

Attachment B

Summary of Safety and Effectiveness Prepared in accordance with 21 CFR Part 807.92(c).



GE Ultrasound

GE Medical Systems, Ultrasound and Primary Care Diagnostics, LLC 4855 West Electric Avenue Milwaukee, WI 53219

Section a):

Submitter: GE Medical Systems, Ultrasound and Primary Care Diagnostics, LLC

PO Box 414

Milwaukee, WI 53201

Contact Person: Allen Schuh.

> Manager, Safety and Regulatory Engineering Telephone: 414-647-4385; Fax: 414-647-4090

September 29, 2003 Date Prepared:

2. Device Name: GE Marlin Diagnostic Ultrasound System.

Ultrasonic Pulsed Doppler Imaging System, 21 CFR 892.1550, 90-IYN

3. Marketed Device: GE Vivid 3 Ultrasound System.

510(k) Number K020789, a device currently in commercial distribution.

- 4. <u>Device Description</u>: The GE Marlin is a full featured echocardiography system in a highly compact and portable package. It has a full complement of interchangeable electronic array transducers giving it additional capability in general imaging. Although this modification significantly changes the size and packaging of the device, it does retain the same intended use and overall imaging capability as the unmodified GE Vivid 3
- 5. Indications for Use: The device is intended for use by a qualified physician for ultrasound evaluation of Fetal; 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); Transesophageal; Transrectal; Transvaginal; and Intraoperative (abdominal, thoracic, and vascular).
- 6. Comparison with Predicate Device: The GE Marlin is a comparable type and substantially equivalent to the unmodified Vivid 3 in terms of intended use and clinical utility. Additionally, it is comparable to the GE LOGIQ Book with respect to physical size and portability. The Marlin shares the same technological characteristics, overall design, construction methods and materials as the predicate devices. Transducers are already cleared for use with the predicate devices and other GE ultrasound systems or utilizes the same materials and construction.

Section b):

- 1. Non-clinical Tests: The device has been evaluated for acoustic output, biocompatibility, cleaning and disinfection effectiveness as well as thermal, electrical and mechanical safety, and has been found to conform with applicable medical device safety standards.
- 2. Clinical Tests: None required.
- 3. Conclusion: Intended uses and other key features are consistent with traditional clinical practice, FDA guidelines, and established methods of patient examination. The design and development process of the manufacturer conforms with 21 CFR 820 Quality System Regulation and ISO 9001 & 13485 quality system standards for medical device manufacturers. The product is designed to conform with applicable medical device safety standards and compliance is verified through independent evaluation with ongoing production surveillance. Diagnostic ultrasound has accumulated a long history of safe and effective performance. Therefore, it is the opinion of GE Medical Systems that the GE Marlin Ultrasound System is substantially equivalent with respect to safety and effectiveness to devices currently cleared for market



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

OCT 2 3 2003

Mr. Allen Schuh
Manager, GE Ultrasound Product Safety
and Regulatory Compliance
GE Medical Systems
Ultrasound and Primary Care Diagnostic, LLC
4855 West Electric Avenue
MILWAUKEE WI 53219

Re: K033139

Trade Name: GE Marlin Diagnostic Ultrasound System

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Regulation Number: 21 CFR 892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Regulation Number: 21 CFR 892.1570

Regulation Name: Diagnostic ultrasonic trasducer

Regulatory Class: II

Product Code: 90 IYN, IYO, and ITX

Dated: September 29, 2003 Received: September 30, 2003

Dear Mr. Schuh:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we 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). 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.

This determination of substantial equivalence applies to the following transducers intended for use with the GE Marlin Diagnostic Ultrasound System, as described in your premarket notification:

Transducer Model Number

3C-RS 8C-RS E8C-RS 8L-RS i12L-RS i/t739-RS 3S-RS 7S-RS 10S-RS 6T-RS 9T-RS P2D P6D

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such 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 <u>Federal Register</u>.

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); 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.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850 This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801, please contact the Office of Compliance at (301) 594-4591. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or at (301) 443-6597 or at its Internet address "http://www.fda.gov/cdrh/dsmamain.html".

If you have any questions regarding the content of this letter, please contact Rodrigo C. Perez at (301) 594-1212.

