



+ See through a
different lens

Smith+Nephew

LENS 4K
Surgical Imaging System

Value you've been waiting for

Impressive 4K UHD image quality 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.



Benefits of LENS 4K

- Four times the pixel resolution of HD and over 1 billion colors create vivid images and color reproduction
- 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 Tablet Application
- Flexible integration and connectivity options to support your unique workflow

Not all 4K is alike

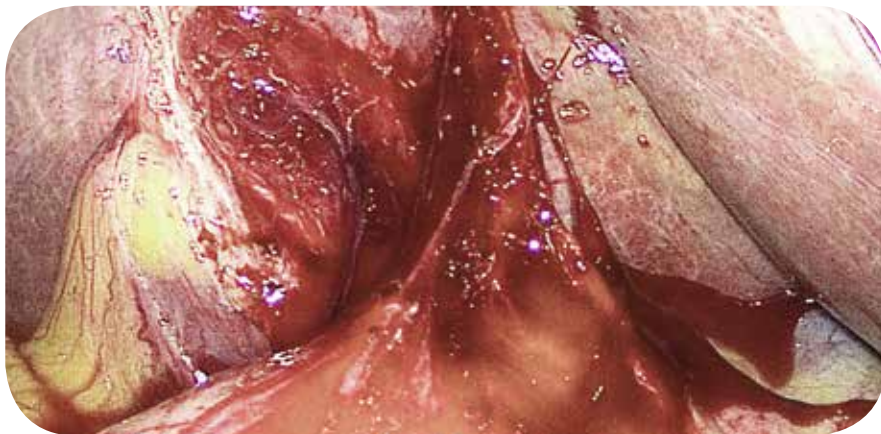
The LENS 4K system combines the latest in 4K (UHD) 3-CMOS sensor technology with our proprietary image and light processing algorithms maximized for surgical applications. This combination results in clarity and realistic colors.

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.



