

Introducing Intelitive™ Next Generation

Technology, performance and superior design.

INTELITIVE TECHNOLOGY

vivid nuvotech
MEDICAL DIVISION



Intelitive's™ Next Generation

Evolution

The Next Generation Intelitive line from Vivid Nuvotech was developed to further enhance the first generation's intelligent and intuitive system. These technologically advanced devices provide a level of performance that cannot be compared to any other device in the global market.

The Intelitive line provides an interaction with the external environment. The sophisticated digital system controls each device independently, providing a safe and accurate experience for the user.

After years of observing the routine of operating theaters, we used this knowledge to improve the technology, simplify the interface, and integrate the devices.

01year
WARRANTY

Intelitive™ Next Generation will change theway you work.

Design

The sophisticated second-generation Intelitive™ cabinet is is the result of studies in Materials Engineering field and surface modification techniques. The front panel, composed by a single aluminum piece machined and anodized, presents a combination of smooth curves and exquisite lines.

The Intelitive devices utilize a black piano coated finish providing a stylish and easy to maintain surface.

Each device's graphical interaction with the user is accomplished through a colored, high definition LED panel. The graphical design was developed by human-machine interface specialists with backgrounds developing the most modern applications for tablets and smart phones.

The Next Generation Intelitive updates offer ease of use and enhanced reliability in heavy interference environments.

LUCENS300W

FLUXUN45L

VISUN1CMOS

VISUN3CMOS

VISUN 4K ultraHD 2160P



Innovation

Vivid Nuvotech™ innovates, improves what was already the best

Reinforcing Vivid Nuvotech's™ commitment to continuous development and improvement of its products, we have further refined our Intelitive™ Laparoscopic Insufflator.

Enhanced Interface

OPTIONAL

The Next Generation Intelitive™ Laparoscopic Insufflator can display the primary parameters and alarms on any surgical monitor when connected to Vivid Nuvotech's™ Intelitive™ endoscopic camera models.

CO^2 Supply

The Next Generation Itelitive™ Laparoscopic Insufflator can be used with the two main sources of CO2 gas supply – pressurized CO2 from a cylinder or piped CO2 supply built into the surgical facility.

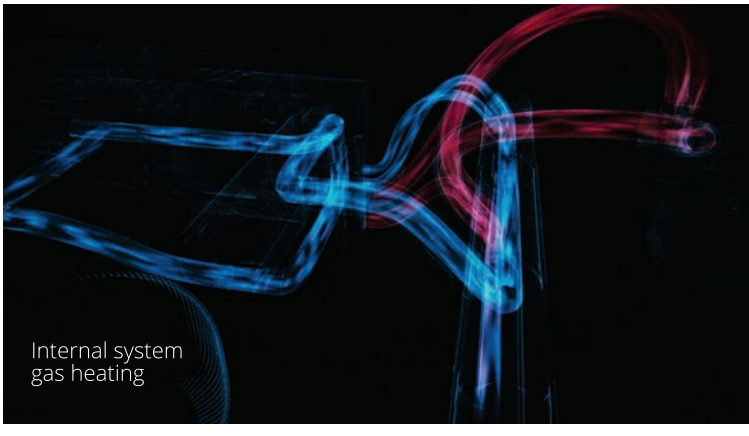
With a simple menu setting, this function can be activated using the device's touch screen.

Internal gas heating

Vivid Nuvotech's™ exclusive internal gas heating system offers continuous temperature monitoring and the ability to immediately detect any changes in the parameters, providing comfort and safety for the patient.

The main advantages of internal CO2 heating are:

- Prevention of hypothermia during lengthy procedures
- Significant reduction of postoperative pain
- Prevention of fogging in the optical components
- Perfect for use in pediatric laparoscopic surgeries
- Enabling an improved view of the abdominal cavity
- Eliminates the use of disposable hoses



Internal system gas heating

touch screen

display
high definition

USB connection



New insufflation system SenseLAP

The Next Generation Intelitive™ Laparscopic Insufflator introduces SenseLAP to its product DNA. SenseLAP was developed after applying the company's vast knowledge in laparoscopic insufflator techniques combined with more than a decade of testing and research.

