Ultimate Portability & Performance
for flawless low dose imaging

EXPRIMER

Best Image Quality with Limitless Performance

EVS A/W Series

DRTECH

For Retrofit & System Integration
Wired detector with ultimate convenience

EVS 4343A
EVS 3643A

Ultimate Image Quality & Performance

Advanced Features

▼ Simple Configuration

Only 2 part hardware configuration for easy installation. By eliminating the SSU(Control Box), detector to X-ray interface is simplified allowing for flexible space utilization and installation.

▼ Fast Image Acquisition Time

Less than 2 Sec. image acquisition time, EVS A-series enhances workflow efficiency with faster patient throughput without sacrificing image quality.
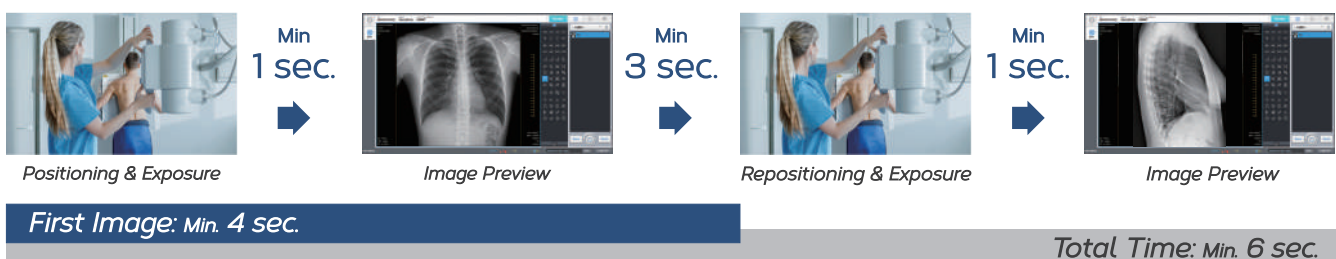
▼ Supports Multi-frame Modality

EVS 4343A is truely a multi-purpose detector supporting three applications. System integrated or integrated into a X-ray system as a multi-frame detector for TOMO and DES applications are available.

▼ Flexi-wired Single LAN Cable Interface
Fast DR upgrade without X-ray generator integration

Single LAN cable connection enables fast and straight-forward installation. Easy and cost effective service is possible with the use of single LAN cable.

Fast Image Acquisition Time for Fast Patient Throughput

| Positioning & Exposure | Min 1 sec. ⇒ | Image Preview | Min 3 sec. ⇒ | Repositioning & Exposure | Min 1 sec. ⇒ | Image Preview |

First Image: Min. *4 sec.*

Total Time: Min. *6 sec.*

EXPRIMER

For Ultimate Portability
Wireless detector with innovative Power Charging Solution

EVS 4343W
EVS 3643W

Ultimate Portability & High Durability

Advanced Features

▼ OLED Display for User Convenience
Easy & Simple Way to Check Detector Status

EVS-W series OLED display provides information for easy visualization of the detector status. The display enables the user to connection status, detector mode status, number of image acquisition, patient information and battery status for increased workflow efficiency.

▼ WPCS* for 24hr Power Management

With WPCS, EVS-W can be used 24 hours a day without the need for a battery change. The Rx module embedded in the detector receives power from the Tx module installed inside the bucky or the wireless power charging cradle allowing for continuous battery charging.

*WPCS: wireless power charging system *(Optional Feature)*

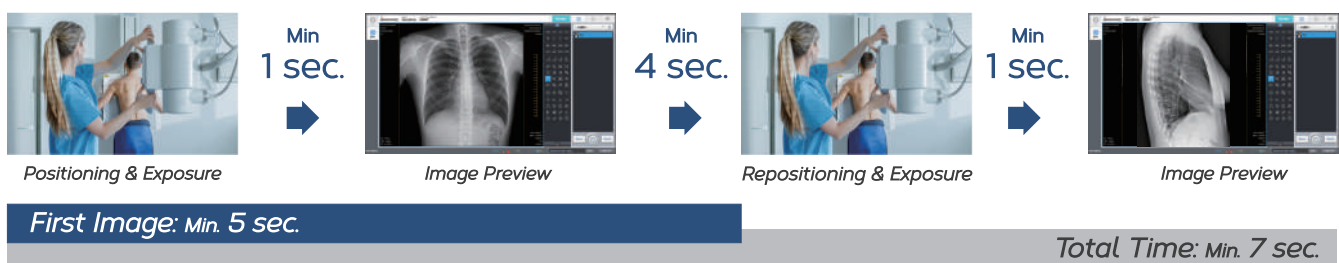### ▼ CR Mode & 3-Button Design
for Ultimate Portability

EVS-W series allows for image acquisition without a workstation. The detector can be connected with a mobile device to ensure that images are being taken correctly to minimize the risk of retakes. With 3 button design, quick mode switch and simply adding patient are available.

