



Shenzhen Mindray Bio-Medical Electronics Co., LTD  
Zhang Wei  
Engineer of Technical Regulation  
Keji 12th Road South, Hi-tech Industrial Park  
Shenzhen, Guangdong 518057  
CHINA

January 9, 2019

Re: K181637

Trade/Device Name: DC-70/DC-70T/DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic  
Ultrasound System

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic Pulsed Doppler Imaging System

Regulatory Class: Class II

Product Code: IYN, IYO, ITX, LLZ

Dated: December 25, 2018

Received: December 28, 2018

Dear Zhang Wei:

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. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. 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) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <https://www.fda.gov/CombinationProducts/GuidanceRegulatoryInformation/ucm597488.htm>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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 <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/>) and CDRH Learn (<http://www.fda.gov/Training/CDRHLearn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<http://www.fda.gov/DICE>) for more information or contact DICE by email ([DICE@fda.hhs.gov](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

A handwritten signature in blue ink that reads "Michael D. O'Hara". The signature is written over a large, light blue watermark of the letters "FDA".

Robert A. Ochs, Ph.D.

Director

Division of Radiological Health

Office of In Vitro Diagnostics

and Radiological Health

Center for Devices and Radiological Health

Enclosure

**Indications for Use**

510(k) Number (if known)

K181637

Device Name

DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Indications for Use (Describe)

The DC-70/ DC-70T / DC-70 Pro/ DC-70 Exp/ DC-75/ DC-78/ DC-70S Diagnostic Ultrasound System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in fetal, abdominal, pediatric, small organ(breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal(conventional, superficial), adult and pediatric cardiac, Trans-esoph. (Cardiac), peripheral vessel , intra-operative(abdominal, thoracic, and vascular) and urology exams.

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)

**CONTINUE ON A SEPARATE PAGE IF NEEDED.**

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**Diagnostic Ultrasound Indications For Use Format**

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: N/A

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2,3, 4,6,7
	Abdominal	P	P	P	P	P	P	P	Note 1, 2,3,4,6,7,9
	Intra-operative (Specify*)	P	P	P		P	P	P	Note 1, 2, 4
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6,7
	Adult Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6,7
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 3,4,6,7
	Trans-vaginal	P	P	P		P	P	P	Note 1, 2, 3,4,6,7,8
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1, 2, 4,6,7,8
Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1, 2, 4,7,8	
Intravascular									
Cardiac	Cardiac Adult	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7,10
	Cardiac Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)	N	N	N	N	N	N	N	Note 1, 5,6
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4,6,7
N=new indication; P=previously cleared by FDA; E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: C5-2E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4,6,7,9
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: C11-3E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Small Organ (Specify**)								
	Neonatal Cephalic	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
Musculo-skeletal (Superficial)									
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
Peripheral vessel	Intra-cardiac								
	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Other (Specify***)								

N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E

Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes.

\*\*\*Other use includes Urology.

Note 1: Tissue Harmonic Imaging.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Note8: Elastography

Note 9: Contrast imaging (Contrast agent for Liver)

Note 10: Contrast imaging (Contrast agent for LVO)

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

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: C7-3E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								

N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E

Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes.

\*\*\*Other use includes Urology.

Note 1: Tissue Harmonic Imaging.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Note8: Elastography

Note 9: Contrast imaging (Contrast agent for Liver)

Note 10: Contrast imaging (Contrast agent for LVO)

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

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L12-3E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1, 2, 4,7
	Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1, 2, 4,7
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
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System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L14-6NE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1,2, 4,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2, 4,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1,2, 4,7
	Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1,2, 4,7
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1,2, 4,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
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<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L14-6WE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1,2, 4,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2, 4,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1,2, 4,7
	Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1,2, 4,7
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1,2, 4,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
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Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
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<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: V11-3E

Intended Use:

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Trans-vaginal	P	P	P		P	P	N	Note 1, 2, 4,6,7,8
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4,6,7

N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E

Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes.

\*\*\*Other use includes Urology.

Note 1: Tissue Harmonic Imaging.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Note8: Elastography

Note 9: Contrast imaging (Contrast agent for Liver)

Note 10: Contrast imaging (Contrast agent for LVO)

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

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: V11-3BE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Trans-vaginal	P	P	P		P	P	P	Note 1, 2, 4,6,7,8
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4,6,7
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: V11-3WE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Trans-vaginal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4,6,7
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: P4-2E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P	P	P	P	P	Note 1, 2,4,6,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2,4,6,7
	Small Organ (Specify**)								
	Neonatal Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6,7
	Adult Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6,7
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
Musculo-skeletal (Superficial)									
Intravascular									
Cardiac	Cardiac Adult	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7,10
	Cardiac Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
Peripheral vessel	Intra-cardiac								
	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: P7-3E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P	P	P	P	P	Note 1,2,4,6
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2,4,6
	Small Organ (Specify**)								
	Neonatal Cephalic	P	P	P	P	P	P	P	Note 1,2,4,6
	Adult Cephalic	P	P	P	P	P	P	P	Note 1,2,4,6
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult	P	P	P	P	P	P	P	Note 1, 2,4,5,6
	Cardiac Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,5,6
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: D6-2E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 3, 4, 6, 7
	Abdominal	P	P	P		P	P	P	Note 1, 3, 4, 6, 7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									



