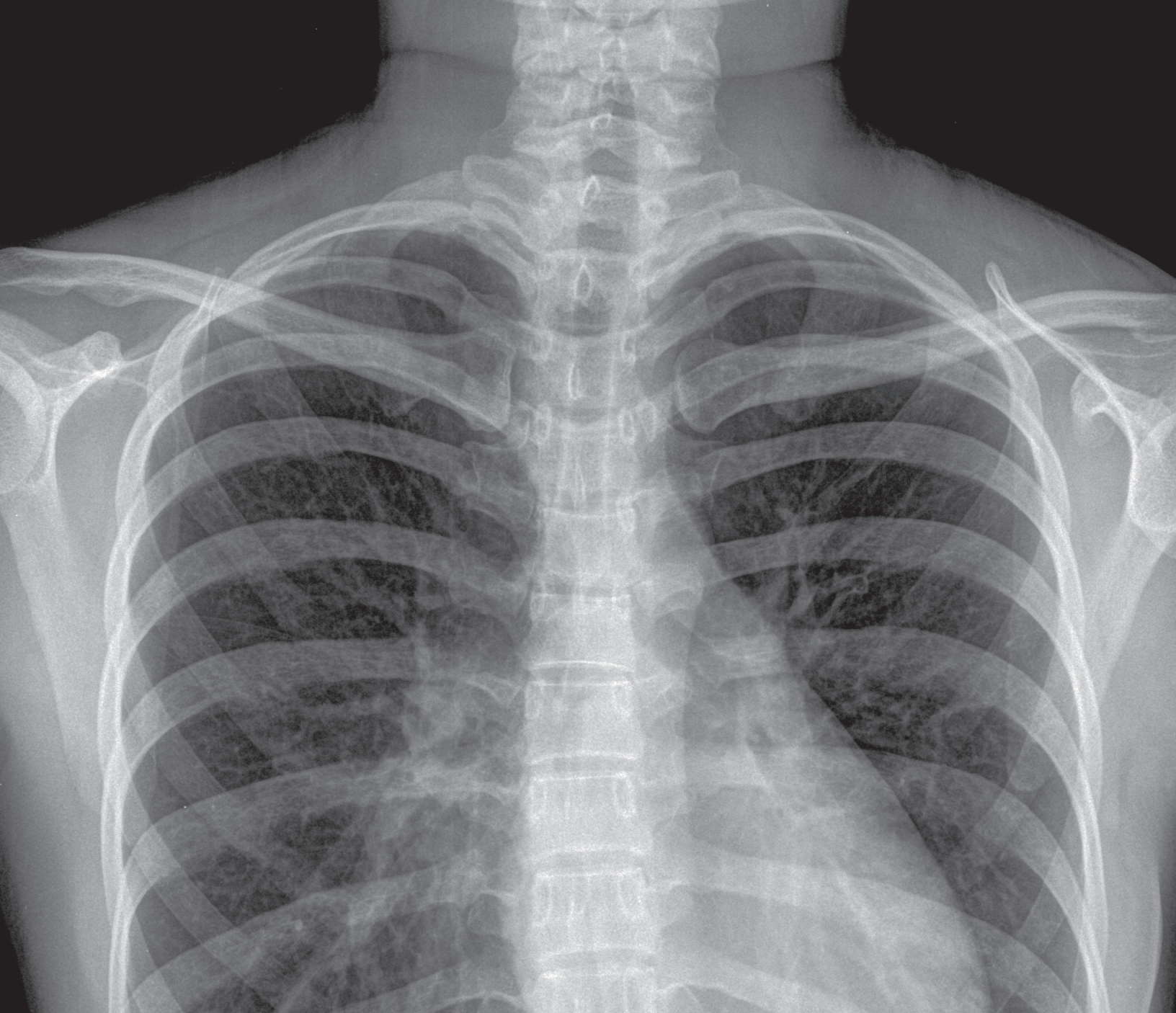




# **DEL MEDICAL**

DELWORKS DIGITAL RADIOGRAPHY DATA SHEET

## Software

- Single console workflow with generator integration (supported generators only)
- EasyConnect Automatic Exposure Detection (AED) technology
- Multiple imaging stitching application option (manual or automated)
- Pre-exposure display of patient and procedure information
- DICOM Modality Worklist (MWL) or manual patient / exam data entry and patient edit
- Emergency patient exam creation
- Study list with status of exams
- Ability to add views to a study
- Positioning guide
- Display and control of x-ray generator exposure factors (kv, mA, time, mAs, density, AEC (if enabled) (with integrated generators)
- Image rotation in 90 degree steps and free rotate
- Pan
- Zoom
- Horizontal mirroring
- Flip
- Invert
- Automatic and manual image shutter cropping to collimated area
- Verification and correction of image laterality and patient orientation
- Orientation marker that can be added (standard and custom annotations)
- Text comments that can be added (free text or pre-determined custom annotations)
- Measuring tools for distance and angle
- PICC tool for optimized display of lines, tubes, and leads
- Detailed histograms of pixel density and curve shape adjustment
- User selection of modified Look-Up Tables (LUT) based on exam type
- Mask
- Manual adjustment of the LUT and Window / Level, Contrast and Brightness
- Image panel layout selection
- Send destination selection
- Print window with orientation and size
- EasyShare allows a detector to be shared easily between multiple workstations
- Configurable in multiple languages (e.g. Spanish)

## Indicators

- Network status
- Disk space free
- Detector battery status
- Generator controls with ready, prep, exposing

## Dose Reduction Features

- Display of Deviation Index (DI), Target Exposure Index (TargetEXI) and Current Exposure Index (CurrentEXI)
- Grid suppression, including for standard or high-line grids
- Anatomical Programming (APR) for standardized exams with specific default values that may be customized
