Product safety and performance information relevant to the user

BRD series

IMPORTANT! X-ray Protection

X-RAY UNIT IS DANGEROUS TO BOTH PATIENT AND OPERATOR

UNLESS MEASURES OF PROTECTION ARE STRICTLY OBSERVED

X-ray unit if not properly used may cause injury. Accordingly, the instructions herein should be thoroughly read and understood before attempting to place this equipment in operation.We will be glad to assist and cooperate in placing this equipment in use.

Although this apparatus is built to the highest safety standards and incorporates a high degree of protection against X-radiation other than the useful beam, no practical design of unit can provide complete protection. Nor can any practical design compel the operator to take adequate precautions to prevent the possibility of any persons carelessly, unwisely, or unknowingly exposing themselves or others to X-radiation.

It is important that everyone working with X-radiation should be properly trained and takes adequate steps to insure protection against injury.

The manufacturer assumes that all operator and service personnel authorized to use, install, calibrate and maintain this unit is cognizant of the danger of excessive exposure to X-radiation, sufficiently trained and has the required knowledge for it. The unit herein descritable is sold with the understanding that the manufacturer, its agents, and representatives are not liable for injury or damage which may result from exposure to X-radiation.

Various protective materials and devices are available. It is recommended that such materials and devices are used.

Environment Statement on the Life Cycle of the Unit or System

The unit or the system comprises the harmful components and materials (such as PCB, electronic modules, wasted insulating oil, lead and battery etc.) which can pollute the environment. Components and materials mentioned above will be harmful when the life cycle of the equipment or system comes to the end. Above-mentioned components and materials are considered to be harmful waste material in accordance with the international law, domestic regulation and local regulation.

The manufacturers propose to contact the authorized waste management companies to deal with these unit or systems when the life cycle of the unit or the system comes to the end.

Precautions for equipment use and management

- Before operating, please read the user manual and pay attention to all safety precautions;
- This product is not a therapeutic device, and only doctors or operators who have been qualified in accordance with the law can use this product;
- This product must be stored and operated in a specified medical environment, and should be maintained by professional maintenance personnel under safe and operable conditions;
- This product uses a computer and monitor that complies with GB 9706.1-2020, IEC 60601-1 or GB 4943.1-2022, IEC 60950-1. For details, please consult our sales representative or local distributor;
- This product can only use special cables, do not use any other cables;
- This product cannot be used in an environment with flammable gas or corrosive gas;
- This product should pay attention to prevent liquid or conductive substances from invading the inside of the instrument to avoid causing short circuit;
- The X-ray radiation protection of this product conforms to GB9706.103 and IEC 60601-1-3 standards;
- It is forbidden for non-authorized personnel of the company to open the housing of the instrument;
- Ask a sales representative or local dealer to install this product.

ADVISORY SYMBOLS

The following advisory symbols will be used throughout this manual. Their application and meaning are described below.



DANGERS ADVISE OF CONDITIONS OR SITUATIONS THAT IF NOT HEEDED OR AVOIDED WILL CAUSE SERIOUS PERSONAL INJURY OR DEATH.



ADVISE OF CONDITIONS OR SITUATIONS AND IF NOT HEEDED ORAVOIDEDCOULD CAUSE SERIOUS PERSONAL INJURY, CATASTROPHIC DAMAGE TO UNIT OR DATA.



ADVICE OF CONDITION OR SITUATIONS THAT IF NOT HEEDED OR AVOIDED COUID CAUSE PERSONAL INJURY OR DAMAGE TO UNIT OR DATA.

Note: *Alert readers to pertinent facts and conditions. Notes represent information that is important to know but which do not necessarily relate to possible injury or damage to unit.*

SAFETY PRECAUTIONS

In order to ensure the safety of patients and operators, please strictly follow the following safety precautions when using this system.



CAUTION

- **DO NOT USE OR STORE NEAR FLAMMABLE CHEMICALS, SUCH AS ALCOHOL, THINNERS, BENZENE, ETC.;**
- **DO NOT CONNECT WITH EQUIPMENT THAT DON'T MEET THE REGULATIONS;**
- **DO NOT GET YOUR FEET TANGLED IN THE CABLES WHICH MAY RESULT IN DAMAGE TO THE DEVICE OR PERSONAL INJURY TO THE USER.**



