RAYSCAN ALPHA PLUS

01 Visible X-ray Guide

The user can conveniently adjust the FOV according to the purpose of the treatment

02 Image Processing Technology

70μm voxel size (4cm diameter) and 6 second reconstruction time (16cm diameter)

03 Specialized for Endodontic Procedures

- Voxel size: 70μm
- Minimum FOV: 4x3cm

04 Fast Scan View a CT Image in Less than 10 Seconds

- Ideal for immediate implant placement validation
- Scan time: 4.9 seconds
- Reconstruction time: 4 seconds
- More accurate, faster, and lower dose than a panoramic acquisition

05 One Shot Ceph

- Fast acquisition to reduce patient movement and image distortion
- Minimize patient dose with a 0.3 second exposure

06 Panoramic

The state of the art technology for high-definition image quality

07 Wireless remote control

Non-directional wireless remote control facilitates
your patient positioning easier than ever

08 Various options for your practice

- 13x10cm or 16x10cm maximum FOV options
- 3 different cephalometry options including One Shot Ceph

& Rayguard Protection

Real-time monitoring to ensure optimal functionality

01 Visible X-ray Guide

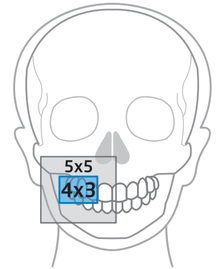
See where you focus
Light guided free FOV

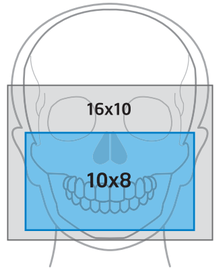
Visible X-ray Guide indicates the location of the area to be scanned.

The user can conveniently adjust the FOV according to the purpose of the treatment.

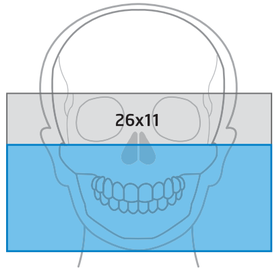
Dose Reduction

CBCT

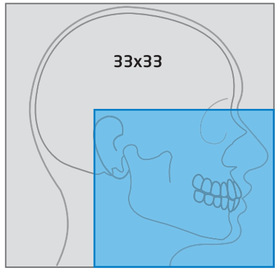




Panoramic



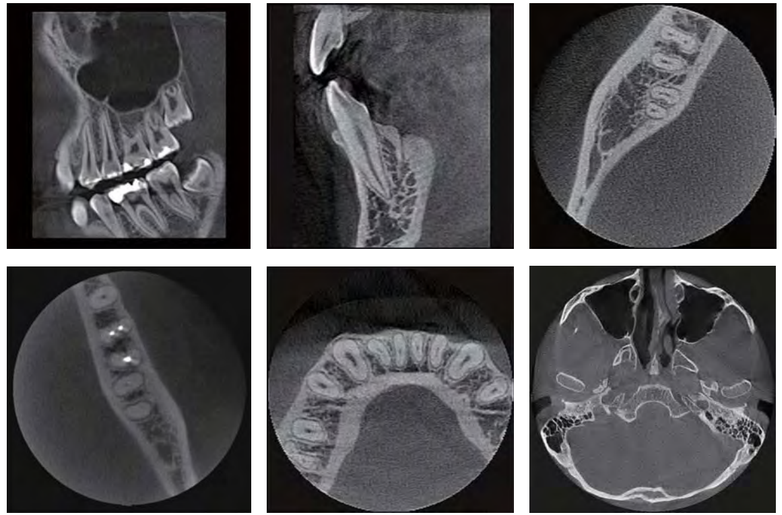
Cephalometric



01 Visible X-ray Guide - Free FOV

The user gets the right image the first time
and makes it more comfortable for the patient.

Consistently easy to position the patient for any image.
Choose the appropriate size for any procedure.
Keep the ALARA principle and reduce liability.

