K024187

SUMMARY OF SAFETY AND EFFECTIVENESS

FEB 0 4 2003

1. Device Name:	Magnetic Resonance Imaging Accessory
2. Proprietary Name:	Spirit III Total*SENSE* Cardiac Coil
3. Classification:	Class II
4. Establishment Registration #:	1529041
5. Manufacture Facility Location:	USA Instruments, Inc., 1515 Danner Drive Aurora, Ohio 44202, USA Telephone: 330-562-1000; Fax: 330-562-1422.
6. Performance Standard:	No applicable performance standards have been issued under Section 514 of the Food, Drug and Cosmetic Act.
7. Intended Use:	The Spirit III Total*SENSE* Cardiac Coil is a receive-only phased array RF coil, used for obtaining diagnostic images of the cardiovascular system in Magnetic Resonance Imaging Systems. The Spirit III Total*SENSE* Cardiac Coil is designed for use with the Magnetom Trio 3.0T MRI system manufactured by Siemens Medical Solutions, Inc. The indications for use are the same as for standard MR Imaging.
8. Device Description:	The Spirit III Total*SENSE* Cardiac Coil is an eight element receive only phased array coil. The coil is composed of a flexible top piece and a rigid bottom piece. The flexible top piece allows for imaging of patients of different sizes. The open, patient friendly design minimizes claustrophobic effects and maximizes patient comfort. The coil elements and accessory electronics are enclosed in flexible and rigid plastic housings, which are fire rated. All rigid plastic housing parts have a high impact and tensile strength.

Please turn over

9. Safety and Effectiveness

Spirit III Total*SENSE* Cardiac Coil Product Features	**Comparison to predicate device or other 510(k) cleared products**
Intended Use: imaging of the cardiovascular system	-Similar to the Vision 5000 Torso Coil manufactured by USA Instruments, Inc. (K013594). -Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Indications for Use: Identical to routine MRI imaging.	-Similar to the Vision 5000 Torso Coil manufactured by USA Instruments, Inc. (K013594). -Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Coil Enclosure Material: Flame Retardant Polyurethane Vinyl Coated EVA foam Flame Retardant Polycarbonate	- Similar to the Mark 5000 Quadrature Shoulder coil manufactured by USA Instruments, Inc. (K013854)
Coil Design: Receive-only phased array coil.	-Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Decoupling: Switching diode decoupling. Additional RF fuses incorporated.	-Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Prevention of RF Burns: Does not transmit RF power; decoupling isolates the coil elements from RF fields during RF transmission; coil elements and circuitry are enclosed in a non-conductive housing.	-Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Radio Frequency Absorption: Coil is a receive only coil and does not transmit RF power.	-Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).
Formation of Resonant Loop: Decoupling isolates the coil elements from RF fields during RF transmission; length of cable and stiffness does not permit looping.	-Similar to the Insight Plus 9000 Phased Array Torso and Pelvis Coil manufactured by USA Instruments, Inc. (K001209).

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

FEB 0 4 2003

Ms. Christie Shumaker
Manager, QA and Regulatory Affairs
USA Instruments, Inc.
1515 Danner Drive
AURORA OH 44202

Re: K024187
Trade/Device Name: Spirit III TotalSENSE Cardiac Coil
Regulation Number: 21 CFR 892.1000
Regulation Name: Magnetic resonance diagnostic device
Regulatory Class: II
Product Code: 90 MOS
Dated: December 16, 2002
Received: December 19, 2002

Dear Ms. Shumaker:

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

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); 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 Section 510(k) 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 the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of the letter:

8xx.1xxx	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

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

Sincerely yours,

Nancy C. Brogdon

Nancy C. Brogdon
Director, Division of Reproductive,
Abdominal and Radiological Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure

510(k) Number (if known): K02 4187

Device Name: Spirit III TotalSENSE Cardiac Coil

Indications for Use: The Spirit III TotalSENSE Cardiac Coil is designed to provide Magnetic Resonance Images of the cardiovascular system. The Spirit III TotalSENSE Cardiac Coil is designed for use with the Siemens Magnetom Trio 3.0T MRI scanner manufactured by Siemens Medical Solutions, Inc.

Anatomic Regions: Cardiovascular system
Nuclei Excited: Hydrogen

The indications for use are the same as for standard imaging:

The 3.0T MRI system is indicated for use as an NMR device that produces images that: (1) correspond to the distribution of protons exhibiting NMR signal, (2) depend upon NMR parameters (proton density, spin lattice relaxation time T1, spin-spin relaxation time T2) and (3) display the soft tissue structure of the head and whole body. When interpreted by a trained physician, these images yield information that can be useful in the determination of a diagnosis.

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓ OR Over-The-Counter Use _____
(Per 21 CFR 801.109) (Optional Format 1-2-96)

(Division Sign-Off)
Division of Reproductive, Abdominal,
and Radiological Devices
510(k) Number K024187