The SenseLAP system utilizes sophisticated intelligence to “feel” abdominal cavity characteristics and potential restrictions in the insufflation circuit caused by fittings, trocars, and other components. Continuous sensing of these variables maintains a perfect insufflation pattern keeping the operating environment distended in a safe and ideal manner.

The creation of the new, intelligent SenseLAP system was developed with the invention of new, ultra-precise pneumatic valves, new flow and pressure transducers, coupled with electronic actuators and the digital monitoring systems

The system recovers pressure losses at least 40% faster and in a much smoother manner, avoiding undesirable movements caused by distention and contraction of the abdominal cavity. The surgical staff will feel greater confidence during the procedure.

SenseLAP can change the insufflation pressure, flow, and intervals in a controlled manner.

The SenseLAP technology continuously monitors for leaks in the abdominal cavity and will inform the surgical staff of any sudden changes visually through the device's LCD display.

The Next Generation Intelitive™ Laparscopic Insufflator delivers increased reliability and durability.



Co_2 connection

Trocars line



Technology, performance and design

The Next Generation Intelitive™ camera technology is the foundation of the full HD endoscopic imaging system from Vivid Nuvotech™. Capturing images in a 1920x1080p resolution, the camera generates endoscopic images instantly, reproducing colors with high fidelity and unique depth, superior to what is available in the market.

This device is used to capture abdominal cavity images in real time during diagnostic or surgical procedures

Color definition to the procedure.

The Visun camera offers a color definition specifically for each surgery type. These preset profiles are validated from the studies of many specialties. The presets can be selected via the touchscreen interface.

- Lap 1 – Profile in which the image is brighter, for use with darker cavity procedures
- Lap 2 – Profile that enhances the contrast, improving image sharpness in surgeries with profuse bleeding or large amounts of fatty tissue
- Endoflexible – Profile with setting that adapts to the lens of the flexible endoscope
- Urology – The ultimate profile for procedures using thin lenses such as a hysteroscope



Control on your hands

The Visun camera is controlled by three buttons located on the camera head or by buttons located on the image processor which enable:

1.White Balance

Activated with a short press. The white balance function is used to correct small color differences in the light present between the different sources of light and endoscopes.

2. Enhancement

Activated with a short press. This enables a filter that enhances the contrast in order to improve image sharpness. There are three levels: low, medium, and high.

2.1 Image Gain

Activated with a long press. The gain produces a clearer image

3. Zoom

Activated with a short press. Digitally amplifies the image in three different levels: 1.5X, 2.0X, and 2.5X. Option to start and stop recording.

CAMERA VISUN 1CMOS

The Next Generation Intelitive Visun1 CMOS camera system captures images in a 1920x1080p resolution, presenting high fidelity endoscopic images. Formed by a micro camera and imaging processor assembly, its system utilizes an integrated circuit responsible for transforming the analog image captured by the lens into a digital signal. The processor cabinet houses two SDI video ports, one DVI port, and optionally, a USB port allowing direct recording for the procedure using transportable media.



touch screen

display
high definition

USB connection

CAMERA VISUN 3CMOS

The Next Generation Intelitive Visun3 CMOS camera system captures images in a 1920x1080p resolution, presenting high fidelity endoscopic images. Formed by a micro camera and imaging processor assembly, it system utilizes three sensors responsible for processing the image with greater sensitivity, color accuracy, and high luminous receptivity. The processor cabinet houses two SDI video ports, one DVI port, and optionally, a USB port allowing direct recording for the procedure using transportable media.

Visun3's HD resolution provides enhanced image quality with a broader focus area and depth for the surgeon. It is three setting modes for adaptability to procedures, providing excellent image quality even when used with flexible endoscopes.



touch screen

display
high definition

USB connection

Closer to each detail

After years research and dedication to the medical field, Vivid Nuvotech's investment in technology offers its customers an unparalleled experience with a closer distance – one half the distance of an HD lens.

One of the most innovative factors regarding the Visun 4K camera is its amazing resolution, nearly exceeding the definition limit for the human eye. Visun 4K provides four times the quality of conventional Full HD image lenses, improving surgery visibility, safety, and accuracy.

Magnified color gamut

The Visun 4K sensor is magnified, increasing light sensitivity, resulting in more light bands to be interpreted. The range of colors allows the Visun 4K camera to have the most true-to-life colors among all surgical cameras.

