

# EXPLOIT TO THE FULL THE POTENTIAL OF U-SENSE & U-SENSE HD

**2 FIBER  
PIXEL**

The Fiber2Pixel technology gives striking contrast, allowing a better differentiation of the dental tissues.

**HD**

25 lp/mm high resolution for accurate and reliable diagnosis

**3**

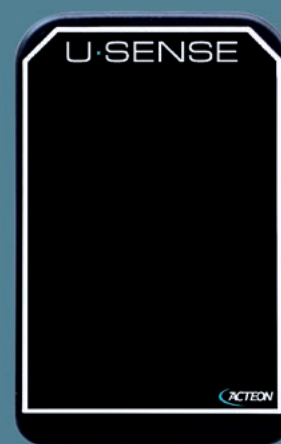
3 seconds acquisition time, benefit from instant display



Direct USB connection to ensure easy handling and usability



2 sizes available to match different patient's sizes and fulfil your clinical needs



## ACTEON SERVICE & YOU!

"Clinical trainers" are available to show you the clinical aspects and patient benefits of ACTEON® products and train you on how to use them.

Free, ongoing and unlimited service can be reached Monday to Friday, from 09:00 to 18:00.

ACTEON® can also analyse and troubleshoot remotely, and specialist technicians can provide on-site service as quickly as possible.

U-SENSE and U-SENSE HD are manufactured by de Götzen s.r.l and distributed by Acteon Group. The medical devices U-SENSE and U-SENSE HD are class IIa equipment within the meaning of the European Directive 93/42/CEE concerning CE markings. The devices are CE marked by the Notified body: IMQ – CE 0051. These medical devices for dental care are reserved for healthcare personnel; its are not covered by health insurance providers.

## TECHNICAL SPECIFICATIONS

### U-SENSE

SIZE 1

- External dimensions.....38.6x24.7x5.2 mm / 1.6x1.0x0.2 in
- CMOS matrix size 1 (rounded angles) ..... 30x20 mm (600 mm<sup>2</sup>)
- Detector active surface in size .....1.2x0.8 in (1.0 in<sup>2</sup>)
- Detector active surface in pixel ..... 1500x1000 pixels
- Pixel dimensions.....20x20 μm

SIZE 2

- External dimensions..... 43.2x30.8x5.2 mm / 1.7x1.2x0.2 in
- CMOS matrix size 2 (rounded angles) ..... 34x26 mm (900 mm<sup>2</sup>)
- Detector active surface in size .....1.3x1.0 in (1.3 in<sup>2</sup>)
- Detector active surface in pixel ..... 1700x1300 pixels
- Pixel dimensions.....20x20 μm

#### GENERAL SPECIFICATIONS (U-SENSE SIZE 1 AND 2)

- Sensor technology..... CMOS
- Scintillator..... Gadox
- Detector wire length .....3 m / 9.9 feet
- Grey levels .....14 bits (16384 grey levels)
- Connection .....Standard USB port: USB 2.0 High Speed (480 Mbit/s) and USB 3.0
- Nominal system consumption.....0.5 VA
- Entry voltage .....5V (with USB connection)
- Entry current .....0.15 A max
- Operating temperature ..... From +10°C to 40°C / from 50°F to 104°F
- Maximum temperature .....12°C (54°F) higher than maximum environmental temperature of 40°C (104°F)
- Detector resolution ..... Theoretical: 25 lp/mm  
.....Real: 12 - 14 lp/mm
- CTF – Contrast Transfer Function (at 70 kVp - 1,5 mm ABS filter) ..... 0,08 @ 10 lp/mm
- OUTPUT - LSB (at 70 kVp - 1,5 mm ABS filter) ..... 1400 @ 100 μGy
- CMOS lifetime ..... Typical 100.000 cycles

### U-SENSE<sup>HD</sup>

SIZE 1

- External dimensions..... 38.6x24.7x5.2 mm / 1.6x1.0x0.2 in
- CMOS matrix size 1 (rounded angles) ..... 30x20 mm (600 mm<sup>2</sup>)
- Detector active surface in size .....1.2x0.8 in (1.0 in<sup>2</sup>)
- Detector active surface in pixel ..... 1500x1000 pixels
- Pixel dimensions.....20x20 μm