▼ Innovative USB C-type Power Charging Solution

With the USB C-type connection technology, image transfer and detector power charging is possible with Single USB C-type cable.

Fast Image Acquisition Time for Fast Patient Throughput

Positioning & Exposure → **Min 1 sec.** → *Image Preview* → **Min 4 sec.** → *Repositioning & Exposure* → **Min 1 sec.** → *Image Preview*

First Image: Min. 5 sec.

Total Time: Min. 7 sec.
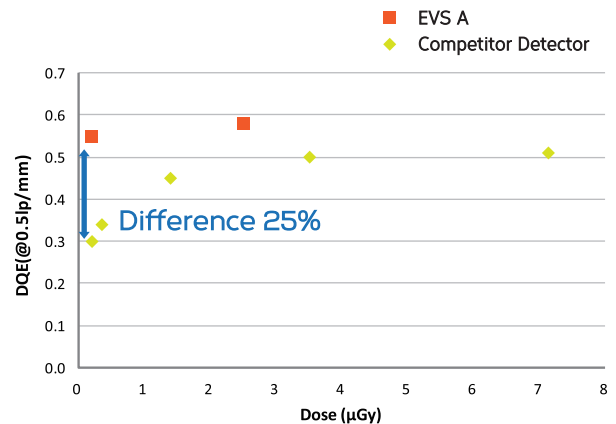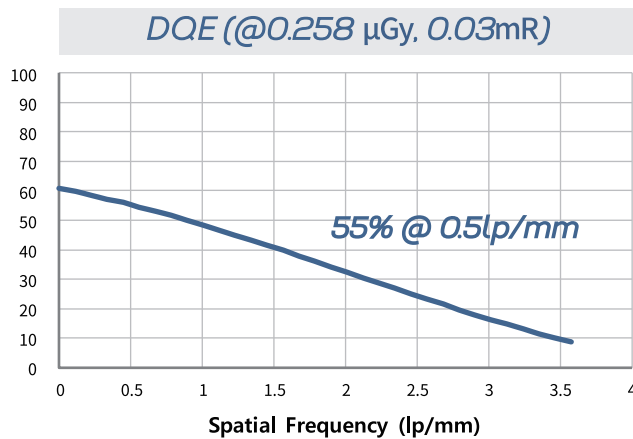
*with optimal Wifi condition

For Higher Level of Diagnostic Imaging

Smarter, Faster and Better Radiography Solution with High Quality Imaging Technology.

High Quality Images with Dose Reduction Technology

High DQE @ Low Dose *enabling low dose imaging*

Designed to achieve high DQE at low doses, EVS A/W Series products create an opportunity for dose reduction without compromising image quality **by Extreme Low Noise Technology.**
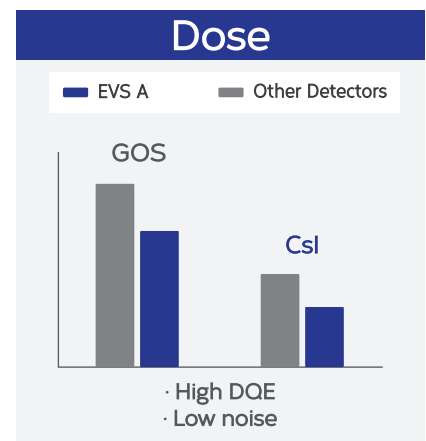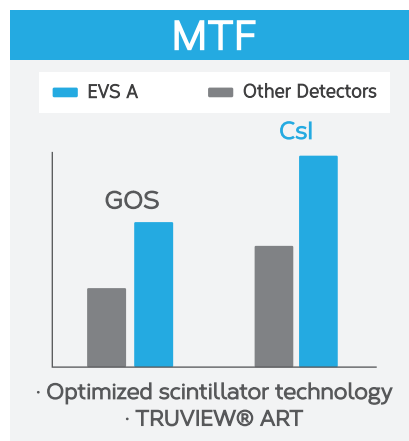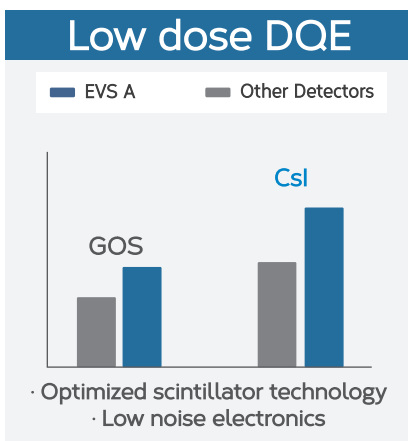
DQE (@0.258 µGy, 0.03mR)

