



## X-Loupe

The new digital portable field microscope

Germany: Patent Number Nr. 20 2006 001 999.5 U.S. and China: Patent Pending

Welcome to X-Loupe, a pioneering innovation in digital portable field microscopes, capable of capturing images down to 10 microns, it is set to replace the role of the traditional laboratory microscope in a whole host of industrial, medical and scientific applications.

The digital portable field microscope is a new tool that combines a digital camera and a microscopic module. It can capture clearly objects with the sizes from 15 mm down to 10 microns, which dramatically improves visual accuracy.

The X-Loupe system turns micro preview and micro photography into a simple and affordable task which can be undertaken anywhere and under any lighting conditions.



**X-Loupe A 500 Series**



Example - 60x

The image handling software allows annotations, measurements and report writing to be completed easily and quickly on a lap top for e-mailing or saving to disk.

Both simple and economic this system can save time and travelling as well ensuring accurate traceable documentation.

### Features:

- bridge the distance of communication
- create a higher level of communication
- eliminate misconceptions
- minimise the need for shipping samples
- save time
- reduce travel expenses



**X-Loupe G 20 Series**



### Details:

#### The camera



X-Loupe camera

This is a modified Canon IXUS 870is (A500-Serie) or IXUS 950is (G20-Serie), high quality well known compact cameras. Being very easy and intuitive to operate it is the ideal platform for the X-Loupe microscope system. Weighing less than 340 grams (A500) or 660 grams (G20) and only pocket sized, this makes the X-Loupe system truly portable.

In front of the camera a battery module is attached which serves two functions: Firstly it enables the microscope lenses to be fitted to the camera. Secondly the battery module contains the power supply for the LED lights within the lenses. The battery module can be removed so the camera can be used as a conventional Canon IXUS.

#### The lenses



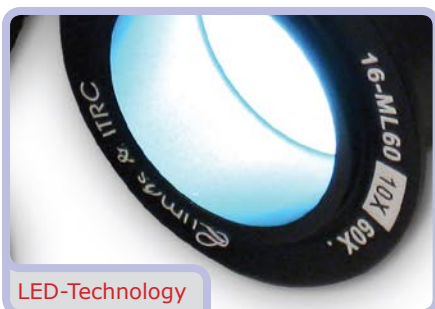
X-Loupe Lenses

For the X-Loupe A500 there are 3 interchangeable microscope lenses with magnifications of 60, 100 and 150 times. With the highest magnification, the 150 times, you take images with a Field Of View that is 5,2 mm by 3,9 mm. In this area you have 10 Mega Pixels which means that each pixel is only 1,4 microns or 0.0014 millimetres giving the high definition needed for these applications.

For the X-Loupe G20 there are 3 interchangeable microscope lenses with magnifications of 60, 150 and 300 times. With the highest magnification, the 300 times, you take images with a Field Of View that is 2,0 mm by 1,5 mm.

A rubber ring is fitted to the end of the lens, this ensures a good contact with the object, excludes external light and aids focusing.

#### Lighting



LED-Technology

The unique feature of these lenses is the in-built LED illumination.

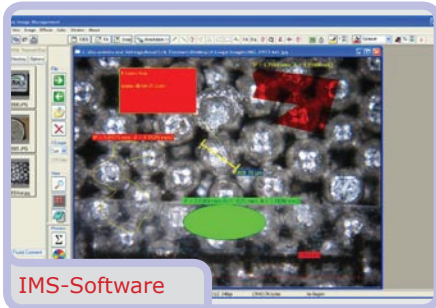
Until now the only way to achieve optimal illumination when taking microscopic images has been to set up the era and lighting equipment in a laboratory. With the X-Loupe system this is unnecessary as the LED lights in the lenses ensure that the object is illuminated perfectly even in the dark. When the lens is placed against the object the lens barrel excludes all external light and the only light source is the LED illumination.

This also makes sure that the colours in the image are independent of the external light conditions. And unlike using the camera flash the LED are always on so you can see the object clearly on the camera display before pressing the shutter button.

The image on the screen will have the same brightness and colour as the image saved in the camera when pressing the shutter button.

Additionally the lighting of the G20 microscope camera is separated into 4 segments. This means the lighting can optionally be switched on or off completely or by 1, 2 or 3 segments. With this option high quality images are possible by optimal illumination.





