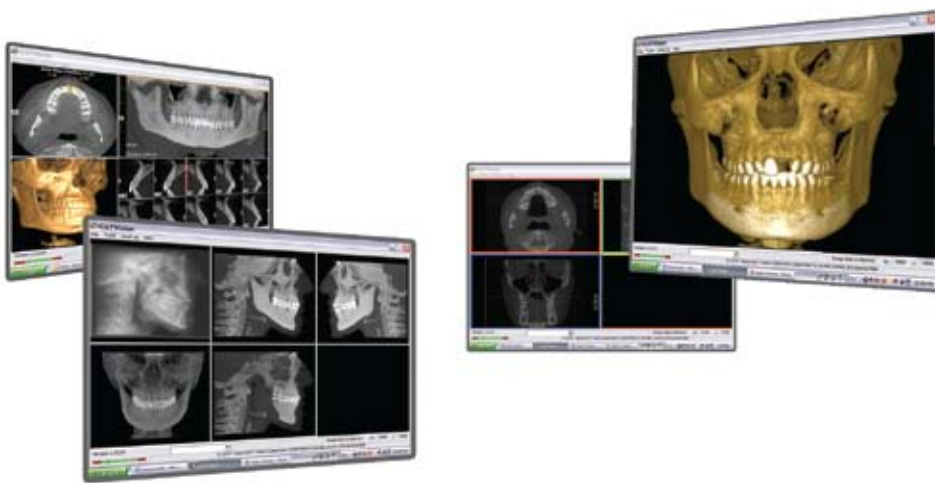


# i-CAT<sup>®</sup>

The Leader in Cone Beam  
3-D Dental Imaging

Surgical Predictability and Precise Orthodontic  
Treatment Planning with Superior 3-D Imaging





## Dedicated to Advancing Dental Treatment Technology

The i-CAT® provides dentists and specialists with the most complete information on the anatomy of a patient's mouth, face, and jaw areas by producing three-dimensional views of all oral and maxillofacial structures which leads to the most accurate treatment planning and predictable outcomes for surgical procedures.

The i-CAT® Cone Beam 3-D Dental Imaging System makes in-office, three-dimensional imaging quicker, easier and more cost effective with less radiation to the patient than traditional CT scans.

