

# AeroDR 3 accessories



KONICA MINOLTA

## AeroDR Battery Charger2



Power	AC 100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 V ± 10% Single Phase 50 / 60 Hz
External dimensions ( W×D×H )	474.2×200×206.7mm (18.7×7.9×8.1 inches)
Weight	6 kg (13.2 lb)

## Power Supply Unit



External dimensions ( W×D×H )	185×105×150mm (7.3×4.1×5.9 inches)
Weight	2.0kg (4.4 lb)
Power requirements	AC 100–240 V±10% Single phase 50/60 Hz
LAN interface	3 ports

## Detector Interface Unit



External dimensions ( W×D×H )	60×130×22mm (2.4×5.1×0.9 inches)
Weight	0.3 kg (0.7lb)
Power requirements	AC 100 V-240 V ± 10 %, single phase, 50/60 Hz
LAN interface	1 port

## Interface Cable 3

Length	8m (315 inches)
Weight	1.0 kg (2.2lb)

## Generator Interface Unit3

Power requirements	When the AC adaptor is used : Supplied from the dedicated AC adaptor. When the Power Supply Unit is used : Supplied from the Power Supply Unit via the Ethernet cable.
Power Supply when using the dedicated AC adaptor	AC 100V –240V ± 10%, Single phase, 50/60 Hz
Power consumption when using the dedicated AC adaptor	Approx. 72VA (100-240V)
External dimensions ( W×D×H )	195×150×43 mm ( 7.7×5.9×1.7 inches)
Weight	1.0 kg (2.2 lb)
Dedicated AC adapter specifications	Dimensions : 78×50×35 mm (3.0×2.0×1.4 inches) ※excluding wall mount & cable Weight : 180g (0.4 lb) Input : AC 100V - 240V 0.6A-0.3A, Single phase, 50Hz - 60 Hz Output : DC 5V, 3A Safety : IEC60601-1 ClassII

WIRELESS DIGITAL RADIOGRAPHY SYSTEM

# AeroDR 3

## 1417S

\*3 AeroDR SYSTEM 3 is the commercial product name of SKR 3000. \*4 AeroDR 3 1417S is the commercial name of P-53 of SKR 3000. \*5 There is one pixel size type. \*6 DQE value is typical value. \*7 Typical value at 1x1 binning. \*8 Dead loading does not give affection to processed image or panel. Robustness against loading of AeroDR 3 1417S does not provide any guarantee that it will not be damaged or broken. \*9 The waterproof and dustproof performance of AeroDR 3 1417S does not provide any guarantee about perfect resistance and does not guarantee that it will not be damaged or broken. \*10 Specifications may vary depending on system that AeroDR 3 1417S is connected to an X-ray generator. \*11 Assuming that the AeroDR 3 1417S is connected to an X-ray generator and to CS-7 image processing workstation, the interval between studies is 5min, and 3 images are captured in each study. ★Specifications are subject to change without prior notice.



# Advanced model with unwavering reliability

The AeroDR lineup, which responds to the "Want to see" needs of customers around the world, now includes the new AeroDR 3 1417S. The evolved platform and low electrical noise design delivers higher image quality and greater robustness than previous models. AeroDR 3 1417S is designed for ease of use and can meet the needs of a wide range of medical practices.

- Standard 150 μm, Low Dose and High Image Quality
- Strong Load Capacity
- IP56 Waterproof and Dustproof
- Antibacterial Carbon SMC Enclosure

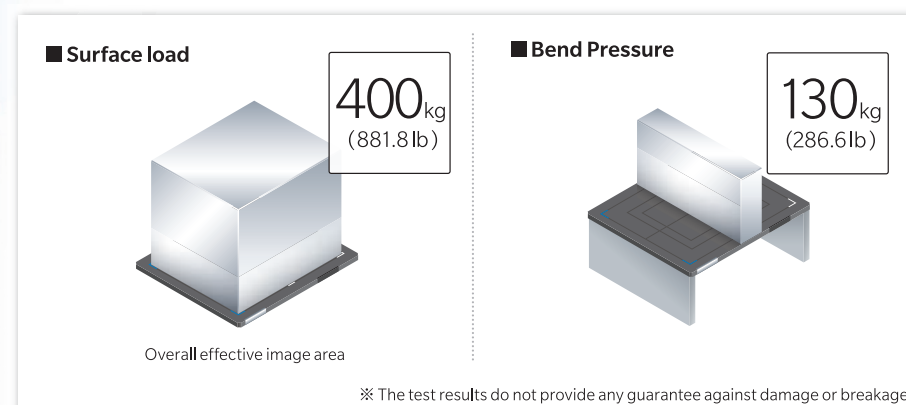


## Easy grasping for users in all situations

An easy-to-grasp panel helps support the operator's work in a variety of X-ray examination situations. It can reduce the stress of operators who may experience fatigue after use or anxiety of dropping the panel.



