nexus DR

# Digital Radiography Made Fast, Accurate, and Affordable

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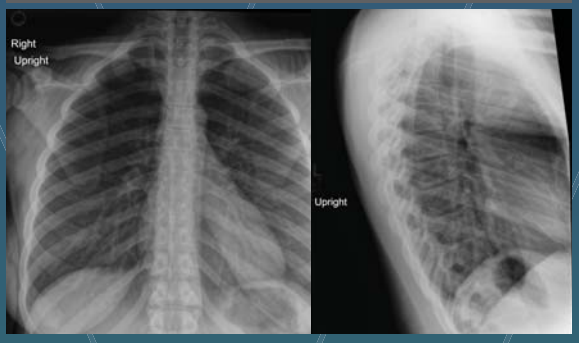


Nexus DR is an advanced digital image acquisition system designed to automate patient work flow. It is a cost effective and trouble free solution that includes advanced image processing algorithms for optimal image quality and excellent reliability.

Designed to provide fast and accurate diagnostic images with minimal user interaction, Nexus DR is an efficient solution for your digital radiography needs. Optimized work flow with this product will allow X-ray technologists to focus on the patient while easily capturing high quality images.

### Advanced Image Quality

- Processing and enhancement tuned to each anatomical protocol
- Site specific tuning capability

### Cost-effectiveness

- Nexus DR is designed to be packaged and resold to end users by our customers
- Nexus DR package options can include a Varex Flat Panel detector and a complete workstation computer kit. When a complete hardware and software kit are purchased, Varex Imaging will setup and test the system with the flat panel prior to shipment.
- Varex Imaging also saves you time to market by obtaining FDA clearance for our Nexus DR package

### Easy to Use

- IOS-like look and feel with multi-touch monitor
- Easy patient worklist selection when integrated with RIS
- Extensive pre-loaded exam protocols
- System guidance through defined protocol with seamless image transfer to DICOM server
- DICOM 3.0 compliant

### Integration Capabilities

- Nexus DR can be configured to control your generator to eliminate the generator console

www.vareximaging.com/products/nexus-software

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## Acquisition features

- User input via touchscreen or keyboard & mouse
- Simple patient selection from work list
- Exposure Index for technique optimization
- Auto advance to acquisition upon patient selection
- Auto acquisition advance based on custom protocols
- Highly optimized DR image acquisition work flow
- Auto send to DICOM upon completion of exam

## Software Features

- HIS/RIS work list support
- Configurable automatic study advance
- Over 500 preloaded exam profiles
- Accept/reject functionality
- Auto region of interest (ROI)
- Thumbnail image display
- Left/right markers with smart positioning
- Optimized work flow for fast patient throughput
- Image measurement and annotation tools
- Support for multiple languages
- Background multi-tasking hard copy allows simultaneous processing and printing during acquisition
- Online and remote service diagnostics

## Image Processing Software

- Utilizes advanced image processing algorithms for optimum image quality
- Imaging parameters tied to customizable APR-based acquisition profiles
- Grid detection and suppression
- Extensive post-processing features

## Nexus DR Hardware Specifications

Our Recommended Hardware as follows:

- Tablet, all-in-one, or small desktop PC
- Intel Core family CPU
- Windows 10 Professional® - 64 bit operating system
- 256 GB HD or SSD (not intended to be an archive device)
- 8 GB RAM
- Multi-touch monitor to enable touch capability
- Keyboard and mouse fully supported

## 4336Wv4 Flat Panel Detector

Nexus DR is integrated with Varex's latest 14x17 inch wireless cassette sized flat panel detector. This panel has the following key features:

- Cesium iodide or GadOx conversion screen
- 139 um pixel pitch for up to 3.6lp/mm spatial resolution
- 16 bit A/D for unrivaled contrast resolution
- 14 x 17 inch field of view
- vTrigger (AED Mode)
- Hardwire exposure synchronization
- Lithium polymer smart battery providing up to 6 hours of use