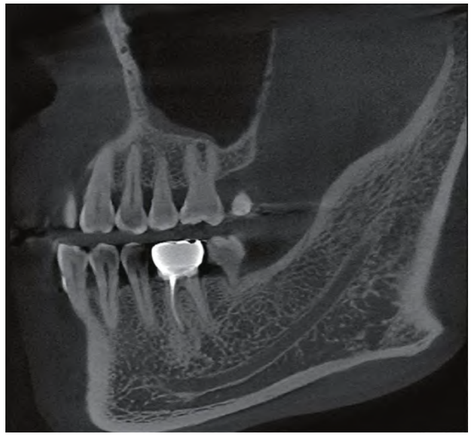


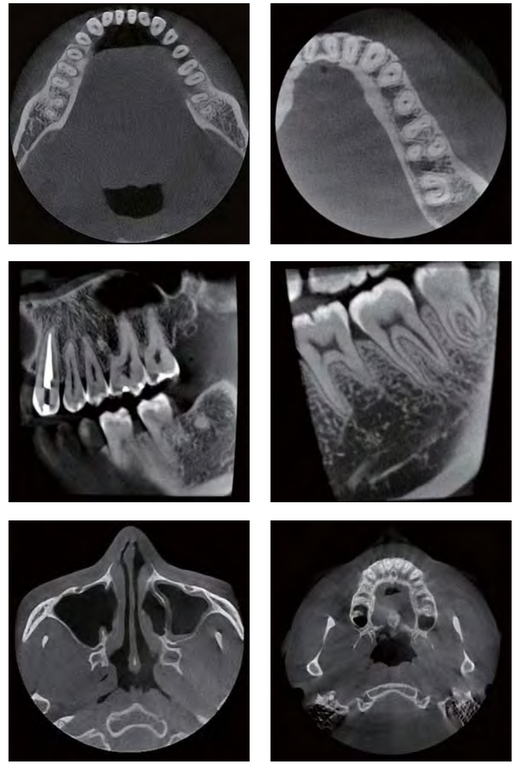
02 Image Processing Technology

When you need to scan faster···
Down to 4.9 second scan and 4 second 3D reconstruction !

When you need to see more detail···
Up to 70 μm with a focused field of view !

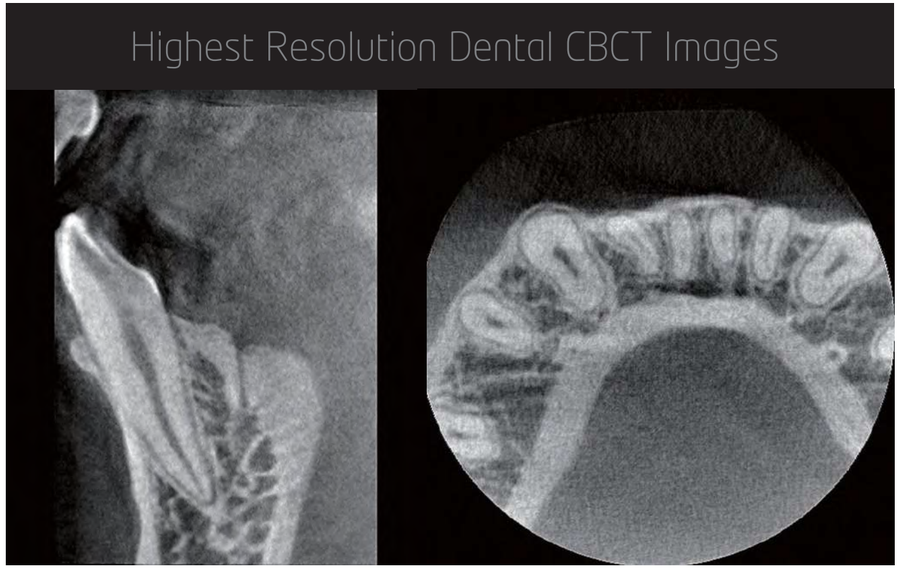
When you need to see more anatomy···
Up to 16 cm diameter field of view reconstructed in 6 seconds !





