

Guangzhou Raydose Medical Technology Co., Ltd.

Make QA Easier, Keep Patients Safer.

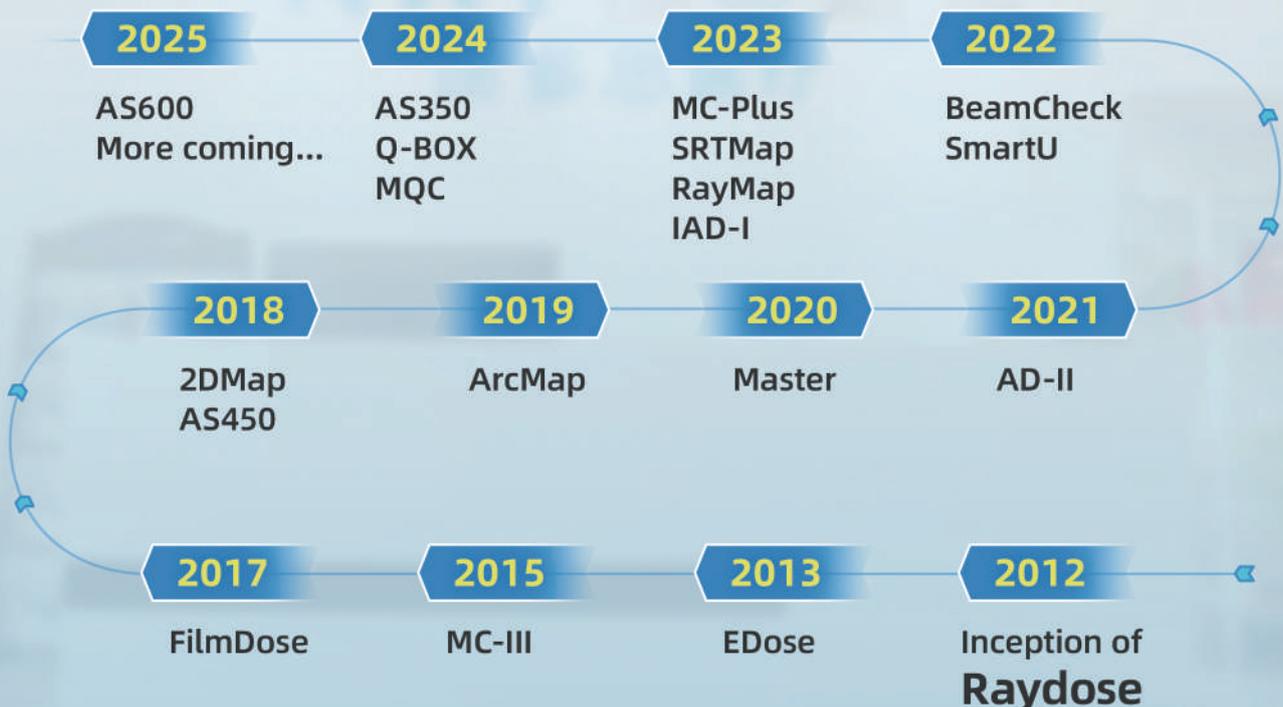


Company Profile

Guangzhou Raydose Medical Technology Co., Ltd. was founded in 2012 as an innovative technology company specializing in radiotherapy. Since our inception, we have not only provided high-quality products and technical services to hundreds of radiation therapy units but also continuously expanded our business scope. We have independently developed and established a comprehensive radiation therapy QA product line, including **Machine QA, Patient QA, Doctor Workstation,** and **Radioprotection.**

Over the past decade, Raydose has been dedicated to innovation and R&D, committed to providing users with professional and efficient radiotherapy QA product solutions. In the future, we will continue to delve into the QA field, continuously innovating in areas such as new technology QA and radiation protection, injecting impetus into the industry's development.

Company History



Patient QA



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Machine QA



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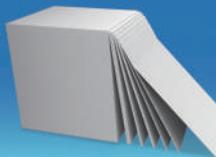
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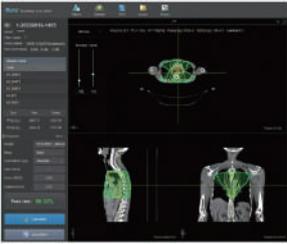
Master/EDose



- | | | | |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------|
| <p>1 Plan Dose Check</p> <p>Secondary dose check</p> | <p>2 Pre-treatment Verification</p> <p>2D Pre-treatment
3D Pre-treatment</p> | <p>3 In-treatment Monitoring</p> <p>2D In vivo
3D In vivo</p> | <p>4 Fractionated Dose Check</p> <p>3D Online</p> |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------|

Secondary Dose Check

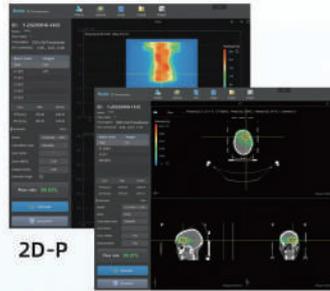
Based on CCCS algorithm and Monte Carlo algorithm



SDC

Pre-treatment

Pre-treatment dose verification
Based on EPID

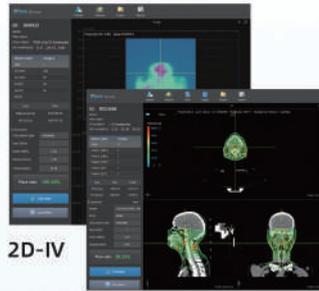


2D-P

3D-P

In Vivo

In-vivo dose monitoring
Based on EPID



2D-IV

3D-IV

Fractionated Dose Check

Fractionated dose check
Based on patient log files



3D Online

Accuracy

- Supports CCCS and Monte Carlo algorithm calculations
- Allows importing water tank and EPID data to build a physical model
- Enables DVH, PDD, and OAR analysis



Application

- Elekta (all models), Varian, and Shinva.
- Eclipse, Monaco, Pinnacle, and Raystation, etc.
- IMRT, VMAT, SBRT/SRS, etc.

Efficiency

- Eliminates the need for detector matrix measurements
- Accelerates computation with GPU processing
- Enables continuous measurement while Master automatically performs calculations in the background

Automation

- Automatically identify plans
- Automatically start measurement
- Automatically complete analysis

Master

2D-P

(2D Pre-treatment)



SDC

(Secondary dose check)



3D-P

(3D Pre-treatment)



3D-IV

(3D In vivo)



3D-O

(3D Online)



2D-IV

(2D In vivo)



EDose

2D-P

(2D Pre-treatment)



SDC

(Secondary dose check)



3D-P

(3D Pre-treatment)



3D-IV

(3D In vivo)



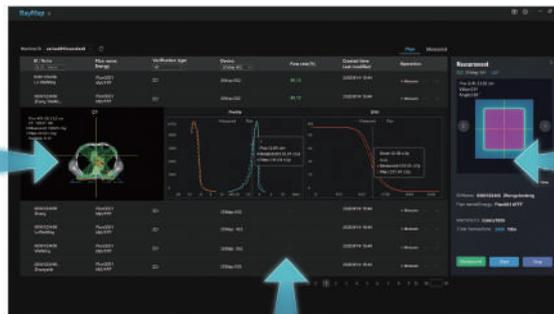
RayMap



- ➔ Unified platform for three systems, seamless data access.
- ➔ Simplified measurement process, automatic calculation and analysis.
- ➔ One server manages multiple clients, efficient cross-site data management.