The color fidelity provides easy differentiation of healthy regions, pathological regions, organ and tissue, allowing for a much safer and efficient procedure.

Generating images with incredibly real colors.

Utilizing a higher concentration of pixels in the image generator sensor, Visun 4K reproduces vivid, life-like colors.



Magnification of anatomical structures

The three 4K CMOS sensors have an area four times larger than a standard Full HD sensor. The Visun 4K provides four times the image definition compared to cameras with lower resolution.

The increase definition magnifies the anatomical structure and enlarges the surgeons field of vision, making it easier to identify small structures and delivering a more accurate procedure.

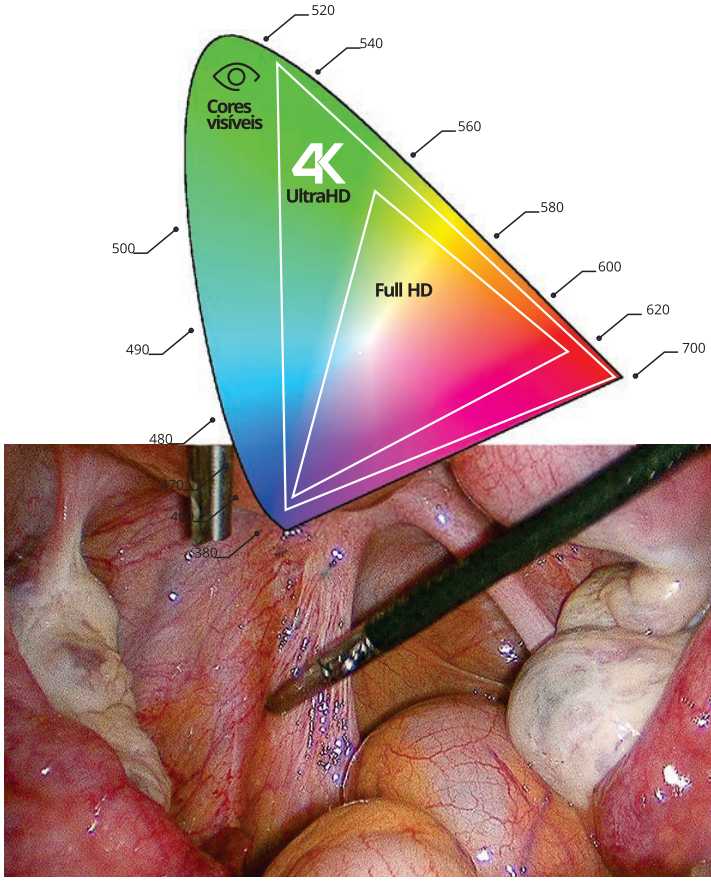
Increased Depth

The Visun 4K allows up to 10cm of focused region evenly into the cavity. This means that the surgeon can focus the image at the beginning of the procedure at a distance of 5cm from a point of interest and can advance 5cm without the need to adjust the focus and return to the original distance.

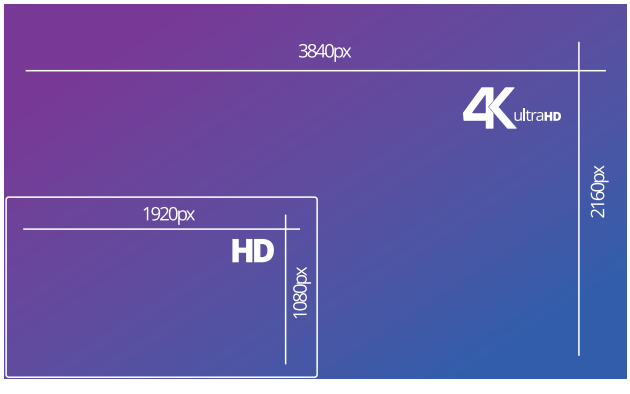
Balanced lighting

The Intelitive line's balanced illumination ensures that the surgeon can have focus and detailing into absolutely every region of the screen, ensuring that any detail goes unnoticed as we look further into the most external image area.

Ultra-high definition image that creates a feeling of immersion.