Sincerely yours,

Mancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

GE Marlin Diagnostic Ultrasound System

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

	 -				Mode	of Ope	eration				=
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics	P	P	P	Р	Р	Р	Р	Р	Р		
Abdominal ^[1]	P	Р	Р	Р	Р	Р	P	Р	P		
Pediatric	Р	Р	Р	Р	Р	Р	Р	Р	P		
Small Organ (specify) ^[2]	P	P	Р		Р		Р	Р	Р		
Neonatal Cephalic	Р	P	Р	P	Р	Р	Р	Р	P		
Adult Cephalic	Р	Р	Р	Р	Р	Р	Р	Р	P		
Cardiac ^[3]	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Peripheral Vascular	Р	Р	Р	Р	Р		Р	Р	Р		
Musculo-skeletal Conventional	Р	Р	Р		Р		Р	Р	Р		
Musculo-skeletal Superficial	Р	Р	Р		Р		Р	Р	_ P		
Other ^[4]	Р	Р	Р	Р	Р	Р	Р	Р	P		
Exam Type, Means of Access											
Transesophageal	Р	Р	Р	Р	Р	Р	Р	Р	P		
Transrectal	Р	Р	Р		Р		Р	Р	P		
Transvaginal	Р	Р	Р		Р		Р	Р	Р		
Transuretheral											
Intraoperative (specify)[5]	Р	Р	Р		Р		Р	Р	Р		
Intraoperative Neurological]		
Intravascular											
Laparoscopic											

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

Notes:	[1] Abdomina	l includes	GYN/Pelvic.
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- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number K033139

GE Marlin with 3C-RS Transducer

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

								····			
		Mode of Operation									
Clinical Application	В	М	PW	cw	Color	Color M			Harmonic	Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic											
Fetal / Obstetrics	N	N	N		N		N	N	N		
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric	N	N	N		N		N	N	N		
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]	N	N	N		N		N	N	N		
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

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

Notes:	[1] Abdominal includes GYN/Pelvic.
	[4] Other use includes Urology.
	[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.
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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

GE Marlin with 8C-RS Transducer

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

											
		Mode of Operation									
Clinical Application	В	м	PW	CW	Color	Color M		Combined		Coded	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse	
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric	N	N	N		N		N	_N	N		
Small Organ (specify)[2]	N	N	N		N		N	N	N		
Neonatal Cephalic	N	N	N		N		N	N	N		
Adult Cephalic			<u></u>								<u> </u>
Cardiac ^[3]											
Peripheral Vascular	N	N	N		N		N	N	N		
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]									-		
Exam Type, Means of Access											
Transesophageal											
Transrectal			ļ								
Transvaginal							_				
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular									-		
Laparoscopic											

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

Notes: [1] Abdominal includes GYN/Pelvic.
[2] Small organ includes breast, testes, thyroid.
[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

Prescription User (Per 21 CFR 801.109)

510(k) Number <u>103313</u>

GE Marlin with E8C-RS Transducer

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

					Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic			<u> </u>								
Fetal / Obstetrics	N	N	N		N		N	N	N		
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric											<u> </u>
Small Organ (specify)[2]		L									
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]	N	N	N		N		N	N	N		
Exam Type, Means of Access										•	
Transesophageal											
Transrectal	N	N	N		N		N	N	N		ļ
Transvaginal	N	N	N		N		N	N	N		
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic				·							<u> </u>

Ν	= new indication; F	? = previously o	cleared by FDA;	E = added	under A	∖ppendix	Ε
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Notes:	[1] Abdominal includes GYN/Pelvic
	[4] Other use includes Urology.

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Concurrence of CDRH, Office of Device Evaluation (ODE)	

(Division Sign-Off)
Division of Reproductive, Abdominal, and Radiological Devices

Prescription User (Per 21 CFR 801.109)

510(k) Number K03313

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

GE Marlin with 8L-RS Transducer

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

					Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic			ļ								
Fetal / Obstetrics									·		
Abdominal ^[1]	N	N	N		N		N	N	N		
Pediatric	N	N	N		N		N	N	N		ļ
Small Organ (specify)[2]	N	N	N		N		N	N	N		
Neonatal Cephalic			<u> </u>								
Adult Cephalic											
Cardiac ^[3]											
Peripheral Vascular	N	N	N		N		N	N	N	. <u></u>	
Musculo-skeletal Conventional	N	N	N		N		N	N	N		
Musculo-skeletal Superficial	N	N	N		N		N	N	N		
Other ^[4]							_				
Exam Type, Means of Access					•						
Transesophageal											
Transrectal						<u> </u>					
Transvaginal								:			
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											
Intravascular						_					
Laparoscopic											