ArcMap

3D dose verification system
 Ion chambers quantity: 1,764
 Field size: 21cm x 21cm
 Weight: 18.5kg



SRTMap

Stereotactic radiation therapy end-to-end testing system
 Ion chambers quantity: 1,020
 Field size: 8.0cm x 8.0cm
 Weight: 3kg (SRTMap) + 5.7kg (SRTPhantom)

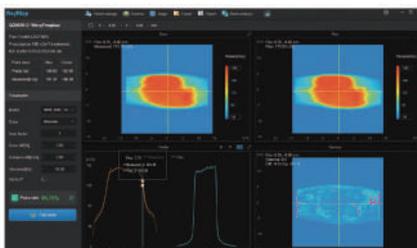


2DMap

2D dose verification system
 Ion chambers quantity: 1,261
 Field size: 26cm x 26cm
 Weight: 3.6kg (2DMap Array)

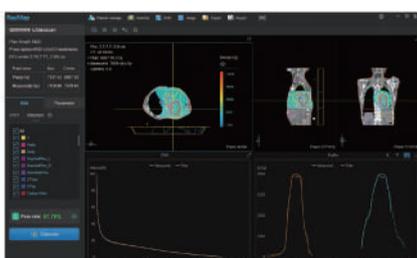


2D Analysis



- Image Details:** Dose, Plan, Profile, field image at different angles, etc.
- Gamma Details:** Gamma pass rate, gamma distribution, gamma mean and standard deviation, etc.
- Field Analysis:** Flatness & symmetry analysis, MLC analysis, etc.
- Report:** Supports printing and viewing of reports.

3D Analysis



- Image Details:** CT images, Dose Volume Histogram (DVH), Profile, Gamma analysis for specific ROIs, field images at different angles, etc.
- Gamma Details:** Gamma pass rate, gamma distribution, gamma mean and standard deviation, etc.
- Field Analysis:** Flatness & symmetry analysis, MLC analysis, etc.
- Report:** Supports printing and viewing of reports.



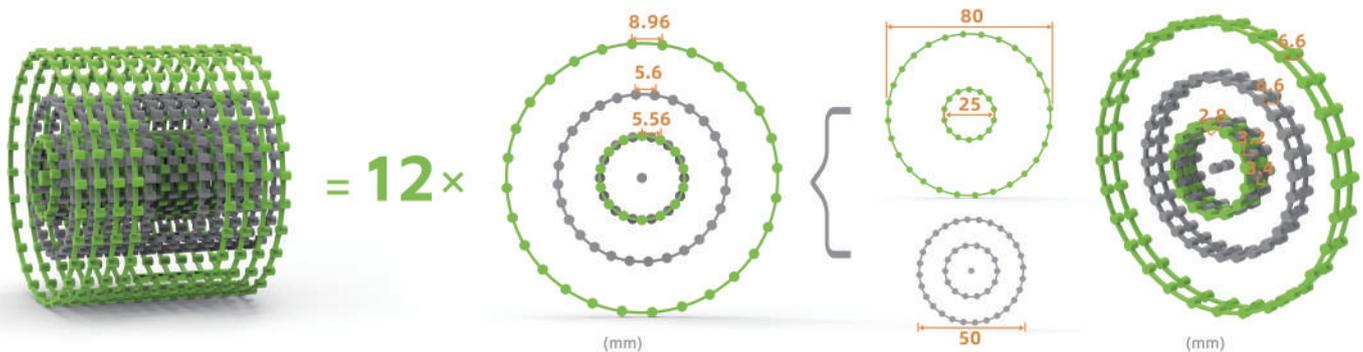
Provides full-process QA from CT positioning to treatment plan execution for SBRT/SRS

Stereotactic Radiation Therapy End-to-End Testing System

SRTMap

Ion chambers cover the entire three-dimensional space, achieving precise 3D dose verification for SBRT/SRS.

- 1020 classic ion chambers fully cover in the SRTMap, presenting 3D dose distribution images perfectly.
- The detector's sensitive volume is 0.01CC, with high detection density and high resolution, better distinguishing details in high-dose areas.
- No angle response, no energy response, no detection attenuation.

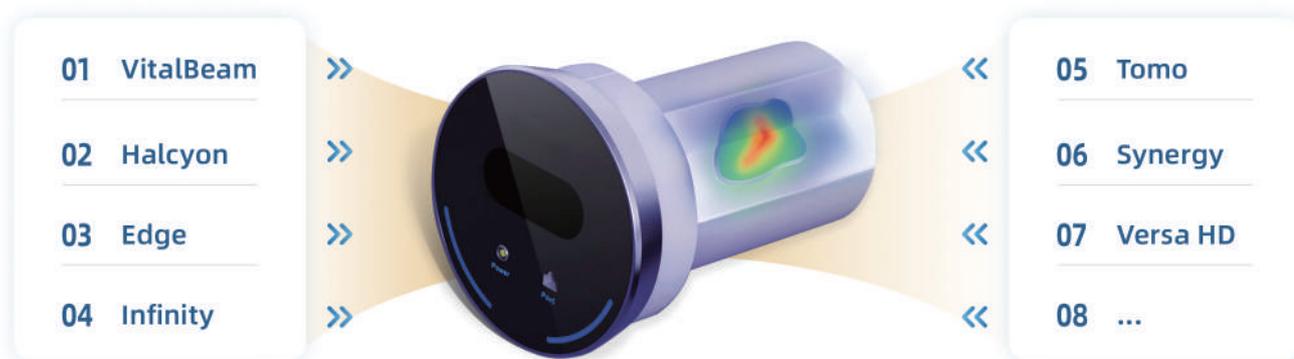


User-friendly design for an easy and enjoyable experience.

- Features an LCD screen with HD display of parameters like temperature, air pressure, and angle.
- Wireless connection, Wi-Fi data transmission. No need for complicated wiring.
- Comes with RayMap, the software for unified database management.
- Optional FilmDose, the software that assists in film measurement and analysis.



Supports various LINAC models.



Technical Parameters

SRTMap

Detector Type	ionization chamber	Dimensions(D×H)	φ165mm×234mm
Detector Quantity	1,020	Field Size	80mm×80mm
Sensitive Volume	0.01CC	Repeatability	≤±0.5%
Detector Volume(R×H)	1.2mm×3.0mm	Non-linearity	≤±0.5%
Weight	3.16kg		

SRTPhantom

Dimensions(L×W×H)	443mm×264mm×254mm
Weight	5.7kg
Material	ABS

SRTPhantom

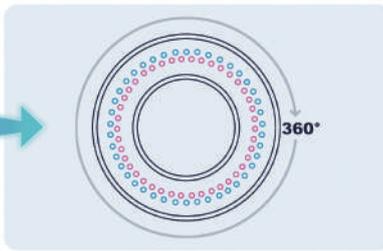
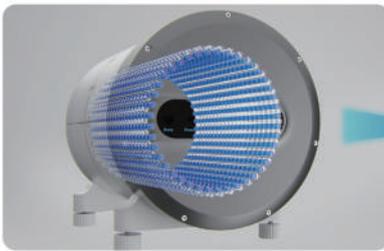
Multiple inserts optional to meet diverse measurement needs.

- ▶ DoseInsert+Film Box: Supports film dose measurement on any plane.
- ▶ DoseInsert+Chamber Box: Supports ion chamber point dose measurement and verification.
- ▶ SRTMap: Provides full-process QA from CT positioning to treatment plan execution for SBRT/SRS.