03 Specialized for Endodontic Procedures

Scan and reconstruct at 70 μm with a focused field of view for precise endodontic cases

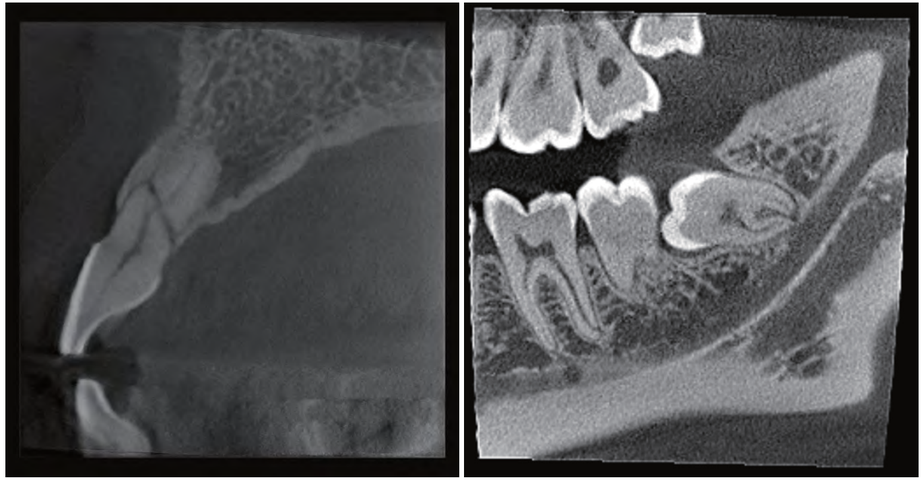


More Detail, More Confidence, More Procedures

See more detail using a high-resolution CT image in a specific area.

Have more confidence before, during, and after the procedure with increased awareness.

Do more procedures in less time.



04 Fast Scan View a CT Image in Less than 10 Seconds

Scan your patients faster than ever before!

"66% faster scans" is ideal for implant placement validation and for patients that cannot hold still.

"Fast scan mode" radiation dose is only **22.9 µSv**

2D Panoramic	3D Alpha Plus (Fast scan mode)
18s	**9.9s**
14 second scan, 4 second image processing & save	4.9 second scan, 4 second reconstruction, 1 second save

VS

Fast scan
4.9 seconds

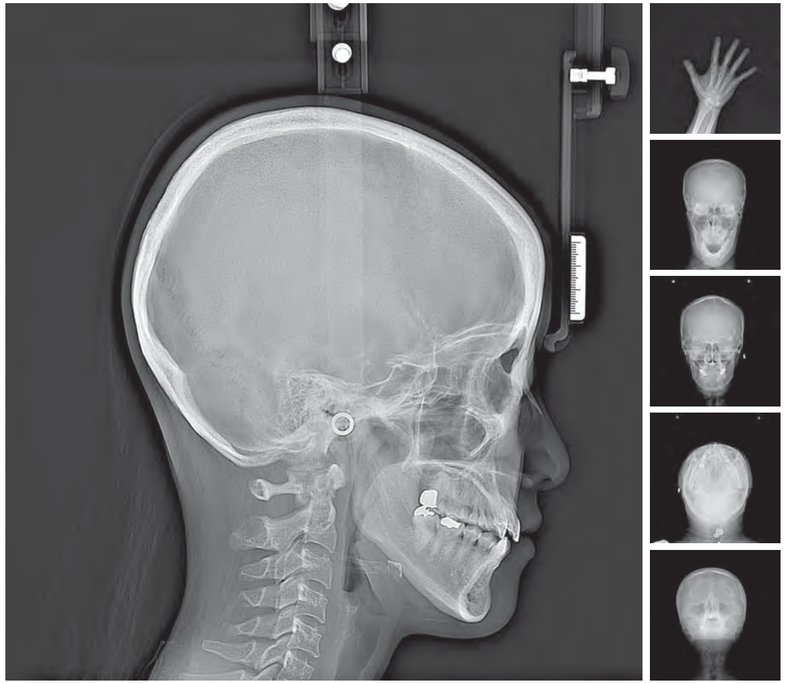
3D Reconstruction
4.0 seconds

Save
1.0 second

Total time
9.9 seconds

05 One Shot Ceph

One Shot Cephalometric Imaging acquires images in less than
1 second to reduce image distortion !