**Varex Imaging Corp.**
*Headquarters*
1678 Pioneer Rd.
Salt Lake City, UT 84104
Tel: 801-972-5000
Fax: 801-973-5050

**Varex Imaging**
**Workstation Products**
121 Metropolitan Dr.
Liverpool, NY 13088
Tel: 315-234-6800
Fax: 315-234-6801



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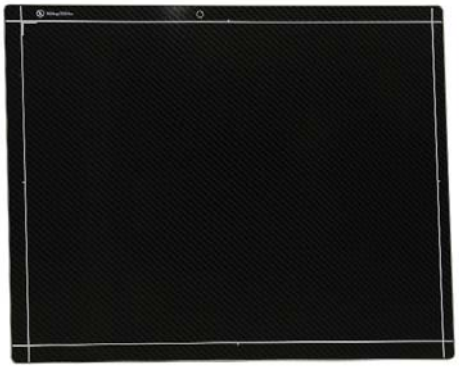
## More Information

As the world's largest independent supplier of medical X-ray components, we have extensive experience providing high-quality, safe, and effective products.

For more information, please contact a Varex Imaging sales representative at NexusSoftware.cs@vareximaging.com.

# PaxScan® 4336W v4

## Flat Panel Detector



### Product Description

The PaxScan 4336W v4 is a light weight, wireless flat panel detector designed for digital radiographic systems. The 4336W v4 fits standard 14"x17" bucky trays and its wireless communication enables easy migration between table, above the table, chest stand, and mobile cart applications. The 4336W v4 works with commercially available Access Points, or as a stand-alone Access Point. The receptor SDK allows for direct integration into existing systems.

### Technical Specifications

Receptor Type ..... Amorphous Silicon with TFT/PIN diode Technology
Conversion Screen ..... CsI, DRZ+

### Pixel Area

Total ..... 42.7 (v) x 34.4 (h) cm (16.8 x 13.5")
Active (DRZ+) ..... 42.4 (v) x 34.1 (h) cm (16.7 x 13.4")
Active (CsI) ..... 42.4 (v) x 33.9 (h) cm (16.6 x 13.3")

### Pixel Matrix

Total ..... 3,072 (v) x 2,476 (h)
Active (DRZ+) ..... 3,052 (v) x 2,456 (h)
Active (CsI) ..... 3,032 (v) x 2,436 (h)
Pixel Pitch ..... 139 µm
Limiting Resolution ..... 3.6 lp/mm
Automatic Exposure Detection (AED) ..... via vTrigger

| Image Quality | GADOX (typical) | CSI (typical) |
|---|---|---|
| DQE @ 0 lp/mm | 39% | 70% |
| DQE @ 1 lp/mm | 28% | 44% |
| DQE @ 2 lp/mm | 17% | 38% |
| DQE @ 3 lp/mm | 7% | 26% |
| DQE @ Nyquist | 4% | 15% |
| MTF @ 1 lp/mm | 56% | 57% |
| MTF @ 2 lp/mm | 24% | 27% |
| MTF @ 3 lp/mm | 10% | 13% |
| MTF @ Nyquist | 6% | 10% |
| Sensitivity | 0.54 LSB/nGy | 0.82 LSB/nGy |
| Pixel Noise (1000ms) | 9.2 LSB | 8.7 LSB |
| Memory Effect | 0.001 (@ 60sec) | 0.004 (@ 60sec) |

| Main Functionalities | | |
|---|---|---|
| Cycle Time @ 550ms (X-ray Window) | 7 sec (MSR2, RCT) | 7 sec (MSR2, RCT) |
| X-ray window | 350-3500 ms | 350-3500 ms |

| Dose Range | DRZ+ | CsI |
|---|---|---|
| Maximim Linear Dose | 100 µGy | 69 µGy |
| NED | 0.65 µGy | 0.4 µGy |

Energy Range Standard ..... 40 - 150 kVp
Fill Factor ..... 60%
Scan Method ..... Progressive
Data Output ..... Wireless
A/D Conversion ..... 16-bit
Exposure Control Inputs: ..... Prepare, Expose-Request
Outputs: ..... Expose-OK

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### Patient Contact

Surface Temperature ..... rated to not exceed 42 degrees C
Weight Limit
Uniform load across entire carbon fiber surface ..... 150 kg
Concentrated 40mm diameter load at the center of the imager ... 100 kg

### Software

The 4336W v4 embeds the M-series Varex Imaging Smart Panel (VSP) software within the receptor. Developers interface with the receptor through VSP COMM which resides on the workstation. The integrator experience is simplified through the new M-series software interface. An onboard Control Panel is used to manage receptor settings and configuration. The ViVA™ sample imaging application is included. VSP COMM is Windows® 7 (64 bit), Windows 8.1 (64-bit) and Window® 10 compatible.