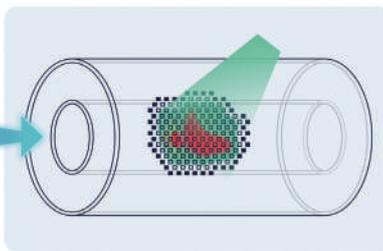
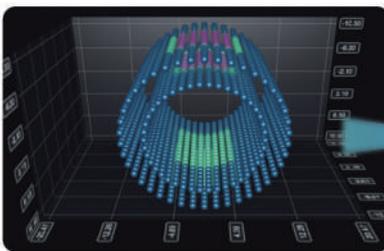




1,764 ion chambers are arranged in a dual-layer ring configuration, accurately presenting spatial dose distribution information.

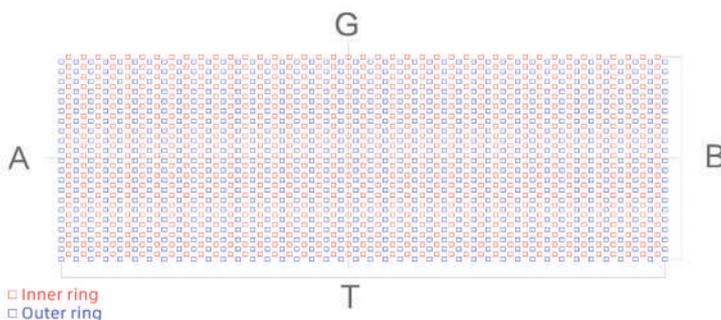


Optimize space usage with a double-layer ring staggered layout, facilitating three-dimensional dose measurement of both high and low dose areas (inner and outer rings).



Achieve 360° full coverage in 3D space, effectively reducing deviations caused by energy and angle responses.

Ion chamber arrangement plan view: layer arrangement, staggered layout



Ion chamber spacing (center to center)
 AB Direction $\leq 7.85\text{mm}$
 GT Direction $\leq 5.4\text{mm}$

Ion chamber margins
 AB Direction $\leq 2.85\text{mm}$
 GT Direction $\leq 0.4\text{mm}$

- ✔ Supports LINAC models, including Halcyon, Edge, VitalBeam, Infinity, Synergy, and Tomo.
- ✔ Compatible with TPS such as Eclipse, Monaco, Pinnacle, and Raystation.
- ✔ Supports RT techniques, including IMRT and VMAT.



Equipped with solid water insert and ion chamber insert, supporting 3D dose verification and point dose measurement.



The surface is printed with guide lines to assist in positioning and measurement. The LCD screen can display information such as angle, temperature, and air pressure in real-time.

Technical Parameters

Detector Type Ion chamber	Detector Quantity 1,764	Detector Volume 0.094cc	Nominal Sensitivity 3.6nc/Gy±0.2nc/Gy
Weight 18.5kg	Repeatability ±0.5%	Non-linearity ±0.5%	Dimensions(L×W×H) 373.4mm×309mm×280mm
Field Size 21cm×21cm	Insert Cavity Radius 6.7cm	Inner Ring Radius 9.5cm	Outer Ring Radius 10.5cm
Material PMMA	Detector Volume(R×H) 2.5mm×4.8mm		

2DMap

Ion Chamber Array

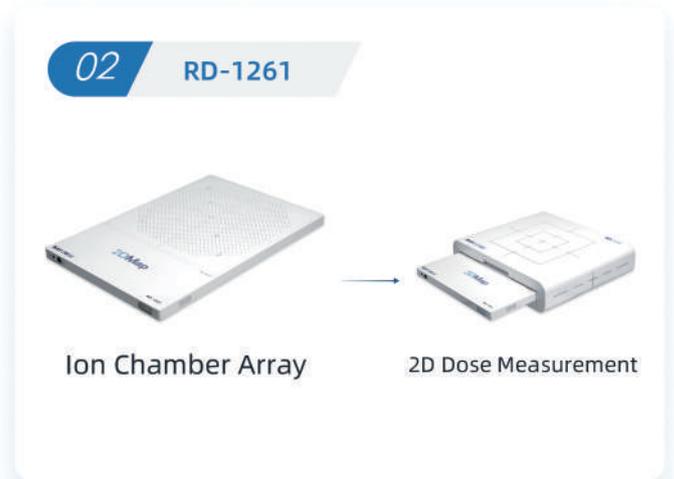
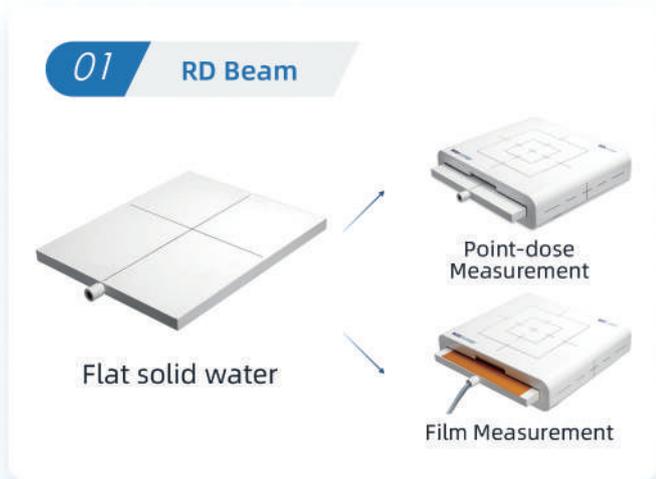


RD Cube



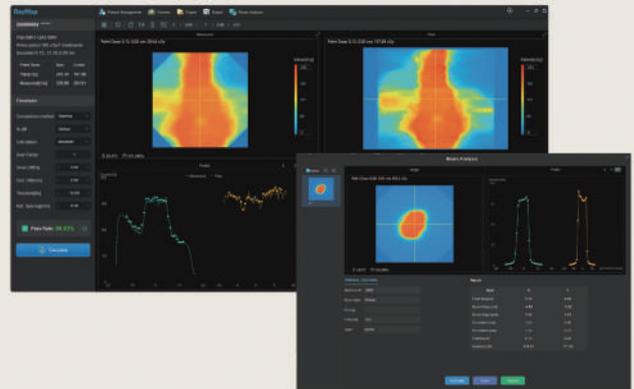
- 1 Surface marked with indicator lines for improved positioning accuracy.
- 2 Equipped with interchangeable inserts, supporting point dose and film dose measurements.
- 3 Uses advanced algorithm, compatible with IMRT, VMAT, and RapidArc technologies.
- 4 Supports multi-angle incidence:
 - 0° and 180°: Symmetrical design with uniform material
 - 90° and 270°: Algorithm-based correction

Insert



RayMap-2DMap >

- Compares measured values with planned values
- Provides Profile and Gamma analysis
- Offers beam analysis



Technical Parameters

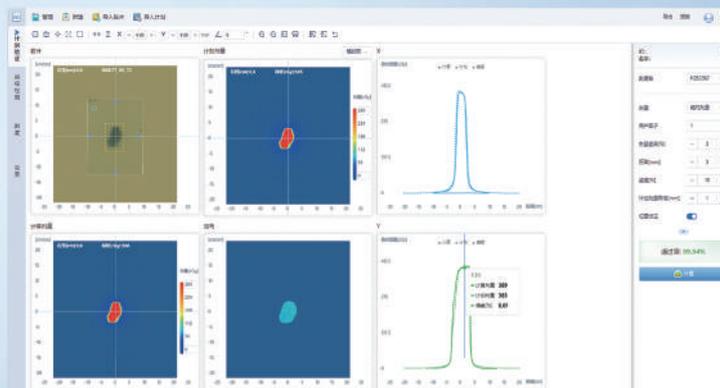
2DMap Array

Detector Type	Ion chamber	Repeatability	$\leq \pm 0.5\%$
Detector Quantity	1,261	Non-linearity	$\leq \pm 0.5\%$
Detector Volume _(R×H)	2.8mm×4.8mm (0.118cm ³)	Field Size	26cm×26cm
Nominal Sensitivity	3.6nC/Gy ± 0.2nC/Gy	Dimensions _(L×W×H)	441mm×296mm×20mm
Detector Spacing	7.07mm(Min)	Weight	3.6kg

RD Cube

Dimensions _(L×W×H)	357.1mm×320mm×81.2mm	Material	ABS
Weight	7.2kg		

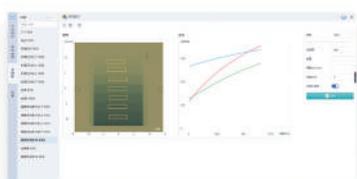
Supporting film types:
EBT3, EBT4, RTQA2,
etc.