Choose from two sizes of one shot cephalometric sensors.
A scanning ceph is also available for a smaller overall unit footprint.

One Shot Cephalometry

Our cutting-edge Flat Panel Detector(FPD) provides a new level of performance and reliability while reducing radiation exposure and image distortion due to patient's movement. Two different sizes of FPD are available.

Scanning Cephalometry

Our scanning ceph module allows clinicians to upgrade their diagnostic capabilities while keeping costs to a minimum.

05 One Shot Ceph

Longer exposure times can result in greater movement during acquisition of cephalometric radiographs. Because patient movement was more significant in children, a shorter exposure time is recommended in order to get a good quality cephalometric image for pediatric patients.

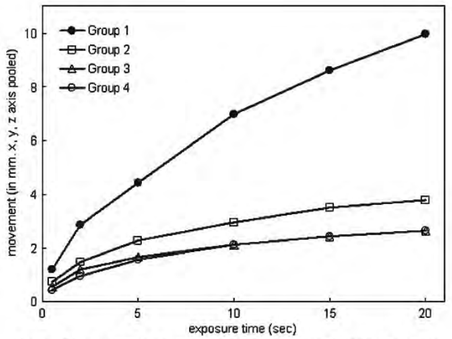


Fig 5. The amount of the subjects' movements. The youngest group shows larger increasing proportion of the movements compared to other groups.

Group 1 : 9 to 12 years old
Group 2 : 13 to 19 years old
Group 3 : 20 to 25 years old
Group 4 : 26 to 30 years old

Group 1 represents
the main patients of orthodontic treatment and should not be imaged with a scanning ceph due to risk of patient movement.

"**Quantitative Evaluation of Patient Movement during Simulated Acquisition of Cephalometric Radiographs**",
Kyung-Hoe Huh, Erika Benavides, Young-Tak Jo, Bo-Ram Choi, Won-Jin Yi, Min-Suk Heo, Sam-Sun Lee, and Soon-Chul Choi,
Journal of Digital Imaging, Vol 24, No 3 (June), 2011: pp 552Y559

Small variations (1 to 2 mm) in the identification of certain landmarks can lead to different angular measurements. Regarding diagnosis, in 56% of the cases skeletal classification was changed and in 52% of the cases malocclusion classification was altered, after evaluating the LCR.