- 3 digital zoom level;
- 3 enhancement level;
- 2 brightness gain level;
- Greater range of colors;
- 2 SDI and 1 DVI, 1080p video output;
- 4 x SDI 3G - 4k output.



Color definition according to the procedure.

The Visun camera offers a color definition specifically for each surgery type. These preset profiles are validated from the studies of many specialties. The presets can be selected via the touchscreen interface.

Lap 1

Profile in which the image is brighter, for use with darker cavity procedures.

Lap 2

Profile that enhances the contrast, improving image sharpness in surgeries with profuse bleeding or large amounts of fatty tissue.

Endoflexible

Profile with setting that adapts to the lens of the flexible endoscope.

Urology

The ultimate profile for procedures using thin lenses such as a ureteroscope.



Convenience on your hands

Three buttons located on the camera head, facilitating the camera use during the procedure.

1. White Balance

Activated with a short press: The white balance function is used to correct small color differences in the light present between different sources of light and endoscopes.

2. Enhancement

Activated with a short press:
This image processing filter enhances the contrast lines in order to improve sharpness. Enhance the image and improves the received image quality.

Three levels filter: Low, Medium and High.

2.1 Image Gain

Activated with a long press (2 seconds or more): The gain produces a sharper image.

3. Zoom

Activated with a short press: digitally amplifies the image in 3 different levels: 1.5X, 2.0X and 2.5X. It can be configured to control the HD MMDR recorder functions.

High intensity, low cost white light

Vivid Nuvotech™ Lucens Xenon 300W Light Source is intended to provide light in medical, diagnostic, or surgical endoscopy procedures that require a high-intensity light source and a suitable color temperature (white light).

Lucens uses a 300W xenon bulb, which is extremely powerful and economic.

Composed of a mixture of electrically sensitive gases, it offers three times the luminosity flux with a low electrical consumption.

A perfect fit and a powerful light source within the reach of all

Lucens Xenon complements the Next Generation Intelitive optical devices, illuminating the abdominal cavity efficiently and reliably.

Vivid Nuvotech fiber optic cables and optical lenses offer maximum cool white light transmission

They are compatible with leading optic devices available on the market, ensuring Vivid Nuvotech's quality is within everyone's reach.





touch screen

display
high definition

USB connection



FLUXUN45L

DESCRIPTION

A CO_2 insufflator for Laparoscopy, with a microprocessed flow setting from 0 to 45 liters/minute, continuous pressure setting from 1 to 30 mmhg, at least; with a CO_2 gas internal heating system that has a display indicating the gas reserve in the cylinder, actual pressure value in the patient, actual gas flow value and gas volume consumed.



LUCENS300W

DESCRIPTION

Light source for video surgery with xenon lamp and a 300 watts minimum power, with color temperature of 6000K, with a touchscreen for control, light intensity control and hour meter with a lamp's service life end indicator; corrects the temperature to 6500K and 300W power.

VISUN

DESCRIPTION

Endoscopic micro camera composed by a head digital processing unit, based on the CMOS technology and progressive scanning system with 60 frames per second.



VISUN1CMOS

FORMAT	SENSOR	RECORDING	FOCUS RANGE	DIGITAL ZOOM	SIGNAL
1920 X 1080 P	1 CMOS	STAND ALONE USB or MMDR (optional)	6 CM	+ 2 x	2 x SDI | 1 DVI | 1 Y/C



VISUN3CMOS

FORMAT	SENSOR	RECORDING	FOCUS RANGE	DIGITAL ZOOM	SIGNAL
1920 X 1080 P	3 CMOS	STAND ALONE USB or MMDR (optional)	8 CM	+ 2 x	2 x SDI | 1 DVI | 1 Y/C



VISUN4K ultraHD 2160P

FORMAT	SENSOR	RECORDING	FOCUS RANGE	DIGITAL ZOOM	SIGNAL
3840 X 2160 P	3 CMOS	MMDR FULL HD (optional)	10 CM	+ 4 x	4 x SDI 3G - 4K 1 x HDMI2.0 4K 1 x HDMI HD

vivid nuvotech
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The future is Vivid.

www.vividnt.com

PHONE +1 813 613 5878
FAX +1 833 848 4311

448 COMMERCE BLVD
OLDSMAR, FL 34677 | USA

cat. vivid ver. 01 en