



LENS 4K

smith+nephew

+ See through a different lens

Smith+Nephew

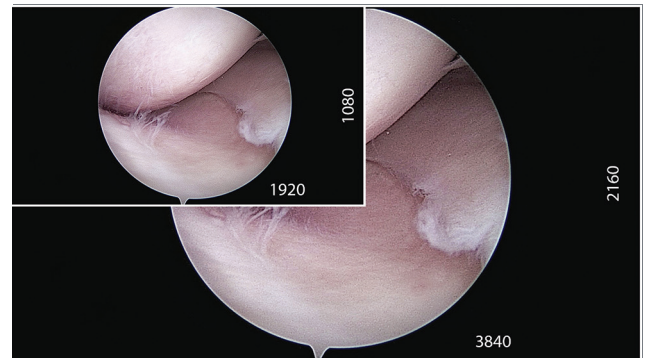
LENS 4K
Surgical Imaging System

Value you've been waiting for

Excellent 4K UHD image quality¹ and network connectivity in a 3-in-1 console for multispecialty environments

You want the very best image quality and intuitive operation to help minimize unnecessary procedure time with minimal equipment. The LENS 4K Surgical Imaging System is a surgical video platform with the latest 4K technology designed for sports medicine and multispecialty centers for use in arthroscopic and endoscopic procedures to maximize your overall investment.

With native 3840 x 2160 resolution, the LENS 4K system provides detailed images with four times as many pixels as HD and over 1 billion colors (10 bit) creating impressive color reproduction, image clarity and enhanced depth of field.^{1,2}



Benefits of LENS 4K

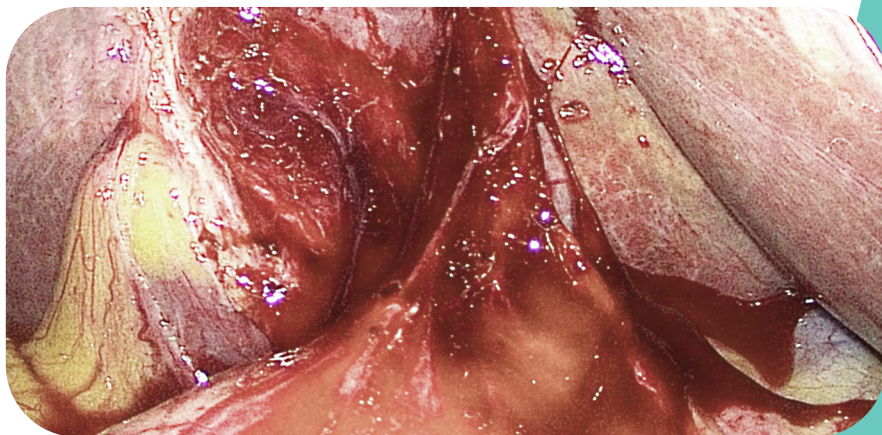
- Four times the pixel resolution of HD and over 1 billion colors **create vivid images and color reproduction²**
- **Newly designed**, ergonomic 4K camera head
- 4K UHD native Smith+Nephew's proprietary 3-CMOS (complementary metal oxide semiconductor) sensor designed **to reduce artifacts and optimize resolution**
- Improved Smith+Nephew proprietary 4K real-time image processing **designed to reduce flare and enhanced depth of field**
- **Control camera functions and image management outside the sterile field** with the LENS Connected Tower Application
- Flexible integration and connectivity options to **support your unique workflow**

Not all 4K is alike

The LENS 4K system combines the latest in 4K (UHD) 3-CMOS sensor technology with our proprietary image and light processing algorithms maximized for surgical applications. This combination results in clarity and realistic colors.

CMOS camera designs require precision when aligning each of the three sensors to optimize processing for red, green and blue (RGB) pixels. LENS 4K uses proprietary processing to align the red, green & blue images from the 3 sensors designed to produce rich color depth and image sharpness even when zooming into a region of interest.