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

Notes:	[1]	Abdominal	includes	GYN/F	elvic

- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number

GE Marlin with i12L-RS Transducer

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

					Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics		<u></u>									
Abdominal ^[1]	Р	Р	P		Р		Р	P	P		
Pediatric	Р	Р	Р		Р		ρ	P	P		
Small Organ (specify)[2]	Р	Р	Р		Р		Р	Р	P		
Neonatal Cephalic											
Adult Cephalic											. <u></u>
Cardiac ^[3]	Р	Р	Р		Р		Р	Р	P		
Peripheral Vascular	Р	Р	Р		Р		Р	Р	Р		
Musculo-skeletal Conventional	Р	Р	Р		Р		Р	P	Р		
Musculo-skeletal Superficial	Р	Р	P		Р		Р	Р	Р		
Other ^[4]											
Exam Type, Means of Access											
Transesophageal		_									
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]	Р	Р	Р		Р		Р	Р	Р		
Intraoperative Neurological							<u> </u>				
Intravascular											
Laparoscopic		· <u>-</u> -	<u></u>								

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

Notes:	[1]	Abdominal	l includes	GYN.
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- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number

GE Marlin with i/t739-RS Transducers

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

					Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	P	Р	Р		Р		Р	Р	Р		
Pediatric											·
Small Organ (specify)[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	P	Р	Р		Р		Р	Р	Р		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify) ^[5]	Р	Р	Р		Р		Р	Р	Р		
Intraoperative Neurological											
Intravascular											
Laparoscopic											

ì	V = new indication;	P = p	reviously	cleared by	/ FDA:	E =	added	under	Appendix	Ε

Notes: [3] Cardiac is Adult	t and	Pediatric via	intraoperative.
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[5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).

[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number

GE Marlin with 3S-RS Transducer

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

					Mode	of Ope	eration				
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
Ophthalmic											
Fetal / Obstetrics	P_	Р	Р	Р	Р	Р	Р	Р	P		
Abdominal ^[1]	P	Р	р	Р	Р	Р	Р	Р	Р		
Pediatric	Р	Р	Р	Р	Р	Р	Р	р	P		
Small Organ (specify) ^[2]							<u></u>				
Neonatal Cephalic			ļ								
Adult Cephalic	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Cardiac ^[3]	Р	Р	Р	Р	Р	Р	Р	Р	P		
Peripheral Vascular		<u></u>									
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]	Р	Р	P	Р	Р	P	Р	Р	Р		
Exam Type, Means of Access			ļ								
Transesophageal			ļ								
Transrectal		ļ								ļ	
Transvaginal										ļ	
Transuretheral			ļ	ļ							
Intraoperative (specify) ^[5]									_		
Intraoperative Neurological		ļ					`				
Intravascular			ļ		,						
Laparoscopic										<u> </u>	

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

N	otes:	[1]	Abd	dominal	includ	des G	YN.
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- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology.
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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Division of Reproductive, Abdominal,

and Radiological Devices

GE Marlin with 7S-RS Transducer

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

				*** <u>*</u>	Mode	of Ope	eration		**		
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic					j						
Fetal / Obstetrics											
Abdominal ^[1]	P	Р	Р	Р	Р	Р	Р	Р	Р	<u>·</u>	
Pediatric	P	Р	P	Р	Р	Р	Р	P	Р		ļ
Small Organ (specify) ^[2]											
Neonatal Cephalic	P	Р	Р	Р	Р	P	Р	Р	P		
Adult Cephalic											
Cardiac ^[3]	Р	Р	Р	Р	Р	Р	P	Р	P		
Peripheral Vascular			ļ								
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]	Р	Р	Р	Р	Р	Р	P	Р	Р		
Exam Type, Means of Access											
Transesophageal							<u> </u>				
Transrectal				-							
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological							<u>`</u>				
Intravascular											
Laparoscopic			<u> </u>								L

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

Notes: [1] Abdominal includes G'	YN.
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- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology.
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (20E) (Division Sign-Off) Division of Reproductive, Abdominal, and Radiological Devices 510(k) Number 1033139

GE Marlin with 10S-RS Transducer

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

			: :	 1	Mode	of Ope	eration			<u>-</u>	
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]	Р	P	P	Р	Р_	Р	Р	Р	þ		
Pediatric	P	Р	Р	Р	Р	P	Р	Р	Р		
Small Organ (specify) ^[2]											
Neonatal Cephalic	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Adult Cephalic	Р	Р	P	Р	P	Р	Р	Р	р		
Cardiac ^[3]	P	Р	Р	Р	Р	Р	Р	Р	Р		
Peripheral Vascular								ļ			
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]							·			L	
Exam Type, Means of Access										·	
Transesophageal											
Transrectal			ļ								
Transvaginal											
Transuretheral			ļ								
Intraoperative (specify) ^[5]											ļ
Intraoperative Neurological											
Intravascular											
Laparoscopic]								

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

- [3] Cardiac is Adult and Pediatric.
- [*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