System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: DE10-3E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Trans-vaginal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K150204); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: CW5s

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(k150204); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L9-3E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1,2, 4,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2, 4,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1,2, 4,7,8
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1,2, 4,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: DE11-3E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 3, 4, 6, 7
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 3, 4, 6, 7
	Trans-vaginal	P	P	P		P	P	P	Note 1, 3, 4, 6, 7, 8
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: V11-3HE

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4, 6, 7
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 4, 6, 7
	Trans-vaginal	P	P	P		P	P	P	Note 1, 2, 4, 6, 7, 8
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4, 6, 7
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: C5-1E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4,6,7,9
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: CB10-4E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	P	P	P		P	P	P	Note 1, 2, 4,6,7
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
Musculo-skeletal (Superficial)									
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	P	P	P		P	P	P	Note 1, 2, 4,6,7
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: P10-4E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P	P	P	P	P	Note 1, 2,4,6
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,6
	Small Organ (Specify**)								
	Neonatal Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6
	Adult Cephalic	P	P	P	P	P	P	P	Note 1, 2,4,6
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult	P	P	P	P	P	P	P	Note 1, 2,4,5,6
	Cardiac Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,5,6
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									



System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: SP5-1E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P	P	P	P	P	Note 1, 2,4, 6,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P	P	P	P	P	Note 1, 2,4, 6,7
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic	P	P	P	P	P	P	P	Note 1, 2,4, 6,7
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
Musculo-skeletal (Superficial)									
Intravascular									
Cardiac	Cardiac Adult	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7,10
	Cardiac Pediatric	P	P	P	P	P	P	P	Note 1, 2,4,5,6,7
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: D6-2NE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Abdominal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: D7-2E

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Abdominal	P	P	P		P	P	P	Note 1, 3, 4, 6
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note5: TDI									
Note6: Color M									
Note7: Biopsy Guidance									
Note8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
<b>Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)</b>									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: P7-3TE

Intended

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)	P	P	P	P	P	P	P	Note 1, 5,6
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								

N=new indication; P=previously cleared by FDA(K163690); E=added under Appendix E

Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes.

\*\*\*Other use includes Urology.

Note 1: Tissue Harmonic Imaging.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Note8: Elastography

Note 9: Contrast imaging (Contrast agent for Liver)

Note 10: Contrast imaging (Contrast agent for LVO)

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

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L14-5WE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1,2, 4,7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2, 4,7
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1,2, 4,7,8
	Neonatal Cephalic	P	P	P		P	P	P	Note 1,2, 4,7
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1,2, 4,7
	Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1,2, 4,7
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1,2, 4,7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA(K173471); E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note 5: TDI									
Note 6: Color M									
Note 7: Biopsy Guidance									
Note 8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L20-5E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)	N	N	N		N	N	N	Note 1, 2, 4
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)		N	N	N		N	N	N
Musculo-skeletal (Superficial)		N	N	N		N	N	N	Note 1, 2, 4, 8
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	N	N	N		N	N	N	Note 1, 2, 4
	Other (Specify***)								
N=new indication; P=previously cleared by FDA; E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note 5: TDI									
Note 6: Color M									
Note 7: Biopsy Guidance									
Note 8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: 6LB7E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	N	N	N		N	N	N	Note 1,2,4,6,7
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)	N	N	N		N	N	N	Note 1,2,4,6,7
N=new indication; P=previously cleared by FDA; E=added under Appendix E									
Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular etc.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note 5: TDI									
Note 6: Color M									
Note 7: Biopsy Guidance									
Note 8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging (Contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: SC6-1E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (Specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Abdominal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7, 9
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Other (Specify***)								
N=new indication; P=previously cleared by FDA; E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note 5: TDI									
Note 6: Color M									
Note 7: Biopsy Guidance									
Note 8: Elastography									
Note 9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging(contrast agent for LVO)									
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE NEEDED)									
Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)									



