

# SKINTELL

High-Definition Optical Coherence Tomography for the dermatology, cosmetics and pharmaceutical industries.

SKINTELL High-Definition Optical Coherence Tomography (HD - OCT) is an innovative, non-invasive, high-quality and fast new technology for dermatological investigation.

- Non-invasive solution with high penetration depth, potentially replacing expensive and time-consuming biopsies
- High-quality, high resolution images in 3 modes
- Continuous focus tracking, for very high lateral resolution
- Fast, complete and movable solution for investigation and follow-up
- Patented technology
- Complementary solution to other dermatological technologies

## Non-invasive solution

Agfa HealthCare's SKINTELL solution offers a non-invasive way to visualize skin morphology, potentially without a biopsy, and to measure dimensions in skin layers. OCT uses infrared light optics (1300 nm), providing information previously only available by biopsy. And with a penetration depth of up to 1 mm, it provides extensive perspective.

## Intended use of SKINTELL

SKINTELL is a non-invasive infrared light optical device intended to create images of not open wounded human skin and the corresponding close-to surface tissue:

- for volume and cross-sectional imaging (penetration depth up to 1 mm, field of view: 1.8 x 1.5 mm)
- for high resolution rendering of structures down to 3  $\mu\text{m}$  dimension
- for geometrical length measurements.

## High-quality images in 3 modes

With the SKINTELL solution, you have three operation modes, to provide you with the perspective you need:

- *Slice mode* offers you a perspective similar to using ultrasound, with a true optical resolution of 3  $\mu\text{m}$  in real time, with typical skin cell size of 10 to 20  $\mu\text{m}$
- *En face mode* gives you the usual perspective - but parallel to the surface in real time
- With *high speed 3D mode*, there is no movement in the image, and the cuts are made with micrometer precision. A typical 3D image contains about 1 GB of information and takes only one second.





## Fast and convenient

Using SKINTELL, you can perform immediate skin and epidermis analyses in real time. The workflow is straightforward: you scan the patient's skin with the handheld SKINTELL probe and view the resulting 'virtual' biopsy on the PC.

The SKINTELL solution includes everything you need to perform examinations, including the non-invasive probe, the PC with monitor and the image and archiving software. Optical gel to ensure good contact with the skin is also included, while the footswitch and wheeled cart provide easy positioning. Movable, it can be easily and safely transferred from one room to another.

## Patented continuous focus tracking ensures very high lateral resolution in all dimensions

SKINTELL's focus tracking makes sure that the coherence plane and focal plane are always at the same depth position, by moving the optics synchronously with the reference arm. This gives you a very high lateral resolution, for a clearer differentiation of close but separate objects.



## Gel for excellent image quality

SKINTELL Optical Gel improves the image quality and increases the penetration depth of SKINTELL by adapting the optical refraction index of human skin. It does this by filling up pores and other skin asperities. SKINTELL Optical Gel may be applied on the sensor window or even directly onto intact human skin (not on open wounds). Using a dispenser allows you to obtain a thin, homogeneous gel layer.

## Complements other dermatology technologies

While standard magnifiers remain the most common tool used today, other technologies are gaining in popularity. Faced with an aging population and trends like an increasing number of skin cancers, dermatologists are turning to more innovative solutions. Dermoscopy, ultrasound and confocal microscopy address the superficial, dermis and cellular levels of the skin. OCT complements these technologies by reliably identifying the epidermis, the epidermal junction and the papillar dermis. Skin appendages such as hair follicles and eccrine ducts can also be easily identified. SKINTELL's potential reach goes far beyond dermatology, and it may be useful for dermatologists, plastic surgeons, pathologists and histologists in their daily practices.

And since it's from Agfa HealthCare, you know it's been developed by a world leader in medical imaging.

