K012015

Special 510(k) Premarket Notification GE LOGIQ A3 Ultrasound System July 26, 2007

Attachment B:

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

AUG 2 9 2007



GE Healthcare

General Electric Company P.O. Box 414, Milwaukee, WI 53201

Section a):

1.

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

PO Box 414

Milwaukee, WI 53201

Contact Person: Allen Schuh,

Manager, Ultrasound Regulatory Affairs

Telephone: 414-721-3992; Fax: 414-721-3899

Date Prepared:

July 26, 2007

2.

Device Name: GE LOGIQ A3 Diagnostic Ultrasound System

Ultrasonic Pulsed Doppler Imaging System, 21 CFR 892.1550, 90-IYN Ultrasonic Pulsed Echo Imaging System, 21 CFR 892.1560, 90-IYO Diagnostic Ultrasonic Transducer, 21 CFR 892.1570, 90-ITX

3. Marketed Device: GE LOGIQ 3 Diagnostic Ultrasound System, 510(k) No: K020263.

- 4. Device Description: The GE LOGIQ A3 is a small, general purpose diagnostic ultrasound system. It consists of a mobile console approximately 42 cm wide, 59 cm deep and 125 cm high that provides digital acquisition, processing and display capability. The user interface consists of a computer keyboard, specialized controls and color video LCD display. The modification provides for a more compact, lighter weight and easily maneuverable system with updated and efficient electronic hardware.
- 5. Indications for Use: The device is intended for use by a qualified physician for ultrasound evaluation of Fetal/OB: Abdominal (GYN & Urology); Pediatric; Small Organ (breast, testes, thyroid); Neonatal & Adult Cephalic; Cardiac (adult & pediatric); Peripheral Vascular; Musculo-skeletal (conventional & superficial); Intraoperative including neurological, Transrectal; and Transvaginal.
- 6. Comparison with Predicate Device: The LOGIQ A3 Diagnostic Ultrasound System is of a comparable type and substantially equivalent to the GE LOGIQ 3 and LOGIQ 200MD. It has the same technological characteristics, is comparable in key safety and effectiveness features, it utilizes similar design, construction, and materials, and has the same intended uses. Basic acquisition and operating modes are identical to that of the LOGIQ 200MD.

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, ISO 9001 and 13485 quality systems. The device conforms to applicable medical device safety standards and compliance is verified through independent evaluation by a Nationally Recognized Testing Lab. (NRTL) with ongoing factory surveillance. Diagnostic ultrasound has accumulated a long history of safe and effective performance. Therefore, it is the opinion of GE Healthcare that the GE LOGIQ A3 is substantially equivalent with respect to safety and effectiveness to diagnostic ultrasound devices currently cleared for market.





Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Mr. Allen Schuh Manager Regulatory Affairs General Electric Company GE Healthcare 9900 Innovation Drive WAUWATOSA WI 53226

AUG 2 9 2007

Re: K072075

Trade/Device Name: GE LOGIQ A3 Ultrasound System

Regulation Number: 21 CFR §892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Regulatory Class: II

Product Code: IYO, IYN, ITX

Dated: July 26, 2007 Received: July 30, 2007

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 LOGIQ A3 Ultrasound System, as described in your premarket notification:

Transducer Model Number

GE LOGIQ A3 with 4C GE LOGIQ A3 with 3S

GE LOGIQ A3 with E8C

GE LOGIQ A3 with 8L

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 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 (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html

If you have any questions regarding the content of this letter, please contact Ms. Lauren Hefner at (240) 276-3666.

Sincerely yours,

Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

logue hi Mano GINCE

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosures

GE LOGIQ A3 Ultrasound System

Intended Use: Diagnostic ultrasound imaging or motion 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	Р	Р	ļ					Р	Р		
Abdominal ^[1]	Р	Р						Р	p		
Pediatric	Р	Р	ļ			<u> </u>		P	P		
Small Organ ^[2]	Р	Р	<u> </u>					P	P		
Neonatal Cephalic	Р	Р	ļ					Р			
Adult Cephalic	Р	Р						Р	P		
Cardiac ^[3]	Р	Р						Р	Р		
Peripheral Vascular	Р	Р						Р	N		
Musculo-skeletal Conventional	Р	Р						Р	Р		
Musculo-skeletal Superficial	P	Р						Р	P		
Other ^[4]	Р	Р						Р	₽		
Exam Type, Means of Access			<u> </u>								
Transesophageal			ļ								
Transrectal	Р	Р	<u> </u>					Р			
Transvaginal	P	Р						Р			
Transuretheral											
Intraoperative	P	P						Р	N		
Intraoperative Neurological	Р	P						P	N		
Intravascular											
Laparoscopic											

Ν	l = new ind	lication; P	= previ	ously clea	ared by FDA	; E =	added	under a	Appendi)	Œ
---	-------------	-------------	---------	------------	-------------	-------	-------	---------	----------	---

Notes:	[1]	Abdominal	includes	renal.	GYN/Pelvic

- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology/Prostate
- [*] Combined modes are B/M.