### The software

With the X-Loupe Image Management Software you are able to add comments and measurements to your microscopic image. This way you do not have to write your comments in a separate e-mail.

The information will be directly available on the image. Measurements like distance, area, perimeter angle etc. are drawn and shown directly on the image.

### Extended Focus:

This feature enables an image to be produced from several photographs taken at different focuses. This is particularly useful when looking closely at a three dimensional part such as a circuit board or piece of jewellery

The resultant image shows all plans in focus.

### Documentation:

The X-Loupe Image Management Software offers 3 ways of saving your documentation containing measurements and comments.

#### - Annotation in a separate file

The annotation can be stored in a separate file. This way you can continue to edit your annotation when you open your image.

#### - Saving as JPG-file

The annotation can be rendered into the JPG-file so it can be read by anybody. You do not need the Image Management Software to read the annotation.

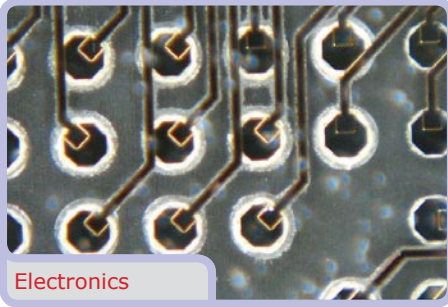
#### - Excel report

An Excel report can be created by one click. The report will contain the image including the annotation entered on the image. In addition to that the report can contain the date and time the image was taken, name of image and report, location of image file and report etc. All valuable information for tracing your documentation.





### Applications:

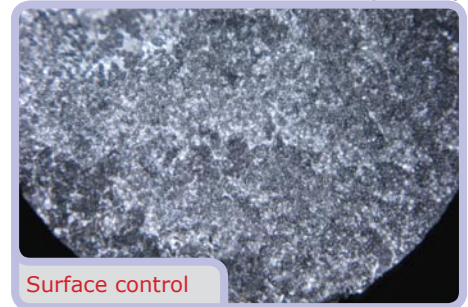


Electronics

### Industry / Quality control

Industrially manufactured components / parts often require large equipment for the inspection and testing. With a standard digital camera mostly unusable results are produced. Even with the naked eye only a subjective assessment is possible. The digital X-LOUPE™ microscope camera offers users a variety of options in the field of industrial examination or in quality control.

With the X-Loupe-System the user has a portable „measurement tool“ increasing the efficiency of quality testing and documentation significantly. Some examples for use in the industrial environment are the control of weld seams, cutting tools and surfaces.



Surface control



Finger print

### Medical

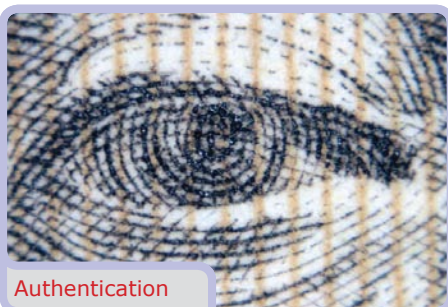
Also in the medical field, the X-Loupe-System finds its application. Whether in medical diagnosis, pathology - the X-Loupe-System can also assist in the medical field.

### Brand protection

Even with conflicts in trademark and patent law the X-Loupe-System will and can be used. In assessing the veracity of various products such as branded items, leather, fabrics, watches, textures, carvings and textiles - the X-Loupe as portable microscope can also be of great benefit. X-LOUPE™ increases the sensitivity of the people in this area and promotes awareness of the patent protection.



Brand protection



Authentication

### Archaeology / Authentication

Whether it is antiques, or the study of contemporary art, the X-Loupe-System can be very helpful in identifying the age and authenticity of an object. Microscopes play an important role in these areas. A commercially microscope can due to the size and weight not always be used. In contrast, the X-LOUPE™, a portable digital microscope camera with a built-in, dimmable LED lamp also assists the user in the field of microscopic research.



