Cortex

DATASHEET

DermaLab Ultrasound Probe



Ultrasound Standard Probe

The Ultrasound Standard Probe provides objective and reliable measurement of the collagen level and dermal thickness of the skin.

Technology

Ultrasonic skin imaging is based on the detection of the acoustic response from the tissue.

When the emitted acoustic pulse hits the different structures of the skin, part of the pulse will be reflected and part of the pulse will be transmitted further into the skin. The reflected signal is detected by an ultrasound transducer.

The cross-sectional image visualized on the screen, represents an intensity analysis of the reflected signals from the tissue.

The intensity of the received signal refers to a color scale, where the dark colors represent areas with low density and the bright colors represent areas with high density.

When ultrasound travels through tissue, reflections of the ultrasound signal will happen as the tissue density differs.

The special developed software algorithms calculate and display skin thickness and skin density. The acoustic energy reflected from normal healthy skin correlate well with the amount of collagen.

Specifications

- Principle: Rotating single element transducer
- Frequency: 20 MHz, focused ultrasound
- Resolution: 60 µm x 200 µm (axial x lateral)
- Penetration: 3.4 mm
- Scan: Length 17 mm. Footprint: 11 mm
- Gain-range: Adjustable +/- 10dB
- Read out:
  Display of actual and stored measurements for intensity score, skin thickness, low echogenic band.

Benefits

- Cortex ultrasound is easy-to-use measurements of skin thickness and the skin's density/echogenicity.
- It is the preferred choice if you prioritize an easy-to-use system that gives you instant measurements of lower echogenic band (LEB), Skin thickness and skin density which correlate with collagen.

APPLICATION

Cortex Technology's high frequency ultrasound imaging systems are a non-invasive scientific method that facilitates advanced in-vivo skin analysis by visualization of the epidermis, dermis and subcutaneous layers.

The ultrasound systems are optimized for high resolution skin analysis.

Application areas

The application areas for the Ultrasound Probe are many, including:

- Anti-aging products
- Skin rejuvenation
- Anti-inflammatory
- Anti-wrinkles
- Photo aging
- Age band
- Lower echogenic band
- Skin thickness assessment
- Laser treatments
- RF treatments
- Microneedling treatments
- Supplements
- Injections
- Collagen booster
- Cremes
- Allergy / Irritancy
- Cellulite

The Ultrasound Probe

is one of 11 parameters available for the customizable skin analys tools: The DermaLab Combo and the DermaLab Mini. This Probe is also available as a single parameter.

To learn more about our solutions, visit cortex.dk

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