### Computer Requirements

RAM ..... 2.00 GB
CPU ..... 1 GHz or faster processor (32-bit or 64-bit)

### Power

Power Consumption ..... Idle - 3.3 watts
Acquisition - 7.8 watts
Image Transfer - 10.2 watts

### Wireless

Wireless Modes STA or AP ..... 802.11 a/g/n/ac, 2x2 MIMO
Minimum Signal Strength Required ..... >-70 dBm
or no image will be acquired

### Mechanical

Weight (values are typical) (includes battery)
DRZ+ ..... 3.6 kg ± 0.25 kg
CsI ..... 3.8 kg ± 0.25 kg
Housing Material ..... Aluminum/Magnesium
Sensor Protection Material ..... Carbon fiber plate

### Battery

Lithium polymer smart battery prevents over charging
Charge capability ..... 1000 images over 6 hrs
Expected Life ..... 300 cycles of charge/discharge

### Environmental

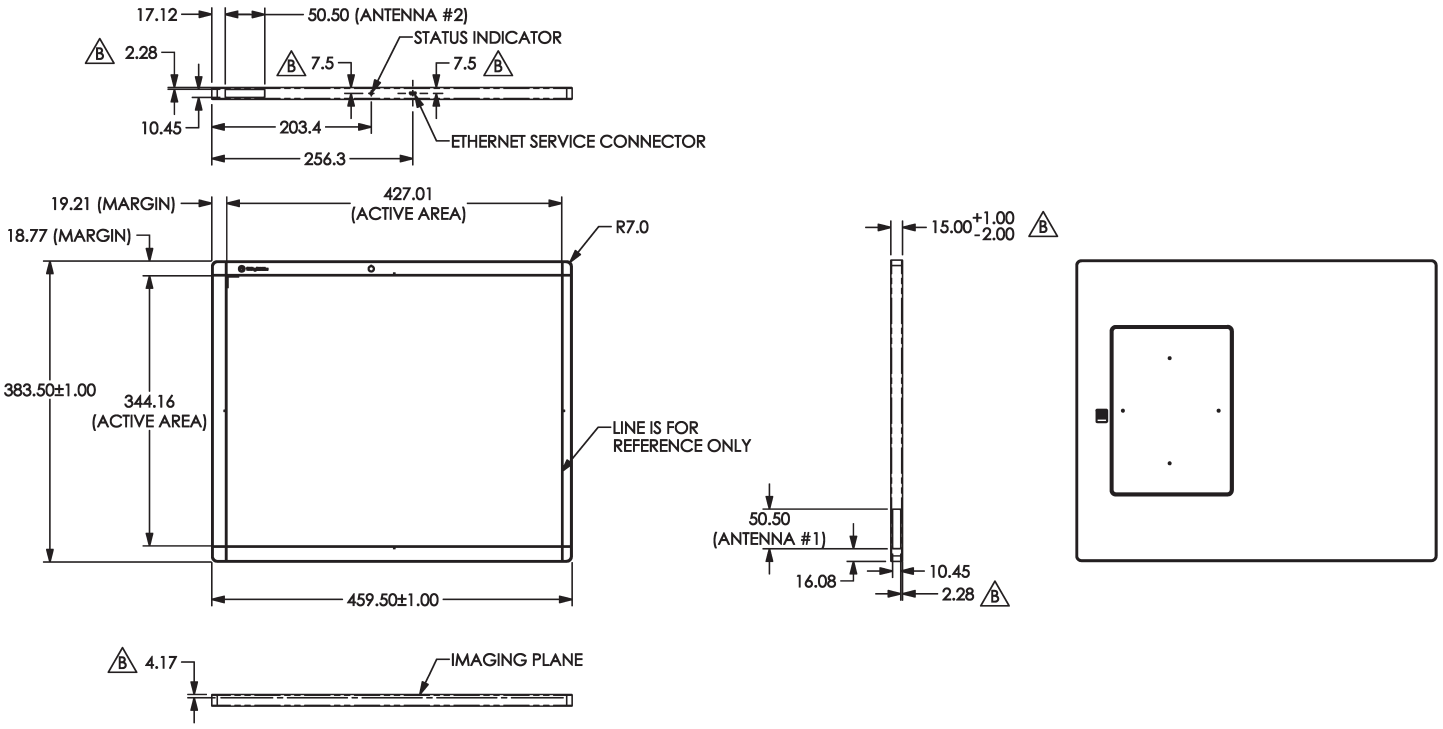
Shock ..... High-shock tolerance
Water Resistant ..... IP51 (horizontal, face up)
Temperature Range - Operating (at back cover) ..... 10°C to 35°C (max.)
(Ambient) - Storage ..... -20°C to +70°C
Humidity - Operating & Storage (non-condensing) ..... 10% to 90%
Atmospheric Pressure - Operating & Storage ..... 70 kPa to 106 kPa