Surface inspection



**Technical data:**



**X-Loupe A500 Series**



**X-Loupe G20 Series**

Included Number of Objective Lenses  
Magnification Power  
FOV (Field of View)  
FOV (Field of View)  
FOV (Field of View)

3  
60x - 100x - 150x  
60x: 14,0 x 10,5 mm  
100x: 7,5 x 5,6 mm  
150x: 5,2 x 3,9 mm

Lens Design

High Performance Aberration-Corrected Aspherical Lenses

Lens Material

Schott® No-Lead Optical Grade Glass, Made in Germany

Coating

Multi-Layer Anti-Reflection (AR) Coating

Build-in Dimmable Illumination

8 White Light LED;  
Color Temperature: 6000K;  
Life cycle 10000 hrs

Camera

Modified Canon IXUS 870is

Power Source X-Loupe Microscopic Lens Module

Canon NB-4L or Compatible Li-ion Rechargeable Batteries

Power Source Camera

Canon NB-5L or Compatible Li-ion Rechargeable Batteries

Battery Charger

Included; 100V-240V, 50/60 Hz

Dimension

100x60x92mm (incl. Camera and 60X Lens)  
100x60x75mm (incl. Camera and 100X Lens)  
330g (incl. Camera and 60X Lens)

Weight

Operating Temperature

Storage Temperature

0°C ... +40°C  
-20°C ... +55°C

3

60x – 150x – 300x  
60x: 8,0 x 10,5 mm  
150x: 4,0 x 3,0 mm  
300x: 2,0 x 1,5 mm

High Performance Aberration-Corrected Aspherical Lenses

Schott® No-Lead Optical Grade Glass, Made in Germany

Multi-Layer Anti-Reflection (AR) Coating

8 White Light LED; Co-axial,  
Color Temperature: 6000K; Life cycle 10000 hrs

Modified Canon IXUS 950is

820Ah Sanyo Li-ion Battery, Canon NB-5L compatible

820Ah Sanyo Li-ion Battery, Canon NB-5L compatible

Included; 100V-240V, 50/60 Hz

90x54x31mm (60X Lens)  
90x54x52 mm (incl. Camera and 60X Lens)  
450g (incl. Camera and 60X Lens)

0°C ... +40°C  
-20°C ... +55°C



**Pricing / Options:**

Image	Product	Details	Price (€)
	Bundle X-Loupe A500, 60X, 100X, 150X, Case & SW, Code 100064	<ul style="list-style-type: none"> <li>• A500 module incl. NB-4L Li-ion battery</li> <li>• A500 60x Lens with build-in dimmable illumination</li> <li>• A500 100x Lens with build-in dimmable illumination</li> <li>• A500 150x Lens with build-in dimmable illumination</li> <li>• Canon IXUS 870is modified with adaptor ring for A500</li> <li>• NB-5L Li-ion battery for camera</li> <li>• Latex contact rings</li> <li>• Calibration Labels (2 sheets with 30 labels)</li> <li>• 2 GB and 32 MB SD Card</li> <li>• Battery charger for NB-4L Li-ion battery</li> <li>• Battery charger for NB-5L Li-ion battery</li> <li>• Case for A500</li> <li>• English manuals</li> <li>• X-Loupe software (download via internet)</li> </ul>	1.970,00
	Bundle X-Loupe A500, 60X, 100X, 150X & Case, Code 100075	<ul style="list-style-type: none"> <li>• Configuration as Code 100064, but without</li> <li>• X-Loupe software (must be ordered separately)</li> </ul>	1.770,00
	X-Loupe A500 & Case, Code 100077	<ul style="list-style-type: none"> <li>• Configuration as Code 100064, but without</li> <li>• X-Loupe software and lenses (must be ordered separately)</li> </ul>	766,00
	Bundle X-Loupe A500, 60X, 100X, 150X, Bag & SW, Code 100063	<ul style="list-style-type: none"> <li>• A500 module incl. NB-4L Li-ion battery</li> <li>• A500 60x Lens with build-in dimmable illumination</li> <li>• A500 100x Lens with build-in dimmable illumination</li> <li>• A500 150x Lens with build-in dimmable illumination</li> <li>• Canon IXUS 870is modified with adaptor ring for A500</li> <li>• NB-5L Li-ion battery for camera</li> <li>• Latex contact rings</li> <li>• Calibration Labels (2 sheets with 30 labels)</li> <li>• 2 GB and 32 MB SD Card</li> <li>• Battery charger for NB-4L Li-ion battery</li> <li>• Battery charger for NB-5L Li-ion battery</li> <li>• Bag for A500</li> <li>• English manuals</li> <li>• X-Loupe software (download via internet)</li> </ul>	1.850,00
	Bundle X-Loupe A500, 60X, 100X, 150X & Bag, Code 100074	<ul style="list-style-type: none"> <li>• Configuration as Code 100063, but without</li> <li>• X-Loupe software (must be ordered separately)</li> </ul>	1.650,00
	X-Loupe A500 & Bag, Code 100076	<ul style="list-style-type: none"> <li>• Configuration as Code 100074, but without</li> <li>• X-Loupe software and lenses (must be ordered separately)</li> </ul>	624,00



