**Compact & Versatile Design for Maximum Flexibility**

# ≡XTRON 3 Omni

DRTECH

X

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+1-800-385-9593
www.televeresystems.com

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# ☰XTRON 3 Omni

**Compact & Versatile Design for Maximum Flexibility**

**Compact Design**
for small surgery rooms

**43" Wide Monitor**
for clear image viewing

23×23cm (9"x 9")

**Premium IGZO Detector Technology**
based on over 20 years of detector development experience

**32" Touch Monitor on Articulating Arm**

**Only Available for EXTRON 3 Omni**

**Removable Grid**
for low dose imaging

**15.6" Touch OP Console on 350º Rotating Arm**
for operational comfort

**Advanced Beam Filtration Technology** for reduced skin entrance dose

**Light Weight, Stable & Compact Monitor Cart**
*Option

**Easy Cable Maintenance**
for increased safety & system management

**Simple Power & HDMI Connection**

# EXTRON 3 Omni

## 5x Less Dose with TRUDigital Architecture

**TRU Dose** · **TRU Image** · **TRU Motion**

Premium imaging platform TRUDIGITAL Architecture provides flawless low dose imaging to meet the high imaging standards of any challenging surgical procedures. TRUDIGITAL powered by DRTECH's premium grade EXPEED surgical detector and state-of-the-art image processing technology provides faster and more accurate data processing resulting in superior image resolution and low-noise dynamic imaging performance.

| Features | EXTRON3 Omni |
|---|---|
| Detector Technology | IGZO flat Panel (23×23cm (9"x 9")) |
| Pixel Size | 148μm (23×23cm) |
| Power Generator | 5kW |
| RNR (Real-time Noise Reduction) | ● |
| Light Compact Monitor Cart | Option |
| Monitor Display | 32″ Touch Monitor |
| Orbital Movement | 165° |
| C-arc Depth | 73cm (28.7″) |
| C-arc Free Space | 80cm (31.6″) |

### TRUDose : Ultimate Low Dose Imaging

Low-dose, high-performance surgical imaging system with proven detector & dose reduction technology minimizing dose exposure for physicians, operators and patients.

- IGZO FPD Premium Low Dose
- RNR Real-time Noise Reduction
- AI Object Detection
- Diverse Dose Modes

### TRUImage : High Resolution, Low Noise Imaging

Advanced Real-time image processing technology with distortion-free FPD technology, highest image quality is guaranteed.

- FPD Large FOV
- 31.5″ Touch Monitor
- Needle Enhancement
- RNR Real-time Noise Reduction

### TRUMotion : Flawless Dynamic Imaging

User-friendly and usability-focused design for increased efficiency & convenience that help reduce surgery time and maximize surgical accuracy in any surgical environment.

- Smart Memory Position (option)
- Auto Drag Collimation
- Wide Depth
- Touch OP Console

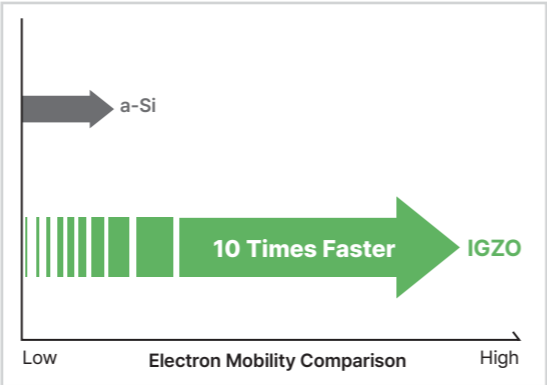# Premium Low Dose IGZO Technology for Perfect Low Dose Imaging

## Premium IGZO FPD Delivering CLEAN, NOISE-FREE, HIGH-RESOLUTION Surgical Images with Excellent Dose Efficiency

EXTRON provides superb image quality to meet the high imaging standards of any challenging surgical procedures. With DRTECH's over 20 years experience and know-how developing premium flat panel detectors, EXPEED FPDs integrated in EXTRON, provides distortion free, high-resolution real time images for accurate and fast image display.