Product Features

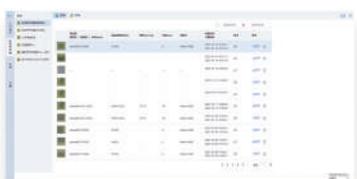
Precise Dose Modeling

Employs a unique red/green /blue three-channel dose correction model to improve the accuracy of dose analysis.



Integrated Data Management

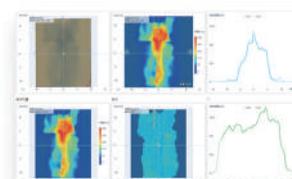
Utilizes database integration to manage patient data, simplifying both archival and retrieval processes for patient files.



Diverse Application Scenarios

Patient QA(2D)

- SBRT/SRS
- IMRT
- VMAT



Machine QA

- Flatness and Symmetry (photon & electron)
- Photon beam quality
- Rotation isocenter
- Coincidence of radiation and mechanical isocenter
- MLC Picket fence



Rapid detection of machine characteristics and dosimetric properties



★ Full Coverage of All Elekta Models

Used in conjunction with RayMi, the detection phantom independently developed by Raydose.

- ▶ RayMi phantom is engraved with markings to assist with positioning,
- ▶ Standard with an Ionization chamber plugin to support point dose measurements.

Rounded Corners (12 in total)

Indicate the position of the internal cavity, used for review of CBCT registration images.

Boundary Groove

Supports light field boundary detection for sizes 5cmx5cm and 10cmx10cm.

Ionization Chamber plugin

For point dose measurements.

Center Crosshairs

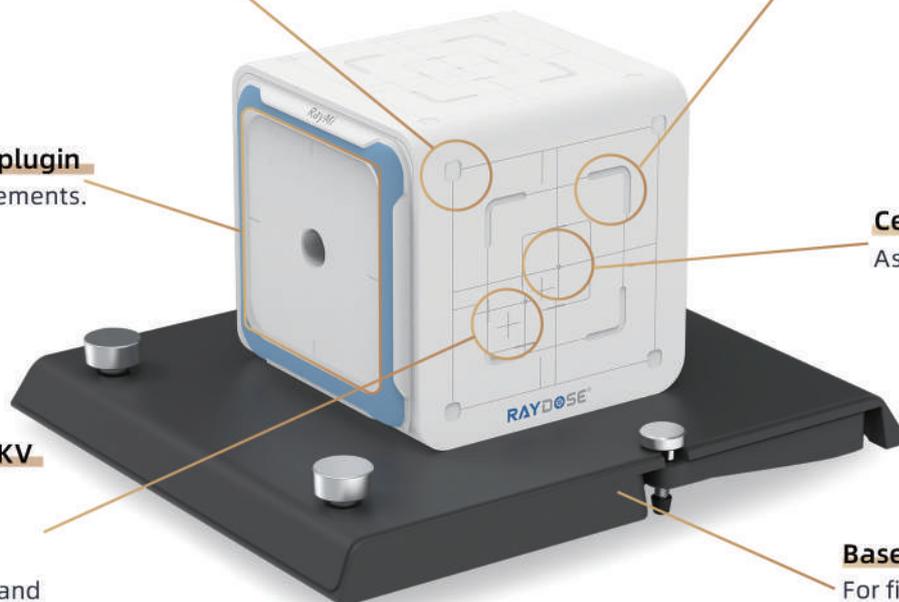
Assists in positioning.

Crosshairs for CBCT/KV Image Registration Detection

Detect the accuracy of positioning correction and the accuracy of automatic treatment couch moving.

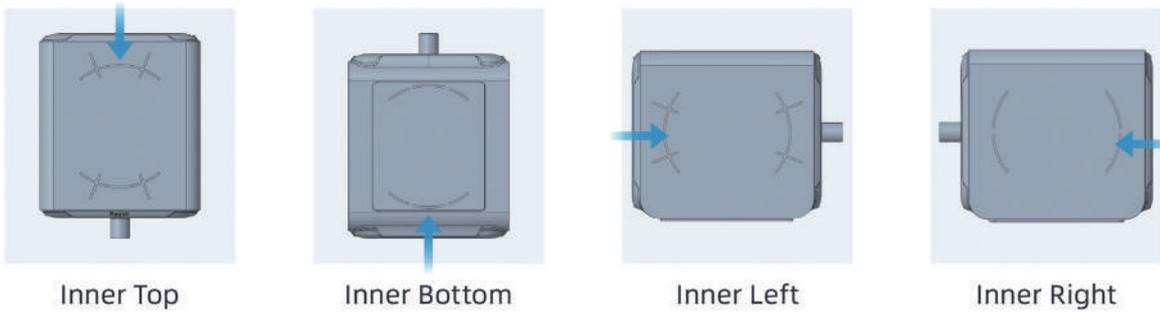
Base

For fixation and horizontal adjustment.



RayMi internally designs two arcs as markers for isocenter analysis of kV/MV images

- ▶ The arc markers have a depth of 3mm and a width of 2mm.
- ▶ The four sides of the RayMi phantom adopt different arc designs to help distinguish different viewing angles.



Automated process: automatic acquisition, intelligent analysis



Quickly complete detection & analysis of 13 procedures within 7 minutes!

Procedure				
Isocenter	Gantry	Collimator	Beam Field	Image Quality
<ul style="list-style-type: none"> ✔ kV isocenter ✔ MV isocenter 	<ul style="list-style-type: none"> ✔ Rotation 	<ul style="list-style-type: none"> ✔ Rotation ✔ Jaws ✔ MLC leaf position ✔ MLC repeatability ✔ MLC spoke shot ✔ Coincidence of radiation and mechanical isocenter 	<ul style="list-style-type: none"> ✔ Output ✔ Field center ✔ Consistency 	<ul style="list-style-type: none"> ✔ CBCT image quality

Technical Parameters

RayMi

Dimensions(L×W×H)	196mm×180mm×183mm
Weight	3.55kg
Material	ABS

Ionization chamber plugin

Dimensions(L×W×H)	120mm×120mm×180mm
Weight	2.8kg
Material	ABS

Motion platform, a unique innovation by Raydose!

The motion platform supports movement along the X and Y axes. When only the AS600 is used, the scanning range is 470mm×470mm×400mm. With the motion platform, the scanning range can be expanded to 580mm×580mm×400mm, and it can automatically complete positioning, locating the isocenter, and other operations.

Convenient and efficient operation, saving time.

- The software can control the AS600 to automatically perform tasks such as positioning, isocenter localization, and level detection.
- The algorithm automatically completes the measurements in the task queue along the shortest path.
- Pre-set measurement templates are provided to minimize user input time.

