## Section 5 - 510(k) Summary

K102153

Submitter:

Mobisante, Inc.

JAN 2 0 2011

14035 NE 85th CT

Redmond, WA 98052

**Contact Person:** 

Sailesh Chutani

President and CEO

Telephone:

(650) 804-5421

**Date Prepared:** 

July 30, 2010

**Device Trade Name:** 

**MobiUS Ultrasound Imaging System** 

**Device Common Name:** 

**Diagnostic Ultrasound System and Accessories** 

Ultrasound Pulsed Echo Imaging System

Diagnostic Ultrasound Transducer

**Classification Number and** 

§21CFR 892.1560 90-IYO

**Product Code:** 

§21CFR 892.1570 90-ITX

**Device Classification:** 

Class II

### Predicate Device(s):

DEVICE NAME:	ACCESSION NUMBER(S)
INTERSON USB Ultrasound Probe System	К070907
GE VScan Diagnostic Ultrasound System	K092756
Signos Personal Ultrasound	K090505

### **Intended Use:**

The MobiUS Ultrasound Imaging System is indicated for ultrasound imaging, measurement and analysis of the human body for the following clinical applications: fetal/OB, abdominal, cardiac, pelvic, pediatric, musculoskeletal, and peripheral vessel imaging. Its compact size, portability and user interface enable it for use in primary care and special care areas.

### **Device Description:**

The MobiUS Ultrasound Imaging System is a compact, portable ultrasound imaging system consisting of a handheld ultrasound probe, cable, host computer and user interface. The ultrasound probe and cable is one of the five models of the INTERSON USB Ultrasound Imaging Probe, ranging from 3.5 MHz to 12.0 MHz. The probes consist of a single-element mechanical sector scanner that contains the ultrasound generator and receiver, analog-to-digital converter, microcontroller, control logic, USB 2.0 interface and control within the hand piece. It has a push button control to activate scanning. The probe is connected via a USB cable to a host computer. The host computer comes preloaded with the MobiUS software which utilizes an icon touch-based user interface. The software enables ultrasound image capture and review, image controls for near, mid, and far gain, as well as image intensity and contrast, linear measurement, storage and transmission of images and videos. The MobiUS Ultrasound Imaging System allows the user to image in real-time and review cine or freeze-frame images on the screen in B-Mode scan format.

### **Technological Characteristics:**

The Mobisante MobiUS Ultrasound Imaging System operates in the same manner as the identified predicate devices in that piezoelectric material in the transducer is used as an ultrasound source to transmit sound waves into the body. Sound waves are reflected back to the transducer and converted to electrical signals that are processed and displayed as 2D images of anatomic structures within the body. All systems allow for the measurement of structures to aid in diagnosis.

### **Basis for Substantial Equivalence:**

The MobiUS Ultrasound Imaging System is substantially equivalent to the identified predicate devices currently cleared for market with respect to intended use, principles of operation, technological characteristics and safety features. The system 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 standards.



Food and Drug Administration 10903 New Hampshire Avenue Silver Spring, MD 20993

Mr. Sailesh Chutani President and CEO MOBISANTE, INC. 14035 NE 85th CT REDMOND WA 98052

JAN 2 0 201

Re: K102153

Trade/Device Name: MobiUS Ultrasound Imaging System

Regulation Number: 21 CFR 892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Regulatory Class: II

Product Code: IYO and ITX Dated: January 12, 2011 Received: January 12, 2011

### Dear Mr. Chutani:

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 MobiUS Ultrasound Imaging System, as described in your premarket notification:

### Transducer Model Number

MV 12.0 MHz Mechanical Sector Probe

EC 7.5 MHz Mechanical Sector Probe

SR 7.5 MHz Mechanical Sector Probe

GP 5.0 MHz Mechanical Sector Probe

GP 3.5 MHz Mechanical Sector Probe

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 895. 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 go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. 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 the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

If you have any questions regarding the content of this letter, please contact Shahram Vaezy at (301) 796-6242.

Sincerely Yours,

Mary Pastel, ScD.

