



It's razor-sharp!

See. Diagnose. Treat.



Medical cameras



Intraoral cameras



Stroboscopy



Surgical loupes



Light systems

High-precision HD images

The ultimate in compact performance



M-CAM HD



An Endoscope HDTV Adapter specially designed for the **M-CAM HD** delivers vivid and highly defined images. The Endoscope HDTV Adapter is available as an optional extra and can simply be screwed onto the **M-CAM HD**. The camera has been designed in compliance with IP68 standards, i.e. it can be immersed in a disinfectant solution for 24 hours. Thus, in addition to offering state-of-the-art technology, it also meets the very latest standards of hygiene.

	M-CAM HD
Weight	70 grams (without TV Adapter)
Dimensions	41 x 40 x 32mm (W x H x D)
Housing	Aluminium – stainless steel
Control	2 freely configurable buttons
Device status	LED status display – On-screen overlay
Connection	USB 2.0 port or higher
Operating system	Windows – macOS
Update	Online update function
Driver	UVC standard technology
Disinfection	IP 68 – 24-hour immersion
ON/OFF	Motion detection

Light, ergonomic and versatile

When it came to developing and engineering our new medical camera, the aspects of ergonomics, hygiene and cutting-edge technology were foremost in our minds. Having set itself a particularly ambitious goal, our development team came up with an entirely new camera concept for state-of-the-art endoscopy.

Not only does the **M-CAM HD** meet all the requirements specified above, it also excels in terms of size and weight – an ultra-small camera head weighing a mere 70 grams. As a result, the camera is highly ergonomic and barely noticeable within the endoscopic system itself. Thanks to its superb combination of low weight

and small footprint, the imaging device boasts excellent handling in any situation. Incorporating the most pioneering technology available, **M-CAM HD** can be operated without special drivers and with no need for installation. The camera is simply connected to a USB 2.0 port.

The **M-CAM HD** is controlled via two freely configurable buttons located on the camera head. An LED status display within the camera head provides details of the function selected. As an option, all functions can also be displayed directly on the live screen.

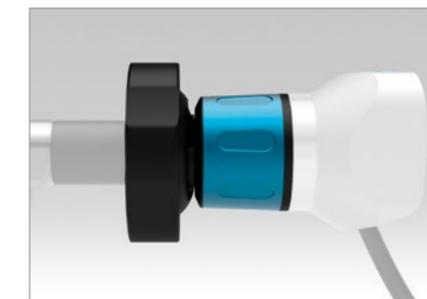
Weight and handling

Just 70 grams and an ultra-slim design of 41 x 40 x 32 mm



Endoscope HDTV Adapter

Optional high-definition TV adapter for perfect image quality



Disinfection

IP68 – 24-hour immersion in disinfectant solution



Ultra-precise HD images

perfectly illuminated and sharper than Full HD

State-of-the-art HD SHOT camera technology for crystal-clear images and natural colours



Sharpness: standard intraoral camera (left image) compared to L-CAM HD SHOT (right image) Comparison of image sizes and resolutions



Extraoral image Intraoral image Macro image

L-CAM HD SHOT is our newest innovation, offering unparalleled HD quality. The high-resolution optical glass and HD sensor deliver ultra-sharp full-screen images.