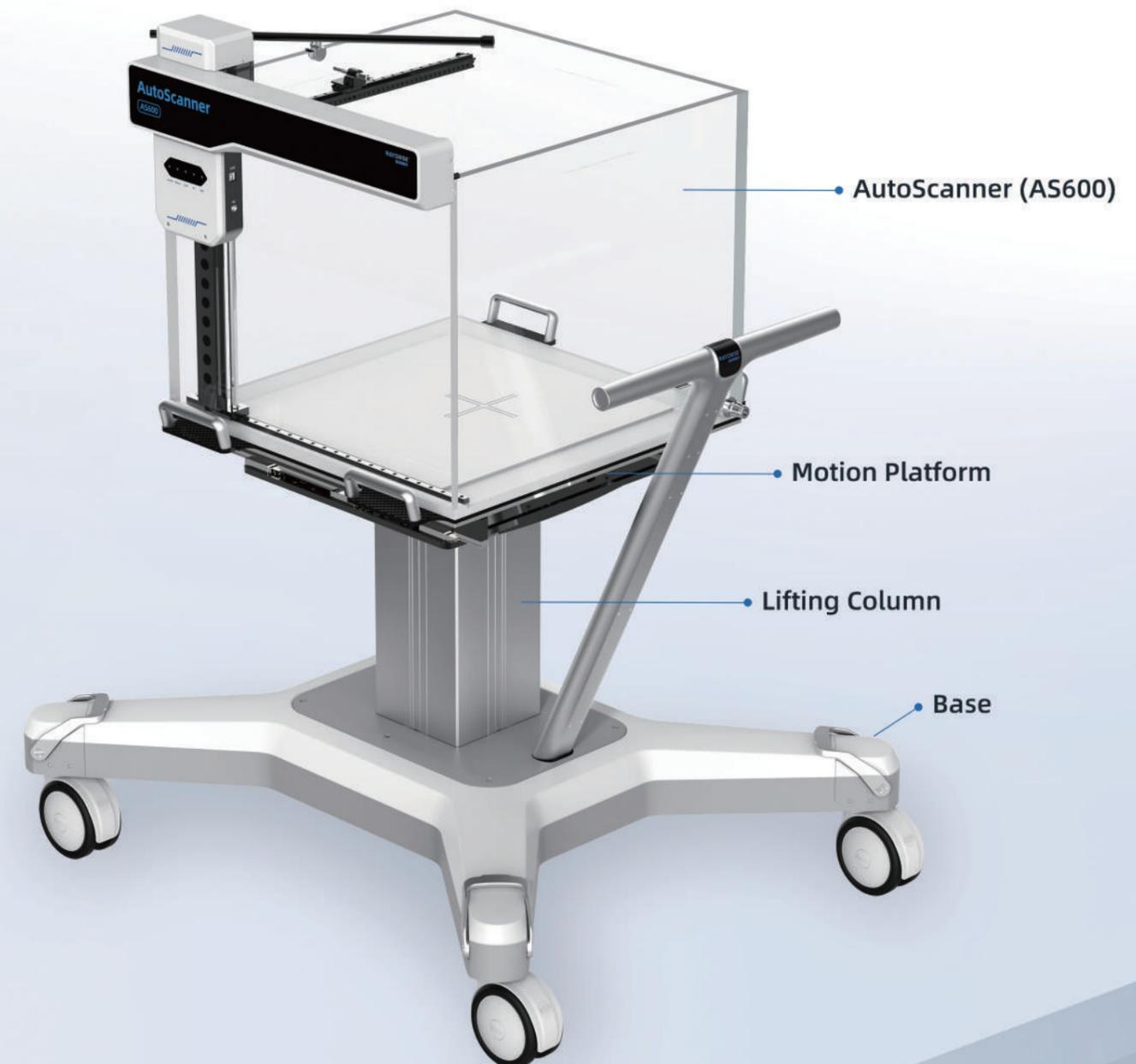


-Mover-



-Remote Control-

AS600



Hardware: Easy Operation, Accurate Measurement



AutoScanner 600 (AS600)

- The single cantilever design occupies less space and provides a larger effective scanning range in the box.
- The split design features a handle at the bottom of the AS600, making it easier to separate and transport. Additionally, this design allows the AS600 to be used with C-arm and O-ring type linacs.



Base

- Dimensions (L*W*H):
Normal Status: 1070mm*890mm*920mm
Extended Status: 1400mm*890mm*920mm
- Equipped with 5-inch large-diameter casters, it can easily pass through room thresholds or uneven surfaces.
- The retractable casters allow the AS600 to avoid the bottom disc when measuring, ensuring stability and measurement accuracy.



Stainless Steel Ball Screw Guide Rail

- The high-precision rails ensure accurate displacement, achieving higher scanning precision.
- The encoder positions the detector with an accuracy of up to 0.1mm.
- The hollowed-out design reduces water ripples during movement.



AutoScanner CCM (Core Control Module)

- It features high sensitivity, capable of detecting weak charge and current signals, with low noise, stable performance, and durability.
- The CCM transmits power, data, and signals through the P/D interface, combining multiple cables into one device, simplifying connections and operations.
- Measurement data can be transmitted via wired or wireless connection.



AutoScanner RC (Remote Control)

- Controls the movement of the motion platform, enabling reset, horizontal positioning, center point setting and positioning, and target position alignment.
- Displays status information such as temperature, air pressure, and detector signals.
- Supports network settings and allows switching between wired and wireless connections for the AS600 and computer.



AutoScanner Reservoir

- Independent, flexible, and easy to move.
- Equipped with an automatic water extraction & drainage system, it can complete a full extraction or drainage operation in about 6 minutes.
- Total Capacity: 180L

Parameters

AS600

Overall Dimensions (L*W*H)	715mm*670mm*627mm
Box External Dimensions (L*W*H)	615mm*605mm*508mm
Box Internal Dimensions (L*W*H)	585mm*575mm*503mm
Box Wall Thickness	15mm
Volume	160L
Empty Box Weight (without/with accessories)	27kg / 39kg

Scanning

AS600 Only (L*W*H)	470mm*470mm*400mm
AS600 + Mover (L*W*H)	580mm*580mm*400mm
Scanning Mode	Step Mode, Continuous Mode
Scanning Speed	<50.0 mm/s
Min Step Length	0.1mm
Repeatability	≤0.1mm

Motion Platform

Dimensions (L*W*H)	615mm*605mm*100mm
Weight	26kg
Movement Range	±55mm (X/Y Direction)
Max Speed	20 mm/s

Lifting Column

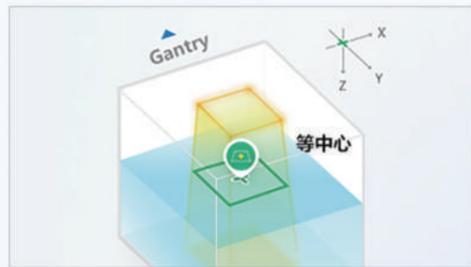
Dimensions (L*W*H)	240mm*240mm*500mm
Extension Range	0~500mm
Max Load	300kg
Speed (When Unloaded)	9mm/s

Detector

Supports various detectors such as PTW, IBA, and SunNuclear.

Software: Intelligent, Intuitive, Simple

- ▶ Automatic horizontal and isocenter positioning
- ▶ Automatic batch data collection, analysis, and management
- ▶ Supports PDD, OAR (X, Y, diagonal), point dose measurements, and TPR calculation



Algorithm-Based Rapid Horizontal and Isocenter Positioning

By detecting the isocenter position, the system calculates the angular offset between the horizontal plane and the box's mechanical coordinates to correct the measurement results.