- Exam specific image processing algorithms based on selected patient anatomy specific image processing algorithms
- Reject analysis with exportable data and reject / accept image management

## DICOM Connectivity

- Image Storage Class User (SCU) and Storage Class Provider (SCP) for Computed Radiography, Digital X-ray for presentation and for processing, secondary capture
- Grayscale soft copy presentation state storage SCU
- X-ray radiation dose Structured Report (SR) SCU
- Query / retrieve study root information model, FIND and MOVE, SCU and SCP
- Modality worklist information model - FIND SCU
- Storage commitment push model SCU
- Modality Performed Procedure Step (MPPS) SCU
- Print: basic grayscale print management, basic film session, basic film box, basic grayscale image box, printer SCU
- Media storage write files (FSC or FSU) and read files (FSR): general purpose CD-R, DVD-ROM, USB media interchange with JPEG

## CyberSecurity

Advanced CyberSecurity to help achieve HIPAA compliance including Anti-virus, Encryption, Security Updates, and Role based logins. For specifics, see DEL MEDICAL publication #9000-CyberSecurity and/or MDS-2 for DELWORKS at [www.delmedical.com/support](http://www.delmedical.com/support)

# Desktop

## TECHNICAL SPECIFICATIONS

|                     |                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------|
| Processor:          | 13th Generation Intel Core i5-16500                                                                      |
| Memory (RAM):       | 16 GB (2 x 8 GB) DDR5                                                                                    |
| Hard Disk Drive:    | 1 TB M.2 2230 NVMe Solid State Drive (SSD)                                                               |
| Operating System:   | Microsoft Windows 11 Pro 64-bit (Standard) / Microsoft Windows 10 Enterprise LTSC 2019 64-bit (Optional) |
| Dimensions (WxDxH): | 3.65 x 11.53 x 11.42 in (9.26 x 29.98 x 29 cm)                                                           |
| Weight:             | 8.1 lbs (3.68 kg) minimum<br>10.72 lbs (4.87 kg) maximum                                                 |

