
Intravascular													
Laparoscopic													

N = new indication; P = previously cleared by FDA, E = added via Appendix E (previously cleared by FDA on LOGIQ S7 K141261)

Notes:

- [1] Abdominal includes Renal, GYN/Pelvic.
- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.

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### 510(k) Premarket Notification Submission

#### Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C2-7-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation												
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]		
Ophthalmic													
Fetal/Obstetrics <sup>[7]</sup>													
Abdominal <sup>[1]</sup>	N	N	N		N		N	N	N	N	5,6,9		
Pediatric	N	N	N		N		N	N	N	N	5,6,9		
Small Organ <sup>[2]</sup>													
Neonatal Cephalic													
Adult Cephalic													
Cardiac Adult													
Cardiac Pediatric													
Peripheral Vascular													
Musculo-skeletal Conventional													
Musculo-skeletal Superficial													
Other <sup>[4]</sup>													
Exam Type, Means of Access													
Transesophageal													
Transrectal													
Transvaginal													
Transurethral													
Intraoperative <sup>[8]</sup>													
Intraoperative Neurological													
Intravascular													
Laparoscopic													

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.
- System provides real-time 3D and 4D acquisition when used with special 4D probes

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### 510(k) Premarket Notification Submission

## Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with L3-9-i-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation												
	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]		
Anatomy/Region of Interest	+		Боррісі	Боррісі	Боррісі	Воррісі	Воррісі	Wiodos	illiagilig	1 0100	[110100]		
Ophthalmic													
Fetal/Obstetrics <sup>[7]</sup>													
Abdominal <sup>[1]</sup>													
Pediatric													
Small Organ <sup>[2]</sup>													
Neonatal Cephalic													
Adult Cephalic													
Cardiac Adult													
Cardiac Pediatric													
Peripheral Vascular													
Musculo-skeletal Conventional													
Musculo-skeletal Superficial													
Other <sup>[4]</sup>													
Exam Type, Means of Access													
Transesophageal													
Transrectal													
Transvaginal													
Transurethral													
Intraoperative <sup>[8]</sup>	N	N	N		N		N	N	N	N	5		
Intraoperative Neurological													
Intravascular													
Laparoscopic													

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- $[^{\star}] \ Combined \ modes \ are \ B/M, \ B/Color \ M, \ B/PWD \ or \ CWD, \ B/Color/PWD \ or \ CWD, \ B/Power/PWD.$
- System provides real-time 3D and 4D acquisition when used with special 4D probes

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### 510(k) Premarket Notification Submission

#### Diagnostic Ultrasound Indications for Use Form GE LOGIQ S8 with C3-10-D Transducer

Intended Use: Diagnostic Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application  Anatomy/Region of Interest	Mode of Operation												
	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler	Power Doppler	Combined Modes*	Harmonic Imaging	Coded Pulse	Other [Notes]		
Ophthalmic													
Fetal/Obstetrics <sup>[7]</sup>													
Abdominal <sup>[1]</sup>													
Pediatric	N	N	N		N		N	N	N	N	5,9		
Small Organ <sup>[2]</sup>													
Neonatal Cephalic	N	N	N		N		N	N	N	N	5,9		
Adult Cephalic													
Cardiac Adult													
Cardiac Pediatric													
Peripheral Vascular	N	N	N		N		N	N	N	N	5,9		
Musculo-skeletal Conventional													
Musculo-skeletal Superficial	N	N	N		N		N	N	N	N	5,6,9		
Other <sup>[4]</sup>													
Exam Type, Means of Access													
Transesophageal													
Transrectal													
Transvaginal													
Transurethral													
Intraoperative <sup>[8]</sup>													
Intraoperative Neurological													
Intravascular													
Laparoscopic													

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal includes Renal, GYN/Pelvic.

- [2] Small organ includes breast, testes and thyroid
- [3] Elastography Imaging Elasticity.
- [4] Other use includes Urology/Prostate
- [5] 3D/4D Imaging mode
- [6] Needle guidance imaging
- [7] Includes infertility monitoring of follicle development, GYN
- [8] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV)
- [9] Volume navigation
- [10] Shear wave elastography
- [\*] Combined modes are B/M, B/Color M, B/PWD or CWD, B/Color/PWD or CWD, B/Power/PWD.
- System provides real-time 3D and 4D acquisition when used with special 4D probes

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#### 510(k) Premarket Notification Submission

#### 510(k) Summary

In accordance with 21 CFR 807.92 the following summary of information is provided:

Date: August 04, 2015

Submitter: GE Healthcare

9900 Innovation Dr Wauwatosa, WI 53226

Manufacturer: GE Ultrasound Korea, Ltd.