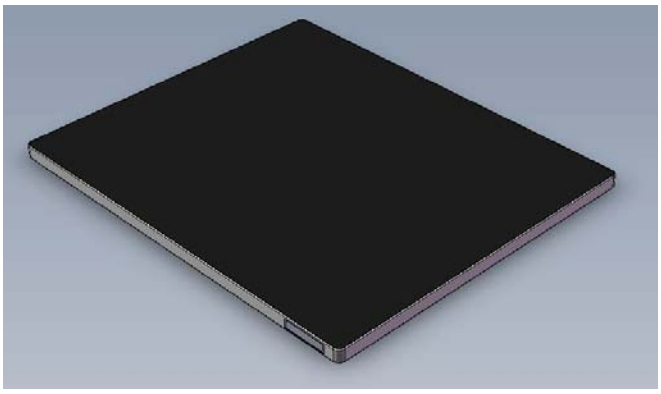
### Regulatory

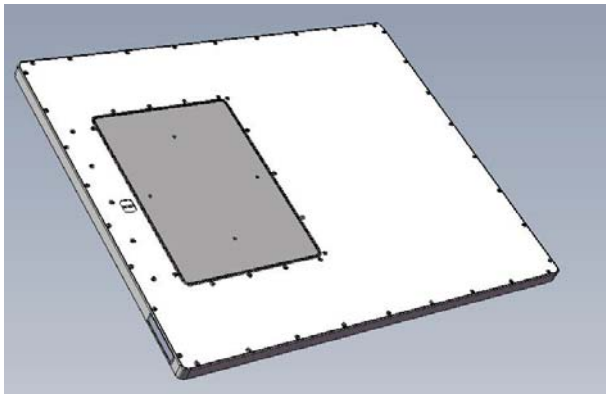
U.S. ..... ANSI/AAMI ES 60601-1:2012
Canada ..... CAN/CSA C22.2 No. 60601-1:14
EU ..... IEC/EN 60601-1:2012