## Touchscreen Monitor

|                                                                |                                                                                                                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display Type:                                                  | IPS LED-backlit LCD monitor / TFT active matrix                                                                                                                  |
| Diagonal Size:                                                 | 24 in (61 cm)                                                                                                                                                    |
| Viewable Size:                                                 | 23.8 in (60.5 cm)                                                                                                                                                |
| Panel Type:                                                    | IPS                                                                                                                                                              |
| Aspect Ratio:                                                  | 16:9                                                                                                                                                             |
| Native Resolution:                                             | Full HD (1080p) 1920 x 1080 at 60 Hz                                                                                                                             |
| Pixel Pitch:                                                   | 0.2745 mm                                                                                                                                                        |
| Brightness:                                                    | 300 cd/m2                                                                                                                                                        |
| Contrast Ratio:                                                | 1000:1 / 1000:1 (dynamic)                                                                                                                                        |
| Color Support:                                                 | 16.7 million colors                                                                                                                                              |
| Response Time:                                                 | 5 ms (gray-to-gray fast) / 8 ms (gray-to-gray normal)                                                                                                            |
| Horizontal Viewing Angle:                                      | 178°                                                                                                                                                             |
| Vertical Viewing Angle:                                        | 178°                                                                                                                                                             |
| Screen Coating:                                                | Anti-glare, 3H Hard Coating                                                                                                                                      |
| Dimensions:                                                    | 21.2 x 9.8 x 12.6 in                                                                                                                                             |
| Weight:                                                        | 17.33 lbs                                                                                                                                                        |
| Display Position Adjustments:                                  | Height (4.4 in)<br>Swivel (-30°/+30°)<br>Tilt (-5°/+60°)                                                                                                         |
| Interfaces:                                                    | HDMI<br>DisplayPort 1.2<br>2 x USB 3.2 Gen 1 downstream<br>USB-C 3.2 Gen 1<br>USB-C 3.2 Gen 1 downstream<br>USB-C 3.2 Gen 1 downstream with battery charging 1.2 |
| Security Slot Type:                                            | Kensington security slot                                                                                                                                         |
| Compliant Standards:                                           | RoHS                                                                                                                                                             |
| Input Voltage:                                                 | AC 100-240 V (50/60 Hz)                                                                                                                                          |
| Power Consumption (on mode):                                   | 18 W                                                                                                                                                             |
| Warranty Information - Computer Hardware:<br>Display Hardware: | Three (3) year, next business day, on-site hardware support warranty<br>Three (3) year standard warranty                                                         |

# Laptop

|                     |                                                                                                                                       |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Processor:          | 13th Gen Intel Core i5-1335U                                                                                                          |
| Memory (RAM):       | 16 GB DDR4                                                                                                                            |
| Hard Disk Drive:    | 512 GB Solid State Drive (SSD)                                                                                                        |
| Operating System:   | Microsoft Windows 11 Pro 64-bit (Standard), Microsoft Windows 10 Enterprise LTSC 2019 64-bit (Optional)                               |
| Display Type:       | IPS                                                                                                                                   |
| Diagonal Size:      | 15.6 in                                                                                                                               |
| Aspect Ratio:       | 16:9                                                                                                                                  |
| Native Resolution:  | Full HD (1080p) 1920 x 1080                                                                                                           |
| Wireless:           | Intel® Wi-Fi 6E AX211, 2x2, 802.11ax                                                                                                  |
| Battery:            | 3 Cell, 54 Wh Lithium-Ion battery                                                                                                     |
| Power Adapter:      | 65 W AC adapter                                                                                                                       |
| Dimensions (WxDxH): | 14.09 x 9.19 x 0.9 in (35.8 x 23.3 x 2.3 cm)                                                                                          |
| Ports:              | USB 3.2 Gen1<br>USB 3.2 Gen1 with PowerShare<br>HDMI 2.0<br>2x USB Type C Thunderbolt 4.0 with Power Delivery and DisplayPort<br>RJ45 |
| Weight:             | 3.56 lb (1.61 kg)                                                                                                                     |
| Warranty:           | Three (3) year, next business day, on-site hardware support warranty                                                                  |

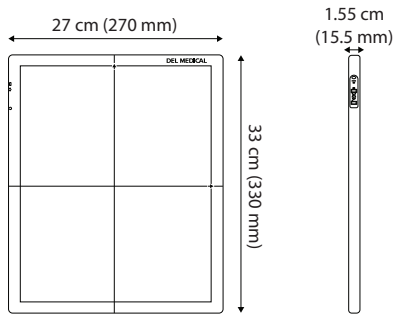
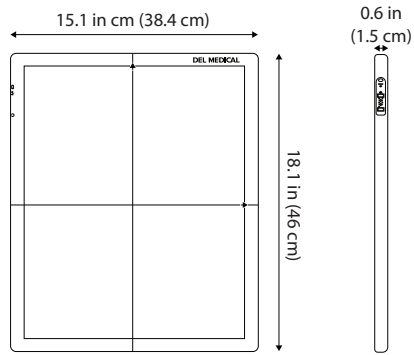
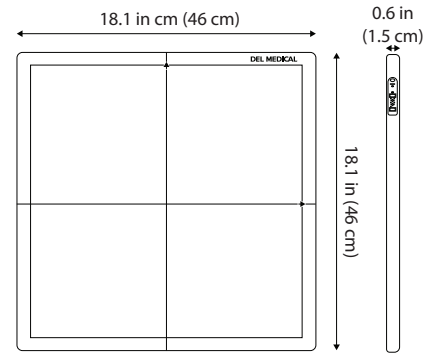
# DELWORKS FIT

