

1023084

DEC 16 2002

**510(k) Summary of Safety and Effectiveness**

Device Name	Model 472GE-128 Quadrature Lower Extremity Coil
Applicability	Compatible with GE Signa 3.0T MR Systems
Reason for 510(k)	New device
Classification Name	Magnetic Resonance Diagnostic Device
Device Classification Panel	Radiology
Device Classification Number	892.1000
Product Code	90MOS
Common Name	Magnetic Resonance Imaging Coil
Proprietary Name	Model 472GE-128 Quadrature Lower Extremity Coil
Establishment Registration Number	2183683
Address of MFG Facility	IGC-Medical Advances Inc. 10437 Innovation Drive Milwaukee, WI 53226
Point of Contact	Anthony Dietzler Quality Assurance Engineer (414) 258-3808 Ext. 255
Classification	Class II
Intended Uses	
Diagnostic Uses	2D, 3D imaging, proton density, T1 and T2 weighted imaging. 2D, 3D time of flight, phase contrast imaging.
Anatomic Regions	Musculoskeletal structures, soft tissue and vascular structures of the lower extremities.

## Standards

Performance Standards	None Established under Section 514
Voluntary Safety Standards	UL 2601-1 Medical Electrical Equipment, Part I: General Requirements for Safety
	UL 94 Tests for Flammability of Plastic Materials
	IEC 601-1 General Safety Requirements for Medical Electrical Equipment

## Overview

The Radiology Devices Panel considered potential concerns regarding the safe and effective operation of Magnetic Resonance Diagnostic Devices when they recommended reclassification to Class II on July 27, 1987. After reclassification, the FDA's Center for Devices and Radiological Health (CDRH) released a draft guidance document for the content and review of Magnetic Resonance Diagnostic Device premarket notification submissions that offered clarification of these concerns. Due to considerable technological advances in MRDDs, CDRH issued an updated guidance document on November 14, 1998. The following is a summary of the information contained within this premarket notification that addresses these concerns:

The GE Signa 3.0T MRI system, operated with the Medical Advances Quadrature Lower Extremity Coil, is substantially equivalent to the GE Signa 1.5T system operated with the legally marketed predicate device listed in section 4.0, within the Class II definition of Magnetic Resonance Diagnostic Device with respect to the safety parameter action levels:

## Safety Parameters

Maximum Static Magnetic Field:	No change due to coil
Rate of Magnetic Field Strength Change:	No change due to coil
RF Power Deposition:	No change
Acoustic Noise Levels:	No change due to coil
Biocompatibility:	No change

**Imaging Performance Parameters**

Specification Volume:	No change
Signal-to-Noise Ratio:	2 Times Improvement over Predicate Device
Image Uniformity:	No change
Geometric Distortion:	No change
Slice Thickness and Gap:	No change
High Contrast Spatial Resolution:	No change

**General Safety and Effectiveness Concerns**

The device contains instructions for use. It includes indications for use, precautions, cautions, contraindications, warnings and quality assurance testing. This information assures safe and effective use of the device.

**Substantial Equivalence Summary**

The GE Signa 3.0T MRI system operated with the Medical Advances Quadrature Lower Extremity Coil addressed in this PMN, has the same intended use and technological characteristics as the GE Signa 1.5T system operated with the identified legally marketed predicate device. The use of this coil does not affect the GE Signa 3.0T system safety parameter specifications.



DEC 16 2002

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Mr. Anthony Dietzler  
Quality Assurance Engineering  
IGC-Medical Advances, Inc.  
10437 Innovation Drive  
MILWAUKEE WI 53226

Re: K023084  
Trade/Device Name: Model 472GE-128: Quadrature  
Lower Extremity Coil  
Regulation Number: 21 CFR 892.1000  
Regulation Name: Magnetic resonance  
diagnostic device  
Regulatory Class: II  
Product Code: 90 MOS  
Dated: September 16, 2002  
Received: September 17, 2002

Dear Mr. Dietzler:

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.

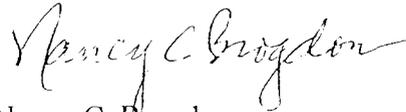
This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

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 this 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" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



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 3084

Device Name: Model 472GE-128: Quadrature Lower Extremity Coil

Indications for Use:

Magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA) of the musculoskeletal structures, soft tissue and vascular structures of the lower extremities.

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

\_\_\_\_\_ Concurrence of CDRH, Office of Device Evaluation (ODE) \_\_\_\_\_

Prescription Use ✓  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use \_\_\_\_\_  
(Optional Format 1-2-96)

David A. Legman  
(Division Sign-Off)  
Division of Reproductive, Abdominal,  
and Radiological Devices  
510(k) Number K023084