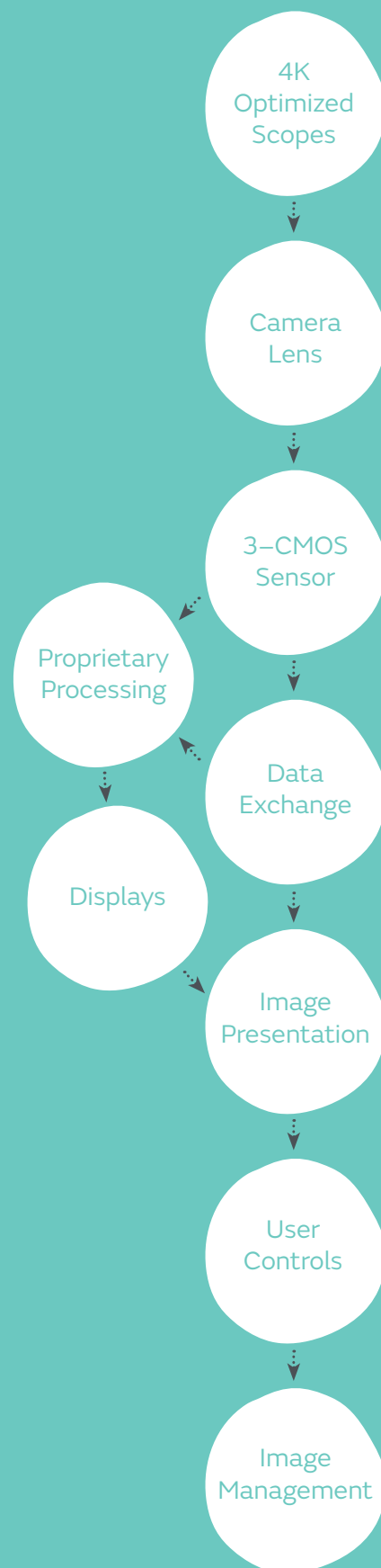
Unlike single-sensor surgical camera solutions, which may lead to inaccurate colors or resolution degradation, the LENS 4K system uses native 4K processing, retaining full RGB pixels to capture subtle color differences. For example, visualize a bright white condyle or hue variations in the anatomy in the foreground, while maintaining a crisp view of the darker background.



LENS 4K resolution

With more than 35 years of experience in surgical video technology, Smith+Nephew developed the LENS 4K system with you in mind.

LENS 4K Image Technology Chain



LENS 4K Camera Control Unit (CCU)

Minimize equipment without compromising on the deployment options you need.

Multiport Light Guide for flexible use with Smith+Nephew, Olympus, Wolf, Storz or ACMI

Flexible connectivity to displays, printers, and 660 HD-E Image Management System and Integration Broker for image management

Compact design houses camera control, light source and connectivity in single unit



Electronic Light Control provides a consistent level of illumination automatically

Optional integrated Wi-Fi for connectivity to LENS Tablet application

Simple and intuitive designed to minimize complexity in the OR

USB port for optional use of external storage for images and video



LENS 4K Camera Head

Ergonomics and balance in your hand for arthroscopy, and endoscopic surgeries



4K Optimized Scopes

Available in your choice of C-mount couplers or video arthoscopes, Smith+Nephew scopes are available in a range of diameters and lengths, providing a focus ring design that allows for single-handed light-post rotation. Autoclavable to withstand greater than 100 cycles⁴, scopes are durable and provide superb brightness and illumination.

Extend your reach beyond the surgical field

The LENS Connected Tower Application brings camera control and image management outside of the sterile field for optimal flexibility, providing staff control over camera settings, image captures, video and audio during procedures. Navigation is designed to be intuitive using the well known Apple iOS user interface and customer-supplied tablet with the LENS Connected Tower application. Post surgery, you can create customized reports to facilitate patient communication using your existing e-mail server or AirPrint.