System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: SD8-1E

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (Specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 3, 4, 6, 7
	Abdominal	N	N	N		N	N	N	Note 1, 3, 4, 6, 7
	Intra-operative (Specify*)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small Organ (Specify**)								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)								
	Musculo-skeletal (Superficial)								
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel								
	Other (Specify***)								
N=new indication; P=previously cleared by FDA; E=added under Appendix E									
Additional comments: Combined modes--B+M、PW+B、Color + B、Power + B、PW +Color+ B、Power + PW +B.									
*Intraoperative includes abdominal, thoracic, and vascular.									
**Small organ-breast, thyroid, testes.									
***Other use includes Urology.									
Note 1: Tissue Harmonic Imaging.									
Note 2: Smart3D									
Note 3:4D(Real-time 3D)									
Note 4: iScape									
Note 5: TDI									
Note 6: Color M									
Note 7: Biopsy Guidance									
Note 8: Elastography									
Note9: Contrast imaging (Contrast agent for Liver)									
Note 10: Contrast imaging(contrast agent for LVO)									
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Concurrence of CDRH, Office of In Vitro Diagnostics and Radiological Health (OIR)									

System: DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic Ultrasound System

Transducer: L16-4HE

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

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1, 2, 4
	Intra-operative (Specify*)	P	P	P		P	P	P	Note 1, 2, 4
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1, 2, 4
	Small Organ (Specify**)	P	P	P		P	P	P	Note 1, 2, 4
	Neonatal Cephalic	P	P	P		P	P	P	Note 1, 2, 4
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skeletal (Conventional)	P	P	P		P	P	P	Note 1, 2, 4
Musculo-skeletal (Superficial)	P	P	P		P	P	P	Note 1, 2, 4	
Intravascular									
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph. (Cardiac)								
	Intra-cardiac								
Peripheral vessel	Peripheral vessel	P	P	P		P	P	P	Note 1, 2, 4
	Other (Specify***)								

N=new indication; P=previously cleared by FDA(K173471); E=added under Appendix E

Additional comments: Combined modes--B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes.

\*\*\*Other use includes Urology.

Note 1: Tissue Harmonic Imaging.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Note8: Elastography

Note9: Contrast imaging (Contrast agent for Liver)

Note 10: Contrast imaging(contrast agent for LVO)

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

# 510(K) SUMMARY

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR §807.92(c).

The assigned 510(k) number is: K181637.

## **1. Submitter:**

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**Date Prepared:** May 25, 2018

**2. Device Name:** DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S  
Diagnostic Ultrasound System

### **Classification**

Regulatory Class: II

Review Category: Tier II

21 CFR 892.1550 Ultrasonic Pulsed Doppler Imaging System (IYN)

21 CFR 892.1560 Ultrasonic Pulsed Echo Imaging System (IYO)

21 CFR 892.1570 Diagnostic Ultrasound Transducer (ITX)

21 CFR 892.2050 Picture Archiving and Communications System(LLZ)

### **3. Device Description:**

DC-70/ DC-70T /DC-70 Pro/ DC-70 Exp/ DC-75/ DC-78/ DC-70S is a software controlled, ultrasonic diagnostic system. Its function is to acquire and display ultrasound data in B-Mode, M-Mode, PW-Mode, CW-Mode, Color-Mode , Power/Dirpower Mode, THI, Smart3D, 4D, iScape, TDI, Color M, Biopsy Guidance, Elastography, Contrast imaging (Contrast agent for Liver and LOV) or the combined mode (i.e. B/M-Mode, B/PW-mode, B/PW/Color).

This system is a Track 3 device that employs an array of probes that include Linear array, Convex array, Phased array, Volume and Pencil probe.

### **4. Intended Use:**

The DC-70/ DC-70T / DC-70 Pro/ DC-70 Exp/ DC-75/ DC-78/ DC-70S Diagnostic Ultrasound System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in fetal, abdominal, pediatric, small organ(breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal(conventional, superficial), adult and pediatric cardiac, Trans-esoph. (Cardiac), peripheral vessel , intra-operative(abdominal, thoracic, and vascular) and urology exams.

### **5. Summary of Modifications**

- **New Added Transducers:**

  - L14-5WE

  - L20-5E

  - 6LB7E

  - SC6-1E

  - SD8-1E

  - L16-4HE

- **New Added Needle-Guided Bracket:**

  - NGB-035, NGB-039, NGB-009

- **Main Added Features:**

  - Add the contrast imaging(contrast agent for LVO) function to SP5-1E, P4-2E

Add the contrast imaging(contrast agent for Liver) function to SC6-1E

Add the elastography function to L14-5WE, L20-5E ,L9-3E

AutoEF

Smart face

Smart plane CNS

**6. Comparison with Predicate Devices:**

DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S Diagnostic

Ultrasound System is comparable with and substantially equivalent to these predicate devices:

Predicate Device	Manufacturer	Model	510(k) Control Number
1. Primary predicate device	Mindray	DC-70	K163690
2. Reference device	Mindray	Resona 7	K171233
3. Reference device	Mindray	DC-80	K173471
4. Reference device	Mindray	M9	K171034
5. Reference device	Mindray	M6	K171579

DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S has the same technological characteristics, is comparable in key safety and effectiveness features, and has the same intended uses and basic operating modes as the predicate devices. All systems transmit ultrasonic energy into patients and perform post processing of received echoes to generate onscreen display of anatomic structures and fluid flow within the body. All systems allow for specialized measurements of structures and flow, and calculations.