**Pricing / Options:**

Image	Product	Details	Price (€)
	Bundle X-Loupe G20, 60X, 150X, 300X, Case & SW, Code 100081	<ul style="list-style-type: none"> <li>• X-Loupe battery module incl. battery</li> <li>• X-Loupe 60X lens with build-in 4-quadrant illumination</li> <li>• X-Loupe 100X lens with build-in 4-quadrant illumination</li> <li>• X-Loupe 300X lens with build-in 4-quadrant illumination</li> <li>• Canon IXUS (modified with adaptor ring for X-Loupe)</li> <li>• Latex contact rings</li> <li>• Calibration Labels (2 sheets with 30 labels)</li> <li>• 2 GB and 32 MB SD Card</li> <li>• Case and battery charger (including 2 batteries)</li> <li>• English manuals</li> <li>• X-Loupe software (download via internet)</li> </ul>	3.974,00
	Bundle X-Loupe G20, 60X, 150X, 300X, Case & SW, Code 100044	<ul style="list-style-type: none"> <li>• Configuration as Code 100081, but without</li> <li>• X-Loupe software (must be ordered separately)</li> </ul>	3774,00
	X-Loupe G20 & Case, Code 100082	<ul style="list-style-type: none"> <li>• Configuration as Code 100081, but without</li> <li>• X-Loupe software and lenses (must be ordered separately)</li> </ul>	1542,00
	X-Loupe Image Management Software (Download via internet)	<ul style="list-style-type: none"> <li>• Annotation of images</li> <li>• Measurement of distance, angle, area etc.</li> <li>• Extended Focus based on more images</li> <li>• Export of measurements and image to Excel</li> </ul>	223,00
	Stand for X-Loupe	<ul style="list-style-type: none"> <li>• Stand with Z-axis fine adjustment (travel: 20 mm; res.: 0,01 mm)</li> <li>• Total length of arm: 210 mm</li> <li>• Length of bottom arm: 110 mm</li> <li>• Length of top arm: 101 mm</li> <li>• Diameter of vacuum cup: 100 mm</li> <li>• Weight: 730 grams</li> <li>• Stand with vacuum base</li> </ul>	670,00
no Image	Stand for X-Loupe	<ul style="list-style-type: none"> <li>• Stand with Z-axis fine adjustment (travel: 20 mm; res.: 0,01 mm)</li> <li>• Total length of arm: 210 mm</li> <li>• Length of bottom arm: 110 mm</li> <li>• Length of top arm: 101 mm</li> <li>• Dimension of magnetic base: 58 x 50 x 55 mm</li> <li>• Weight: 730 grams</li> <li>• Stand with magnetic base</li> </ul>	660,00
no Image	Stand for X-Loupe	Stand with vacuum base	195,00
No Image	Stand for X-Loupe	Stand with magnetic base	190,00
	Bag for X-Loupe A500	<ul style="list-style-type: none"> <li>• Outer fabric: Polyester</li> <li>• Dimensions (WxDxH): 21 x 10 x 13 cm</li> <li>• Shoulder strap included</li> </ul>	43,00