55% @ 0.5lp/mm

Spatial Frequency (lp/mm)

- EVS A
- Competitor Detector

Difference 25%

DQE(@0.5lp/mm)

Dose (µGy)

Cunningham, A., Nano, T., Escartin, T (2016)

## High Sensitivity, Low noise *high quality images @ low dose*

With directly deposited CsI technology and optimized CsI thickness, EVS A/W series X-ray efficiency is increased resulting in high SNR even at low dose conditions.
With low noise electronics, dose reduction is possible as high DQE performance is achieved at lower dose conditions.

Low dose DQE

- EVS A
- Other Detectors

GOS | CsI

· Optimized scintillator technology
· Low noise electronics

MTF

- EVS A
- Other Detectors

GOS | CsI

· Optimized scintillator technology
· TRUVIEW® ART

Dose

- EVS A
- Other Detectors

GOS | CsI

· High DQE
· Low noise

# *TRUVIEW®ART* *Advanced Image Reconstruction Technology*

DRTECH's image processing algorithm **TRUVIEW®ART** enhances image quality minimizing the effect of light scattering in an indirect type FPD. TRUVIEW®ART removes the light scatter caused during light output energy conversion to increase overall sharpness of the image.

Conventional	TRUVIEW®ART
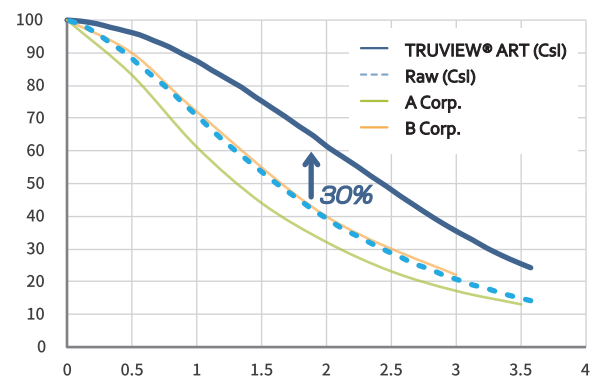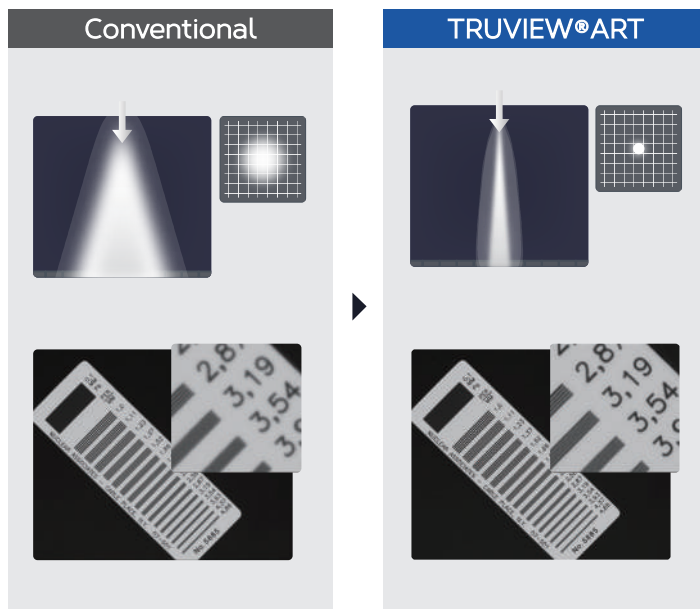
TRUVIEW®ART increases MTF up to 30%, increasing the possibility of detecting minor lesions and abnormalities.

TRU16 bits *: Wide Dynamic Range with full 16-bit ADC conversion*

Full display of TRU16 bit expression, providing high contrast detailed images for ultimate diagnostic confidence.