Global Presence  
for Over 15 Years

**Surgical Predictability:  
Virtual Planning with  
Distortion-Free Images**

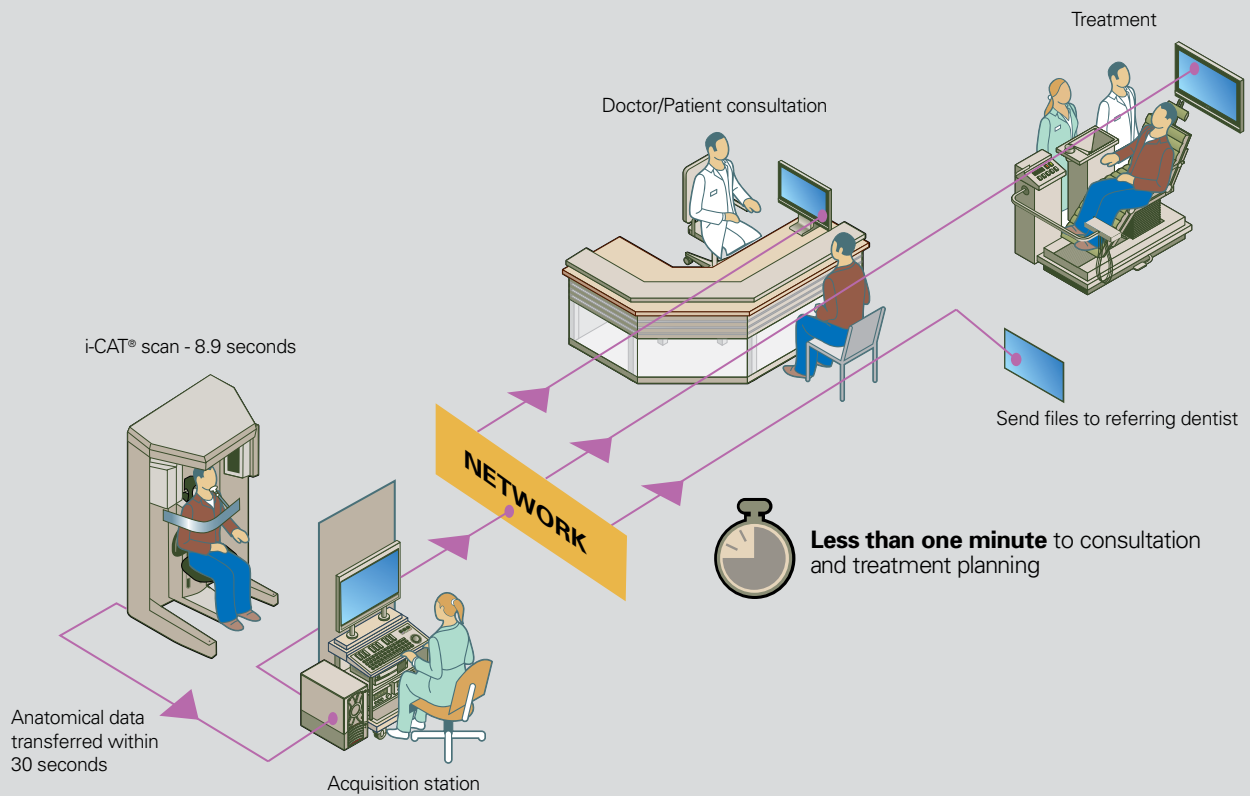
**Superior Image Quality  
& Anatomically Accurate  
3-D Patient Detail**

**Improved Practice  
Workflow: Fast Scan &  
Reconstruction Times,  
Smallest File Sizes**

**FREE i-CATVision™  
Sharing Software**

The i-CAT®'s technology and design place you at the center of patient care.

## Workflow Process



## Surgical Predictability for Implantology & Oral Surgery

*Achieve the most accurate planning and successful treatment for patients*

The i-CAT®'s high resolution, volumetric images provide complete three-dimensional views of critical anatomy for more thorough analysis of bone structure and tooth orientation to optimize implant treatment and placement, and selection of the most suitable implant type, size, location, and angulations prior to surgery.

Determine precise tooth position to visualize impaction within the alveolar bone, location relative to adjacent teeth, and proximity to vital structures, such as the nerve canal, sinus walls, and cortical borders.

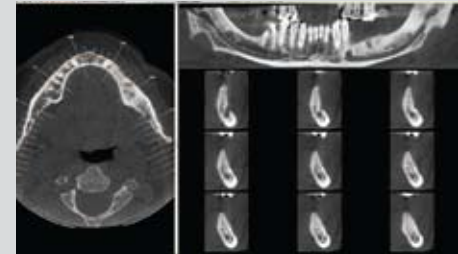
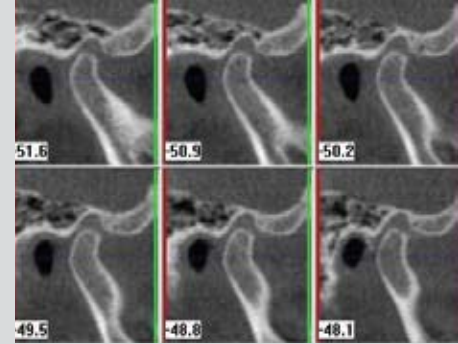
Accurately measure bone and jaw deformities, assess bone lesions and changes of the jaw, and detect other pathologies, such as cysts, tumors, and disease.

## 3-D Views of Critical Structures for Complete TMJ Analysis

3-D views of condyles and surrounding structures allows for complete analysis and diagnosis of bone morphology, joint space, and function – all critical to TMJ dysfunction treatment and care. High-speed scan captures TMJ jaw views quickly and accurately.