Standard HD resolution*

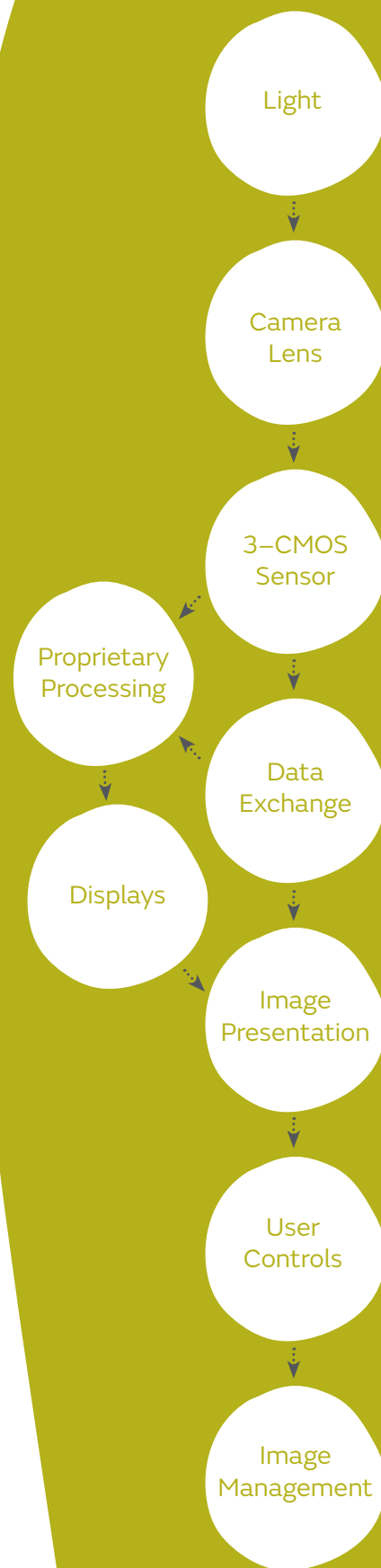


LENS 4K resolution

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

*Simulated image

LENS 4K Image Technology Chain



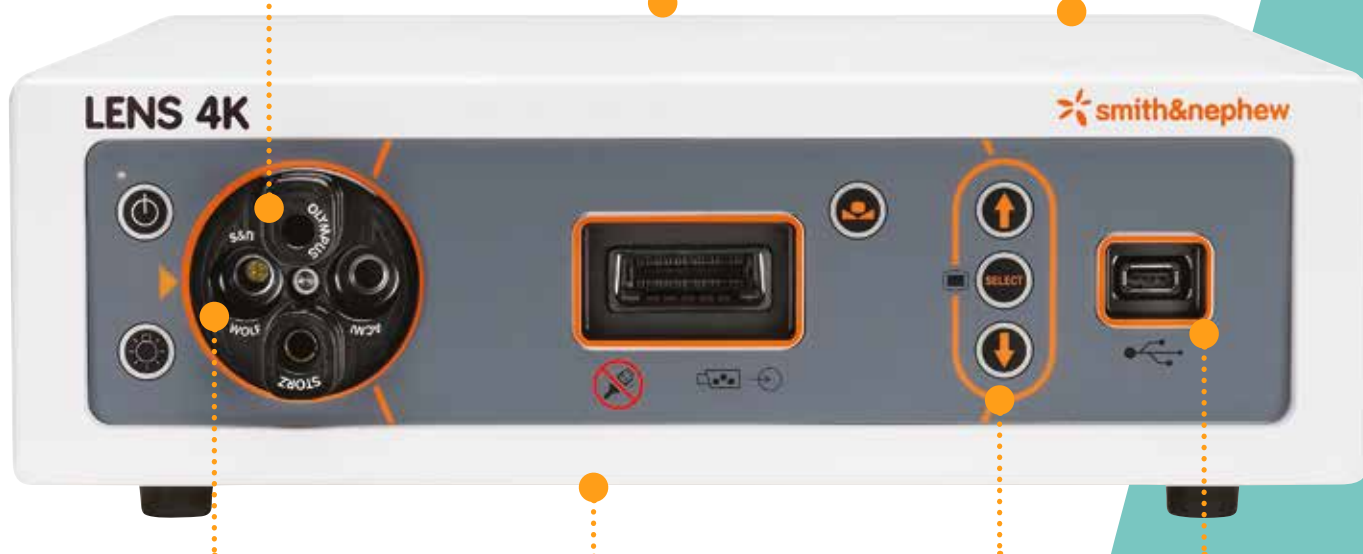
LENS 4K Camera Control Unit (CCU)

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



Light source operates for a minimum of 20,000 hours¹ and may be controlled from console, camera head or LENS Tablet application

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



LENS Scopes

Available in your choice of C-mount couplers or video arthroscopes, LENS Scopes are available in a range of diameters and lengths, providing an integrated design that allows for single-handed light-post rotation. Autoclavable to withstand greater than 100 cycles³, scopes are durable, fog-free and provide superb brightness and illumination.

Extend your reach beyond the surgical field

The LENS Tablet 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 Tablet application. Post surgery, you can create customized reports to facilitate patient communication using your existing e-mail server or AirPrint.

The LENS 4K CCU may also connect to your health system network for sharing reports, images and video with third-party systems such as electronic medical record (EMR), PACS or other clinical systems.



PDF Report Customization

- Patient-specific report can include hospital logo, notes, direction and several images
- Available for free with product purchase at the Apple App Store



Auto Print Functionality

- Automatically print during the operative use mode as images are acquired
- Fully printed report can be available at the end of the case with little or no wait during the postoperative phase



E-mail

- E-mail images, videos and reports directly to the patient, office or colleagues



PACS compatibility via Integration Broker

- Direct connection into the hospital's PACS system with additional software
- Pull worklist data directly into the system each day to save time and potentially minimize errors