WARNING

- **DO NOT DISASSEMBLE OR ALTER THE DEVICE. ANY ALTERATIONS TO THE DEVICE ARE NOT PERMITTED;**
- **DO NOT PLACE ANY ITEMS ON THE DEVICE;**
- **DO NOT HIT OR SMASH THE EQUIPMENT;**
- **DO NOT PUT EQUIPMENT AND SHARP OBJECTS TOGETHER;**
- **DO NOT SPRAY LIQUIDS OR CHEMICALS ONTO THE EQUIPMENT;**
- **FOR SAFETY REASONS, WHEN THE DEVICE IS NOT IN USE, THE POWER SHOULD BE TURNED OFF AND THE BATTERY SHOULD BE UNPLUGGED;**
- **COMPONENTS NOT SPECIFIED IN THE SYSTEM SHOULD NOT BE CONNECTED TO THE SYSTEM;**
- **THE X-RAY FLAT PANEL DETECTORS CAN MEET A VARIETY OF MOBILE APPLICATION ENVIRONMENTS, PLEASE DO NOT USE THE DETECTOR DURING THE MOVEMENT;**
- **PLEASE HANDLE THE DETECTOR CAREFULLY;**
- **WHEN USING THE DEVICE, BE SURE TO KEEP IT ON A FLAT SURFACE.**



DANGER

- **DO NOT CHARGE DAMAGED BATTERIES;**
- **DO NOT DIRECTLY COUPLING THE DETECTOR POWER CIRCUIT WITH THE POWER CIRCUIT OF THE X-RAY MACHINE AND ALL OTHER LARGE AC EQUIPMENT, OTHERWISE IT MAY CAUSE THE SYSTEM TO WORK ABNORMALLY; DO NOT USE THE POWER SUPPLY, RECHARGEABLE LITHIUM BATTERY PACK OR ADAPTER OTHER THAN THE SPECIFICATIONS SPECIFIED IN THIS MANUAL! OTHERWISE, INCORRECT POWER SUPPLY MAY RESULT IN FIRE OR ELECTRIC SHOCK;**
- **DO NOT OPERATE THIS PRODUCT WITH WET HANDS! OTHERWISE, DEATH OR SERIOUS INJURY FROM ELECTRIC SHOCK MAY RESULT;**
- **DO NOT PLACE HEAVY OBJECTS ON THE CONNECTING CABLE OF THE PRODUCT, DO NOT PULL, BEND, BUNDLE, ETC., TO PREVENT DAMAGE TO THE CABLE INSULATION SHEATH! DAMAGE TO THE INSULATING**

SHEATH MAY CAUSE FIRE OR ELECTRIC SHOCK;

- **DON'T USE THE SAME AC OUTLET FOR MORE THAN ONE DEVICE! THIS MAY CAUSE AN ELECTRIC SHOCK;**
- **WHEN THERE IS CONDENSATION ON THE POWER SWITCH, DO NOT TURN THE POWER SWITCH ON! THIS MAY CAUSE AN ELECTRIC SHOCK;**
- **DO NOT CONNECT A PORTABLE MULTI-HOLE SOCKET INTO THE SYSTEM! SUCH A CONNECTION MAY CAUSE A FIRE OR ELECTRIC SHOCK;**
- **IN ORDER TO AVOID ELECTRIC SHOCK, THIS PRODUCT CAN ONLY BE CONNECTED TO THE GRID POWER SUPPLY WITH PROTECTIVE GROUNDING! FAILURE TO DO SO MAY RESULT IN ELECTRIC SHOCK;**
- **THE POWER CORD PLUG MUST BE SECURELY PLUGGED INTO THE NETWORK POWER OUTLET! IF THE CONTACT FAILS, OR IF A METAL OBJECT COMES INTO CONTACT WITH AN EXPOSED METAL PLUG, IT MAY CAUSE A FIRE OR ELECTRIC SHOCK;**
- **BEFORE UNPLUGGING THE POWER SUPPLY, BE SURE TO TURN THE PRODUCT OFF! OTHERWISE, THE OPERATOR MAY BE EXPOSED TO AN ELECTRIC SHOCK THAT MAY ENDANGER LIFE OR SERIOUS INJURY;**
- **BE SURE TO DISCONNECT THE POWER CORD BY HOLDING THE PLUG OR CONNECTOR! IF YOU PULL ON THE POWER CORD, THE CORE WIRE MAY BE DAMAGED, RESULTING IN A FIRE OR ELECTRIC SHOCK;**
- **BE SURE TO CONNECT THE EQUIPMENT TO THE INDOOR GROUNDING SOCKET (DO NOT USE ANY POWER SUPPLY OTHER THAN THE DEDICATED POWER SUPPLY) AND ENSURE THAT ALL EQUIPMENT IS RELIABLY GROUNDED! OTHERWISE, IT WILL CAUSE FIRE OR ELECTRIC SHOCK;**
- **IT IS FORBIDDEN TO DISASSEMBLE THE CHARGER, OR PLACE IT IN A LIQUID OR DUST ENVIRONMENT FOR USE;**
- **IT IS FORBIDDEN TO SQUEEZE, IMPACT, BEND THE BATTERY AND COLLIDE WITH THE BATTERY WITH SHARP OBJECTS TO AVOID CAUSING FIRE; DO NOT DISASSEMBLE THE BATTERY, OTHERWISE IT WILL CAUSE AN INTERNAL SHORT CIRCUIT, WHICH WILL CAUSE BULGING AND FIRE.**
- **IT IS FORBIDDEN TO DIRECTLY SHORT CIRCUIT THE POSITIVE AND NEGATIVE POLES OF THE BATTERY, OR CONTACT THE BATTERY SOCKET WITH METAL OBJECTS TO PREVENT THE BATTERY FROM BEING DAMAGED BY SHORT CIRCUIT BETWEEN THE PINS;**
- **IT IS FORBIDDEN TO THROW THE BATTERY INTO FIRE OR LIQUID, AND IT IS FORBIDDEN TO CHARGE IT IN AN ENVIRONMENT HIGHER THAN THE SPECIFIED LEVEL.**