Dimensions are for reference only

Dimensions are in mm

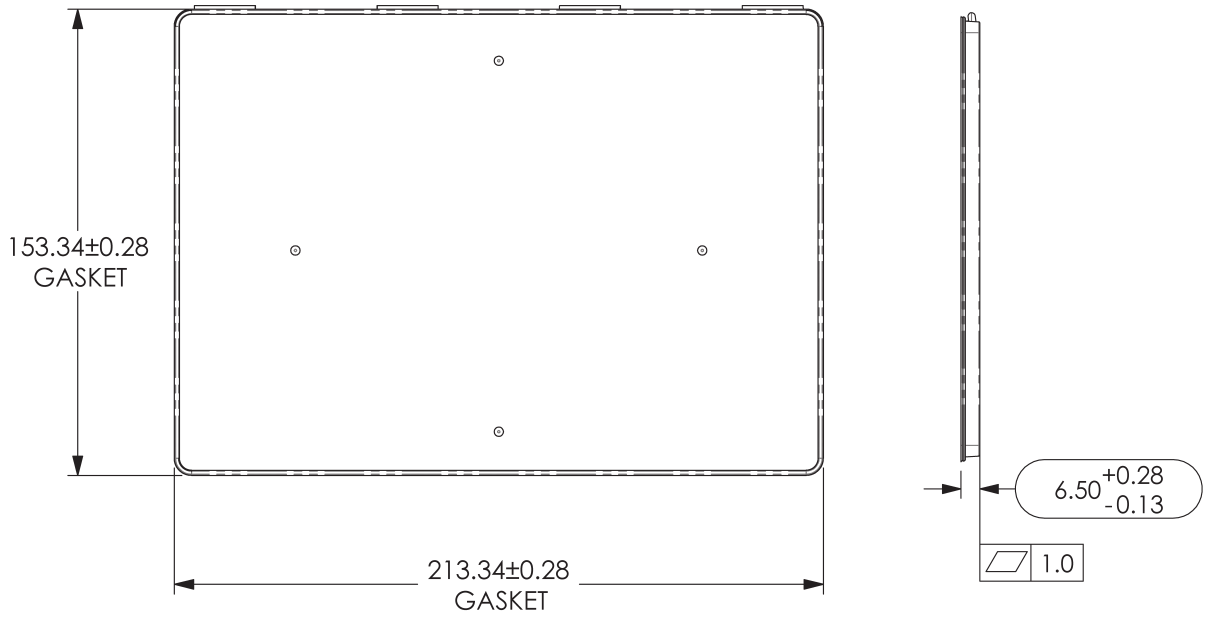


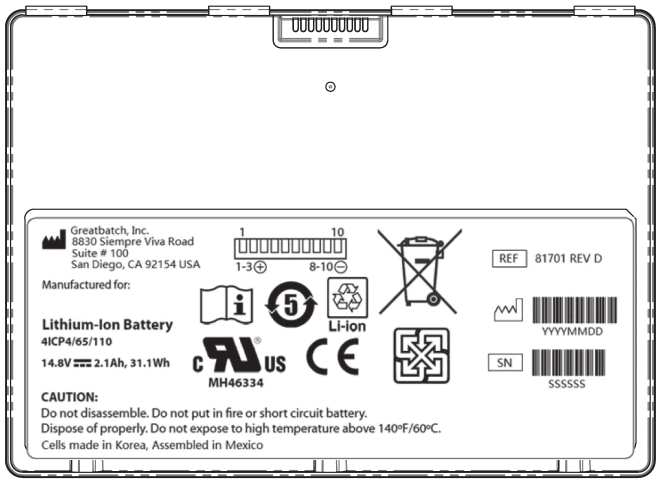





Dimensions are for reference only

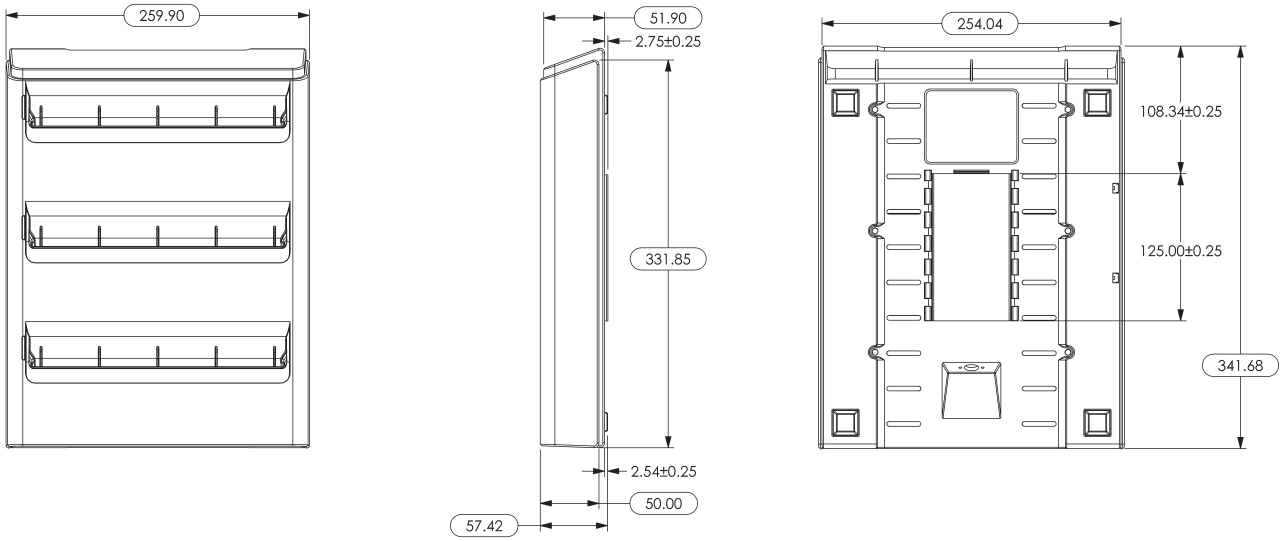
Weight - 0.66 lbs (.3 kg) (nominal)