*Detect restricted airways and determine appropriate treatments*

Three-dimensional data enhances airway assessment and can result in reconsideration of the treatment plan if the patient has a typical airway, versus a restricted airway, which may be susceptible to collapse.



## Improving Orthodontic Diagnosis and Treatment

Improve diagnosis and treatment planning by providing the multiple projection perspective necessary to accurately assess tooth relationships and relative anatomy.

*Understand exact tooth position and relationship of abnormal anatomy*

More accurate 3-D views of impacted supernumerary or abnormal teeth in relationship to other anatomical structures, such as roots, nasal fossa, and sinuses to enhance accurate management of the treatment by understanding the tooth's position

and its relationship to adjacent teeth and structures.

More accurate information can result in less invasive surgery if extracting the tooth and better designs to align the tooth if moving it.



# i-CAT<sup>®</sup> Benefits and Features

Industry-Leading 8.9 Second Standard Scan Time

Fast Reconstruction of Full 3-D Volume within 30 Seconds

Smallest File Sizes at Less Than 50 MB for Greater Manageability and Storage

Extended Field of View with Ability to Collimate for Focused Scan Area

Proven Sensor Technology - Amorphous Silicon Flat Panel Sensor

Up to 10x Less Radiation Dose than Traditional CT

DICOM 3 Compatible Output for Maximum Interoperability with Third-Party Applications

FREE, Fully Functional i-CATVision<sup>™</sup> Software to Share with Referring Dentists and Specialists

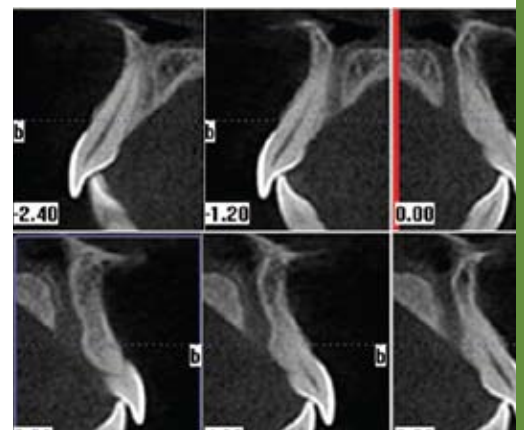
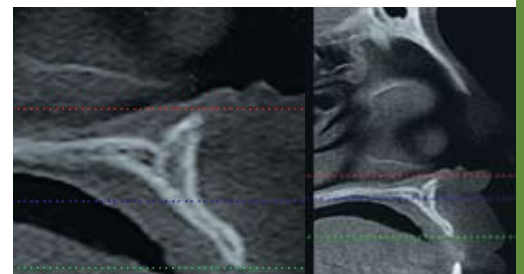
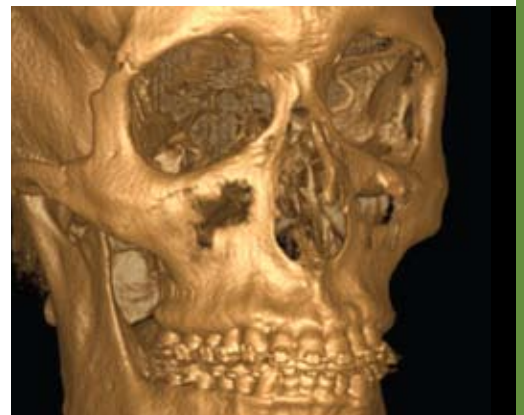
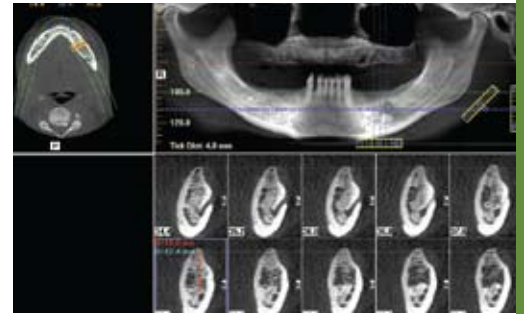
Sturdy, Seated Patient Positioning and Alignment for Better Image Quality

