

# ComfortScan® System Specifications

## Overall

|                            |  |
|----------------------------|--|
| Patient Position.....      | Standing                               |
| Breast Support Height..... | 39" (99 cm) above floor, minimum       |
| .....                      | 55" (140 cm) above floor, maximum      |
| Breast Support Tray.....   | 10" (25 cm) width                      |
| .....                      | 9" (23 cm) depth                       |
| Breast Compression.....    | 10 mm Hg pressure, typical             |
| Dimensions:                |  |
| Length.....                | <57" (145 cm)                          |
| Width.....                 | <24" (61 cm)                           |
| Height.....                | 65" (165 cm) min. to 81" (206 cm) max. |
| Overall weight.....        | <650 lb (295 kg)                       |

## Electrical

|                               |                            |
|-------------------------------|----------------------------|
| Input Voltage & Current ..... | 100-120 VAC 50/60 Hz < 4 A |
| .....                         | 220-240 VAC 50/60 Hz < 2 A |

## Imaging System

|                                 |                           |
|---------------------------------|---------------------------|
| CCD Resolution .....            | 768 X 512, 9 micron pixel |
| Image Binning.....              | 5 X 5                     |
| Dynamic Range.....              | 4096 (12-bit)             |
| ADC Gray Scale .....            | 4096 levels (12 bits)     |
| CCD Operating Temperature ..... | 32°F (0°C)                |
| System Noise .....              | <70 electrons (RMS)       |
| Lens.....                       | 8 mm, f1.3                |

## Illumination

|                    |                           |
|--------------------|---------------------------|
| Light Source ..... | Red LED, 627 nm (typical) |
| No. of LEDs.....   | 127, computer-controlled  |

## System PC

|                       |                           |
|-----------------------|---------------------------|
| CPU .....             | Intel Pentium IV, 2.0 GHz |
| Memory .....          | 512 MB RAM                |
| Hard Disk.....        | 40 GB                     |
| CD-R.....             | 52X Read/52X Write        |
| Video Memory.....     | 64 MB                     |
| Operating System..... | Microsoft Windows XP      |
| Archive.....          | CD-R – 640 MB             |

## System Display

|                 |                         |
|-----------------|-------------------------|
| Type.....       | Flat panel, LCD display |
| Size.....       | 15" (38 cm)             |
| Resolution..... | 1024 X 768              |

## Environmental

|                                       |                                  |
|---------------------------------------|----------------------------------|
| Operational Ambient Temperature ..... | 50°F to 95°F<br>(10°C to 35°C)   |
| Operational Relative Humidity .....   | 20% to 85%<br>(noncondensing)    |
| Storage Temperature .....             | -4°F to 140°F<br>(-20°C to 60°C) |
| Storage Relative Humidity.....        | 20% to 85%<br>(noncondensing)    |

## Regulatory Safety

|                                     |              |
|-------------------------------------|--------------|
| Electromechanical Safety .....      | UL 60601-1   |
| Electromagnetic Compatibility ..... | EN 60601-1-2 |
| Electro Medical Safety.....         | EN 60601-1   |
| Programmable System Safety.....     | EN 60601-4   |
| Risk Analysis .....                 | EN 1441      |
| Symbology .....                     | EN 980       |

All specifications are subject to change without notice.



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ComfortScan®  
System

A New Light in  
Breast Cancer Diagnosis





# The ComfortScan® System— Advanced Data for Breast Cancer Diagnosis

The DOBI Medical ComfortScan system is an advanced digital-imaging device designed to provide new information that may significantly advance breast cancer diagnosis. The ComfortScan system detects tumor angiogenesis, or abnormal blood vessel growth, which has been associated with aggressive or malignant breast tumors.

A valuable diagnostic tool, the ComfortScan system provides:

- Gentle, fast, nonradiographic breast examination for angiogenesis
- High-quality, near real-time digital scans using harmless light and proprietary image-processing algorithms
- A platform that can be expanded and used with other diagnostic systems

Unlike X-ray mammography, which provides a singular morphological image (i.e., a static snapshot of physical details at a single point in time), the ComfortScan system is designed to deliver functional, dynamic imaging of changes occurring within the tissue. In combination with mammography and ultrasound, the ComfortScan system should provide physicians with valuable, more complete information to help them determine whether a tumor is malignant or benign.