Start case quickly using surgeon preferences

- Select surgeon preference for a one-touch setup of the entire tower



Adjust device settings remotely

Remote control of LENS 4K, DII, WEREWOLF[®] and DOUBLEFLO[®] PUMP via the connected tower app



Auto Print Functionality

- Automatically print during surgery as needed
- Customize reports which can be automatically printed post-operatively or forwarded to a network location



Share images and videos

- Transmit images, videos or reports or share with a secure link to content with colleagues and patients with the MY.INTELLIO Cloud
- Automatically upload case data to MY.INTELLIO Cloud for long-term storage

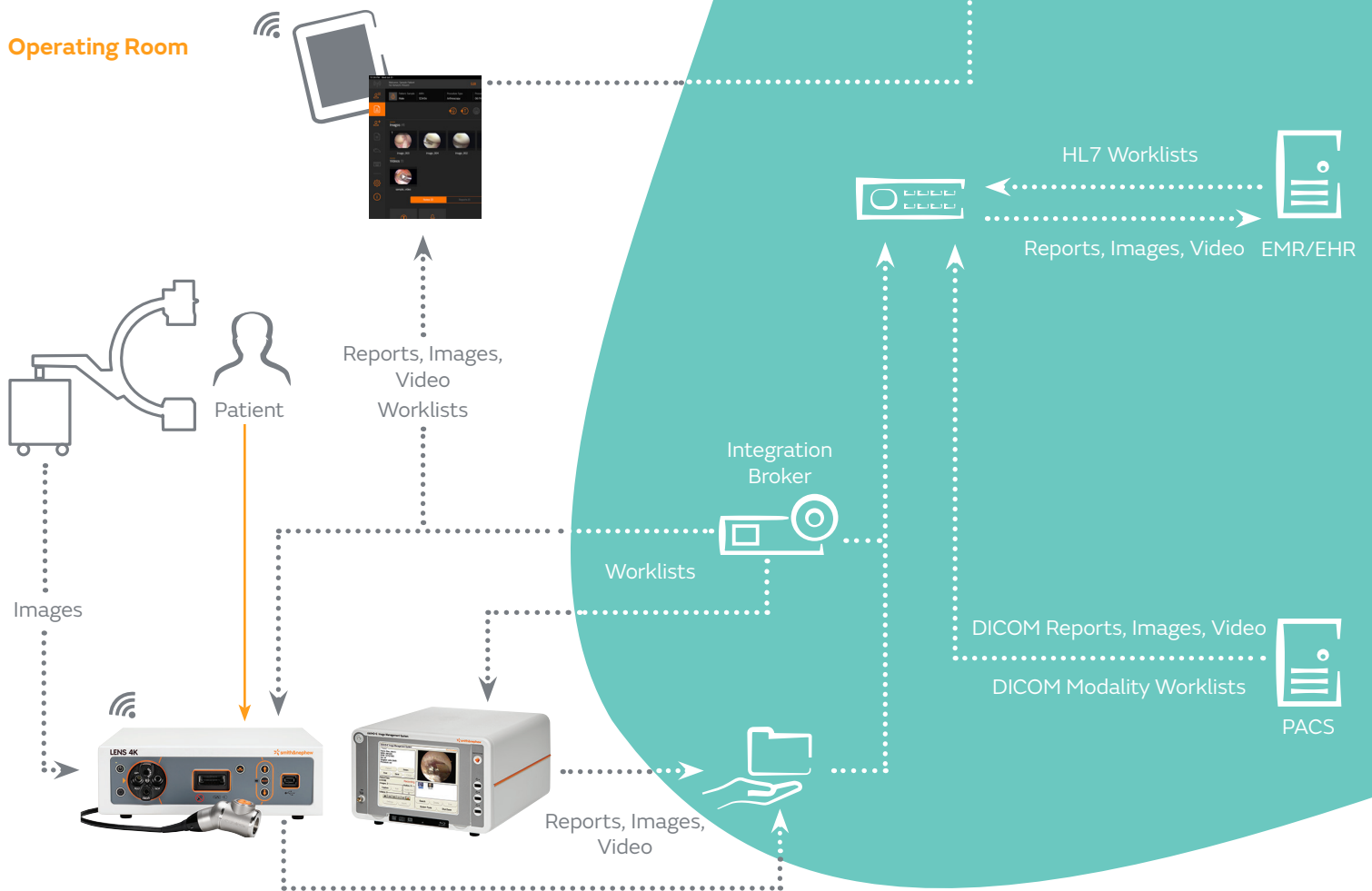


PACS compatibility via Integration Broker

- Automatically import to prepare for daily cases, saving time and minimizing errors
- Export data to your existing PACS system for enterprise integration

When adding Integration Broker to the LENS 4K solution, data exchange is enhanced to include import of HL7 or DICOM modality worklists to the LENS Tablet application or the 660 HD-E Image Management System to reduce the data entry necessary to prepare for patient cases. Integration Broker can also transmit DICOM-compatible reports and images to a picture archiving and communication system (PACS) to support your overall imaging storage strategy.

Operating Room



LENS 4K: CLEAR value and connectivity across your enterprise

Ordering information

Network Enabled Camera Control Unit Kits	
Reference #	Description
72205211	LENS 4K CCU, US
72205212	LENS 4K CCU, German
72205213	LENS 4K CCU, Spanish
72205214	LENS 4K CCU, French
72205215	LENS 4K CCU, Swedish