Concurrence of CDRH, Office of Device Evaluation (ODE)	
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(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

GE Marlin with 6T-RS Transducer

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

		. =			Mode	of Ope	eration				
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]			<u> </u>								
Pediatric											
Small Organ (specify)[2]			ļ								
Neonatal Cephalic			ļ								
Adult Cephalic			ļ								ļ <u> </u>
Cardiac ^[3]	Р	Р	P	Р	Р	Р	Р	Р	P		
Peripheral Vascular			<u> </u>	ļ <u>.</u>				~			
Musculo-skeletal Conventional			ļ								
Musculo-skeletal Superficial			ļ <u>.</u>								
Other ^[4]			ļ								
Exam Type, Means of Access			ļ								
Transesophageal	Р	Р	Р	Р	Р	Р	Р	Р	Р		
Transrectal			<u> </u>								
Transvaginal			ļ								
Transuretheral					٠.						
Intraoperative (specify) ^[5]			<u> </u>						~		
Intraoperative Neurological			<u> </u>								
Intravascular	,		L								
Laparoscopic			<u> </u>		<u> </u>		,				<u> </u>

N	= new ind	ication:	P =	previously	cleared by	/FDA;	E = added	under.	Appendix	Ε

Mataar	(2) (2)	rdina ic	Adult	and	Pediatric.
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510(k) Number

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

GE Marlin with 9T-RS Transducer

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

					Mode	of Ope	eration			- # 	_
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics			<u></u>								
Abdominal ^[1]		·	<u></u>								<u> </u>
Pediatric											
Small Organ (specify) ^[2]											
Neonatal Cephalic											
Adult Cephalic											
Cardiac ^[3]	Р	P	P	Р	Р	Р	Р	Р	P		
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other ^[4]											
Exam Type, Means of Access											
Transesophageal	Р	P	Р	Р	Р	Р	Р	Р	P		
Transrectal											
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular											
Laparoscopic											

Ν	= new indication:	P=	= previously	cleared by FDA	: E=	: added	d under	App	endix E

	(0) (04:		and Dadia	
Notes:	[3] Cardiac	is Adult	and Pedia	tric.

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510(k) Number K033139

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

GE Marlin with P2D 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	Color M Doppler	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics											
Abdominal ^[1]											ļ
Pediatric											
Small Organ (specify)[2]											
Neonatal Cephalic											ļ
Adult Cephalic											ļ
Cardiac ^[3]			Р	Р							
Peripheral Vascular			Р	Р							
Musculo-skeletal Conventional											
Musculo-skeletal Superficial				ļ						, ,,	<u> </u>
Other ^[4]										ļ	<u> </u>
Exam Type, Means of Access				<u></u>							
Transesophageal		- <u>-</u>	ļ	ļ						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>
Transrectal				<u> </u>							
Transvaginal				<u></u>				ļ			
Transuretheral											
Intraoperative (specify) ^[5]			ļ								
Intraoperative Neurological											
Intravascular											<u> </u>
Laparoscopic			<u> </u>	<u> </u>							<u></u>

N	=	new in	ndicatio	n: P =	previou	slv cle	ared by	FDA:	E = added	under.	Appendix	Ε

Notes:	[3] Cardi	ac is Adult	t and Pediatric.
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Prescription User (Per 21 CFR 801.109)

510(k) Number_

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

GE Marlin with P6D Transducer

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

	Mode of Operation										
Clinical Application	В	M	PW	CW	Color	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Dobbiei	Dopplet	Modes	imaging	ruise	ļ
Ophthalmic			ļ								
Fetal / Obstetrics			<u> </u>								
Abdominal ^[1]											
Pediatric											
Small Organ (specify) ^[2]											
Neonatal Cephalic							<u> </u>				
Adult Cephalic			<u> </u>			_					
Cardiac ^[3]			P	Р							<u> </u>
Peripheral Vascular			Р	Р							<u> </u>
Musculo-skeletal Conventional											<u> </u>
Musculo-skeletal Superficial											
Other ^[4]			<u> </u>								
Exam Type, Means of Access			<u> </u>								
Transesophageal											
Transrectal											
Transvaginal						<u> </u>					
Transuretheral											
Intraoperative (specify) ^[5]											
Intraoperative Neurological											<u> </u>
Intravascular						<u> </u>					
Laparoscopic							<u> </u>				

1	V = new	indication:	P = previously	cleared b	v FDA: E =	 added und 	ler Appendix E

Notes: [[3]	Cardiac	is	Adult	and	P	ediatric	
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and Radiological Devices	

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510(k) Number_

^[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.