1 SAFETY

This chapter describes safety and general precautions related to the system and patients.

1.1 Safety



FOR A CONTINUOUS AND SAFE USE OF THIS UNIT FOLLOW THE INSTRUCTIONS IN THIS OPERATING MANUAL. STUDY THIS MANUAL CAREFULLY BEFORE USING THE UNIT AND KEEP IT AT HAND FOR QUICK REFERENCE.



THE UNIT DESCRITABLE IN THIS MANUAL MUST ONLY BE HANDLED BY PREVIOUSLY TRAINED AND QUALIFIED PERSONNEL.



EACH WORKER IN CONTACT WITH X-RAY RADIATION MUST BE FAMILIAR WITH THE SAFETY AND OPERATION INSTRUCTIONS CONTAINED IN THIS MANUAL. AND IN PARTICULAR, THE STATEMENT AT THE BEGINNING OF THIS MANUAL ENTITLED “IMPORTANT! X-RAY PROTECTION”.



THIS SYSTEM MUST BE USED IN COMPLIANCE WITH THE REQUIRED ENVIRONMENTAL REQUIREMENTS AND POWER SUPPLY REQUIREMENTS, OTHERWISE THE PERFORMANCE SPECIFICATIONS IN APPENDIX A WILL NOT BE MET.



ACCORDING TO THE REGULATION (EU) 2017/745, THE SYSTEM IS EQUIPPED WITH EMC FILTER. IF THERE IS NO PROPER GROUNDING, THE USER WILL BE IN DANGER OF ELECTRIC SHOCK.



ALL CONNECTION PARTS CANNOT BE CHARGED AND PLUGGED WHEN THE SYSTEM IS OPENING, OTHERWISE DAMAGE MAY BE CAUSED AND THE SYSTEM WILL NOT WORK PROPERLY.



DO NOT USE THE FLAT PANEL DETECTOR WHEN CHARGING, PLEASE TRANSFER THE IMAGE DATA IN BATTERY MODE.



THE DEVICE IS NOT EXPECTED TO CONNECT TO OTHER DEVICES OR NETWORKS. TO ACCESS OTHER DEVICES AND NETWORKS, PLEASE CONTACT SHENZHEN BROWINER TECH CO., LTD.



ALL ANALOG AND DIGITAL DEVICES CONNECTED TO THIS SYSTEM MUST BE CERTIFIED BY SPECIFIED GB STANDARDS (E.G., GB 4943.1-2022 INFORMATION TECHNOLOGY EQUIPMENT STANDARD AND GB 9706.1-2020 MEDICAL EQUIPMENT STANDARD), AND ALL CONFIGURATIONS SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE CONTENT OF THE VALID VERSION OF THE GB 9706.1-2020 SYSTEM STANDARD. THE PERSONNEL WHO ARE RESPONSIBLE FOR CONNECTING ADDITIONAL DEVICES TO THE INPUT/OUTPUT SIGNAL INTERFACE AND ARE RESPONSIBLE FOR WHETHER THE SYSTEM COMPLIES WITH THE GB 9706.1-2020 STANDARD. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT OUR CUSTOMER SERVICE DEPARTMENT OR OUR AGENTS.