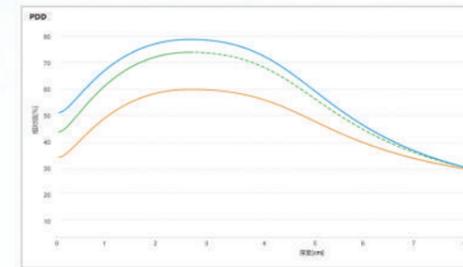
AutoScanner uses algorithms to calculate and correct deviations, allowing for more flexible positioning, accommodating larger errors, thus improving efficiency and reducing setup time.

准备		测量 1↓			
序号	能量	射野尺寸 [cm*cm]	数据类型	状态	测量参数
<input checked="" type="checkbox"/>	1	6MV	10*10	PDD	✓ ⓘ
<input checked="" type="checkbox"/>	2	6MV	15*15	PDD	✓ ⓘ
<input checked="" type="checkbox"/>	3	6MV	30*30	PDD	✓ ⓘ
<input type="checkbox"/>	4	6MVFFF	10*10	Point dose	⊘ ⓘ
<input type="checkbox"/>	5	6MVFFF	10*10	Crossline	⊘ ⓘ

Task Queue Creation and Intelligent Work Planning

The task queue can be created in multiple ways, users can quickly create tasks using built-in system templates or customize their settings.

The software intelligently prioritizes tasks based on energy level, field size, and the detector's shortest movement path, effectively reducing measurement time and workload for the entire project.

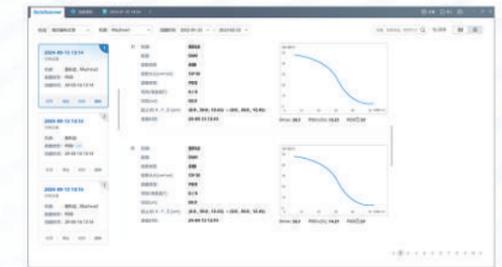


Data Collection and Analysis

The software automatically starts data collection and displays the result curve in real-time when the detector detects the radiation beam.

The software automatically analyzes the measurement results based on preset parameters and analysis protocols.

Supported analysis protocols: AAPM, IAEA, IEC, Varian, Elekta, GB15213, etc.



Clear and Intuitive Data Management Platform

The interface displays data summaries, allowing users to quickly view detailed information by simply clicking on each item.

The software offers one-click operations such as open, import, export, and print, enhancing work efficiency.

AutoScanner (AS450)

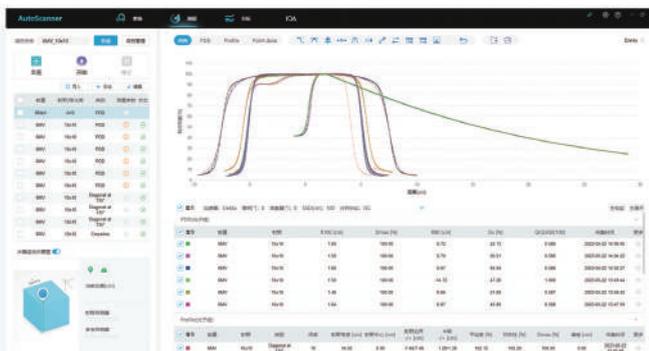
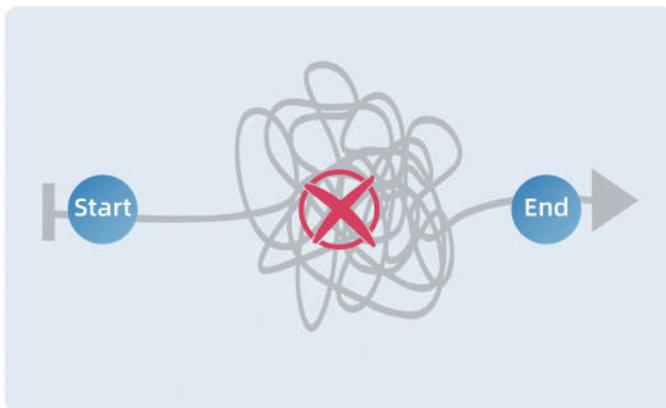
RAYDOSE®



A new experience in machine
QA starts with Autoscanner

Three-dimensional scanning water tank

No complicated wiring operations, saving users at least 20% of working time



Autoscanner Software

- Measurement items include PDD, profile, point dose, etc.
- One-click completion of multiple tasks.
- Real-time display of component motion positions.
- Supports measurement, analysis, and printing of data.



Equipped with a variety of detector fixtures to meet diverse measurement needs.

High-precision probes for intelligent detection of tilt degree.

Constructed with corrosion-resistant materials for component movement accuracy of less than 0.1mm.

Equipped with a water cart capable of automatic filling and draining, with a capacity of 60L.

Equipped with a dual-channel electrostatic meter.

Crosshairs engraved on the bottom to aid in positioning.

The base is height and level adjustable with an accuracy of 1mm.

Equipped with a remote control for controlling water tank components.

Technical Parameters

AutoScanner

External Dimensions(L×W×H)
480mm×450mm×558mm
 Max Scanning Range(X/Y/Z)
280mm/280mm/300mm

Internal Dimensions(L×W×H)
420mm×380mm×428mm
 Max Scanning Speed
≤25mm/s

Wall Thickness
15mm
 Volume
60L

Weight
≤23kg

Dual Channel Electrometer

Charge
2pC-10C (10fC resolution)

Current
1pA-200nA

Long-Term Stability
≤±0.5%

Repeatability
±0.5%

AutoScanner (AS350)

RAYDOSE®

AS350



- ➔ Supports measurement control via touchscreen, capable of point dose measurement.
- ➔ Automatically performs temperature and pressure corrections.
- ➔ Allows precise adjustment of depth, suitable for electron and photon beams.

AS350 Plus



- ➔ Supports software control of the measurement process.
- ➔ Provides analysis and operational features for measurement results.
- ➔ Supports PDD and point dose measurement.



Technical Specifications

External Dimensions(L×W×H)	Internal Dimensions(L×W×H)	Volume	Wall Thickness	Net Weight
360mm×360mm×360mm	340mm×340mm×350mm	36L	10mm	8.8kg

All in BeamCheck

- ➔ More efficient workflows
- ➔ More precise analysis results
- ➔ More flexible measurement settings



BeamCheck supports the following procedures:

Procedures

Center	Geometry	Dose Characteristics	Evaluation
<ul style="list-style-type: none"> ✔ Point Dose ✔ Field Center Deviation X/Y ✔ Wedge Factor 	<ul style="list-style-type: none"> ✔ Size ✔ Field Edge -/+ ✔ Penumbra -/+ ✔ Central Leaf Position ✔ Leaf Average Position -/+ 	<ul style="list-style-type: none"> ✔ Flatness ✔ Symmetry ✔ PDD₁₀ ✔ PDD₂₀ ✔ R₅₀ 	<ul style="list-style-type: none"> ✔ Mean Deviation ✔ Gamma ✔ Leaf Position Pass Rate



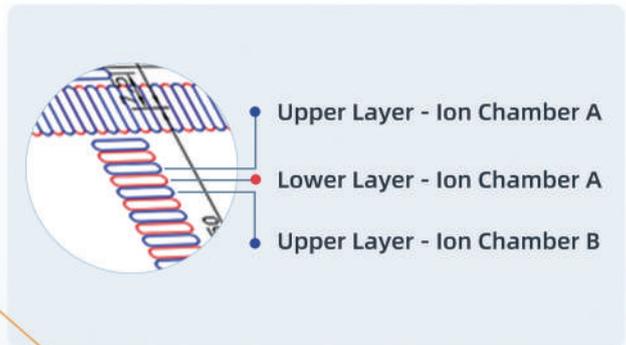
BeamCheck Wedge



BeamCheck Fixture

BeamCheck is suitable for monthly checks of LINAC and also helps users with mechanical inspections and post-repair commissioning.