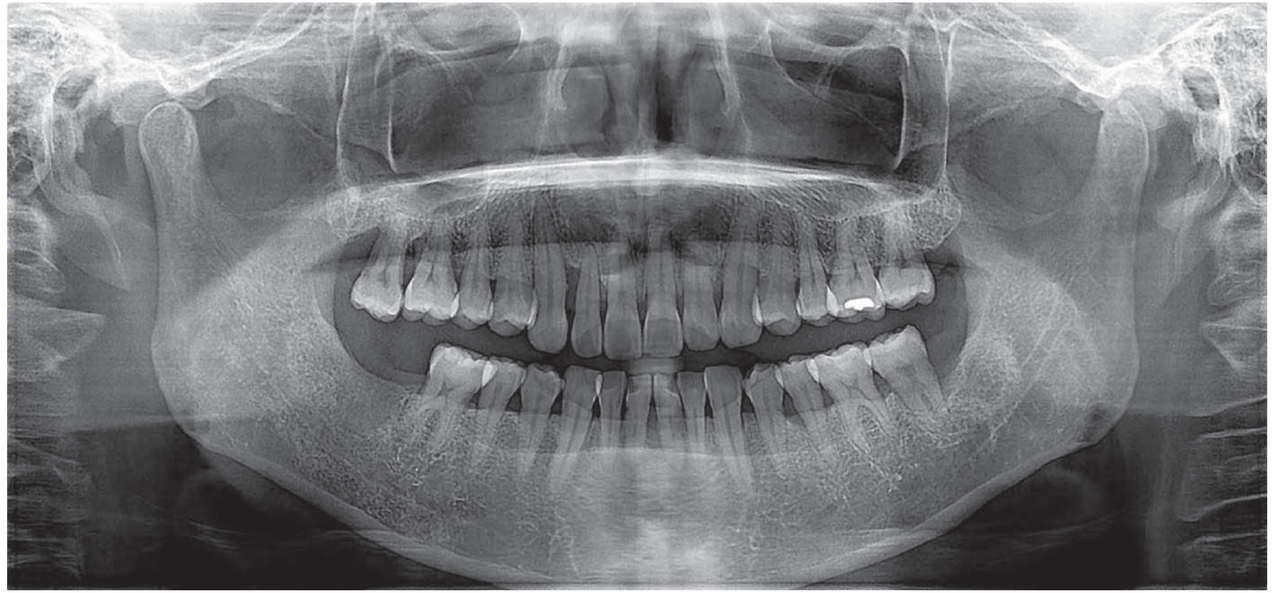
Fig 1. The subject positions at the digital lateral cephalometric X-ray equipment.
The optical marker is attached to the subject's chin.

Fig 2. Optical tracker (Polaris Vicra System, Northern Digital, Waterloo, Canada).

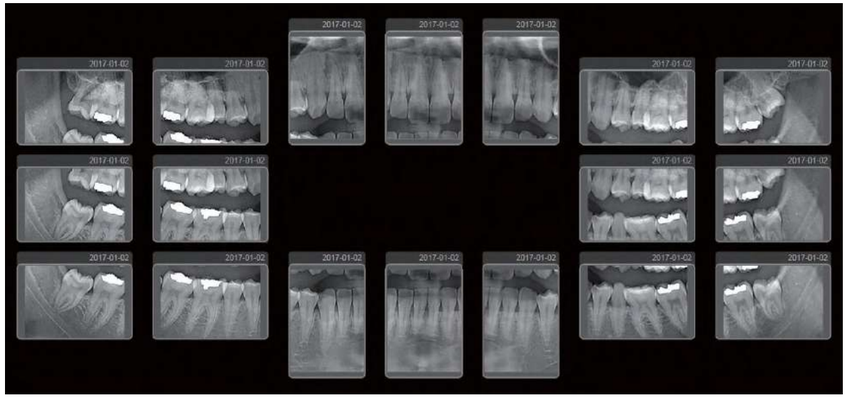
"**The influence of using 2D cephalometry on orthodontic treatment outcome**"
Conference: 14th Congress of the European Academy of Dento-MaxilloFacial radiology, At Cluj-Napoca

06 Panoramic

The state of the art technology for high-definition image quality



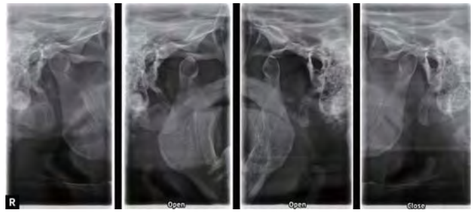
FMX(Full Mouth X-ray), extracting from a panoramic image