Small In-Office Design to Expand Service Offerings and Optimize Patient Flow

Superior Performance of Technology and Industry Reputation

Advanced R&D and Training, Customer, Technical and Marketing Support

3-D System of Choice Installed in More Than Half of the Leading Dental Schools and Universities



# Specifications

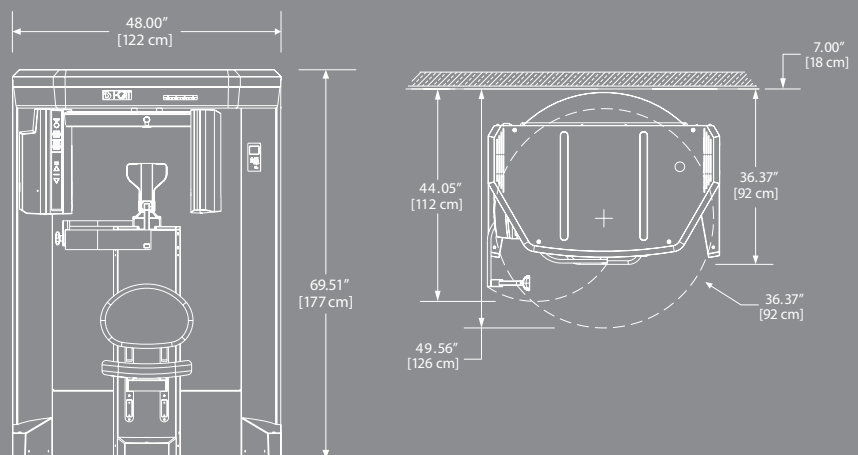


Functionality	Easy-to-operate push button controls
Low Radiation Dose*	Best image quality with less radiation to the patient Less than 1/2 the dose of a full mouth series NEW low dose settings for follow-up scans and children 36 - 74 µSv
Sensor Technology	Amorphous Silicon Flat Panel Sensor 16,384 shades of gray Best signal to noise ratio for clearer images Optional Extended Field of View with adjustable sensor to capture: - Landscape: Full resolution and detail obtained for smaller fields of view - Portrait: Captures Extended Field of View data
Software	Streamlined for Dental Workflow Free i-CATVision™ for unlimited networking and sharing DICOM 3 compatible output for sharing with third party applications Automatic Pan and Ceph reconstruction NEW practice management interface available with a growing list of providers DICOM functionality/PACS interface Automatic nerve canal estimation
Reporting	Available in i-CATVision™
Design	New clean design for aesthetics and ergonomics Sturdy and stable chair/head support mechanism - reduces patient movement and optimizes image quality Small in-office footprint
Support	Superior Customer Support – Technicians, Training, Marketing and Strongest R&D

Sensor Type	Flat panel 20 cm x 25 cm
Grayscale Resolution	14 Bit
Voxel Size	.4 mm, .3 mm, .25 mm, .2 mm, .125 mm
Collimation	Automatic
Scan Time	5, 8.9 or 26.9 seconds
Exposure Type	Pulsed
Effective Dose*	36 - 74 µSv
Field of View	Standard Scan: 4, 6, 8, 10, 13 cm height 16 cm diameter Extended Field of View: (Cephalometric): 17 cm height 23 cm diameter
Reconstruction Shape	Cylinder
Typical Reconstruction Time	Less than 30 seconds
Typical File Size	Less than 50 MB
Sharing Software	Included
Unit Size	48" (w) x 69.5" (h) x 36.37" (d)
Patient Position	Seated for greater stability

\*Based on ICRP publication 60: Recommendations of the ICRP

<b>Standard scan</b>
0.4 mm voxel
8.9 second scan time
36 µSv
13 cm (h) x 16 cm (d)
Reconstruction time < 30 seconds
Typical file size is < 50 MB



Available exclusively through



To learn more about the Next Generation i-CAT® 3-D dental imaging system contact your Henry Schein representative or call Imaging Sciences International at (800) 205-3570.

