# EVALUATE THE APPLICATIONS AND POTENTIAL OF A TOMOSYNTHESIS SYSTEM TO SUPPORT CLINICIANS IN DIAGNOSIS OF CHEST AND LUNG DISEASES

NANOX.ARC IS A DIGITAL MULTI SOURCE 3D TOMOSYNTHESIS IMAGING SYSTEM AIMS TO BRING ADVANCED RADIOGRAPHIC VISUALIZATION TO ALL MARKETS.

Digital tomosynthesis (DTS) represents a significant advancement in imaging technology, offering a powerful solution for clinicians in detecting small lung nodules and other thoracic abnormalities. It bridges the gap between conventional X-rays and CT, delivering high-quality diagnostic images while minimizing patient radiation exposure and costs.

# NANOX.ARC: THE NEXT GENERATION IN MEDICAL IMAGING

- **Ilncrease diagnostic confidence:** Gain precise imaging providing clinicians with clinical insights utilizing our advanced tomosynthesis system, designed to support better patient care.
- **Broader Clinical Applications:** Allowing clinicians to provide more comprehensive diagnostic evaluations without resorting to higher-cost or higher-radiation imaging modalities.
- **Efficient and Patient-Friendly:** Nanox.ARC bridges the gap between standard X-rays and CT scans, offering clinicians detailed clinical insights with lower radiation exposure.

### **KEY BENEFITS OF NANOX.ARC:**

- Affordable, advanced digital imaging with flexible business models tailored to your practice's needs.  $\rightarrow$
- Enhanced visualization of anatomy, reducing the superimposition of structures compared to standard X-rays.  $\rightarrow$
- Lower radiation dose: delivering up to 80% less radiation compared to CT scans for equivalent body parts.  $\rightarrow$
- Fast, accurate diagnostics tool for clinicians for inconclusive 2D radiography reports, improving clinical outcomes.
- May enhance patient satisfaction with more comprehensive, faster, and safer diagnostic care of clinicians.  $\rightarrow$



Figure 1: A 2D conventional erect chest radiograph and the corresponding DTS and CT. A prominent nodule at the base of the left lung (red arrows) is clearly seen on the DTS and the CT. The lesion is barely seen on the 2D radiography even retrospectively.

### 2D Radiograph







### 2D Radiograph



### REFERENCES

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# NANOX

DTS

СТ

### Figure 2:

A 3 mm nodule is seen in the right upper lobe on the DTS and CT (red arrows). The nodule is not seen on the 2D radiograph, even retrospectively. On a different DTS and CT slices, a 1.2 cm nodule is clearly seen (yellow arrows) while on the conventional 2D radiograph it is obscured by the right hilum.

DTS

СТ

### Figure 3:

A patient with pulmonary fibrosis and a "honeycomb lung". The lesions are better appreciated on the DTS and the CT.

DTS

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## Figure 4:

A 2D conventional erect chest radiograph and the corresponding DTS and CT. A nodule in the left lung (red arrows) is clearly seen on the

DTS and the CT. The lesion is not seen on the 2D radiography even retrospectively.