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**510(k) Summary**

K110729

SEP - 1 2011

**Date Prepared:** March 10, 2011

**Submitter's Information**

FUJIFILM Medical Systems U.S.A., Inc.  
419 West Avenue  
Stamford, Connecticut 06902  
Telephone: (203) 602-3576  
Facsimile: (203) 353-0296  
Contact: Peter Altman

**Device Name and Classification:**

Product Name: Aspire HD Full-Field Digital Mammography X-ray System  
Model Number: FDR MS-1000  
Classification Name: Full-Field Digital Mammography X-ray System  
Classification Panel: Radiology  
CFR Section: 21 CFR 892.1715  
Device Class: Class II  
Product Code: MUE

**Substantial Equivalence/Predicate Devices:**

Siemens Mammomat Novation (P030010)  
Siemens Inspiration (P030010/S006)

Although the wording changes slightly from device to device, the Aspire HD and the Siemens Mammomat Novation<sup>DR</sup> both have the same basic Indication For Use (IFU). The IFU for the Siemens Mammomat Inspiration is not publically available, although it is expected to be very similar to the Novation and the Aspire HD. All three devices generate digital mammographic images that are intended for screening and diagnosis of breast cancer and are intended for use in the same clinical applications as traditional screen-film mammography systems.

All systems employ digital amorphous selenium x-ray detectors integrated into gantry (stand) based x-ray systems. The x-ray stand, tube and generator of the Aspire HD and Inspiration are identical. Note that the Aspire HD's X-ray system is manufactured by Siemens and is the same as that used in the recently approved (November 5, 2010) Siemens Mammomat Inspiration (P030010/S006). The Inspiration is Siemens' successor to the Mammomat Novation<sup>DR</sup> (P030010). The technological characteristics of the device are similar as demonstrated by the comparison of imaging characteristics such as MTF, Noise Analysis, DQE, and phantom testing.

A clinical image attribute review was conducted by independent mammographic radiologists in accordance with the FFDM 510(k) Guidance document. The mammographic attributes of six (6) image sets of screening and diagnostic cases were reviewed concluding that the Aspire HD provides sufficiently acceptable quality for mammographic use.

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## Description of the Device:

The Aspire HD is an integrated FFDM system combining an X-ray system made by Siemens with Fujifilm's a-Se detector and Acquisition Workstation (AWS). The Aspire HD creates digital mammography images by direct capture of x-ray energy using the a-Se detector. The detector is a Fujifilm design utilizing an exclusive dual layer a-Se scintillator with Direct Optical switching circuitry to acquire image data and transfer images to the AWS for automated post processing, technologist preview and QC, and subsequent transmission to hard copy printers, diagnostic workstations and archiving systems. The Aspire HD provides automated compression and one AEC mode.

The Aspire HD Acquisition Workstation (FDR 1000AWS) includes an off the shelf personal computer, the application software, either Microsoft Vista or Windows 7 Operating System, a 5megapixel portrait type monitor, and a hub. The hub transmits signals between the personal computer and control cabinet, and between the personal computer and exposure stand.

The AWS display primarily consists of three windows:

- Patient Information Input window
- Exposure Menu Selection window
- Study window.

The user may switch between these windows depending on the operation being performed. The X-ray control panel, which controls and observes the exposure stand, is always displayed in the lower part of each window. This allows setting the exposure conditions and confirming the radiation conditions on a single view.

## Intended Use:

The Fujifilm Digital Mammography System, Aspire HD (FDR MS-1000), generates full-field digital mammography images that can, as other full-field digital mammography systems, be used for screening and diagnosis of breast cancer and is intended for use in the same clinical applications as traditional screen-film mammography systems.

## Safety Information:

The Aspire HD introduces no new safety or efficacy issues other than those already identified with the predicate devices. The results of the Hazard Analysis combined with the appropriate preventive measures taken indicate that the device is of moderate concern as per the May 11, 2005 issue of the "Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices." and is consistent with the level of concern indicated in the "Class II Special Controls Guidance Document: Full-Field Digital Mammography System" document issued on: November 5, 2010.

## Conclusion:

This 510(k) premarket notification submission has demonstrated Substantial Equivalence as defined and understood in the Federal Food Drug and Cosmetic Act and various guidance documents issued by the Center for Devices and Radiological Health. We conclude the subject device to be as safe and effective as the predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room – WO66-G609  
Silver Spring, MD 20993-0002

Mr. Peter Altman  
Regulatory Consultant  
FUJIFILM Medical Systems USA, Inc.  
419 West Avenue  
STAMFORD CT 06902

SEP - 1 2011

Re: K110729  
Trade Name: Aspire HD (FDR MS-1000)  
Regulation Number: 21 CFR § 892.1715  
Regulation Name: Full-field digital mammography system  
Regulatory Class: II  
Product Code: MUE  
Dated: June 22, 2011  
Received: June 23, 2011

Dear Mr. Altman:

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 class II (Special Controls), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. 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 Parts 801 and 809); medical device reporting (reporting of

medical device-related adverse events) (21 CFR 803); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820). 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 Parts 801 and 809), please contact the Office of *In Vitro* Diagnostic Device Evaluation and Safety at (301) 796-5450. 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.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely Yours,

A handwritten signature in black ink that reads "Mary S. Pastel". The signature is written in a cursive style with a large initial "M".

Mary Pastel, ScD.  
Director  
Division of Radiological Devices  
Office of In Vitro Diagnostic Device  
Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K110729

Device Name: Aspire HD (FDR MS-1000)

Indications for Use:

The Fujifilm Digital Mammography System, Aspire HD (FDR MS-1000), generates full-field digital mammography images that can, as other full-field digital mammography systems, be used for screening and diagnosis of breast cancer and is intended for use in the same clinical applications as traditional screen-film mammography systems.

Prescription Use  X   
(Part 21 CFR 801 Subpart D)

AND/OR

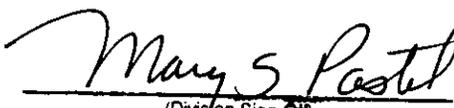
Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

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NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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