14bits Image

14-bit ADC Conversion

16bits Image

16-bit ADC Conversion
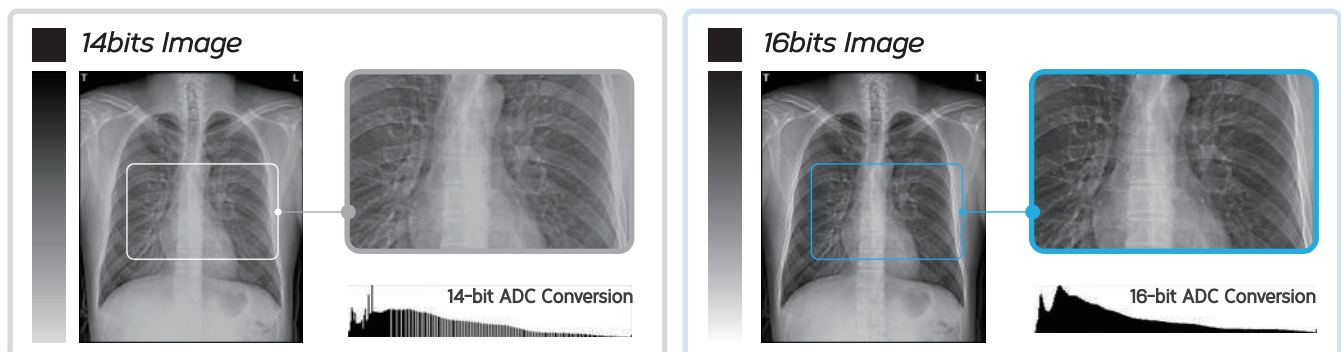
For Smarter and Easier to Use & Minimal Maintenance

Smart Installation & Easy Maintenance Features for Ultimate Convenience

## Lossless AED/AWC Technology *Perfect Auto X-ray Sync.*

DRTECH's innovative technology Lossless AED/AWC increases dose efficiency and image quality by detecting X-ray start and finish with perfect precision.
Unlike conventional AED technology which only detects the start of the X-ray, Lossless AED/AWC automatically identifies the end of the X-ray eliminating the need for a preset EWT.

Conventional

| X-ray Sensing | X-ray Integration / Preset EWT | No X-ray Integration |

Long
Normal
Loss
Short
Noise / Time Loss
Image Artifact /Loss

Shot | Panel Reset | Pre-set EWT | Data Read Out

X-ray Sensing
Noise Increase
Increased noise due to unnecessary time

No X-ray Integration
Image Artifact
Image artifact caused by X-ray exposure after EWT

Lossless AED/AWC

Adaptive exposure Window time Control
Long
Normal
Short

Shot | EWT | EWT | EWT
Adjustable EWT

Perfect X-ray Sync. for
✔ Noise Reduction
✔ Faster Image Cquisition
✔ Perfect Image Quality

Reliable Lossless AED/AWC technology reduces failure rates caused by X-ray sensing errors and eliminates the need for X-ray integration accelerating the installation time.

Ultimate DR Solution for Low Dose High Quality Imaging
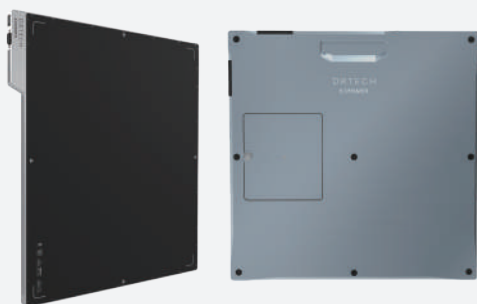
· Maximizing Imaging Quality while Minimizing Dose

· Fast Workflow with Fast Image Acquisition Time

· Stable & Reliable Operation During Product Lifetime

· Excellent System Integration

EVS4343A / EVS4343W

Smart Installation S/W

: Easy detector installation with detector loaded MAP files

Easy installation S/W and 'MAP Inside' feature enables fast and simple initial installation & maintenance for ultimate user convenience. Unlike other detectors, which require 5 steps for detector installation, easy installation SW, the process is shortened into two steps .

EVS A-series

Detector   Viewer

LAN Cable
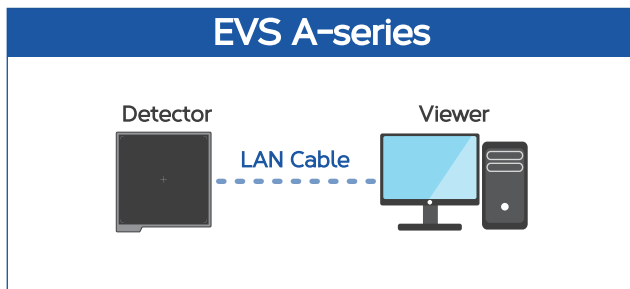
1) Detector connection with PC using Ethernet