## Large Field of View (FOV) without Image Distortion

23×23

21×21

**Image Distortion with I.I**

**Distortion-free FPD Image**

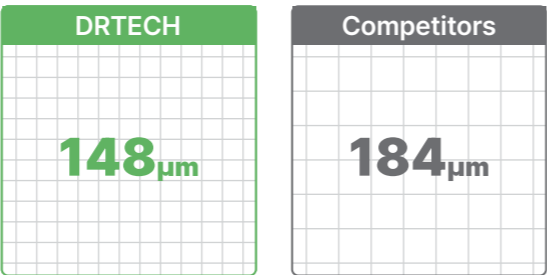## New Generation IGZO FPD for Surgical Imaging

**IGZO FPD's fast image transfer speed enables fast real-time image output without delay resulting in less image lag and faster image display**

DRTECH's next-generation IGZO TFT has 10-times faster electron transfer speed and significantly lower electrical leakage with significantly reduced image noise compared to a-Si TFT, providing high-definition diagnostic images at low dose conditions

a-Si

10 Times Faster    IGZO

Low    Electron Mobility Comparison    High

## High-Performance E≫PEED FPDs

23 x 23

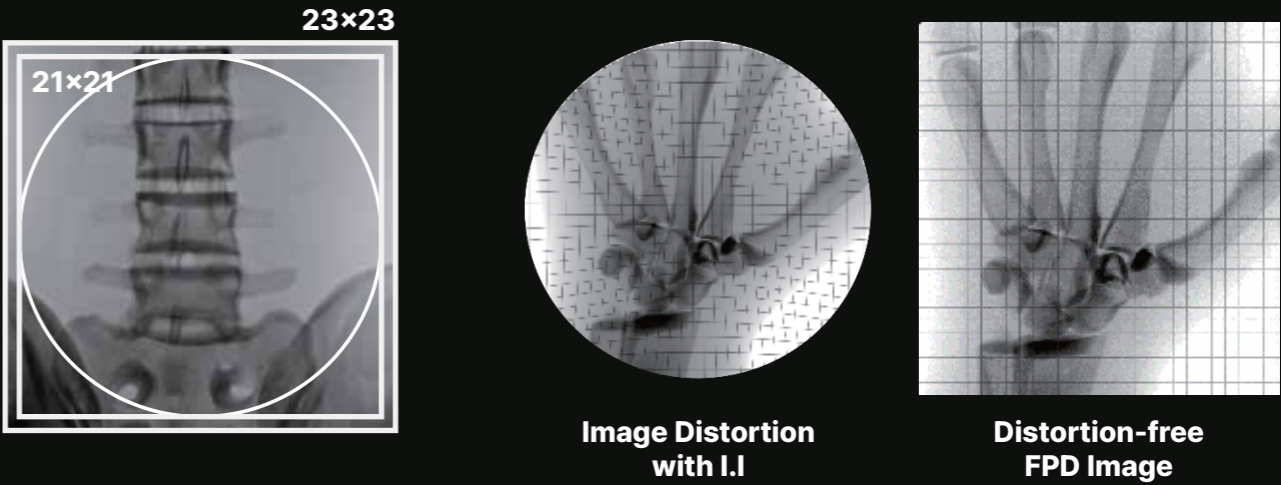| Scintillator | Cesium Iodide (Directly Deposited CsI) |
| --- | --- |
| Pixel Pitch | 148μm |
| Field of View | 23×23cm (9" x 9") |
| Resolution | 1,536×1,536 |

## Small Pixel Size for High Resolution Images

With it's small pixel size, EXTRON provides high-resolution clear images for more accurate and efficient diagnosis/ procedures. 23×23cm detector has 148μm pixel pitch being one of the smallest pixel sizes in the market.

| DRTECH | Competitors |
| --- | --- |
| 148μm | 184μm |

# TRUImage : Low Dose, High-quality Real-time Imaging

**Increase Surgical Accuracy with High-contrast, High-resolution, Low Noise Images**

EXTRON, with its flat panel detector technology and proprietary image processing technology, delivers superb image quality that enhances accuracy and surgical confidence, even in the most demanding surgical environments. Experience advanced solutions for high-quality images.