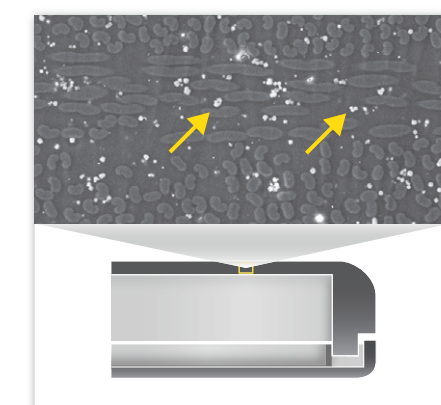
Grip design for easier handling



※ The test results do not provide any guarantee against damage or breakage.

## Reliable load bearing performance

The layout in the housing structure has been optimized for every load situation. The detector is equipped with a high load capacity to withstand various examination situations.



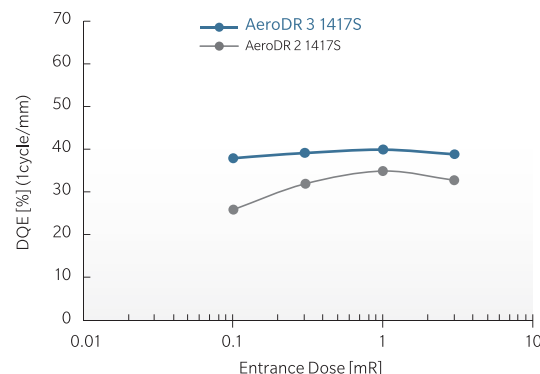
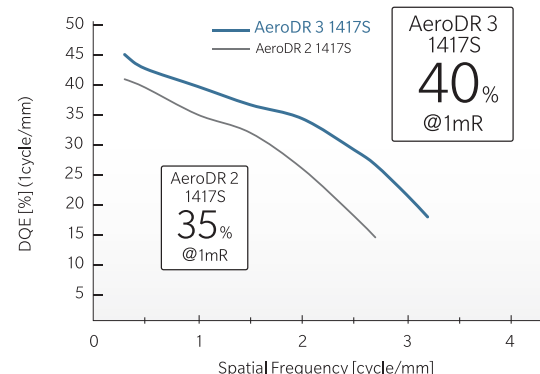
## Antibacterial carbon enclosure

An antibacterial material containing Ag (silver) is kneaded into the enclosure material of AeroDR 3 1417S. The antibacterial agent is evenly dispersed in the material in the thickness direction. Antibacterial property is not lost due to scratches in daily use.

As a disinfectant solution for the AeroDR 3 detector, up to 1% concentration of sodium hypochlorite solution can be used. The body surface shows no deterioration even when using a high-concentration disinfectant solution to wipe soil of patient's blood or urine.



- <Available disinfectant>
- Ethanol for disinfection
  - Isopropanol for disinfection
  - Commercial chlorine bleach, or 1% Hypochlorite (5-fold dilution of household bleach)



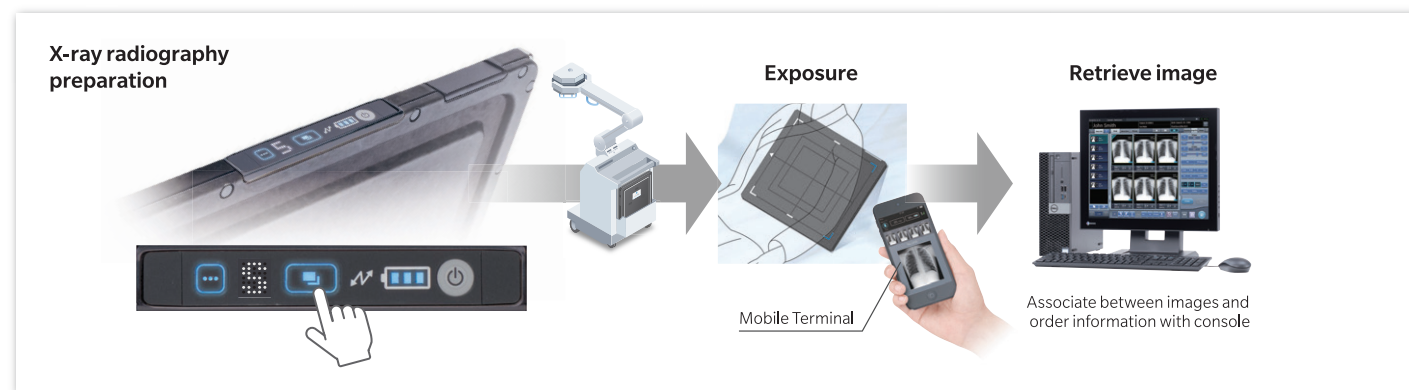
## Compliant with IP56 waterproof/dustproof standard