Bitewing

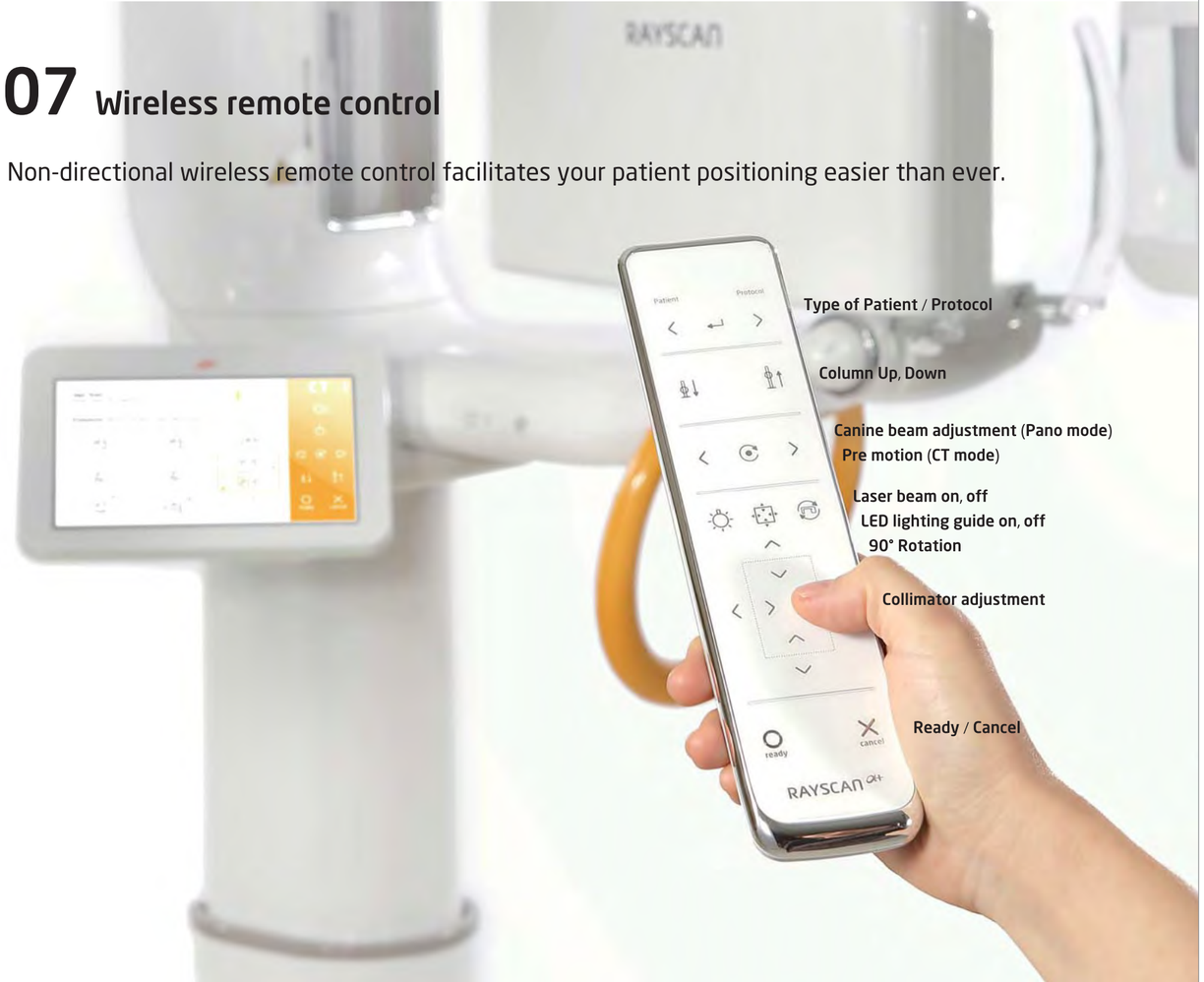
Orthogonal

TMJ



07 Wireless remote control

Non-directional wireless remote control facilitates your patient positioning easier than ever.



08 Various options for your practice

13x10cm or 16x10cm maximum FOV options
3 different cephalometry options including One Shot Ceph

Specifications are subject to change without prior notice.