9, Sunhwan-ro 214 beon-gil, Jungwon-gu,

Seongnam-si, Gyeonggi-do, Republic of Korea

Primary Contact Person: Bryan Behn

Sr. Regulatory Affairs Manager

GE Healthcare T:(414)721-4214 F:(414)918-8275

Alternate Contact Person: Qingmeng Chen

Regulatory Affairs Specialist GE Ultrasound Korea, Ltd. T: +86-28-6272-2040 F: +81-42-6272-2462

<u>Device:</u> <u>Trade Name:</u> LOGIQ S8 Ultrasound System

Common/Usual Name: LOGIQ S8

Classification Names: Class II

Product Code: Ultrasonic Pulsed Doppler Imaging System. 21CFR 892.1550 90-IYN

Ultrasonic Pulsed Echo Imaging System, 21CFR 892.1560, 90-IYO

Diagnostic Ultrasound Transducer, 21 CFR 892.1570, 90-ITX

Predicate Device(s): K131527 LOGIQ S8 Diagnostic Ultrasound System

K142160 LOGIQ E9 Diagnostic Ultrasound System K141261 LOGIQ S7 Diagnostic Ultrasound System K143452 LOGIQ P9 Diagnostic Ultrasound System K131514 Vivid E0 Diagnostic Ultrasound System

K131514 Vivid E9 Diagnostic Ultrasound System

<u>Device Description:</u> The LOGIQ S8 is a full featured, general purpose diagnostic

ultrasound system which consists of a mobile console

approximately 620 mm wide, 880 mm deep and 1720 mm high

that provides digital acquisition, processing and display capability. The user interface includes a computer keyboard, specialized controls, 9-inch LCD touch screen and color

widescreen monitor.



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## Intended Use:

The device is intended for use by a qualified physician for ultrasound evaluation of Fetal/Obstetrics; Abdominal; Pediatric; Small Organ (breast, testes, thyroid); Neonatal Cephalic; Adult Cephalic; Cardiac (adult and pediatric); Peripheral Vascular; Musculo-skeletal Conventional and Superficial; Urology (including prostate); Transrectal; Transvaginal; Transesophageal and Intraoperative (abdominal, thoracic, vascular).

#### <u>Technology:</u>

The fundamental scientific technology of the new LOGIQ S8 is the same as the predicate LOGIQ S8 in terms of its main hardware components and software algorithms used for image acquisition and processing. The newly added shear wave imaging mode employs the same fundamental scientific technology of the shear wave imaging mode on predicate LOGIQ E9.

Conclusion: The LOGIQ S8 employs the same fundamental scientific technology as its predicate device(s).

## <u>Determination of Substantial Equivalence:</u>

### Comparison to Predicates

The following is an overview of the differences between the proposed LOGIQ S8 and the predicate LOGIQ S8 (K131527). The proposed LOGIQ S8 has had several features and probes migrated to it currently cleared on other GE Ultrasound systems.

- The systems are all intended for diagnostic ultrasound imaging and fluid flow analysis.
- The LOGIQ S8 and predicate LOGIQ S8 systems have the same clinical intended use.
- The LOGIQ S8 and predicate LOGIQ S8 systems have the same imaging modes except the new LOGIQ S8 ads shear wave elastography which is substantially equivalent to LOGIQ E9 (K142160).
- The systems are manufactured with materials which have been evaluated and found to be safe for the intended use of the device.
- The systems have acoustic power levels which are below the applicable FDA limits.
- The LOGIQ S8 and predicate LOGIQ S8 systems have similar capability in terms of performing measurements, capturing digital images, reviewing and reporting studies.
- The LOGIQ S8 and predicate systems have been designed in compliance with approved electrical and physical safety standards.



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- The LOGIQ S8 and predicate LOGIQ S8 systems probes are identical except for the C2-7-D, C3-10-D and L3-9i-D which are an incremental improvement to the existing probes and are equivalent.
- The following probes have been migrated from the LOGIQ E9 (K142160) C1-6-D and RSP6-16-D.
- The following probes have been migrated from the LOGIQ S7 (K141261) BE9CS and L3-12-D probes.
- The following features and probes have been migrated from the LOGIQ P9 (K143452) Auto TGC and P8D probe.
- The following feature has been migrated from the Vivid E9 (K131514) Cardiac Automated Function Imaging.

#### Summary of Non-Clinical Tests:

The device has been evaluated for acoustic output, biocompatibility, cleaning and disinfection effectiveness as well as thermal, electrical, electromagnetic and mechanical safety, and has been found to conform with applicable medical device safety standards. The LOGIQ S8 and its applications comply with voluntary standards:

- AAMI/ANSI ES60601-1, Medical Electrical Equipment – Part 1: General Requirements for Safety
- IEC60601-1-2,Medical Electrical Equipment Part 1-2: General Requirements for Safety – Collateral Standard: Electromagnetic Compatibility Requirements and Tests
- 3. IEC60601-2-37, Medical Electrical Equipment –
  Part 2-37:Particular Requirements for the Safety of
  Ultrasonic Medical Diagnostic and Monitoring
  Equipment
- 4. NEMA UD 3, Standard for Real Time Display of Thermal and Mechanical Acoustic Output Indices on Diagnostic Ultrasound Equipment
- 5. ISO10993-1, Biological Evaluation of Medical Devices- Part 1: Evaluation and Testing- Third Edition
- 6. NEMA UD 2, Acoustic Output Measurement Standard



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for Diagnostic Ultrasound Equipment

- 7. ISO14971, Application of risk management to medical devices
- 8. NEMA, Digital Imaging and Communications in Medicine (DICOM) Set. (Radiology)

The following quality assurance measures are applied to the development of the system:

- Risk Analysis
- Requirements Reviews
- Design Reviews
- Testing on unit level (Module verification)
- Integration testing (System verification)
- Final Acceptance Testing (Validation)
- Performance testing (Verification)
- Safety testing (Verification)

Transducer materials and other patient contact materials are biocompatible.

#### Summary of Clinical Tests:

The subject of this premarket submission, LOGIQ S8, did not require clinical studies to support substantial equivalence.

#### Conclusion:

GE Healthcare considers the LOGIQ S8 to be as safe, as effective, and performance is substantially equivalent to the predicate device(s).