Compliant with the IP56 waterproof/dustproof standard. By adopting a structure where a packing is inserted between the front and back exterior plates, it is easy to maintain the waterproof structure even when subjected to shocks such as drops.

# Various functions to support radiography operations

## Aero Storage

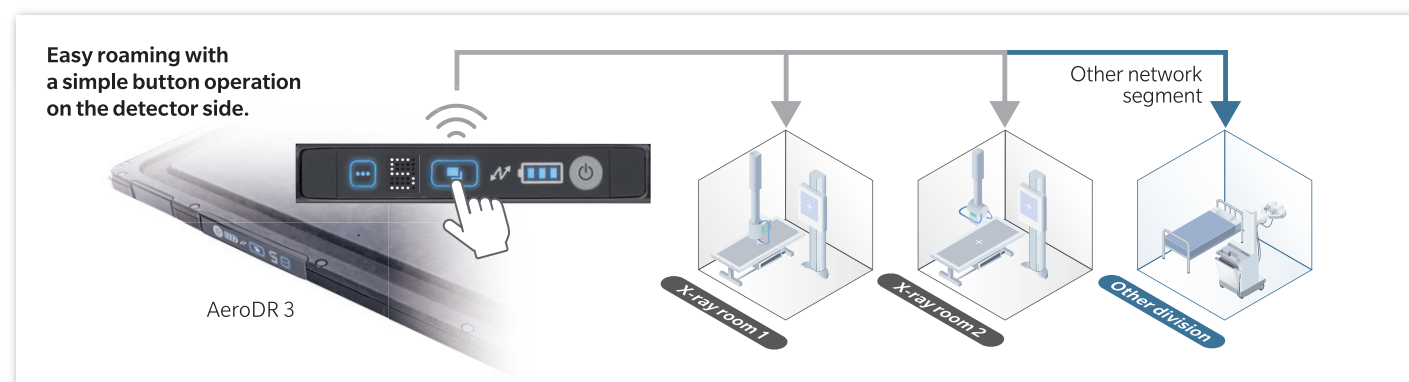
Equipped with the Aero Storage function that enables mobile X-ray imaging on the detector alone. Up to 100 images can be stored inside the detector and easily exported to the CS-7 console after performing radiography to match them with patient information. When combined with the optional Mobile Terminal, the detector's status and captured image previews can be checked on hand. This solution is ideal for users who want take small volumes of images quickly.



※ This function is optional for AeroDR 3 1417S. It can be used with a license sold separately.

## AeroDR 3 Panel Roaming

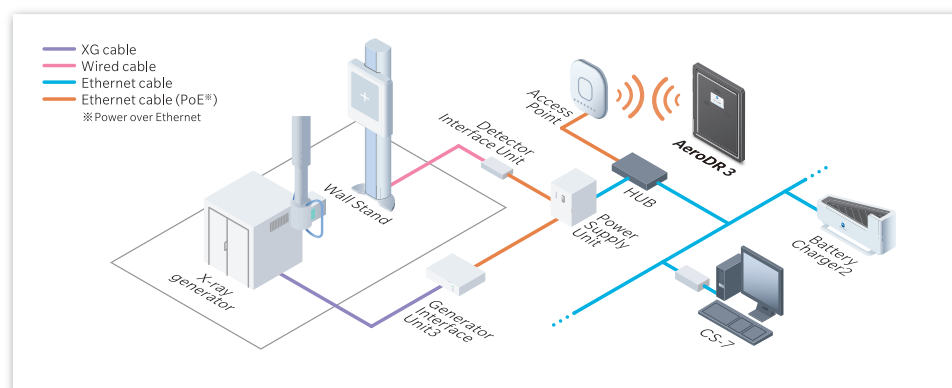
The roaming function for sharing the AeroDR detector among multiple X-ray rooms has evolved. Roaming can be easily set with a simple button operation on the detector side. The backup of the detector between X-ray rooms and the sharing of the detector with mobile devices enable more efficient panel operation.