Note: When there is any serious incident occurred in relation to the device, the user and/or patient have the right to report it to the manufacturer and the competent authority of the Member State.

1.2 Responsibilities



ENSURE THAT ALL PERSONNEL AUTHORIZED TO USE THE UNIT ARE AWARE OF THE DANGERS OF EXCESSIVE EXPOSURE TO X-RAY RADIATION.



THE UNIT HEREIN DESCRITABLE IS SOLD WITH THE UNDERSTANDING THAT THE MANUFACTURER, IT IS AGENTS, AND REPRESENTATIVES ARE NOT LIABLE FOR INJURY OR DAMAGE WHICH MAY RESULT FROM OVEREXPOSURE OF PATIENTS OR PERSONNEL TO X-RAY RADIATION.



THE MANUFACTURER DOES NOT ACCEPT ANY RESPONSIBILITY FOR OVEREXPOSURE OF PATIENTS OR PERSONNEL TO X-RAY RADIATION GENERATED BY THIS UNIT WHICH IS A RESULT OF POOR OPERATING TECHNIQUES OR PROCEDURES.



NO RESPONSIBILITY WILL BE ASSUMED FOR ANY UNIT THAT HAS NOT BEEN SERVICED AND MAINTAINED IN ACCORDANCE WITH THE INSTRUCTIONS OF THE MANUFACTURER, OR WHICH HAS BEEN MODIFIED

OR TAMPERED WITHIN ANY WAY.



IT IS THE RESPONSIBILITY OF THE OPERATOR TO ENSURE THE SAFETY OF THE PATIENT WHILE THE X-RAY UNIT IS IN OPERATION BY VISUAL OBSERVATION, PROPER PATIENT POSITIONING, AND USE OF DEVICES THAT ARE INTENDED TO PREVENT PATIENT INJURY.

ALWAYS WATCH ALL PARTS OF THE SYSTEM TO VERIFY THAT THERE IS NEITHER INTERFERENCE NOR POSSIBILITY OF COLLISION WITH THE PATIENT OR WITH OTHER UNIT.



SHOULD ANY INTERFERENCE (EMC) BE DETECTED WITH OTHER UNIT, PLEASE POSITION OTHER UNIT AWAY FROM THIS ONE.



THE COMPANY DOES NOT ASSUME LEGAL RESPONSIBILITY FOR ANY INJURY, INJURY OR DEATH CAUSED TO THE PURCHASER OR A THIRD PARTY DUE TO IRRESISTIBLE FACTORS SUCH AS FIRE AND EARTHQUAKE OR THE WRONG USE OF THIS PRODUCT.



THE COMPANY DOES NOT ASSUME LEGAL RESPONSIBILITY FOR THE LOSS AND INJURY CAUSED BY UNAUTHORIZED OR NON-STRICT OPERATION OF THE COMPANY'S USER MANUAL.



THE COMPANY DOES NOT ASSUME LEGAL RESPONSIBILITY FOR ANY LOSS AND INJURY CAUSED BY THE USE OF NON-COMPANY PRODUCTS.



THE IMAGING, ACQUISITION, PROCESSING, READING AND STORAGE OF IMAGE DATA FOR X-RAY IMAGES SHALL COMPLY WITH THE LEGAL REGULATIONS OF THE COUNTRY AND REGION IN WHICH THE PRODUCT IS USED. USERS AND OPERATORS OF THE PRODUCT SHOULD PROTECT THE PRIVACY OF IMAGE DATA.



CLINICIANS ARE HELD ACCOUNTABLE FOR THE PROVISION OF MEDICAL SERVICES AND FOR INCORRECT TREATMENT DUE TO MISDIAGNOSIS.



INFORMATION ON THE SPECIFICATIONS, INGREDIENTS, AND APPEARANCE OF THIS PRODUCT IS SUBJECT TO CHANGE WITHOUT NOTICE.

Note: *Please read the end-user license agreement of the operating system that came with it carefully before using this system, otherwise do not continue to use this system. Any use of the system means that the user has read the End User License Agreement of the operating system and agreed to its relevant terms.*

1.3 Electromagnetic Compatibility (EMC)

This unit emits electromagnetic energy and uses RF energy. This unit emits electromagnetic disturbances that could affect radio services, other medical unit and non-medical unit.