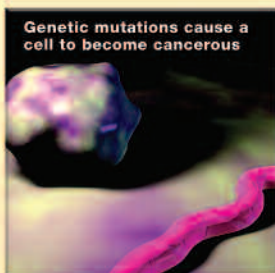


- UL 60601-1
- CE mark, ISO 9001 and 13485:2003

## Tumor Angiogenesis: Fueling Cancer Growth

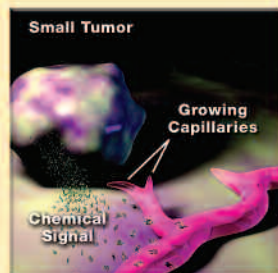
In 1994, the Angiogenesis Foundation identified angiogenesis as the “common denominator” in many of society’s most important diseases, including breast cancer. Research has shown that solid breast tumors become clinically relevant once they develop a blood supply. Recent advances in optical-imaging technology and image processing have focused on identifying the subtle vascular changes often associated with breast cancer in its earliest stages. Once detected, the changes constitute a unique vascular profile that has the potential to indicate the early presence of a vascularized lesion.

### Pre-Angiogenesis    Early Stage Angiogenesis    Advanced Angiogenesis



Genetic mutations cause a cell to become cancerous

Tumors need a fuel supply system for growth; more fuel often equals more aggressive growth



Small Tumor

Capillary and other blood vessel growth often promotes rapid tumor development



Growing Tumor

A dense network of blood vessels fuels the growth of the tumor

The DOBI Medical ComfortScan® system has obtained its CE mark and UL certifications. DOBI Medical is a certified ISO 9001:2000 and ISO 13485:2003 company. The ComfortScan system is an adjunct to mammography and is not yet commercially available in the U.S. as it is limited by U.S. law to investigational use until approved by the FDA, which cannot be guaranteed.

| Feature Functions                            | Benefits   |
|--|--|
| <b>Dynamic Optical Breast Imaging (DOBI)</b> | <ul style="list-style-type: none"> <li>■ Highly sensitive to the differential light-transmission properties of abnormal vascularization after external pressure stimulus</li> <li>■ Designed to provide new and unique physiological (functional) data currently not readily available to physicians</li> </ul>  |
| <b>Targets Angiogenesis</b>                  | <ul style="list-style-type: none"> <li>■ Designed to detect key indicators associated with breast cancer</li> <li>■ Visualizes angiogenesis, reducing ambiguity associated with imaging methods, such as mammography, that provide only morphologic (static) images</li> <li>■ Targets abnormal vascular bed, a potentially larger target than the tumor itself</li> </ul> |
| <b>Soft Breast Holder</b>                    | <ul style="list-style-type: none"> <li>■ Provides comfortable examination with gentle pressure on the breast</li> <li>■ Enhances attractiveness as a testing method</li> </ul>   |
| <b>High-Intensity, Light-Emitting Diodes</b> | <ul style="list-style-type: none"> <li>■ Noninvasive, no ionizing radiation</li> <li>■ Designed to overcome certain breast density limitations associated with mammography</li> <li>■ Can be used for premenopausal women and women on hormone therapy</li> </ul>  |
| <b>Fast Exam Time</b>                        | <ul style="list-style-type: none"> <li>■ Less than 1-minute image-scanning time</li> <li>■ High throughput</li> </ul>  |

**Malignant Case Study**

- 63-year-old woman with no prior history.
- Suspicious nonpalpable 10 mm mass seen on upper lateral quadrant on mammography. Mammographic findings were indeterminate (BIRADS 0).
- ComfortScan image reveals highly suspicious region in upper lateral quadrant.
- Case Conclusion: ComfortScan image consistent with core biopsy results revealing invasive ductal carcinoma.

**Benign Case Study**

- 57-year-old woman with no prior history.
- Suspicious nonpalpable 10 mm density seen in upper lateral quadrant on mammography. Mammographic findings were inconclusive (BIRADS 0).
- No suspicious areas observed on ComfortScan.
- Case Conclusion: ComfortScan image consistent with core biopsy results indicating benign condition.

## ComfortView™ Software— the Physician’s Interpretation Tool

DOBI Medical’s ComfortView software is a simple and intuitive tool for the analysis of angiogenesis and the assessment of breast disease. It enables a quick review and analysis of the dynamic images captured by the ComfortScan system. The Windows®-based software displays color images of the breast, which are color-mapped to indicate areas of increased vascularity. A temporal graph measures the hemodynamic response of the region of interest in the breast to gentle external pressure over time. Images are easily printed or digitally archived for future use and interpretation.