**Pricing / Options:**

Image	Product	Details	Price (€)
no Image	Case for X-Loupe	Robust plastic case for X-Loupe A500, 3 Lenses additional equipment	185,00
no Image	X-Loupe A500 60x Lens	• X-Loupe Lens 60 x for X-Loupe A500	428,00
no Image	X-Loupe A500 100x Lens	• X-Loupe Lens 100 x for X-Loupe A500	450,00
no Image	X-Loupe A500 150x Lens	• X-Loupe Lens 150 x for X-Loupe A500	471,00
no Image	X-Loupe A500 A100x UV	• X-Loupe Lens A100 x Lens with UV-LED for X-Loupe A500	580,00
no Image	X-Loupe G20 60x Lens	• X-Loupe Lens 60 x for X-Loupe G20	1114,00
no Image	X-Loupe G20 150x Lens	• X-Loupe Lens 150 x for X-Loupe G20	1265,00
no Image	X-Loupe G20 300x Lens	• X-Loupe Lens 300 x for X-Loupe G20	1389,00
no Image	X-Loupe G20, 150x UV	• X-Loupe Lens 150 x Lens with UV-LED for X-Loupe G20	1447,00
no Image	X-Loupe A500 battery module	• X-Loupe battery module, incl. battery (spare part)	304,00
no Image	X-Loupe battery	• X-Loupe battery NB4-L (spare part)	26,00
no Image	X-Loupe battery	• X-Loupe battery NB5-L (spare part)	29,00
no Image	X-Loupe A500 Canon digital camera mod.	• X-Loupe Canon digital camera 870is modified with adapter ring	295,00
no Image	X-Loupe - adapter ring for endoscope	• X-Loupe adapter ring for endoscope	53,00
no Image	X-Loupe A500 Latex contact ring	• X-Loupe latex contact ring for lens	2,00
no Image	SD Card 2 GB	• Kingston SD card digital 2 GB	14,00
no Image	USB 2.0 Audio/Video	• USB 2.0 Audio/Video Grabber	53,00



X-Loupe Pack

**Delivery time:** from stock

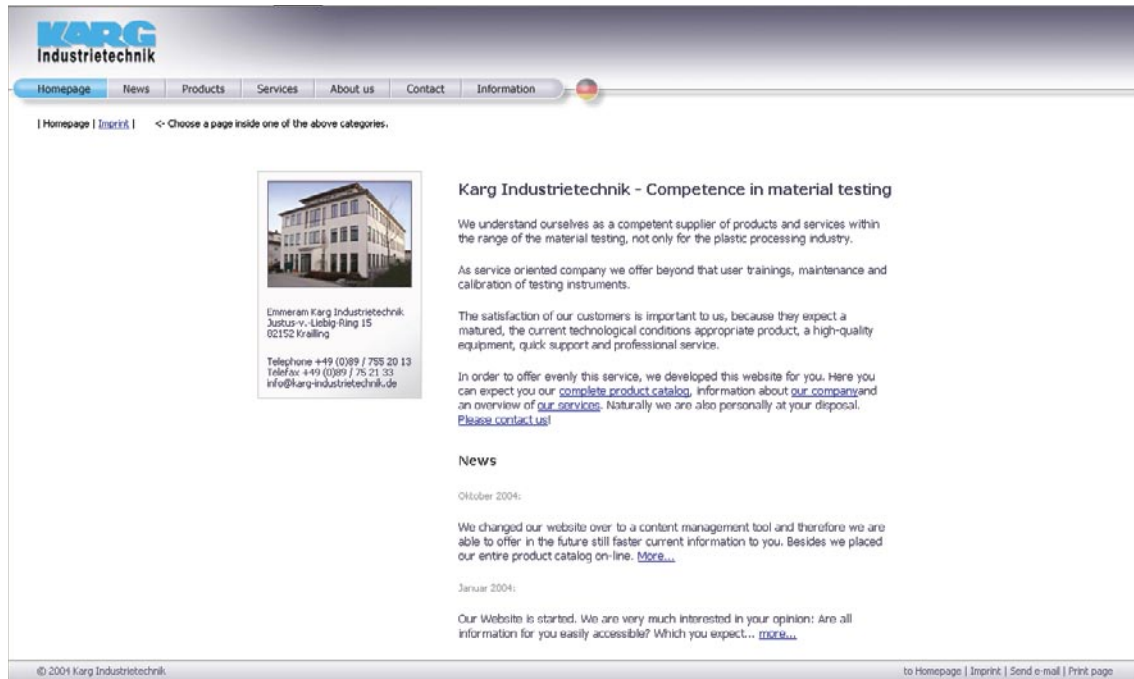
**Delivery:** ex works, excluding packing and insurance, plus VAT

**Payment:** against pre-cash

Payment terms



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