This unit shall be classified as group 1 and class A medical unit in accordance with EN60601-1-2. Operators should provide appropriate protective measures to avoid interference, but we do not completely guarantee that electromagnetic disturbances will not occur in a particular installation.

When this unit is found to cause disturbances (switching on / off unit to confirmation), the operator (or authorized maintenance personnel) can eliminate the disturbances by the following measures:

- Adjust or reposition the affected device.
- Increases the distance between the affected devices.
- Use another power supply to this unit.
- Consult maintenance engineers for more advice.



BEFORE USING THIS DEVICE, PLEASE ENSURE THAT ALL ABOUT EMC REQUIREMENTS IN THIS MANUAL HAVE BEEN SATISFIED.



THIS SECTION LISTS THE CONTENTS DESCRITABLE IN THE TABLE IEC60601-1-2, RESPONSIBILITY OF THE USER TO ENSURE THAT THIS DEVICE AND THE UNITS NEARBY MEET THE RF INTERFERENCE PARAMETERS IN THE GENERAL SAFETY REQUIREMENTS.



DO NOT USE THE DEVICE INTENTIONALLY TRANSMIT RF SIGNALS (CELLULAR PHONES, TRANSCEIVERS, OR RADIO CONTROLLED PRODUCTS) IN THE VICINITY OF THIS DEVICE, WHICH MAY RESULT IN OPERATING EXCEEDING A PRESCRITABLE VALUE. PLEASE TURN OFF

THESE TYPE OF UNITS, WHEN THEY ARE IN THE VICINITY OF THE DEVICE. THE OPERATOR SHALL BE LIABLE TO PROMPT THE PATIENT OR OTHER PERSONS CLOSE TO THIS DEVICE FULLY COMPLY WITH THE ABOVE REQUIREMENTS.



ANY INTERFERENCE DUE TO THE USE OF NON-RECOMMENDED INTERNAL CONNECTING CABLES OR UNAUTHORIZED MODIFICATIONS TO THIS UNIT OR MODIFICATIONS, THE MANUFACTURER WILL ASSUME NO RESPONSIBILITY.

Appendix A TECHNICAL SPECIFICATIONS

A.1 Safety Specifications

Classification of protection against electric shock	Class I
Classification of the protection against electric shock	Type B
Classification of the cover's protection	Flat panel detectors are classified according to the degree of protection against liquid intake: IP54; The adapter is classified according to the degree of protection against liquid intake: IP22;
Degree of Safety in the presence of Flammable Anesthetics Mixture with air or with oxygen or with nitrous oxide:	Not suitable for use in the presence of Flammable Anesthetics Mixture with air or with oxygen or with nitrous oxide.
Mode of operation	Continuous operation
Expected service life	Twelve years

A.2 Environmental Specifications

Operating temperature	10 ℃ ~ 40 ℃
Operating humidity	30 % ~ 75 %
Operating atmospheric pressure	700 hPa ~ 1060 hPa
Transportation and storage temperature	-20 ℃ ~ 55 ℃
Transportation and storage humidity	20 % ~ 90 %
Transportation and storage atmospheric pressure	700 hPa ~ 1060 hPa

Note:

- *This product is a delicate equipment, which requires extra care during transportation.*
- *Must pay attention to the transportation safety to ensure the accuracy and precision of the equipment.*
- *The product must be handled carefully and gently. It is required to be carried horizontally at the bottom of the packing box to ensure that the product is not damaged.*
- *Must not throw down the product from a height when handling to avoid loose pieces and damage.*
- *Do not erect the product, lay it as flat as possible. Other items should not be stacked on top of the product.*
- *Pay attention to waterproof and rain and snow during transportation.*
- *It is better to store it in the warehouse than to store it in the open air.*
- *No more than five layers.*

A.3 Power Specifications

- **Detectors Power Specifications（power adapter supply）**

Input voltage	24 VDC
Input voltage current	2.7 VDC
Power capacity	45VA

- **Power Adapter Specifications**

Input	100-240 VAC ± 10，50/60 Hz，1.5 A（1.5 A-0.7 A）
Output	24 VDC，2.7 A

A.4 X-ray Flat Panel Detectors Specifications

Model	BRD 3543B-3	BRD 4343C-3	BRD 4343A-1	BRD 3543A-1
Imaging materials	Amorphous silicon/cesium iodide	Amorphous silicon/cesium iodide	Amorphous silicon/cesium iodide	Amorphous silicon/cesium iodide
Image size	350 mm×430 mm	430 mm×430 mm	430 mm×430 mm	350 mm×430 mm
Pixels matrix	2560×3072	3072×3072	4302×4302	3534×4302
Pixels pitch	139 μm	139 μm	100 μm	100 μm