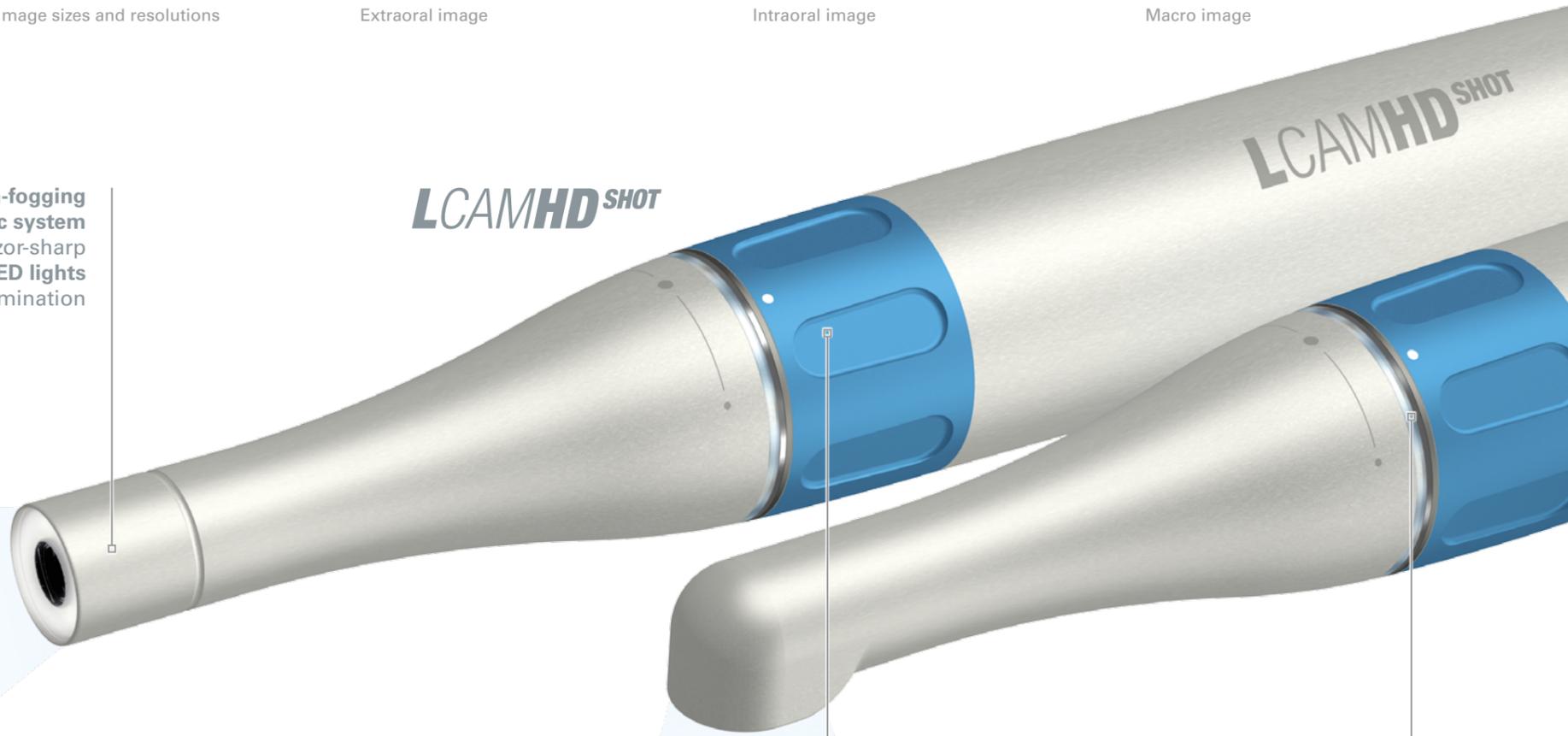
L-CAM HD SHOT records images with 2592 x 1944 pixels, which equals twelve times higher resolution than images generated by standard intraoral cameras. This even outperforms the Full HD standard by far and shows intricate details that would otherwise remain undiscovered.

The **automatic lighting** contains 16 high performance LED lights for perfect illumination of any area of the mouth. It delivers crystal-clear images with accurate color representation for optimal patient counselling.

The integrated **update function** keeps you "up to date" and enables future downloads for improvements and functionality enhancements.

High-quality, non-fogging glass optic system produces razor-sharp images, 16 LED lights provide perfect illumination

LCAMHD^{SHOT}



The camera is controlled entirely with the help of the **interactive touching**, which can be touched from any position and produces LED signals for feedback and confirmation.

Using the **continuously variable** control ring, you can adjust the most appropriate focus for extraoral full-face images as well as quadrant and macro images.

Incorporating the most pioneering technology available, L-CAM HD SHOT can be operated without special drivers and with no need for installation.

Plug in · Position · Activate · Finished!



State-of-the-art HD SHOT camera technology

for crystal-clear images and natural colours



High-quality, non-fogging glass optic system produces razor-sharp images, 16 LED lights provide perfect illumination

L-CAM HD SHOT 0°

Interactive touching can be touched from any position and produces LED signals for feedback and confirmation

The camera is made of durable high-quality aluminium and can be cleaned unhesitatingly with alcohol-based disinfecting agents.

Connection socket on the back of the camera and metal plug with locking system ensures perfect contact with the camera cable and is easy to insert and remove

L-CAM HD SHOT 90°

Optics with 90° angle of view give you the option of choosing the L-CAM HD SHOT version that best suits your personal working method

Continuously variable control ring to adjust focus

USB Plug fits all standard computers, notebooks and tablets with USB 2.0 or USB 3.0 connector



The accessory set increases the range of applications for your L-CAM HD SHOT (0° optics).

Mirror attachment, PA probe and a single tooth attachment extend the functionality of the camera and improve your photo results.

Accessories

for your L-CAM HD SHOT

Camera holder for camera storage

Only one USB cable is required for power supply and data transfer. It is available in lengths of 2m/3m/5m.



Vocal folds in high resolution

A revolution in digital stroboscopy



STROBOLIGHT

Portable and efficient for multi-device use

Our developers set themselves the ambitious goal of designing a stroboscope that is fully portable so that it can be used at various locations. The **STROBO-LIGHT** sets new standards.