## Technical Specifications

### SKINTELL

- **Lateral resolution:** 3  $\mu\text{m}$
  - **Axial (depth) resolution:** 3  $\mu\text{m}$
  - **A-scans per second:** up to 320,000
  - **Field of view:** 1.8 mm x 1.5 mm
  - **Penetration depth in tissue:** up to 1 mm
  - **Type of product:**  
High-Definition Optical Coherence Tomography scanner for dermatology application
  - **Commercial name:** SKINTELL
  - **Original manufacturer:**  
Agfa HealthCare N.V.  
Septestraat 27, 2640 Mortsel, Belgium
- |                    |   |   |
|--------------------|---|---|
|                    | <b>6100/100</b>   | <b>6100/140</b>                                       |
| ■ <b>Labelling</b> | CE 93/42 EEC  | CE 93/42 EEC  |
| Europe             | 'Medical device' (Europe)   | 'Medical device' (Europe)                             |
|                    | EN 60601-1<br>CB - 60601-1<br>2 <sup>nd</sup> Edition +<br>S-Mark | EN 60601-1<br>CB - 60601-1<br>3 <sup>rd</sup> Edition |
| N-America          | -   | ETL us label:<br>AAMI ES 60601-1                      |
| Canada             | -   | ETLc label:<br>CAN CSA 22.2<br>No.60601-08            |
- **Dimensions:**

<b>Cart</b>	<b>Cart + monitor</b>
Length	685 mm
Width	560 mm
Height	750 mm
  - **Weight:**  
Packed: 117.5 kg  
Unpacked: 74 kg
  - **Electrical connection - operating current:**

<b>6100/100</b>	<b>6100/140</b>
230V 1.4A 50 - 60 Hz	115 - 120/230 - 240 V 2.8/1.4A 50 - 60 Hz

For Operation of SKINTELL an earthed wall outlet must be used.

- **Network connectivity:** Ethernet
- **Power consumption:** 253 W Stand-by  
304 W Normal Operation
- **Heat dissipation:** Maximum 230 W during operation
- **Environmental requirements**
  - The OCT system is compliant with the RoHS Directive 2002/95/EC.
- **Environmental conditions (operational):**
  - Temperature: Min. 20° C, Max. 30° C
  - Relative air-humidity: Min. 10%, Max. 75%
- **Environmental conditions (storage):**
  - Temperature: Min. -25° C, Max. 55° C
  - Relative humidity: Min. 10%, Max. 95%
- **Noise emission (PC):** 39.5 dB
- **Environmental conditions (transportation):**
  - Temperature: Min. -25° C, Max. 60° C
  - Relative humidity: Min. 10%, Max. 85%
- **Packed system (excluding the gel):**  
IEC 721-3-1: class 1K4
- **Display monitor:** BARCO MDRC-2124
- **PC:** HP Compaq 8000 Elite
- **Image processing software:** acquire, compare images, W/L, zoom, annotations, import camera images, color selection, save session data to external backup media, export session data as TIFF, DICOM, html (jpg images), import DICOM (jpg images), print on office printer, write reports
- **Operating system:** Windows XP

### SKINTELL Optical Gel

- **Storage conditions:**
  - IEC 721-3-2: class 2K2
  - Unopened gel: warehouse conditions must maintain a temperature range between 5° C and 70° C.
  - Once the gel is opened, it is recommended to consume the gel within one month.
- **Transport conditions**
  - During transport of the gel, the temperature must be kept in a range between 5° C and 70° C.

## Insight. Delivered.

Agfa HealthCare is a global leader in the fast growing market of integrated IT and imaging systems, offering healthcare facilities a seamless flow of information and a 360° view of patient care. The company has a unique, holistic approach, enabling it to provide in-depth clinical know-how and fully integrated hospital-wide solutions. These specialized solutions integrate IT and imaging systems for Radiology, Cardiology, Mammography and Orthopaedics. Agfa HealthCare's enterprise-wide IT platform integrates all administrative and clinical data within a healthcare facility and is designed to match the unique needs of specific healthcare professionals. ■

[www.agfahealthcare.com](http://www.agfahealthcare.com)

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