72205216	LENS 4K CCU, Portuguese
72205217	LENS 4K CCU, Danish
72205218	LENS 4K CCU, Norwegian
72205219	LENS 4K CCU, Dutch
72205220	LENS 4K CCU, Korean
72205221	LENS 4K CCU, Italian
72205222	LENS 4K CCU, International
72205224	LENS 4K CCU, UK (Wi-Fi Version)

Non-Network Camera Control Unit Kits	
72205239	LENS 4K CCU, US
72205240	LENS 4K CCU, German
72205241	LENS 4K CCU, Spanish
72205242	LENS 4K CCU, French
72205243	LENS 4K CCU, Italian
72205244	LENS 4K CCU, Swedish
72205245	LENS 4K CCU, Portuguese
72205246	LENS 4K CCU, Danish
72205247	LENS 4K CCU, Norwegian
72205248	LENS 4K CCU, Dutch
72205249	LENS 4K CCU, Korean
72205250	LENS 4K CCU, International (Non-Wi-Fi)
72205252	LENS 4K CCU, UK, (Non-Wi-Fi)

Camera Kits	
Reference #	Description
72205343	LENS 4K Camera Head, USA
72205344	LENS 4K Camera Head, International

Accessories	
72200315	LENS Coupler, 19.5mm
72200422	LENS Coupler, 26.5mm

Contact your Smith+Nephew representative for a full list of accessories.

Learn more at [smith-nephew.com](https://www.smith-nephew.com)

Sports Medicine
Smith & Nephew, Inc.
150 Minuteman Road
Andover, MA 01810

www.smith-nephew.com
T +978 749 1000
US Customer Service:
+1 800 343 5717

[®]Trademark of Smith & Nephew.
©2021 Smith & Nephew. All rights reserved. All trademarks acknowledged.
Printed in USA. 20346 V3 09/21

References

1. Smith & Nephew 2019. Lens 4K user needs design validation. 15008697 B. **2.** Smith & Nephew 2019. Lens 4K image quality test. 15007295 A. **3.** Smith & Nephew 2019. Lens 4K camera head functionality post sterilization and mechanical stress design verification. 15006059 A. **4.** Smith & Nephew 2019. Validation report 15000975 Rev A.