Ion Chamber Dual-Layer Arrangement



Ion Chamber Quantity: 759
Field Size: 30cm x 30cm
Max Field Size: 31.4cm x 31.4cm

X-axis(Dual-layer arrangement): 157 ion chambers;
Y-axis(Dual-layer arrangement): 150 ion chambers.
Used for measuring output, flatness, symmetry, etc.
Ion chamber spacing = 2mm(center to center)

Four columns(Y1,Y2,Y3,Y4;Dual-layer arrangement):
Each column has 104 ion chambers:
Used for measuring leaf positioning accuracy.
Ion chamber spacing=2.5mm
(center to center)
MLC measurement accuracy=1mm

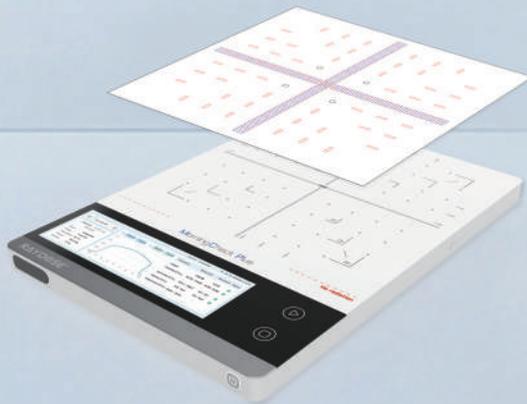
10cm x 10cm & 20cm x 20cm
Total of 36 ion chambers on the boundary:
Used for checking coincidence of light field and radiation field.

Built-in battery, no external power supply required during measurement.

Charges via Type-C interface, providing up to 9 hours of continuous usage when fully charged.



MorningCheck Plus



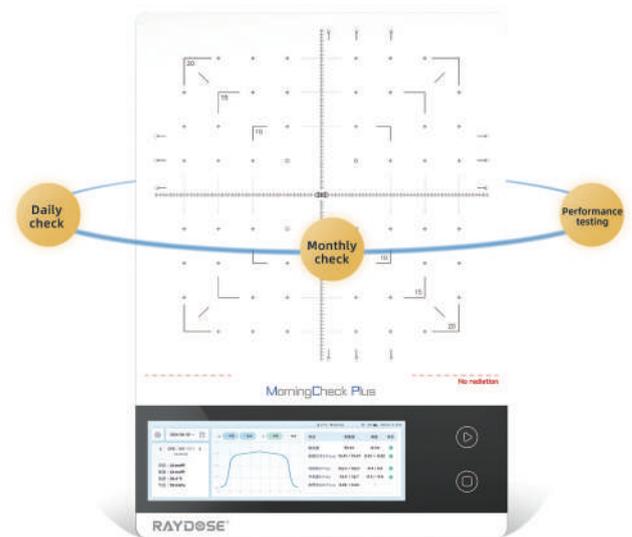
- ➔ **Y-axis ion chamber quantity:95**
(double-layer arrangement)
- ➔ **X-axis ion chamber quantity:94**
(double-layer arrangement)
- ➔ **Energy detection ion chamber quantity:8**
- ➔ **Scattered distribution ion chamber quantity:48**

Newly upgraded morning check device, with functions beyond morning check!

- ▶ **High resolution:** 245 ion chambers arranged in a double-layer structure along the beam axis, achieving millimeter-level measurement resolution.
- ▶ **Full touchscreen operation:** Checking can be started without connecting to a computer, convenient and fast.
- ▶ **Supports detection of multiple parameters:** output, energy, flatness, symmetry, field size, etc.
- ▶ **Highly automated:** Automatically corrects temperature and pressure, automatically measures, and stores data in real-time.
- ▶ **Strong battery life:** Built-in rechargeable battery, charged via Type-C interface, can work continuously for 8 hours.
- ▶ **Large storage capacity:** Can store up to 20,000 sets of data.

[Assuming that 1 LINAC needs to store 4 sets of data per day, then 1 MC-Plus can support data storage for up to 13.7 years]

Applications

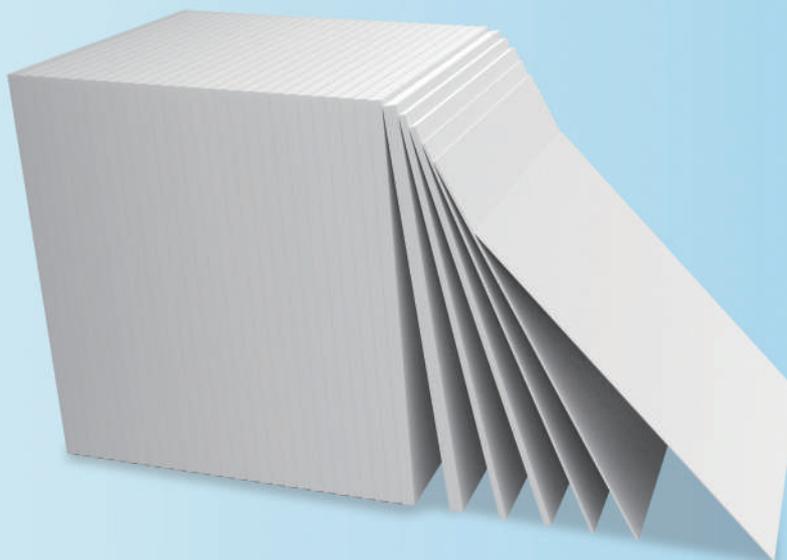


Performance testing

Hospitals can use MC-Plus as a performance testing tool after accelerator maintenance.
Third-party organizations can use MC-Plus as an auxiliary testing tool for maintenance engineers.

Technical Parameters

Detector Type	Ion chamber	Field Size	24cm×24cm
Detector Quantity	245	Max Irradiation Area	26cm×26cm
Sensitive Volume	0.051CC	Dimensions(L×W×H)	392cm×275cm×20cm
Detector Spacing	2.5mm (Min)	Weight	3.5kg
Energy Range	Photons: 4 to 25 MV Electrons: 4 to 22 MeV	Lithium-Ion Battery's Capacity	9200mAh



Product Configuration

Solid Water Phantom (Standard)	Accessories (Optional)
50 mm thick × 1	FC65-G adapter
10 mm thick × 24	CC13 adapter
5 mm thick × 2	PPC40 adapter
2 mm thick × 2	Razor Chamber adapter
1 mm thick × 1	

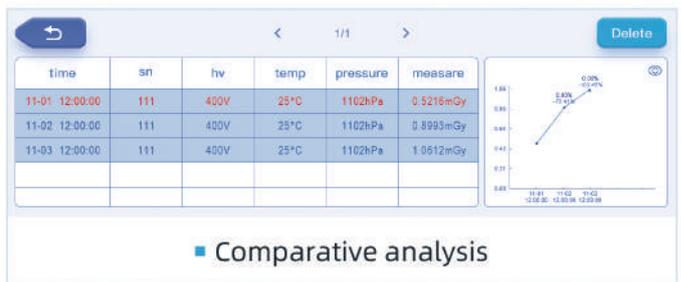
Technical Specifications

Dimensions (L x W)	30 cm×30 cm
Material	MMA + Epoxy Resin Composite
Energy Range	Photon beam: Co-60 to 25 MV Electron beam: 4-23 MeV
Physical Density (g/cm ³)	1.058
Electron Density (/cm ³)	3.510 × 10²³
Relative Electron Density	1.05
Dimensional Tolerance	≤± 0.2 mm