All that is needed: a computer, notebook or tablet with a free USB port. The USB stick operates as the control unit of the **STROBO-LIGHT** and is simply connected to a standard USB port. The USB port supplies sufficient power for the entire system. Therefore, the device can also be operated by battery-powered notebooks.

The high-power LED light source is connected directly to the control unit. Thanks to its screw adapter, it can be deployed in conjunction with any conventional endoscope system. Producing 800 lumen and a colour temperature of 5600 kelvin, it ensures ultra-bright illumination in rigid as well as flexible endoscopes.

We have also come up with a pioneering microphone design – an essential prerequisite for high-precision stroboscopy. The contact microphone is attached directly

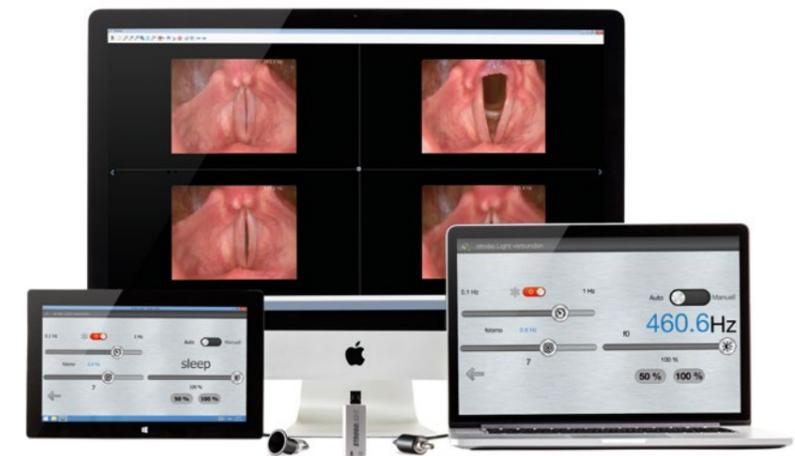
to the throat by means of a replaceable hook and loop fastener or by hand. This ensures precise frequency detection in the range from 70 to 1100 hertz.

The **STROBO-LIGHT** Control Center app is responsible for controlling all functions of the **STROBO-LIGHT**. With the help of the app, for instance, the medical practitioner can switch between permanent and stroboscopy light – with a simple click. In permanent-light mode the luminous intensity can be freely adjusted. In stroboscopy mode the user can select between slow motion and still frame with a 360-degree phase change. The slow motion function can be adjusted in a frequency range from 0.1 to 10.9 hertz and allows perfect diagnostics irrespective of the frequency range selected.

The **STROBO-LIGHT** can be used either as a standalone system or in conjunction with existing equipment:

simply connect the USB stick · position the laryngoscope · carry out the stroboscopy · finished!

	STROBO-LIGHT
Weight	190 grams (entire system)
Dimensions	66 x 22 x 9 mm (W x H x D)
Housing	Aluminium – stainless steel
Control unit	USB stick – USB 2.0 port
Light source	High-power LED – 800 lm- 5600K
Microphone frequency range	70 – 1100 hertz
Operating modes	Permanent light Slow motion 0.1 Hz – 10.9 Hz Phase change 0° – 360°
Control	STROBO-LIGHT Control Center (included)
Operating system	Windows – macOS
Connection	USB 2.0 port or higher
Update	Online update function



Multi-device use
Windows PC, Mac, notebook or tablet

The USB control unit with connections for the LED endoscope light and the patient microphone.



The LED endoscope light can be used in conjunction with any type of endoscope (flexible or rigid) – in stroboscopy or permanent-light mode.



The special microphone with a frequency range from 70 to 1100 hertz.



SPORT-FRAME Loupes

with VDC loupe technology

Waterproof and high-resolution TTL optics for brilliant visual comfort

Magnetic adaptor for quick attachment and detachment of the LED-LIGHT systems

Optional clip for individual glasses for long and short distance correction

Lightweight glasses frame made of flexible plastic for perfect protection available in two sizes

Pliable temples with rubber inserts for perfect adjustment to the head

Fog-free protective glasses for perfect protection available in three sizes

VDC optics with customized adaptation to prescription and working distance

Individually adjustable nose pads for perfect fit available in two sizes

Patented click in system for clip comfort head band made of washable textile

Extremely high depth of field and brilliant edge acuity

With a proven track record spanning several decades, we specialise in the development of high-performance magnifying eyewear. Our focus is on combining the very best in optical technology with unparalleled comfort.

The new VDC lens system (Variable Distance Control) attains both an extremely high depth of field and excellent edge acuity at 2.5x, 2.8x and 3.8x magnification.