AD conversion	≥16 bit	≥16 bit	≥16 bit	≥16 bit
Spatial resolution	3.6 lp/mm	3.6 lp/mm	5.0 lp/mm	5.0 lp/mm
Communications protocol	802.11ac	802.11ac	802.11ac	802.11ac
Manufacturer	Shenzhen Browiner Tech Co., Ltd	Shenzhen Browiner Tech Co., Ltd	Shenzhen Browiner Tech Co., Ltd	Shenzhen Browiner Tech Co., Ltd

A.5 Detective Quantum Efficiency

- **BRD 3543B-3**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5/2.5 μGy	0.5 lp/mm	58%
	1.0 lp/mm	49%
	1.5 lp/mm	42%
	2.0 lp/mm	37%
	2.5 lp/mm	27%
	3.0 lp/mm	17%
	3.5 lp/mm	12%

- **BRD 4343C-3**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5/2.5μGy	0.5 lp/mm	58%
	1.0 lp/mm	49%
	1.5 lp/mm	42%
	2.0 lp/mm	37%
	2.5 lp/mm	27%
	3.0 lp/mm	17%
	3.5 lp/mm	12%

- **BRD 4343A-1**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5/2.5 μGy	0.5 lp/mm	53%
	1.0 lp/mm	48%
	1.5 lp/mm	40%
	2.0 lp/mm	33%
	2.5 lp/mm	28%
	3.0 lp/mm	22%
	3.5 lp/mm	17%
	4.0 lp/mm	10%
	4.5 lp/mm	5%

- **BRD 3543A-1**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5/2.5 μGy	0.5 lp/mm	54%
	1.0 lp/mm	46%
	1.5 lp/mm	39%
	2.0 lp/mm	32%
	2.5 lp/mm	27%
	3.0 lp/mm	21%
	3.5 lp/mm	14%
	4.0 lp/mm	8%
	4.5 lp/mm	5%

A.6 Modulation Transfer Function

- **BRD 3543B-3**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5/2.5 μGy	0.5 lp/mm	82%

	1.0 lp/mm	62%
	1.5 lp/mm	47%
	2.0 lp/mm	35%
	2.5 lp/mm	25%
	3.0 lp/mm	18%
	3.5 lp/mm	12%

- **BRD 4343C-3**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5	0.5 lp/mm	82%
	1.0 lp/mm	62%
	1.5 lp/mm	47%
	2.0 lp/mm	35%
	2.5 lp/mm	25%
	3.0 lp/mm	18%
	3.5 lp/mm	12%

- **BRD 4343A-1**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5	0.5 lp/mm	84%
	1.0 lp/mm	69%
	1.5 lp/mm	55%
	2.0 lp/mm	52%
	2.5 lp/mm	32%
	3.0 lp/mm	24%
	3.5 lp/mm	17%
	4.0 lp/mm	13%
	4.5 lp/mm	9%

- **BRD 3543A-1**

Standard radiation quality/radiation dose	Spatial frequency	Typical
RQA5	0.5 lp/mm	83%
	1.0 lp/mm	68%
	1.5 lp/mm	54%
	2.0 lp/mm	41%
	2.5 lp/mm	31%
	3.0 lp/mm	23%
	3.5 lp/mm	17%
	4.0 lp/mm	12%
	4.5 lp/mm	9%

A.7 Lithium Ion Battery Specifications

Rated Capacity	4000mAh
Energy	46.2Wh
Nominal Voltage	11.55V
Charge voltage limit	13.20V
 **WARNING**	**IMPROPER DISPOSAL OF THE BATTERY MAY RESULT IN HAZARDS SUCH AS BURNS, EXPLOSIONS OR FIRE, ETC.** **MUST NOT DISASSEMBLE, CRUSH, PUNCTURE, SHORT-CIRCUIT THE BATTERY,THROW IT INTO WATER OR FIRE, OR EXPOSE IT TO TEMPERATURES ABOVE 60℃. PLEASE USE THE DESIGNATED DEDICATED CHARGER.**

A.8 High Voltage Generator Specifications

- Parameters of the high voltage generator for combined devices.

kV	40 - 150 kV
mA	1 - 1000 mA

ms	1 - 10000 ms
mAs	0.1 - 1000 mAs