AD-II



- Auto measure and deduct background
- Auto calculate correction factor (temperature & air pressure)
- Auto data storage (Max. ≈ 200)
- The cable is compatible with ionization chamber from IBA, PTW, etc.
- Provide users with calibration certificates



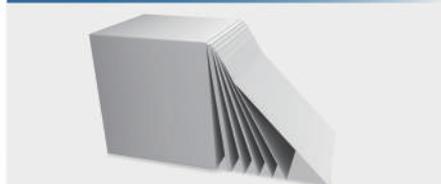
Optional Accessories



Small water tank



Extension cord



BW3 solid water phantom



Ionization chamber

Technical Parameters

Repeatability
±0.2%

Non-linearity
< ±0.2%

Long-Term Stability
< ±0.3%

Leakage Current
±10fA, typical 1fA

Dimensions(LxWxH)
290.5mmx227.7mmx113mm

Weight
2.55kg

Max Storage
200

Range
Charge: 2nC-20mC
(0.1 pC resolution)
Current: 2pA-200nA
(0.1 pA resolution)

Q-BOX



- ➔ A powerful assistant for accelerator QA
- ➔ Help you achieve efficient testing

Light and Radiation Field Detection



FieldBoard

Size: 250mm×250mm×12mm
 Max Field Size: 20cm×20cm
 Material: ABS
 Purpose: Detect the coincidence of the light field and radiation field of the linac

Isocenter Detection



IsoCube

Size: 50mm×50mm×50mm
 Material: ABS
 Purpose: Detect the imaging isocenter of the linac



IsoPointer

Size: Ø6mm×146mm
 Material: 45 Steel
 Purpose: Detect the mechanical isocenter of the linac

Pressure & Temperature Measurement



Barometer

- Pressure Range: 800-1060hPa, Accuracy: 1hPa
- Temperature Range: -10~40°C, Accuracy: 1°C
- Purpose: Measure air pressure and temperature



Probe-type Thermometer

Range: -20 - 300 °C
 Purpose: Measure water temperature

Laser Positioning



Laser Positioning Plate

Size: 90mm×90mm×2mm
 Material: ABS
 Purpose: Verify laser positioning accuracy



Laser Positioning Plate Tray

Size: 100mm×60mm×12mm
 Material: Aluminum
 Purpose: Secure laser positioning plate and IsoPointer

Ruler



Non-magnetic Spirit Level

Length: 40cm
 Purpose: For level measurement



Magnetic Spirit Level

Length: 20cm
 Purpose: For level measurement



Plastic Ruler

Length: 31cm
 Purpose: For distance measurement



Steel Tape Measure

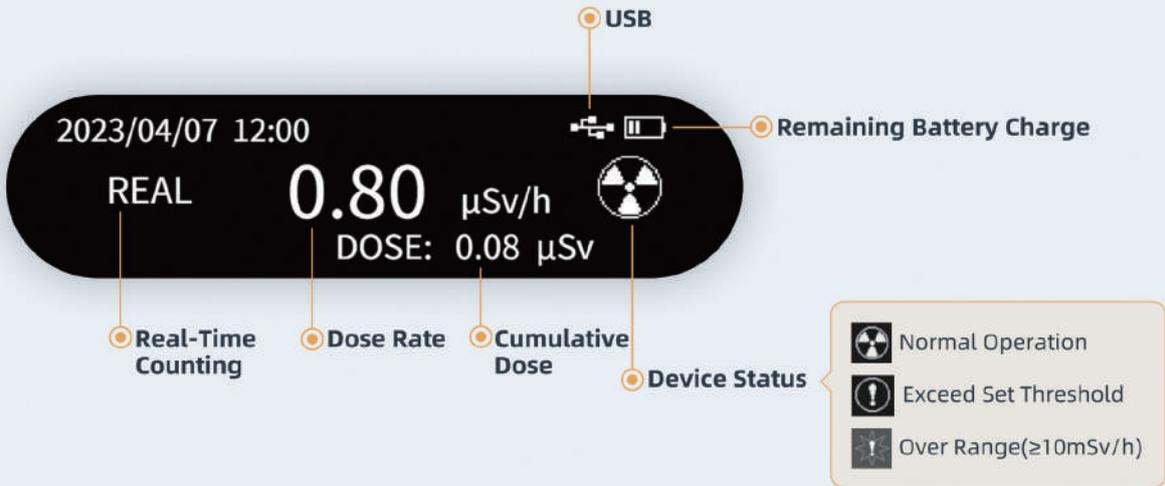
Length: 3m
 Purpose: For distance measurement

Power Strip



Power Strip

Purpose: To power multiple devices simultaneously



Detector Type

Geiger-Muller Tube.

Dimensions (With Clip)

130mm×23mm×19mm(L×W×H)

Measurement Range

Dose Rate: 0.10 $\mu\text{Sv/h}$ - 10.00 mSv/h
 Cumulative Dose: 0.00 μSv -99.99 Sv

Auto Counting and Date Storage

Can store up to 150 sets of data.

Maximum Standby Time

240 hours



Automatic Measurement

Automatic measurement of dose equivalent and dose equivalent rate, with real-time display of dose rate, cumulative dose for the day and total cumulative dose.

Audio Alarm

If the cumulative dose/dose rate exceeds the set threshold, the IAD-I will sound an alarm.

Timing Mode

IAD-I can measure the cumulative dose within a set period of time, with a maximum continuous measurement duration of 99.9 hours.

Other settings

Can set date and screen rest time.

Dose limits for different user groups

Dose limits for radiation industry personnel

Continuous 5-year average annual effective dose	20mSv
Effective dose for any single year	50mSv

Dose limits for public members

Annual effective dose	1mSv
If the 5-year average annual effective dose does not exceed 1 mSv, then the annual effective dose for any single year can be 5 mSv.	5mSv

Source: "Basic Standards for Ionizing Radiation Protection and Radiation Source Safety (GB18871-2002)"

Radiation sources and doses present in daily environments

Type	Dose levels
Cosmic radiation	0.4mSv/year
Watching TV for 2 hours per day	0.01mSv/year
Smoking 20 cigarettes per day	0.5-1.0mSv/year
Wearing a luminous watch	0.02mSv/year
One chest X-ray examination	0.1mSv
Taking a flight of 2000km	0.01 mSv

Source: China Society of Radiation Protection



For medical physicists

IAD-I is your right assistant for monitoring dose value at any time. Once the dose value exceeds the set threshold, it will immediately trigger an audible and visual alarm. When you enter an unfamiliar accelerator room or approach individuals/objects that may have radiation sources, you can switch the IAD-I to timing mode to record the cumulative dose in a short period of time. Furthermore, you can also regularly utilize IAD-I for cumulative dose statistics, data analysis, and formulation of self-protection measures.



For the general public

IAD-I can not only help identify radiation dose levels in the environment, but can also be used in a wide range of scenarios, such as oil fields, mines, chemical plants, nuclear power plants, and laboratories. Whether you are a worker in a radiation environment, a pregnant woman, or a homeowner who has just finished renovating, you can benefit from it. In addition to these specific groups, IAD-I also has daily functions, including detecting radiation contamination in food and items, and monitoring radiation dose values in the environment in real time to ensure your safety and health.



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