·	
 (PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)	
Concurrence of CDRH, Office of Device Evaluation (ODE)	

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number

GE LOGIQ A3 with 4C Transducer

Intended Use: Diagnostic ultrasound imaging or motion 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		Combined Modes	Harmonic Imaging	Coded Pulse	Other		
Ophthalmic			<u> </u>										
Fetal / Obstetrics	Р	Р						P	Р				
Abdominal ^[1]	Р	Р				ļ		P	Р				
Pediatric	P	Р				<u></u>		Р	Р				
Small Organ (specify)													
Neonatal Cephalic						<u> </u>							
Adult Cephalic			<u></u>										
Cardiac						<u> </u>							
Peripheral Vascular													
Musculo-skeletal Conventional			<u></u>										
Musculo-skeletal Superficial]					
Other ^[4]	Р	Р	<u> </u>					P	Р				
Exam Type, Means of Access		ļ											
Transesophageal						ļ			<u> </u>	ļ			
Transrectal			<u> </u>			ļ							
Transvaginal								<u> </u>	ļ		1		
Transuretheral			<u> </u>		<u> </u>	ļ				ļ			
Intraoperative (specify)	 	<u> </u>				ļ					ļ		
Intraoperative Neurological			ļ		ļ	<u> </u>		ļ					
Intravascular								ļ	<u> </u>	<u> </u>	ļ		
Laparoscopic					<u> </u>	<u> </u>							

Laparoscopic	ļ ļ				<u> </u>			1	
N = new indication; P = pr	reviously cleare	ed by FDA; E	= added un	der Appe	endix E		· · · · · · · · · · · · · · · · · · ·		
Notes: [1] Abdominal incl	ludes GYN;								
[4] Other use inclu	ıdes Urology;								
[*] Combined mod	les are B/M.								
									.
	······································		•••						
	(PLEASE DO NOT W	IDITE DEI OW THIS	INE - CONTINU	E ON ANOT	HER PAGE	IE NEEDED!			
		nce of CDRH, C							
	Concurre	nce or cokn, c	VILLE OF DEA	ICC CAGE	ranon (o	u-,			

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproduction and Radiological Devices Division of Reproductive, Abdominal,

GE LOGIQ A3 with E8C Transducer

Intended Use: Diagnostic ultrasound imaging or motion 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		
Ophthalmic						ļ						
Fetal / Obstetrics	P	Р						P				
Abdominal ^[1]	Р	Р						Р				
Pediatric												
Small Organ (specify)		ļ						ļ				
Neonatal Cephalic	N	N			ļ			N				
Adult Cephalic					ļ			<u> </u>				
Cardiac								<u> </u>	ļ			
Peripheral Vascular					ļ							
Musculo-skeletal Conventional			ļ									
Musculo-skeletal Superficial			<u> </u>									
Other ^[4]	Р	P						P	ļ <u> </u>			
Exam Type, Means of Access		ļ	<u> </u>					ļ				
Transesophageal					ļ <u></u>							
Transrectal	Р	Р						P				
Transvaginal	Р	P				<u> </u>		Р				
Transuretheral					<u> </u>	ļ						
intraoperative (specify)				<u> </u>	<u> </u>			ļ				
Intraoperative Neurological					<u> </u>	ļ	ļ	<u> </u>			<u> </u>	
Intravascular						<u> </u>	<u> </u>	<u> </u>				
Laparoscopic								1.		<u> </u>	L	

N = new indication; P = previously cleared by FDA; E = added under Appendix E
Notes: [1] Abdominal includes GYN/Pelvic;
[4] Other use includes Urology/Prostate;
[*] Combined modes are B/M.
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

GE LOGIQ A3 with 8L Transducer

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

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

N = new	indication/mode for this probe; P = previously cleared by FDA; E = added under Appendix E
Notes:	[2] Small organ includes breast, testes, thyroid.
İ	[*] Combined modes are B/M.
	(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
	Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

GE LOGIQ A3 with 3S Transducer

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

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

Notes:	[1] Abdominal includes GYN;
	[3] Cardiac is Adult and Pediatric;
	[4] Other use includes Urology;
	[*] Combined modes are B/M.

E-6

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number ...