

## Chapter III 510(k) Summary

AUG - 2 2011

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR 9807.92.

The Assigned 510(k) Number is:

K110801

Prepared Date: 4<sup>th</sup>, March, 2011

### 1. Device Information

**Device Common Name:** Solid State X-Ray Imaging Devices

**Device Trade/Proprietary Name:** WV3000T Digital X-ray Direct Imaging Flat Panel Detector System

#### Classification Information:

(1) **Classification Name:** Solid State X-Ray Imaging Devices

(2) **Regulation Number:** 892.1650

(3) **Product Code:** MBQ

(4) **Class:** II

(5) **Review Panel:** Radiology

### 2. Submitter Information

#### Manufacturer:

Direct Digital Imaging Technology (Beijing) Inc.  
#33 Building, Yuquan Wisdom Vale,  
Tsinghua Science Park, #3 Min Zhuang Road  
Haidian District, Beijing 100097, CHINA

#### Contact Person of the Submission

Ms. Likun Fu

Direct Digital Imaging Technology (Beijing) Inc.  
#33 Building, Yuquan Wisdom Vale,  
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Haidian District, Beijing 100095 China

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### 3. Device Description

The WV300T Digital X-ray Direct Imaging Flat Panel Detector System is used to directly capture and convert conventional projection X-ray images to digital images. A image preview function can be displayed on a review monitor for viewing. The diagnostic image can be transmitted through LAN for diagnostic viewing and printing. The device provides digital image capture for conventional radiographic examinations, excluding fluoroscopic, angiographic and mammographic applications. The system differs from traditional X-ray systems in that instead of exposing a film for subsequent wet chemical processing to create a hardcopy image, a device called a detector array is used to capture the image in electronic form. The digital data are then used to produce hardcopy and softcopy images.

The WV3000T Digital X-ray Direct Imaging Flat Panel Detector System is composed of the following:

A detector array is used to capture the diagnostic image, and transfer the image to system controller in digital format.

An multi-box is used to control detector array, harmonize the working between the array controller and high-voltage generator for exposal synchronization.

A system controller is used to enter patient demographic information, initiate the exposure process, review captured images, and accept or reject captured images. The system controller is also used to send images to a hardcopy printer, workstation, or archive, and manage images temporarily stored in its database. Here, the system controller is the software device and which should install in the PC hardware system purchased by themselves of customer.

The system controller also can make some disposal for the original image, such as gain, offset and defective pixel correction.

By capturing, previewing, and storing and image, the system enables an operator to check the quality of an image at the time of exposure without having to develop a film.

**4. Intended Use**

The 3000T Digital X-ray Direct Imaging Flat Panel Detector System provides a digital image capture capability for conventional radiographic examinations (excluding fluoroscopic, angiographic, and mammographic applications). The device has application wherever conventional screen-film systems are currently used.

**5. Substantially Equivalence Determination**

The applicant devices **Substantially Equivalent (SE)** to the predicate device which is US legally market device. Therefore, the applicant devices are determined as safe and effectiveness.

**6. Test Summary**

The device is electrically operated and the electrical safety and electromagnetic compatibility following IEC 60601-1 and IEC60601-1-2 were conducted.

All the information about the device performance has provided.

The Clinical Test Report has provided.



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. Likun Fu  
Product Manager  
Direct Digital Imaging Technology (Beijing), Inc.  
#33 Building, Yuquan Wisdom Vale, Tsinghua Science Park  
BEIJING 100097  
CHINA

Re: K110801

Trade/Device Name: WV3000T Digital Direct Imaging Flat Panel Detector System

Regulation Number: 21 CFR 892.1680

Regulation Name: Stationary x-ray system

Regulatory Class: II

Product Code: MQB

Dated: July 4, 2011

Received: July 5, 2011

AUG 23 2011

Dear Mr. Fu:

This letter corrects our substantially equivalent letter of August 2, 2011.

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.

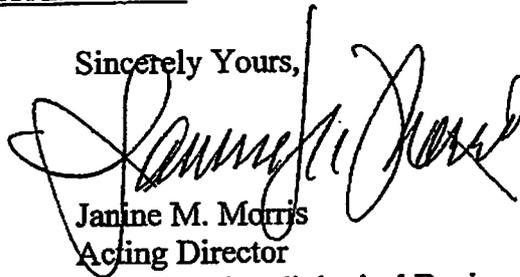
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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,



Janine M. Morris  
Acting Director  
Division of Radiological Devices  
Office of In Vitro Diagnostic Device  
Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

### Indication For Use

510(k) Number (if known): Pending K110801

Device Name: WV3000T Digital Direct Imaging Flat Panel Detector System

Indications for Use:

The WV3000T Digital X-ray Direct Imaging Flat Panel Detector System provides a digital image capture capability for conventional radiographic examinations (excluding fluoroscopic, angiographic, and mammographic applications). The device has application wherever conventional screen-film systems are currently used.

Prescription Use   v    
(Part 21 CFR 801 Subpart D)

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)

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Mary Spatel  
(Division Sign-Off)  
Division of Radiological Devices  
Office of In Vitro Diagnostic Device Evaluation and Safety  
.510K K110801