※ This function can be used only for CS-7.

## System configuration

■ **In-room solution** : It is possible to digitally upgrade your X-ray room without changing the existing X-ray devices. In addition, since the accessories are common to the previous AeroDR3, the system can be easily expanded.



## "Positioning-i" to support positioning judgment

AI<sup>※</sup> supports general radiography operations. Two positioning judgment support functions help to reduce the number of re-radiography shots and improve operational efficiency.

### ■ Positioning accuracy judgment

AI detects the amount of misalignment at key positioning points and supports the judgment for re-radiography.

### ■ Error detection (right/left, AP/PA)

AI detects inconsistencies between the order information and the image.

※ Deep learning, an AI technology, was employed in the design. The performance and accuracy of this function will not automatically change after installation. When a judgment result is displayed by the positioning judgment support function or the right/left, AP/PA judgment support function, be sure to check the image before re-radiographing.

■ Positioning accuracy judgment

Positioning: A or B or C  
Misalignment: ▲▲mm

Realizes standardization of re-radiography criteria and reduction of decision-making time.

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■ Right/left error detection

Order: Right Knee Joint-LAT

Judgment of direction

OK NG

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■ AP/PA error detection

Order: PA Chest Upright

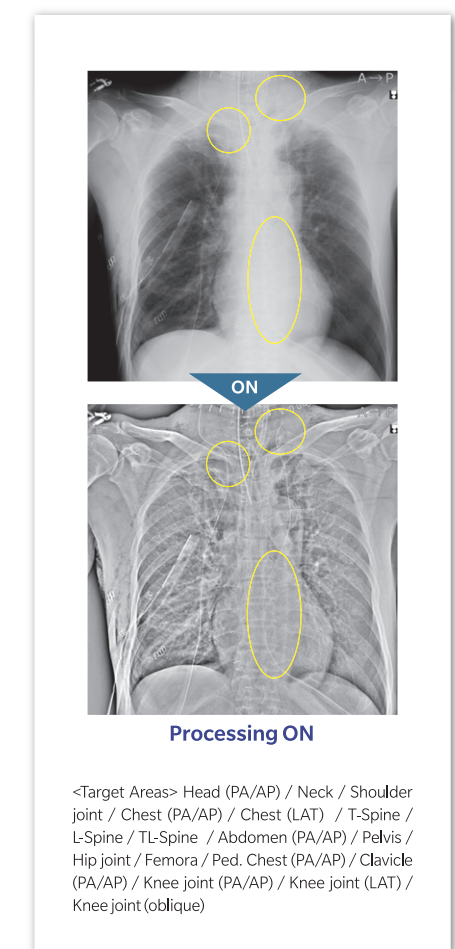
Judgment of direction

OK NG

Prevents diagnosis with images that differ from the order.

## Tube and Gauze Image Enhancement

This image processing is specially designed to make it easier to check the remaining objects in surgical imaging and to confirm the position and route of the catheter tip. Objects that are difficult to detect with normal image processing can be highlighted.