Director

Division of Radiological Devices Office of In Vitro Diagnostic Device

**Evaluation and Safety** 

Center for Devices and Radiological Health

Enclosure(s)

# **Section 4 - Indications for Use Statement**

510(k) Number (if known): <u>K102153</u>
Device Name: MobiUS Ultrasound Imaging System
Indications for Use:
The MobiUS Ultrasound Imaging System is indicated for ultrasound imaging, measurement and analysis of the human body for the following clinical applications: fetal/OB, abdominal, cardiac, pelvic, pediatric, musculoskeletal, and peripheral vessel imaging. Its compact size, portability and user interface enable it for use in primary care and special care areas.
Please refer to the following diagnostic ultrasound indications for use forms for specific imaging modes and applications.
Prescription Use X AND/OR Over-The-Counter Use (21 CFR 801 Subpart C)
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)  Concurrence of CDRH, Office of Device Evaluation (ODE)
(Division Sign-Off) Division of Radiological Devices Office of in Vitro Diagnostic Device Evaluation and Safety  510K 162153

510(k) Number:

System:

MobiUS Ultrasound Imaging System with INTERSON USB Ultrasound Probe System

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

			Mode of Operation							
General (Track	Specific	В	М	PWD	CWD	Color	Combined	Other		
1 only)	(Tracks 1 & 3)	"	'*'	' ***		Doppler	Combined	Other		
Ophthalmic	Ophthalmic		-			Боррісі				
Ophthairtic		-						1 11-4- 2		
	Fetal	N		ļ	ļ. <u> </u>			Note 3		
	Abdominal	N			l			Note 1		
								Note 3		
	Intra-operative (Specify)							<u> </u>		
	Intra-operative (Neuro)			ļ <u></u>			<u> </u>	ļ		
	Laparoscopic									
İ	Pediatric	N						Note 3		
	Small Organ (Specify)	N						Note 3		
								Note 2		
	Neonatal Cephalic	N	ļ					ļ		
Fetal Imaging &	Adult Cephalic									
Other	Trans-rectal	N						Note 3		
	Trans-vaginal	N						Note 3		
	Trans-urethral							<u> </u>		
	Trans-urethral				<u> </u>	<u> </u>		<u> </u>		
	Trans-esoph. (non-Card.)									
	Musculo-skeletal	N								
	(Conventional)							ļ ·		
	Musculo-skeletal	N		1		1		]		
	(Superficial)		ļ							
	Intravascular	L.	ļ							
	Other (Specify)				į			<u> </u>		
	Cardiac Adult	N	<u> </u>	<u> </u>	ļ					
	Cardiac Pediatric									
Cardiac	Intravascular (Cardiac)									
Cardiac	Trans-esoph. (Cardiac)									
<b>]</b>	Intra-cardiac									
	Other (Specify)						<u> </u>			
Peripheral	Peripheral vessel	N								
Vessel	Other (Specify)	Г								

N=New Indication	
Note 1: Abdominal, 5	Solid organs, aneurysms
Note 2: Small organ,	breast, thyroid, testes
Note 3: Includes ima	ging for guidance of biopsy
	(DIFACT OO NOT WRITE DELOW THE LINE CONTINUE ON ANOTHER BACE IS NEEDED)
	(PLEASE DO NOT WRITE BELOW THIS LINE -CONTINUE ON ANOTHER PAGE IF NEEDED)  concurrence of CLENT
	Division of Radiological Devices
Prescription Use: YES	Office of In Vitro Diagnostic Device Evaluation and Safety
Per 21 CFR 801, 109	Ones of the views of
,	510K 510(k) Number
Mobisante, Inc.	Man S Part 2 man
510(k) Premarket l	Notification Submission CONFIDENTIAL PAGE 1:

(Division/Sign-Off)
Division of Radiological Devices
Office of In Vitro Diagnostic Device Evaluation and Safety

510K K102153

510(k) Number:

System: Transducer:

MobiUS Ultrasound Imaging System INTERSON USB Ultrasound Probe System

MV 12.0 MHz Mechanical Sector Probe

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

Clinical Application			Mode of Operation							
General (Track 1 only)	Specific (Tracks 1 & 3)	В	М	PWD	CWD	Color Doppler	Combined	Other		
Ophthalmic	Ophthalmic					, <b>P</b>   P   P   P				
	Fetal							<u> </u>		
	Abdominal									
	Intra-operative (Specify)		<b> </b>					1		
	Intra-operative (Neuro)	····								
	Laparoscopic									
	Pediatric									
	Small Organ (Specify)	Р						Note 2		
								Note 3		
	Neonatal Cephalic							İ .		
Fetal Imaging &	Adult Cephalic									
Other	Trans-rectal									
othe.	Trans-vaginal	<u> </u>								
	Trans-urethral									
	Trans-urethral									
	Trans-esoph. (non-Card.)	ļ		ļ						
<u>_</u>	Musculo-skeletal									
	(Conventional)	ļ	ļ. —	<u> </u>				ļ		
	Musculo-skeletal	l								
	(Superficial)	_	ļ	ļ			.,	ļ		
	Intravascular	<u> </u>						<u> </u>		
	Other (Specify)					<u> </u>				
	Cardiac Adult		<u> </u>	<u> </u>						
	Cardiac Pediatric				<u> </u>					
Cardiac	Intravascular (Cardiac)	_		<u> </u>						
Carulac	Trans-esoph. (Cardiac)	<u> </u>	<u> </u>	ļ		ļ <u></u>				
	Intra-cardiac	ļ	<u> </u>		<u> </u>			<b>_</b>		
	Other (Specify)	<u> </u>						<u> </u>		
Peripheral	Peripheral vessel	Р						Note 3		
Vessel	Other (Specify)					<u> </u>		<u> </u>		

P=Previously Cleared by INTERSON Corporation: K070907

Note 2: Small organ, breast, thyroid, testes Note 3: Includes imaging for guidance of biopsy

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concurrence of CDRH, Office of Device Evaluation

Prescription Use: YES Per 21 CFR 801. 109

510(k) Number\_\_\_\_\_

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Mobisante, Inc.

510(k) Premarket Notification Submission

CONFIDENTIAL Mary Sparson (Division Sign-Ott)

Division of/Radiological Devices
Office of In Vitro Diagnostic Device Evaluation and Safety

510K K102153

510(k) Number:

System: Transducer: MobiUS Ultrasound Imaging System INTERSON USB Ultrasound Probe System

EC 7.5 MHz Mechanical Sector Probe

Intended Use:

Diagnostic ultrasound imaging of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 only)	Specific (Tracks 1 & 3)	В	М	PWD	CWD	Color Doppler	Combined	Other	
Ophthalmic	Ophthalmic								
	F <b>e</b> tal			,					
	Abdominal								
	Intra-operative (Specify)								
	Intra-operative (Neuro)								
	Laparoscopic								
	Pediatric								
:	Small Organ (Specify)								
	Neonatal Cephalic								
	Adult Cephalic							<u> </u>	
Fetal Imaging &	Trans-rectal	Р		<u> </u>				Note 3	
Other	Trans-vaginal	Р						Note 3	
	Trans-urethral								
	Trans-urethral	·						<u> </u>	
	Trans-esoph. (non-Card.)								
	Musculo-skeletal								
	(Conventional)		ļ						
	Musculo-skeletal	ŀ	ł						
	(Superficial)	_	ļ		ļ			ļ	
	Intravascular	L	<u> </u>		ļ				
	Other (Specify)	<u> </u>	ļ <u>.</u>		<u> </u>				
	Cardiac Adult				<b>.</b>			ļ	
	Cardiac Pediatric		<u> </u>			<u> </u>		ļ	
Cardiac	Intravascular (Cardiac)	┖	ļ		ļ	<u> </u>		ļ	
	Trans-esoph. (Cardiac)	<b> </b>			ļ	ļ			
	Intra-cardiac	<b>L</b>	ļ	1	ļ	ļ			
	Other (Specify)	Ļ	1	<u> </u>		<u> </u>			
Peripheral	Peripheral vessel		<u> </u>	ļ <u></u>	ļ				
Vessel	Other (Specify)					<u></u>			