2) Run easy installation S/W installer (Finish)
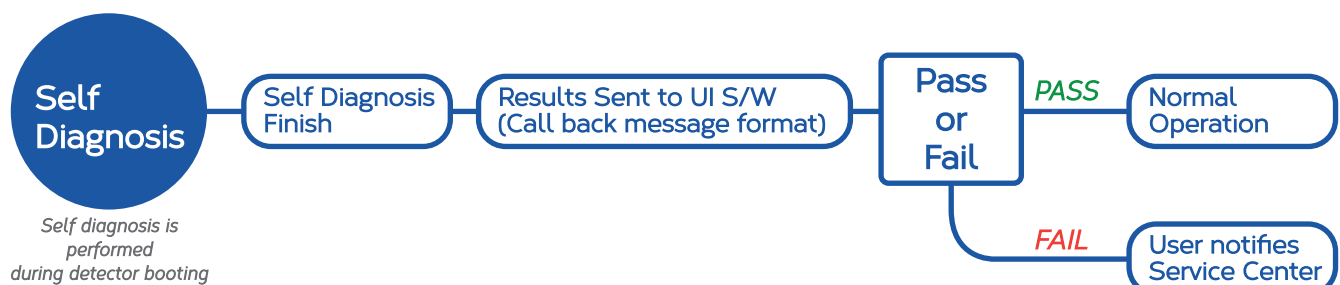
Other Detector

Detector   Viewer

Interface Box
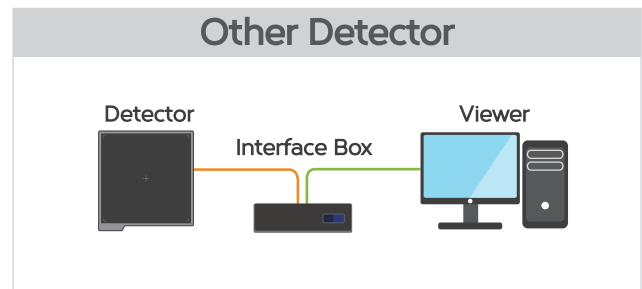
1) Connect Detector, Control Box and PC

2) Insert CD into PC

3) Run the S/W installer

4) Copy map files to proper destination

5) Run S/W to set the path to map

Smart Diagnosis Function *for easy maintenance*

Fast and accurate diagnosis of the detector function against major H/W functions to prevent major malfunctions before it occurs.

· For improvement of service or maintenance action
· Enables regular detector diagnosis to prevent possible H/W failures
· Diagnosis results can easily be interpreted by the radiologist
for efficient service request

Self Diagnosis

Self diagnosis is performed during detector booting

Self Diagnosis Finish

Results Sent to UI S/W (Call back message format)

Pass or Fail

PASS → Normal Operation

FAIL → User notifies Service Center

EVS A Series Specifications

Model	EVS 4343A
Scintilator	CsI / Gadox
Active area	430 x 430 (mm) / 17 x 17 (inch)
Resolution	3,072 X 3,072
Pixel pitch	140 μm
Dimension	460 X 460 X 15.5 ㎜ (Protruding Area: 24.2 x 125.5mm)
Weight	4.3 kg
X-ray Sync.	Lossless AED/AWC, Sync Trigger
Data Interface	Gigabit Ethernet (LAN Cable)
ADC	16-bit

Model	EVS 3643A
Scintilator	CsI / Gadox
Active area	358 x 430 (mm) / 14 x 17 (inch)
Resolution	2,560 X 3,072
Pixel pitch	140 μm
Dimension	386 X 460 X 15.5 ㎜ (Protruding Area: 24.2 x 125.5mm)
Weight	3.5 kg
X-ray Sync.	Lossless AED/AWC, Sync Trigger
Data Interface	Gigabit Ethernet (LAN Cable)
ADC	16-bit

EVS W Series Specifications

Model	EVS 4343W
Scintilator	CsI / Gadox
Active area	430 x 430 (mm) / 17 x 17 (inch)
Resolution	3,072 X 3,072
Pixel pitch	140 μm
Dimension	460 X 460 X 15 ㎜
Weight	3.45 kg
X-ray Sync.	Lossless AED/AWC, Sync Trigger
Data Interface	Gigabit Ethernet (LAN Cable)
ADC	16-bit

Model	EVS 3643W
Scintilator	CsI / Gadox
Active area	358 x 430 (mm) / 14 x 17 (inch)
Resolution	2,560 X 3,072
Pixel pitch	140 μm
Dimension	386 X 460 X 15 ㎜
Weight	3.0 kg
X-ray Sync.	Lossless AED/AWC, Sync Trigger
Data Interface	Gigabit Ethernet (LAN Cable)
ADC	16-bit

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www.drtech.co.kr