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor:                    | 8th Generation Intel Core i5-8365U                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Memory (RAM):                 | 8 GB LPDDR3                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hard Disk Drive:              | 256 GB M.2 NVMe Solid State Drive (SSD)                                                                                                                                                                                                                                                                                                                                                                                                                |
| Operating System:             | Microsoft Windows 11 Pro 64-bit (Standard), Microsoft Windows 10 Enterprise LTSC 2019 64-bit (Optional)                                                                                                                                                                                                                                                                                                                                                |
| Display:                      | 11.6 in Full HD Touchscreen w/ Gorilla Glass (1920 x 1080, Outdoor-Readable / Glove Capable)                                                                                                                                                                                                                                                                                                                                                           |
| Keyboard / Input:             | Touchscreen                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Battery:                      | 2-cell (34 Wh) Lithium-Ion battery                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Dimensions (WxDxH):           | 12.29 x 0.96 x 7.99 in (31.2 x 2.4 x 20.3 cm)                                                                                                                                                                                                                                                                                                                                                                                                          |
| Weight:                       | 2.93 lb (1.33 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Certifications:               | MIL-STD-810G<br>Transit drop (48" / 1.22 m; single unit; 26 drops)<br>Operating drop (36" / 0.91 m)<br>Blowing rain, blowing dust, blowing sand, vibration, functional shock, humidity, salt fog, altitude, explosive atmosphere, thermal extremes, thermal shock, freeze / thaw, tactical standby to operational                                                                                                                                      |
| Ingress Protection:           | IP65                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Hazardous Locations:          | ANSI / ISA.12.12.01 certification capable (Class 1, Division 2, Groups A, B, C, D), CAN / CSA C22.2                                                                                                                                                                                                                                                                                                                                                    |
| Electromagnetic Interference: | MIL-STD-461F certified resistant                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Wi-Fi:                        | Dual RF-passthrough (Wi-Fi and mobile broadband)                                                                                                                                                                                                                                                                                                                                                                                                       |
| Software Compatibility:       | Runs all features of DELWORKS 3.0 Software except optional stitching                                                                                                                                                                                                                                                                                                                                                                                   |
| Dockable:                     | Rugged Docking Station enables charging, transferring, and screen mirroring<br>- Dimensions: 8.3" x 6.3" x 5.7" (21.1 cm x 16 cm x 14.5 cm)<br>- Weight: 3.53 lbs. (1.6 kg)<br>- Power: 90 Watt AC 120 /130 V (50-60 Hz)<br>- 1 x headphone / microphone combo jack (3.5 mm)<br>- 2 x USB 3.0 Type A, 1 x USB 2.0 Type A, 1 x Network RJ-45, 1 x VGA, 1 x DisplayPort, 2 x Serial<br>- NIC for optional wired connectivity of dock to Hospital network |
| Warranty:                     | Three (3) year, next business day, on-site hardware support warranty                                                                                                                                                                                                                                                                                                                                                                                   |