P=Previously Cleared by INTERSON Corporation: K070907 Note 3: Includes imaging for guidance of biopsy

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Prescription Use: YES Per 21 CFR 801. 109

510(k)	Number	

Mobisante, Inc. 510(k) Premarket Notification Submission

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(Division Sign-Off)

Division of Radiological Devices

Office of In Vitro Diagnostic Device Evaluation and Safety

510K\_B162153

510(k) Number:

System: Transducer: MobiUS Ultrasound Imaging System **INTERSON USB Ultrasound Probe System** SR 7.5 MHz Mechanical Sector Probe

Intended Use:

Diagnostic ultrasound imaging of the human body as follows:

Intended Use:	Diagnostic ultrasound imag					TOROWS.		
Clinical Application				f Operat	<del></del>	· · · · · · · · · · · · · · · · · · ·		
General (Track	Specific	В	М	PWD	CWD	Color	Combined	Other
1 only)	(Tracks 1 & 3)					Doppler		
Ophthalmic	Ophthalmic		·	<u> </u>	<u></u>			
	Fetal							
	Abdominal	Ρ						Note 3
	Intra-operative (Specify)							
	Intra-operative (Neuro)							
	Laparoscopic							
	Pediatric							<u> </u>
	Small Organ (Specify)	P						
	Neonatal Cephalic	Ρ						
	Adult Cephalic			<u> </u>				
Fetal Imaging &	Trans-rectal	<u> </u>						
Other	Trans-vaginal							
	Trans-urethral							
	Trans-urethral			ļ				
	Trans-esoph. (non-Card.)	<u> </u>	ļ					
	Musculo-skeletal						ļ	
	(Conventional)	<b>.</b>	ļ		ļ			
	Musculo-skeletal			1	ŀ			
	(Superficial)	_	ļ	ļ <u>-</u>	ļ			
	Intravascular	ļ	ļ	ļ	ļ	<u> </u>	<del></del>	<u> </u>
	Other (Specify)	_	ļ					
1	Cardiac Adult	ļ	<u> </u>	ļ			ļ	
	Cardiac Pediatric	_	<u> </u>			<u> </u>	<u> </u>	<u> </u>
Cardiac	Intravascular (Cardiac)	ļ	<b> </b>	ļ	ļ		<b></b>	
	Trans-esoph. (Cardiac)		<u> </u>	ļ	ļ		ļ <u>-</u>	<del> </del>
	Intra-cardiac	<b> </b>		ļ		<u> </u>	<del> </del>	
	Other (Specify)	<u> </u>	<u> </u>	<u> </u>			<del> </del>	
Peripheral	Peripheral vessel	Р	ļ <u> </u>	<u> </u>	ļ	<del> </del>	<u> </u>	<u> </u>
Vessel	Other (Specify)	L	<u> </u>				<u> </u>	

P=Previously Cleared by INTERSON Corporation: K070907 Note 3: Includes imaging for guidance of biopsy

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**Prescription Use: YES** Per 21 CFR 801. 109

510(k) Number

Mobisante, Inc. 510(k) Premarket Notification Submission CONFIDENTIAL (Division Sign-Off)
Division of Radiological Devices

Office of In Vitro Diagnostic Device Evaluation and Safety

510(k) Number:

System: Transducer: MobiUS Ultrasound Imaging System **INTERSON USB Ultrasound Probe System** 

**GP 5.0 MHz Mechanical Sector Probe** 

Intended Use:

Diagnostic ultrasound imaging of the human body as follows:

Clinical Application			Mode of Operation							
General (Track	Specific	В	М	PWD	CWD	Color	Combined	Other		
1 only)	(Tracks 1 & 3)					Doppler				
Ophthalmic	Ophthalmic			Ì				<u> </u>		
	Fetal	Р								
	Abdominal	Р						Note 3		
	Intra-operative (Specify)									
	Intra-operative (Neuro)									
	Laparoscopic									
	Pediatric									
	Small Organ (Specify)	P						Note 2		
	Neonatal Cephalic	Р	<u> </u>							
	Adult Cephalic			<u> </u>	<u> </u>					
Fetal Imaging &	Trans-rectal									
Other	Trans-vaginal									
	Trans-urethral									
,	Trans-urethral					l				
	Trans-esoph. (non-Card.)									
	Musculo-skeletal									
	(Conventional)	<u> </u>								
	Musculo-skeletal					ļ		1		
	(Superficial)							<u></u>		
	Intravascular									
	Other (Specify)									
	Cardiac Adult	Р								
	Cardiac Pediatric									
Cardiac	Intravascular (Cardiac)									
Carulac	Trans-esoph. (Cardiac)									
	Intra-cardiac									
	Other (Specify)	L	<u> </u>							
Peripheral	Peripheral vessel									
Vessel	Other (Specify)									

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Note 2: Small organ, breast, thyroid, testes Note 3: Includes Imaging for guidance of biopsy

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	CDRH, Office of Device Evaluation	
Prescription Use: YES Per 21 CFR 801. 109		
	510(k) Number	
Mobisante, Inc. 510(k) Premarket Notification Submission	CONFIDENTIAL (Ovision Sign-Off) Division of Radiological Devices Office of In Vitro Diagnostic Device Evaluation and Safety	Page 16

510(k) Number:

System: Transducer: MobiUS Ultrasound Imaging System INTERSON USB Ultrasound Probe System

**GP 3.5 MHz Mechanical Sector Probe** 

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

Clinical Application		Mode of Operation							
General (Track 1 only)	Specific (Tracks 1 & 3)	В	M	PWD	CWD	Color Doppler	Combined	Other	
Ophthalmic	Ophthalmic								
	Fetal	P			,		·		
	Abdominal	Р						Note 3	
	Intra-operative (Specify)								
	Intra-operative (Neuro)								
	Laparoscopic					1			
	Pediatric								
	Small Organ (Specify)	Р						Note 2	
	Neonatal Cephalic								
	Adult Cephalic								
Fetal Imaging &	Trans-rectal			i					
Other	Trans-vaginal	<u> </u>							
	Trans-urethral		<u> </u>			<u> </u>			
	Trans-urethral								
	Trans-esoph. (non-Card.)	<u> </u>		<u> </u>					
	Musculo-skeletal								
	(Conventional)	<u> </u>							
	Musculo-skeletai				ł				
	(Superficial)	<u> </u>	<u> </u>						
	Intravascular	_	ļ	ļ				ļ	
· · · · · · · · · · · · · · · · · · ·	Other (Specify)	<u> </u>	ļ						
	Cardiac Adult		<u> </u>	<u> </u>					
	Cardiac Pediatric	ļ	<u> </u>					<u> </u>	
Cardiac	Intravascular (Cardiac)		ļ	<u> </u>		<u> </u>		ļ	
- Carmino	Trans-esoph. (Cardiac)	1	ļ	ļ	<u> </u>	<u> </u>			
	Intra-cardiac	<b> </b>	<b> </b>	ļ	ļ .	<u> </u>		<del> </del>	
	Other (Specify)	<u> </u>	₩-	ļ					
Peripheral	Peripheral vessel	_	ļ	ļ	<u> </u>				
Vessel	Other (Specify)		<u> </u>						

P= Previously Cleared by INTERSON Corporation: K070907

Note 2: Small organ, breast, thyroid, testes Note 3: Includes imaging for guidance of biopsy

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Prescription Use: YES Per 21 CFR 801. 109		
	510(k) Number	<del></del>
Mobisante, Inc. 510(k) Premarket Notification Submission	CONFIDENTIAL Division Sign-Off)  Division of Radiological Devices  Office of In Vitro Diagnostic Device Evaluation and Safety	Page 17