SIZE 2

- External dimensions..... 43.2x30.8x5.2 mm / 1.7x1.2x0.2 in
- CMOS matrix size 2 (rounded angles) ..... 34x26 mm (900 mm<sup>2</sup>)
- Detector active surface in size .....1.3x1.0 in (1.3 in<sup>2</sup>)
- Detector active surface in pixel ..... 1700x1300 pixels
- Pixel dimensions.....20x20 μm

#### GENERAL SPECIFICATIONS (U-SENSE HD SIZE 1 AND 2)

- Sensor technology..... CMOS
- Scintillator..... Caesium Iodide (CsI)
- Detector wire length .....3 m / 9.9 feet
- Grey levels .....14 bits (16384 grey levels)
- Connection .....Standard USB port: USB 2.0 High Speed (480 Mbit/s) and USB 3.0
- Nominal system consumption.....0.5 VA
- Entry voltage .....5V (with USB connection)
- Entry current .....0.15 A max
- Operating temperature ..... From +10°C to 40°C / from 50°F to 104°F
- Maximum temperature .....12°C (54°F) higher than maximum environmental temperature of 40°C (104°F)
- Detector resolution ..... Theoretical: 25 lp/mm  
.....Real: 18 - 20 lp/mm
- CTF – Contrast Transfer Function (at 70 kVp - 1,5 mm ABS filter) ..... 0,25 @ 10 lp/mm
- OUTPUT - LSB (at 70 kVp - 1,5 mm ABS filter) ..... 1900 @ 100 μGy
- CMOS lifetime ..... Typical 100.000 cycles

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EN

# IT'S TIME FOR PLUG & PLAY

U-SENSE

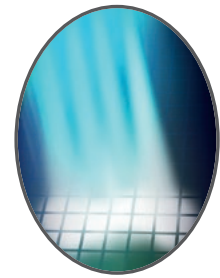


**ACTEON**

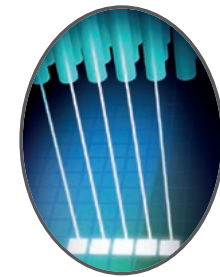
# STRIKING CONTRAST FOR RELIABLE DIAGNOSIS

**2 FIBER  
PIXEL**

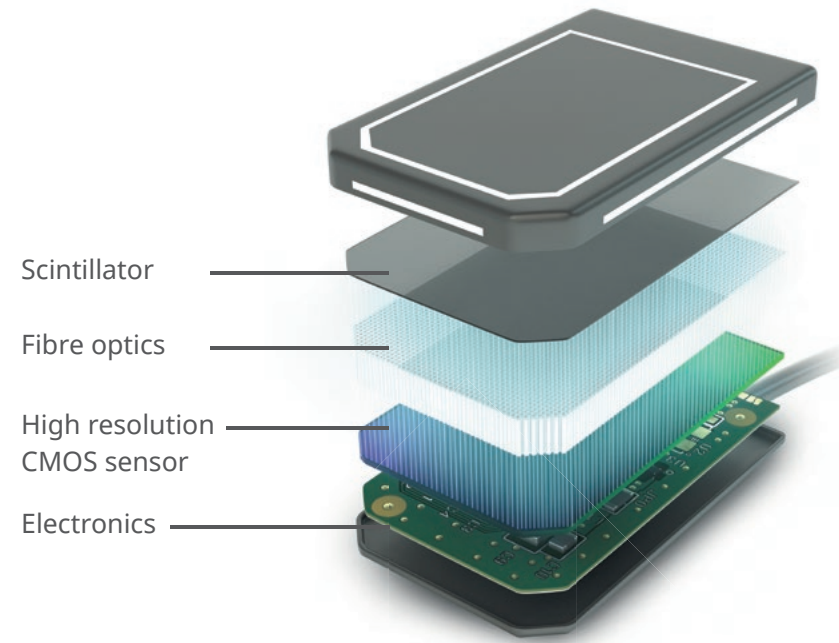
The optical microfiber guided transmission of photons is the core of U-SENSE and U-SENSE HD multi-layer technology, always providing low noise and high contrast images.