RAYSCAN α+ (Model : RCT700)

Type	Panoramic, Cephalometric, Cone Beam CT
Patient positioning	Standing (wheelchair accessible)
Focal spot	0.5
Tube current	4~17mA
Tube voltage	60~90kVp

	α+ 160	CBCT	Panoramic	α+ 130	CBCT	Panoramic
Detector type		CMOS	CMOS		CMOS	CMOS
FOV / Image size		Max. 16x10cm	Max. 15cm (H)		Max. 13x10cm	Max. 14.4cm (H)
Free FOV support		Yes	Yes		Yes	Yes
Voxel size		70~400μm			70~400μm	
Exposure time		4.9~14sec	6.2~13.9sec		4.9~14sec	6.2~13.9sec

	Cephalometric (Option)		
Type	SC (Scanning Ceph)	OCL (One shot Large)	OCS (One shot Standard)
Detector type	CdTe detector	a-Si TFT	a-Si TFT
Image size	Max. 26x24cm	Max. 33x33cm	Max. 30x25cm
Exposure time	3.7~18.2sec	0.2 / 0.3 / 0.5sec	0.3 / 0.8sec

Real-time IoT Service

- RAYSCAN for 24/7 monitoring
- Real-time healthy check & Preventive alerts
- Remote upgrade for the latest software and firmware

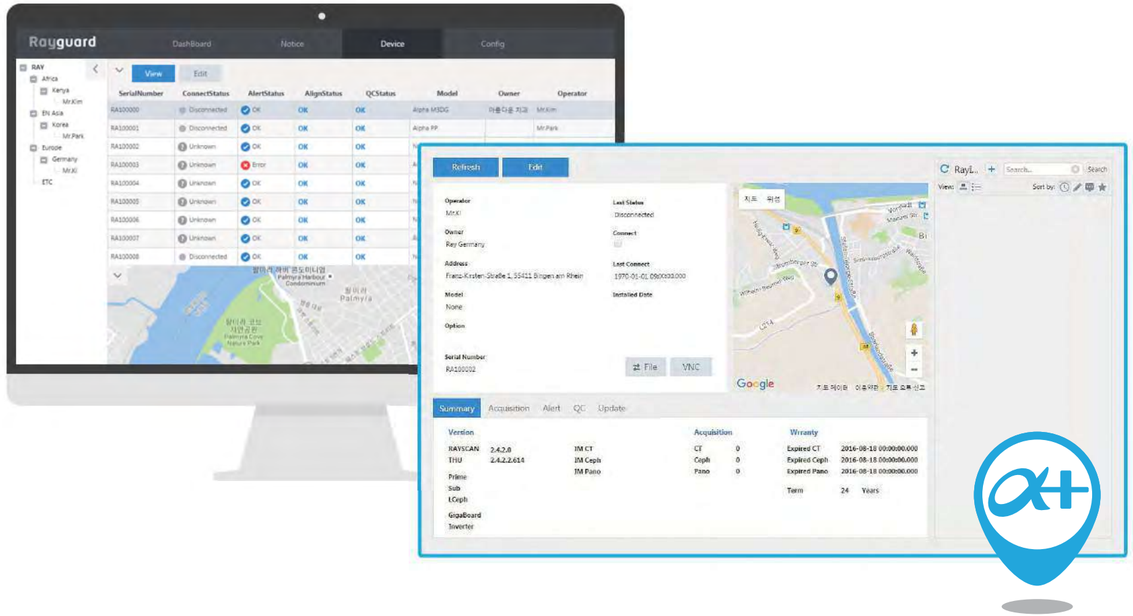
No matter where you are

Rayguard IoT

& Rayguard Protection

Real-time monitoring to ensure optimal functionality

Rayguard is a real-time monitoring service to take care of your RAYSCAN 24/7.
It provides peace-of-mind by resolving your issues before you even reports it.
What you get is immediate technical support.



IDEA BRONZE

REDDOT WINNER

GD BEST OF BEST

GD AUSTRALIA

RBS-AP03 (rev.1)

Design and specifications
are subject to change
without notice

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Ray Digital solution

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or contact your local representative.