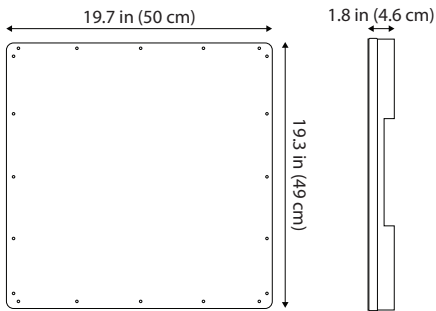
# Detectors

|                                | E24Cw <sub>2</sub>                                                                              | E14Cw <sub>2</sub>                                                                              | E17Cw <sub>2</sub>                                                                              | E17C                             | LLI                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|
| Scintillator:                  | Cesium                                                                                          | Cesium                                                                                          | Cesium                                                                                          | Cesium                           | Cesium                                    |
| Detector Technology:           | a-Si                                                                                            | a-Si                                                                                            | a-Si                                                                                            | a-Si                             | a-Si                                      |
| Active Image Area:             | 24 x 30 cm                                                                                      | 14 x 17 in (35 x 43 cm)                                                                         | 17 x 17 in (43 x 43 cm)                                                                         | 17 x 17 in (43 x 43 cm)          | 17 x 42 in (43 x 107 cm)                  |
| Pixel Size:                    | 99 µm                                                                                           | 99 µm                                                                                           | 99 µm                                                                                           | 148 µm                           | 139 µm                                    |
| Pixel Matrix:                  | 2336 x 2880                                                                                     | 3520 x 4316                                                                                     | 4316 x 4320                                                                                     | 2860 x 2874                      | 3072 x 7680                               |
| A/D Conversion:                | 16 bits                                                                                         | 16 bits                                                                                         | 16 bits                                                                                         | 16 bits                          | 16 bits                                   |
| MTF @ 1 lp/mm:                 | 68%                                                                                             | 68%                                                                                             | 68%                                                                                             | 52%                              | 45%                                       |
| DQE @ 0 lp/mm:                 | 70%                                                                                             | 70%                                                                                             | 70%                                                                                             | 65 % (DQE @ 0.05 lp/mm)          | 0.67/0.71/-                               |
| X-Ray Generator Voltage:       | 40 - 150 KV                                                                                     | 40 - 150 KV                                                                                     | 40 - 150 KV                                                                                     | ----                             | 40 - 150 KV                               |
| Spatial Resolution:            | 3.5 lp/mm                                                                                       | 3.5 lp/mm                                                                                       | 3.5 lp/mm                                                                                       | 3.5 lp/mm                        | 3.6 lp/mm                                 |
| Image Preview:                 | <2 sec                                                                                          | <2 sec                                                                                          | <2 sec                                                                                          | 4 sec                            | 9 sec                                     |
| Cycle Time:                    | 11 sec                                                                                          | 11 sec                                                                                          | 11 sec                                                                                          | 6 sec                            | 12 sec                                    |
| Exposure Window:               | Up to 3.2 sec                                                                                   | Up to 3.2 sec                                                                                   | Up to 3.2 sec                                                                                   | Up to 3.2 sec                    | ---                                       |
| Charging Time:                 | 2 hrs                                                                                           | 2 hrs                                                                                           | 2 hrs                                                                                           | ---                              | ---                                       |
| Battery Operation Time:        | Up to 10 hrs                                                                                    | Up to 10 hrs                                                                                    | Up to 10 hrs                                                                                    | N/A                              | ~3 hrs                                    |
| Number of Batteries            | 2 removable                                                                                     | 2 removable                                                                                     | 2 removable                                                                                     | wired; no batteries              | 1 internal                                |
| IPX Rating                     | IP67                                                                                            | IP67                                                                                            | IP67                                                                                            | ---                              | IPX3                                      |
| Shock Sensor:                  | Yes, software recorded                                                                          | Yes, software recorded                                                                          | Yes, software recorded                                                                          | N/A fixed mounted                | ---                                       |
| Weight Bearing Cover:          | Up to 661 lbs (300 kg)                                                                          | Up to 661 lbs (300 kg)                                                                          | Up to 661 lbs (300 kg)                                                                          | ---                              | Up to 500 lbs (226.8 kg)                  |
| Warranty                       | Five (5) year global warranty on detector, including drop coverage with deductible <sup>1</sup> | Five (5) year global warranty on detector, including drop coverage with deductible <sup>1</sup> | Five (5) year global warranty on detector, including drop coverage with deductible <sup>1</sup> | Three (3) year standard warranty | Five (5) year standard warranty           |
| Auto Exposure Detection (AED): | Full-field                                                                                      | Full-field                                                                                      | Full-field                                                                                      | No                               | Yes                                       |
| Data Interface:                | IEEE 80211 ax<br>NFC & Infrared                                                                 | IEEE 80211 ax<br>NFC & Infrared                                                                 | IEEE 80211 ax<br>NFC & Infrared                                                                 | Ethernet cable                   | 802.11/a/b/g/n<br>2.4 / 5 GHz or ethernet |
| Weight:                        | 3.5 lbs (1.6 kg)                                                                                | 5.7 lbs (2.6 kg)                                                                                | 6.6 lbs (3 kg)                                                                                  | 25.8 lbs (11.7 kg)               | 22 lbs (10 kg)                            |