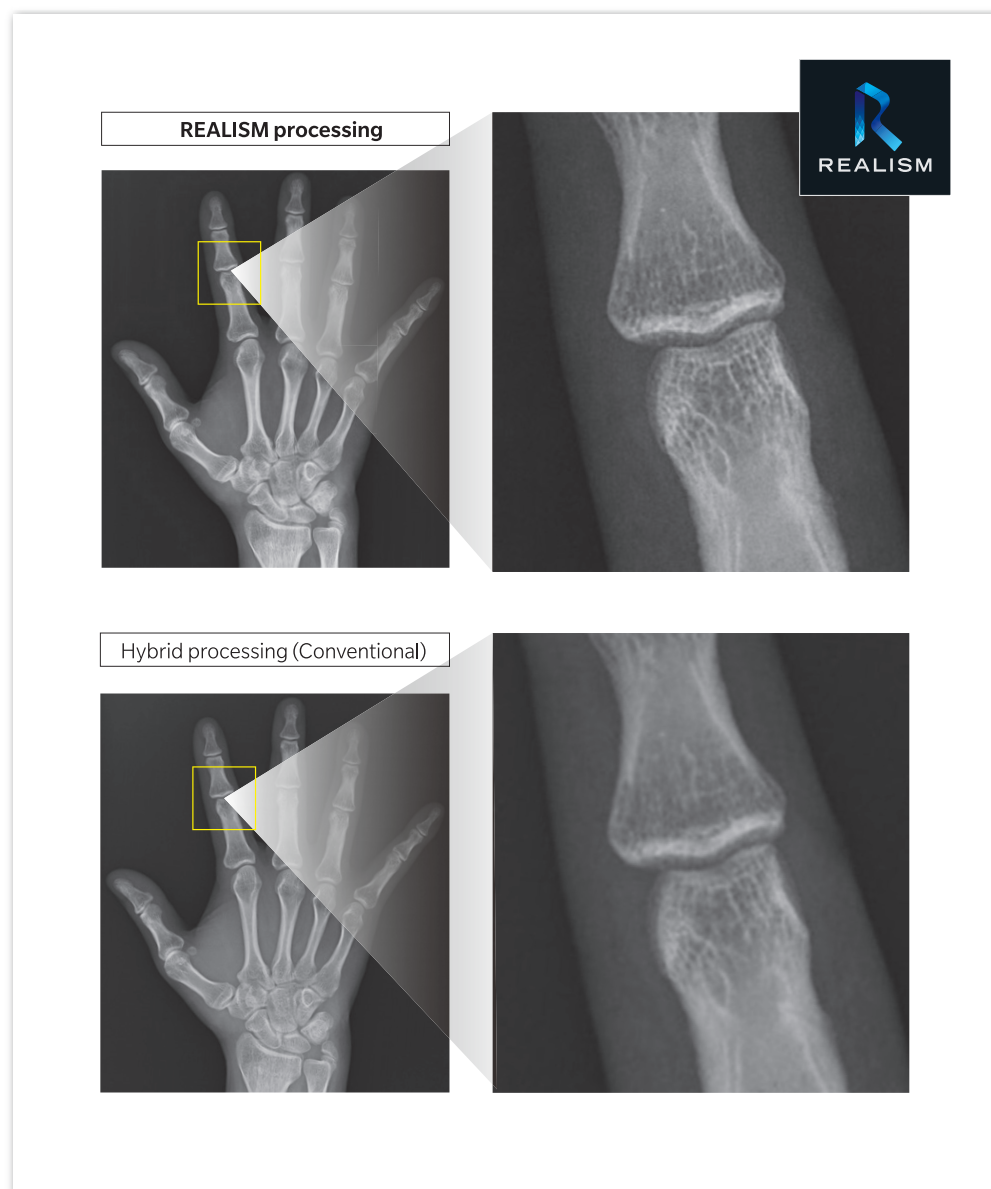


This function is optional for CS-7. It can be used with a license sold separately.

# Image Processing Engine "REALISM"

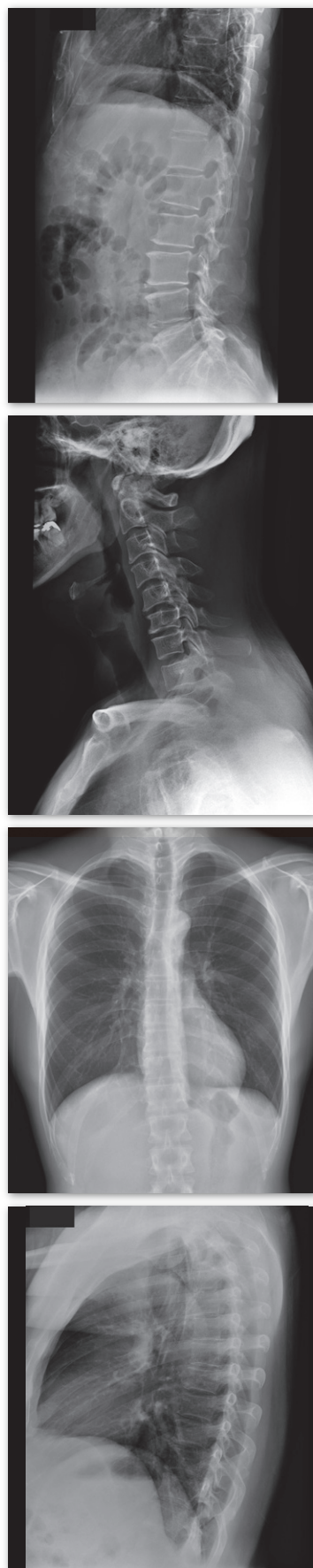
# AeroDR 3 1417S & CS-7 Specifications

"REALISM" is an image processing engine developed to maximize the image quality performance of AeroDR 3. Thanks to its improved frequency enhancement processing, it can more faithfully depict both low and high frequency regions, and realistically produce images of fine structures such as bone trabeculae and of thick body parts.



