

ProFound AI[®]

for Digital Breast Tomosynthesis



Discover the ProFound impact of our unrivaled 3rd generation artificial intelligence for digital breast tomosynthesis¹

Reading digital breast tomosynthesis (DBT) cases means being able to accurately interpret extensive amounts of data. Clinicians are confronted by the workload and time required to accurately read the data contained in DBT cases.

ProFound AI[®] is raising the bar on detection performance. It is a high-performing, concurrent-read, cancer-detection and workflow solution that rapidly and accurately analyzes each tomosynthesis image, detecting both malignant soft tissue densities and calcifications with unrivaled accuracy.

ProFound AI is proven to offer superior clinical performance²



8% improvement in sensitivity



7% reduction in rate of recalls



52.7% reduction in reading time for radiologists

ProFound AI 3rd generation performance^{1,3}



Up to 10% specificity performance improvement



Up to 1% improvement in sensitivity



Up to 40% faster processing

How does ProFound AI work?

The ProFound AI algorithm rapidly and accurately analyzes each individual image or slice and identifies potentially malignant lesions. Trained with one of the largest available 3D image datasets, ProFound AI provides radiologists with crucial information, such as lesion Certainty of Finding and Case Scores, which assists in prioritizing caseload, clinical decision-making and may help to reduce physician burnout.

Patient Benefits:

Assists in early detection, which can lead to improved outcomes

Reduces false positives/recalls

Improves detection accuracy

Facility Benefits:

Enhances patient care with improved detection technology

Improves workflow efficiency

Increases diagnostic confidence

Supports mixed tomosynthesis environments

Visit icadmed.com to request a demo



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1.866.280.2239

DMM252 Rev 1

ProFound AI is FDA cleared to offer superior performance and sensitivity to support radiologists in the fight against breast cancer with an unrivaled accuracy of detection.

Certainty of Finding and Case Scores

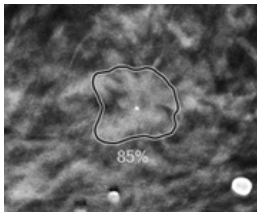
The ProFound AI algorithm is trained to detect malignant soft tissue densities and calcifications. Certainty of Finding and Case Scores are assigned to each detection and each case respectively. Certainty of Finding and Case Scores are relative scores computed by the ProFound AI algorithm and represent the algorithm's confidence that a detection or case is malignant.

The scores are represented on a 0% to 100% scale. A higher score indicates a higher level of confidence in the malignancy of the detection or case. The Certainty of Finding and Case Scores serve as a guide to the interpreting radiologist to aid in determining if a suspicious finding or case needs further workup.

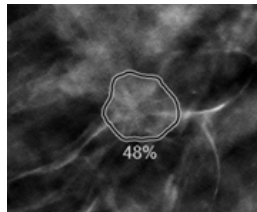
Certainty of Finding Score

Certainty of Finding Scores are assigned to each detection identified by the ProFound AI algorithm. The score represents how confident the algorithm is that the detection is malignant. Certainty of Findings scores assist in prioritizing caseload and clinical decision-making.

Examples with Certainty of Finding Scores for Soft Tissue Density Detections

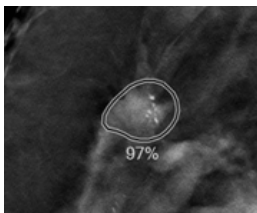


85% Certainty of Finding

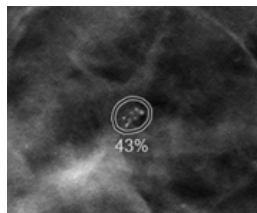


48% Certainty of Finding

Examples with Certainty of Finding Scores for Calcification Detections



97% Certainty of Finding



43% Certainty of Finding

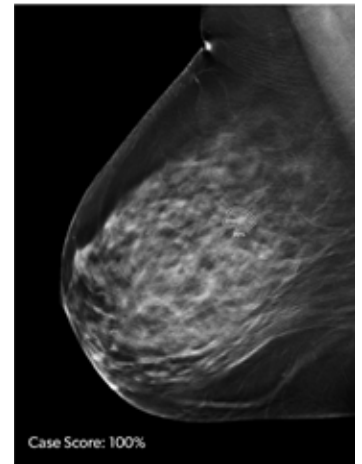
Case Score

Case Scores are assigned to each case by the ProFound AI algorithm. The Case Score represents how confident the algorithm is that a case is malignant. All cases, including those without detections, will be assigned a Case Score. Clinicians may use this Case Score information to gain a sense of case complexity, which may be useful for prioritizing the reading worklist if supported by the specific worklist provider.

Platform

ProFound AI runs on the industry-leading PowerLook® server platform with NVIDIA® Graphical Processing Units (GPU), the latest in powerful GPU technology. PowerLook is a flexible and reliable DICOM platform that easily integrates with image modalities, mammography review workstations, PACS, and image storage systems.

Leveraging the latest in GPU technology, the algorithm can rapidly process a 4-view tomosynthesis case, ensuring results are available to radiologists in the most efficient manner.



References:

1. iCAD data on file. FDA filing: K203822. Standalone performance varies by vendor. FDA Cleared and CE Mark Pending.
2. Conant, E et al. (2019). Improving Accuracy and Efficiency with Concurrent Use of Artificial Intelligence for Digital Breast Tomosynthesis. *Radiology: Artificial Intelligence*. 1 (4). Accessed via <https://pubs.rsna.org/doi/10.1148/ryai.2019180096>
3. Compared to previous versions of the software, the ProFound AI 3.0 algorithm offers up to a 10% improvement in specificity performance, up to 1% improvement in sensitivity, and up to 40% faster processing on the new PowerLook platform.