## RNR (Real-time Noise Reduction)

RNR (Real-time Noise Reduction) is DRTECH's cutting-edge technology that utilizes recursive filtration based on motion detection. Unlike conventional systems that apply recursive filters to the entire image, resulting in image lag and noise, RNR detects object movement and applies different recursive depths to motion and non-motion areas. This real-time and real-place noise reduction technique results in outstanding image quality with reduced lag and noise in dynamic surgical images.

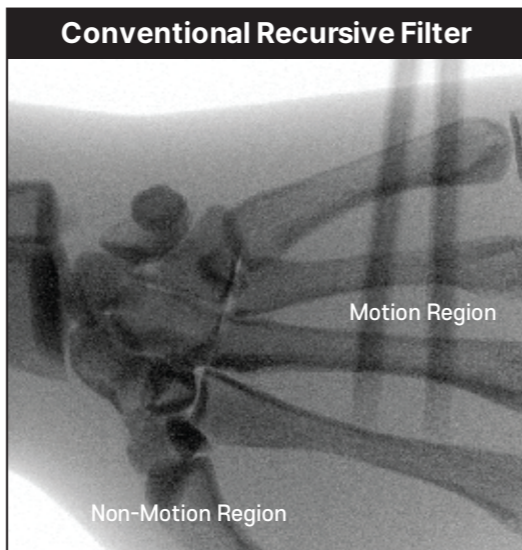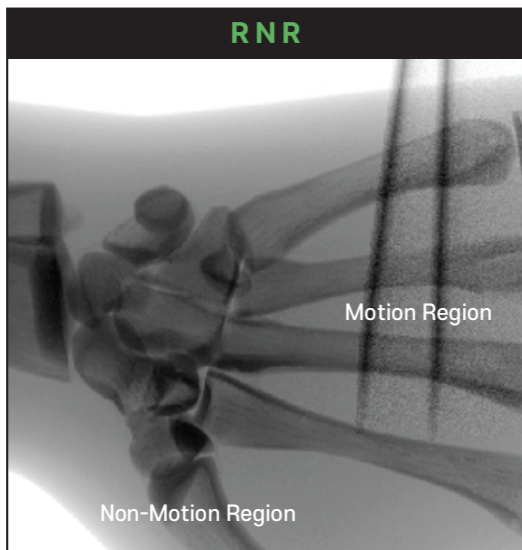## Fast & Accurate Noise Reduction: Real-time, Real Place