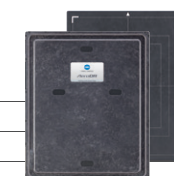
## Maintaining contrast while depicting the whole image more clearly

With improved dynamic range compression processing and newly introduced LUT, stereoscopic images are provided by expressing individual structures from low-dose to high-dose regions.



## AeroDR SYSTEM 3 \*3

<b>Product name (model name) *4</b>	AeroDR 3 1417S (P-53)
<b>Detection method</b>	Indirect conversion method
<b>Scintillator</b>	CsI (Cesium Iodide)
<b>External dimensions (W×D×H)</b>	384 × 460 × 15mm (15.1 × 18.1 × 0.6 inches)
<b>Weight</b>	2.5kg (5.5lb)
<b>Pixel size *5</b>	150μm
<b>DQE 1mR, RQA5 *6</b>	40% (1 cycle/mm)
<b>MTF *7</b>	62% (1 cycle/mm)
<b>Image area size</b>	345.6mm × 420.0mm (13.6 × 16.5 inches) 2,304 × 2,800 pixels
<b>AD conversion</b>	16bit (65,536 gradients)
<b>Usable grid frequency</b>	40lp / cm
<b>Antibacterial</b>	An inorganic antibacterial agent kneaded into the exterior material
<b>Communication</b>	Dedicated wired ethernet connection / Wireless LAN (IEEE802.11a / IEEE802.11n compliant)
<b>Wireless LAN encryption</b>	Wireless encryption method : AES / Authentication method : WPA2-PSK
<b>Auto Exposure Detection (AED)</b>	Available (AeroSync)
<b>Durability</b>	400kg overall effective image area
<b>Surface load *8</b>	IPX6 including power cell
<b>Waterproof *9</b>	IP5X including power cell
<b>Dustproof *9</b>	
<b>Cycle time (with CS-7) *10</b>	Approx. 4s with dedicated wired connection Approx. 5s with wireless LAN connection
<b>Battery performance</b>	Same as the life time of AeroDR 3 1417S main body
<b>Expected product life time</b>	Approx. 150 images / 4.1h (150μm with wireless LAN connection)
<b>Operating time *11</b>	
<b>Recommended storage and usage environment condition</b>	When operating: (Temperature) 10 to 35°C (50 to 95°F) (Humidity) 35 to 85% RH (ensure no water condensation) (Atmospheric pressure) 700 to 1060 hPa  When not operating: (Temperature) -10 to 40°C (14 to 104°F) (Humidity) 20 to 90% RH (ensure no water condensation) (Atmospheric pressure) 700 to 1060 hPa  In storage / transport : (Temperature) -20 to 50°C (-4 to 122°F) (Humidity) 20 to 90% RH (ensure no water condensation) (Atmospheric pressure) 700 to 1060 hPa  * However, performance warranty period when storing at 50°C is 6 months after packing.



## Control Station CS-7

<b>Image processing</b>	Auto-gradation processing, Frequency processing (F processing), Equalization processing (E processing), Hybrid processing (HF processing - HE processing), Hybrid smoothing processing (HS processing), REALISM processing, Grid removal processing, Automatic exposure field recognition processing, Tube and Gauze image enhancement (option), Intelligent Grid (option), Positioning accuracy judgment (option), Right/left error detection (option)
<b>Image output</b>	Host : max 4 ch / Printer : max 2 ch
<b>DICOM support</b>	DICOM Storage SCU, DICOM basic Grayscale Print Management SCU, DICOM Modality Worklist Management SCU, DICOM Modality Performed Procedure Step SCU, DICOM X ray Radiation Dose SR Storage SCU, DICOM Storage Commitment SCU, DICOM Grayscale Softcopy Presentation State Storage SCU, DICOM Verification SCU, DICOM X-Ray Radiofluoroscopic Image Storage SCU
<b>Readable devices</b>	AeroDR detector, REGIUS SIGMA2
<b>Option</b>	Aero Storage (option)