- Subject device DC-70/DC-70T /DC-70 Pro/DC-70 Exp/DC-75/DC-78/DC-70S has the same intended uses as the predicated device DC-70(K163690) and DC-80 K173471

Subject Device	Predicate device
<b>DC-70/DC-70T /DC-70 PRO/DC-70 EXP</b>	<b>DC-70(K163690)</b>
The DC-70/ DC-70T / DC-70 Pro/ DC-70 Exp/ DC-75/ DC-78/ DC-70S Diagnostic	The DC-70/ DC-70T / DC-70 Pro/ DC-70 Exp/ DC-75/ DC-78/ DC-70S Diagnostic Ultrasound

Ultrasound System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in fetal, abdominal, pediatric, small organ(breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal(conventional, superficial), adult and pediatric cardiac, Trans-esoph. (Cardiac), peripheral vessel and urology exams.	System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in fetal, abdominal, pediatric, small organ(breast, thyroid, testes), neonatal and adult cephalic, trans-rectal, trans-vaginal, musculo-skeletal(conventional, superficial), adult and pediatric cardiac, Trans-esoph. (Cardiac), peripheral vessel and urology exams.
intra-operative(abdominal, thoracic, and vascular)	intra-operative(abdominal, thoracic, and vascular)( DC-80 K173471)

- The acoustic power levels of DC-70/ DC-70T/ DC-70 Pro/DC-70 Exp / DC-75/ DC-78/ DC-70S are below the limits of FDA, which is the same as the predicated device DC-70(K163690).
- DC-70/ DC-70T/ DC-70 Pro/DC-70 Exp / DC-75/ DC-78/ DC-70S is designed in compliance with the FDA recognized electrical and physical safety standard, which is the same as the predicated device DC-70(K163690).
- DC-70/ DC-70T/ DC-70 Pro/DC-70 Exp / DC-75/ DC-78/ DC-70S has similar probes as the predicated device:

<b>Subject device</b>	<b>Predicated device</b>
DC-70/ DC-70T/ DC-70 Pro/DC-70 Exp / DC-75/ DC-78/ DC-70S	
L14-5WE	L14-5WE & DC-80 (K173471)
L20-5E	L20-5U& Resona 7 (K171233)
6LB7E	6LB7s& M6(K171579)
SC6-1E	SC6-1U& Resona 7 (K171233)
SD8-1E	D6-2E&DC-70(K163690)
L16-4HE	L16-4HE& DC-80 (K173471)

## **7. Non-clinical Tests:**

DC-70/ DC-70T/ DC-70 Pro/DC-70 Exp/ DC-75/ DC-78/ DC-70S Diagnostic

Ultrasound System has been evaluated for acoustic output, biocompatibility, cleaning and disinfection effectiveness as well as thermal, electrical and mechanical safety, and has been designed to conform with applicable medical safety standards. This device has been tested and evaluated under the following standards:

- AAMI/ANSI ES60601-1: Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
- AAMI/ANSI/IEC 60601-1-2: Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests (Edition 3)
- IEC 60601-2-37: Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
- IEC 62304: Medical device software - Software life cycle processes
- IEC:62366:Medical devices - application of usability engineering to medical devices
- IEC 60601-1-6: medical electrical equipment - part 1-6: general requirements for basic safety and essential performance - collateral standard: usability.
- ISO14971: Medical devices - Application of risk management to medical devices
- UD 2: Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment Revision 3
- UD 3 Standard for Real Time Display of Thermal and Mechanical Acoustic Output Indices on Diagnostic Ultrasound Equipment
- ISO 10993-1 Biological evaluation of medical devices -- Part 1: Evaluation and testing within a risk management process

These non-clinical tests relied on in this premarket notification submission can support the determination of substantial equivalence of the subject device.

## **8. Clinical Studies**

Not applicable. The subject of this submission, DC-70/ DC-70T/ DC-70 Pro/ DC-70 Exp / DC-75/ DC-78/ DC-70S Diagnostic Ultrasound System, does not require clinical studies to support substantial equivalence.

## **Conclusion:**

Intended uses and other key features are consistent with traditional clinical practices, FDA guidelines and established methods of patient examination. The design, development and quality process of the manufacturer confirms with 21 CFR 820, ISO 9001 and ISO 13485 quality systems. The device conforms to applicable medical device safety standards. Therefore, the DC-70/ DC-70T/ DC-70 Pro/ DC-70 Exp / DC-75/ DC-78/ DC-70S Diagnostic Ultrasound System is substantially equivalent with respect to safety and effectiveness to devices currently cleared for market.