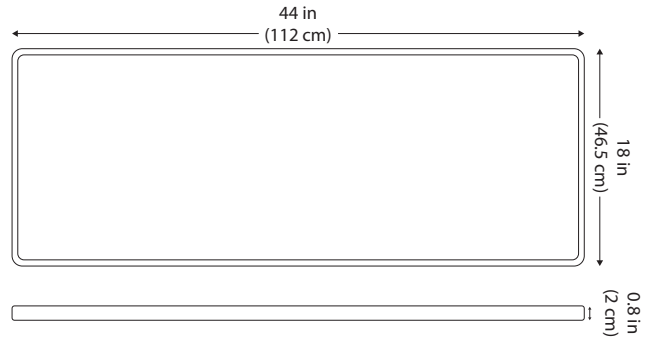
<sup>1</sup>Global Warranty can be purchased for a maximum of five (5) years - Replacement detectors are offered at \$7,500 per occurrence - Includes damages to the detector due to drops - Excludes cosmetic repairs, theft, and intended misuse - Excludes battery, charger, and configuration cable

E24Cw<sub>2</sub> DetectorE14Cw<sub>2</sub> DetectorE17Cw<sub>2</sub> Detector

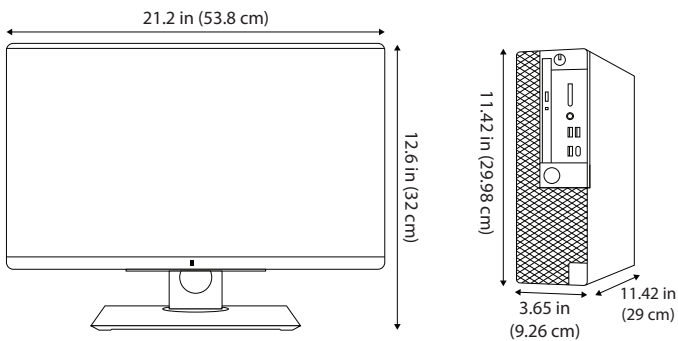
E17C Detector



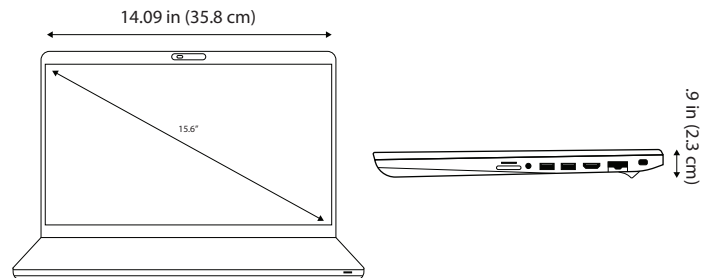
LLI Detector



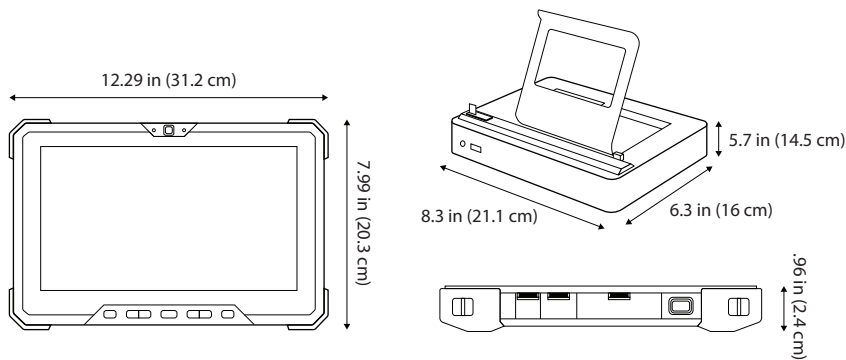
LLI Detector



Laptop Workstation



Tablet Workstation + Dock



# DEL MEDICAL



#9000-DELWORKS-DS Rev. C

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[www.delmedical.com](http://www.delmedical.com)