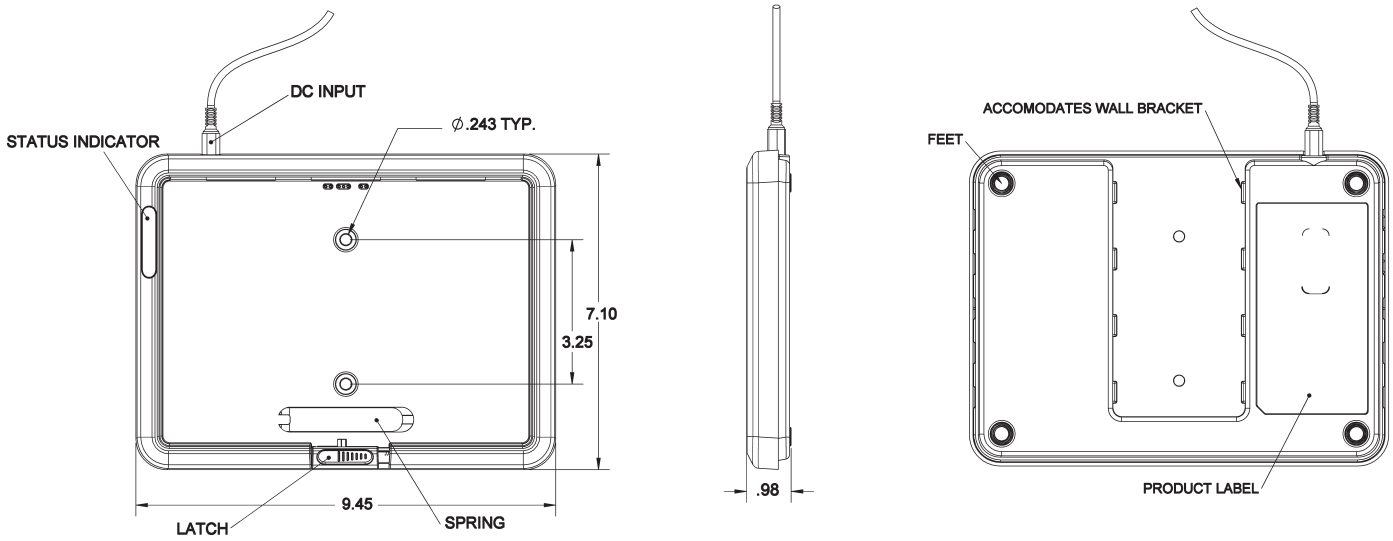
## Battery Charger (Optional)

Weight - 1.33 kg (nominal)




## Single Bay Charger (Optional)

Weight - 0.3 kg (nominal)




Salt Lake City, UT 1-801-972-5000
Charleston, SC 1-843-767-3005
www.varexim aging.com

Manufactured by Varex Imaging Corporation

Specifications subject to change without notice.

Note: All Varex Imaging Amorphous Silicon Receptors are designed to be integrated into a complete X-ray system by a qualified system integrator. The system Integrator is responsible for obtaining FDA clearance for medical use.