The combination of a new anti-mist protective visor, a replaceable comfort nose pad and the dioptre adjustment option for people who wear glasses opens up completely new viewing possibilities and ensures improved wearing comfort – and everything at the highest safety standards.

Properties

	Magnification	Work distance	Visual field	Depth of field	VDC loupe technology	Waterproof loupes	Dioptre balancing
	🔍	📏	⊖	⊕	👁️	🌧️	∞
TTL X-View 2.8	2.8x	individually	110 mm	200 mm	✓	✓	✓
TTL M-View 2.8	2.8x	individually	90 mm	170 mm	✓	✓	✓
TTL S-View 2.8	2.8x	individually	80 mm	140 mm	✓	✓	✓
TTL M-View 3.8	3.8x	individually	70 mm	130 mm	✓	✓	✓
TTL TC-View 2.5	2.5x	360 mm	100 mm	160 mm	✓	✓	✓
TTL TC-View 2.5	2.5x	420 mm	110 mm	180 mm	✓	✓	✓

TTL X-View 2.8
Amazing universal

TTL M-View 2.8
The compact class

TTL S-View 2.8
Our light-weight

TTL M-View 3.8
The new dimension

TTL TC-View 2.5
The entry-level model



Available colours:



TITAN-FRAME Loupes

with VDC loupe technology

Waterproof and high-resolution TTL optics for brilliant visual comfort

Magnetic adaptor for quick attachment and detachment of the LED-LIGHT systems

Corrective glasses with individual dioptre balance

VDC optics with customized adaptation to prescription and working distance

Silicone rubber nose pads for perfect and comfortable fit

Pliable titanium temples with plastic temple tips for perfect adjustment to the head

Lightweight frame made of high-grade titanium, available in three colours

Ultra-sharp vision with individual corrective glasses

As an addition to our SPORT-FRAME range we have developed the new **TITAN-FRAME**. Thanks to this extremely light and modern frame, a corrective lens can be integrated directly in the glasses. Thus, spectacle wearers can enjoy the benefits of a loupe that has been tailored to their personal requirements.

Available colours:



The new **TITAN-FRAME** guarantees accurate diagnosis and effortless treatment in every loupe combination.

Properties

	Magnification	Work distance	Visual field	Depth of field	VDC loupe technology	Waterproofed loupes	Dioptre balancing
TTL X-View 2.8	2.8x	individually	110 mm	200 mm	✓	✓	✓
TTL M-View 2.8	2.8x	individually	90 mm	170 mm	✓	✓	✓
TTL S-View 2.8	2.8x	individually	80 mm	140 mm	✓	✓	✓
TTL M-View 3.8	3.8x	individually	70 mm	130 mm	✓	✓	✓

TTL X-View 2.8
with individual corrective glasses



TTL M-View 2.8
with individual corrective glasses



TTL S-View 2.8
with individual corrective glasses



TTL M-View 3.8
with individual corrective glasses



LED-LIGHT CIRCLE

for a perfectly illuminated field of vision



LEDLIGHTCIRCLE

LED-LIGHT CIRCLE	
 Weight	12 g
 Brightness	20.000 / 30.000 / 60.000 LUX
 Battery	Li-Ion technology, rechargeable
 Battery life	7 hours at 60.000 LUX
 Filter	Folding orange filter (optional)
 LED light colour	Daylight temperature 5.700 Kelvin
 Lens system	Glass lens
 Housing colours	Aluminium in black or silver
 Adaptor system	magnetic, available for all types of surgical loupes
 Cleaning	housing without air inlet vents easy to disinfect

Compact, lightweight and ultra-bright

The **LED-LIGHT CIRCLE** has been specially developed for medical use. It produces an extremely bright light that provides uniform, shadow-free illumination.

Thanks to its glass lens system, the **LED-LIGHT CIRCLE** guarantees a perfectly illuminated, sharp-edged, true-colour field of vision without dazzling the patient. The axial connection to the loupe provides a direct link to the field of vision, ensuring that the treatment area is perfectly illuminated in every situation. Even when working in difficult-to-access areas, the **LED-LIGHT CIRCLE** ensures you are never in the dark.

The integrated LED technology combined with the lithium-ion battery (supplied) means it can be used without distracting waveguides. This protects your neck and helps you to work in a more ergonomic way. And at just 12 grams, the lightweight **LED-LIGHT CIRCLE** is ideal for all kinds of applications, including the operating theatre and treatment room – and even mobile use.

For dental medicine, the optional orange filter has been directly integrated onto the sturdy aluminium housing. It can be folded down quickly and easily as required.

Features of the LED-LIGHT CIRCLE
Magnetic adapter



Folding orange filter (optional)



Light field – glass lens system