WITHOUT FIBRE



WITH FIBRE



**Displaying the region of interest with outstanding sharpness is matter of seconds**



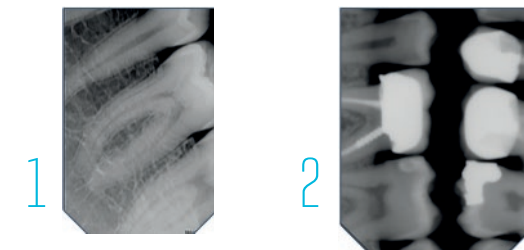
# MAKE PROCEDURES COMFORTABLE

U-SENSE and U-SENSE HD 's rounded corners are designed to improve patient's comfort, a key component for ensuring accuracy in diagnostic imaging.

# HIGH-QUALITY IMAGES FOR ANY CLINICAL NEED

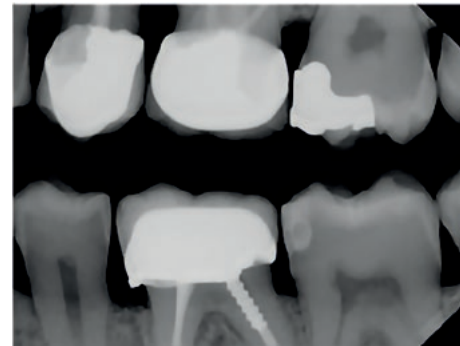
**25**  
lp / mm

U-SENSE and U-SENSEHD come in two different sizes. The active area of 20x30 cm corresponding to the size 1 it's suitable for pedodontics, periapical and endodontics images, while the 26x34 cm of the size 2 are ideal for occlusal and bitewing examinations. With its resolution of 25 lp / mm the HD version further provide high quality images ensuring accuracy and reliability in diagnostics.



Scale 1:1

## BITEWING



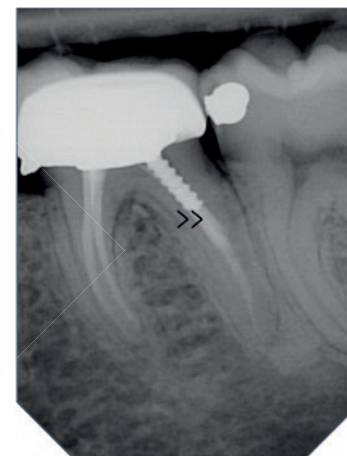
Visualize the crowns of the (posterior) teeth and the height of the crestal margin in relation to the cementoenamel junction to evaluate the periodontal tissue.

## PERIAPICAL



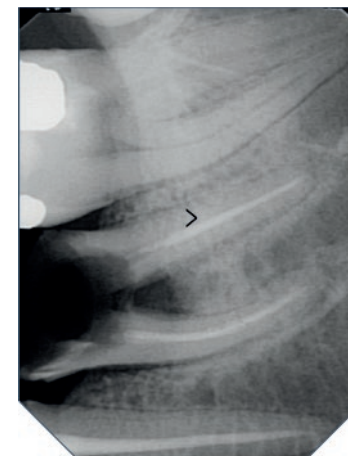
Anterior and posterior teeth from crown to root.

## ENDODONTIC



Intraoral examination taken during the canal treatment on a patient.

## POSTERIOR



Intraoral examination similar to periapical, but taken only in the region of the molars and with closed mouth.

# QUICK AND DIRECT USE

**DIRECT  
USB  
CONNECTED**

U-SENSE & U-SENSE HD are direct USB connected thus ensuring high usability in your daily workflow.

The 3 meters cable length make its adaptable to any type of dental office. The shock absorption area integrated in the multi-layer structure of the sensor provides reliability and strong durability.



\* Available only on U-SENSE HD

# EXCEL IN YOUR ANALYSIS IN RECORD TIME

WITH THE POWERFUL AND HIGH-PRECISION SOFTWARE



WINDOWS®  
COMPATIBLE