**0.2 sec** **Fast Noise Stabilization** within 0.2 Sec.

**No Image Lag** On Moving Surgical Tools

**Optimized Motion Detection** for Low Dose Mode


RNR — Motion Region / Non-Motion Region


Conventional Recursive Filter — Motion Region / Non-Motion Region

## Precision Control for Perfect Image Customization

**Extremities Orthopedics**

**Spine Surgery Neuro Surgery**

**Lv1** ← → **Lv5**

**High Noise** **Low Ghost**

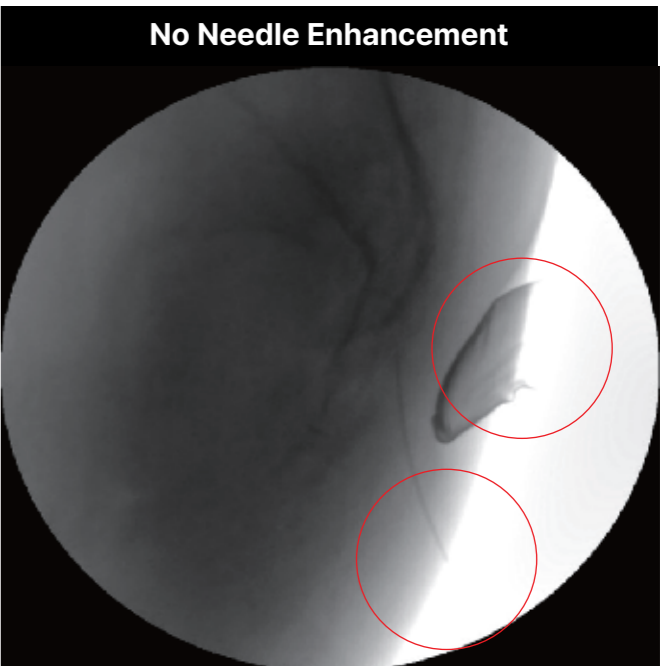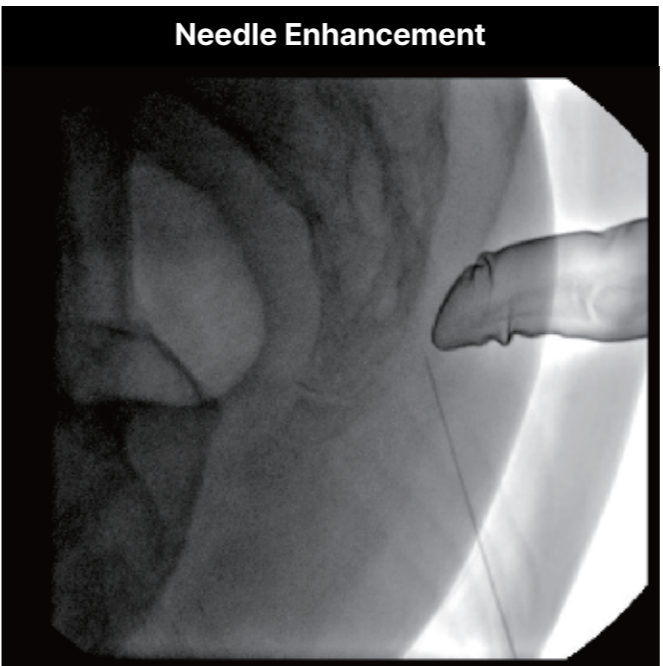**Low Noise** **High Ghost**

## Metal Detection

Metal Detection technology maintains the image brightness even when a surgical tool (metal) enters the imaging area during surgery, preventing excessive radiation exposure or degradation of image quality. This ensures a constant and excellent image quality throughout the surgery.


Metal Detection On


Metal Detection Off

## Needle Enhancement

Needle Enhancement technology prevents the disappearance of the needle even under high-dose conditions, ensuring safe and accurate surgical procedures.
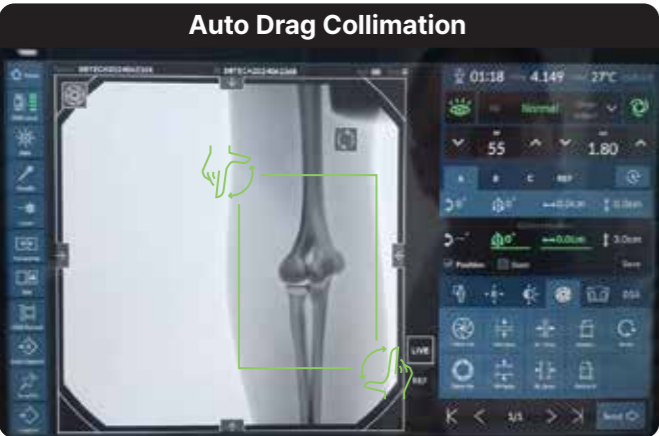

Needle Enhancement


No Needle Enhancement

# TRUMotion : Flawless Dynamic Imaging & Performance

User Centric Functions and Ergonomic Design for Maximum Operational Efficiency



803mm (31.6")

730mm (28.7")

**165°**
**FOR EASIER PATIENT COVERAGE**

## Auto Drag Collimation (OP Console Operatable)

Auto Drag Collimation function allows the operator to designate imaging areas (collimation area) from any location and size, simply by touching and dragging the desired imaging location on the OP display. The image is automatically collimated to prevent unnecessary dose. After collimation, the image is automatically enlarged to fit the image display.



Auto Drag Collimation



Digital Zoom

# Xconsole

**UI Software for EXTRON**

## UI Software for Maximized Surgical Workflow





**Easy Editing Tool**

**Unlimited Recording**

**Intuitive Information**

**Customizable Setting**

# Key Features



Unlimited Video Recording and Editing



Editable Reference Image