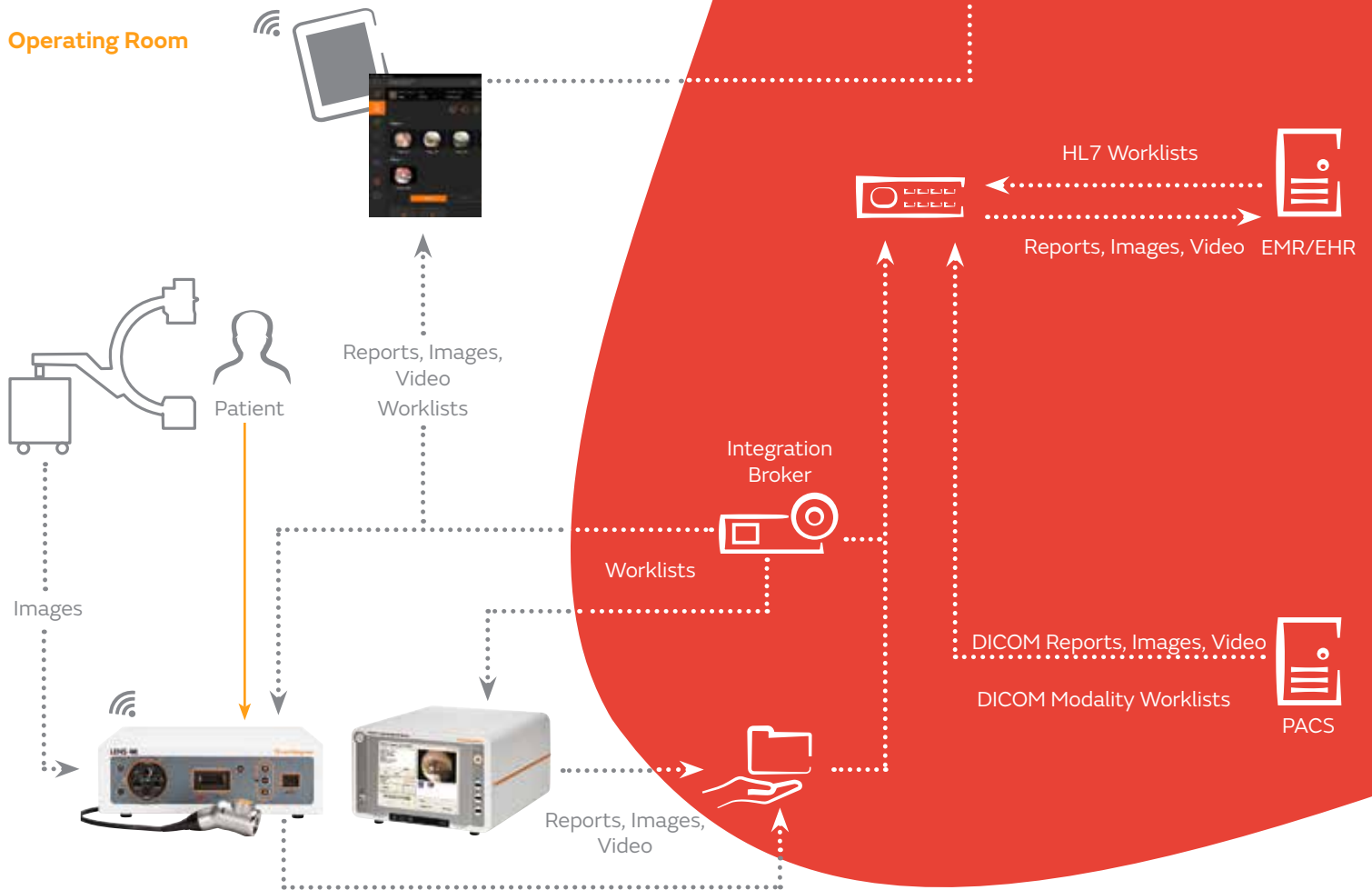


Consultation with patients or colleagues

- Use the app to share data with colleagues and patients via email
- Save images and video for use in presentations

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

Wi-Fi Camera Control Units

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

Non-Wi-Fi Camera Control Units

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

Cameras

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

Learn more at smith-nephew.com

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References

1. Data on file at S+N. Product Specification OTFI-0340 Rev C, 01/19. 2. Data on file at S+N. Testing Protocol/Report Number 15006059 Rev A, 04/19. 3. Data on file at S+N. Validation report 15000975 Rev A, 09/19