SMART OR SOFTWARE
Individual and scalable

The ROUTE, LOCAL SUITE and NETWORK SUITE installation types are designed to fit any clinical or OR scenario:

- SMART OR ROUTE is the single-user solution – all video and signal routing is controlled from one OR.
- SMART OR LOCAL SUITE expands our ROUTE system by allowing you to archive images and video data collected in the OR and stream them to up to four clients. There is the option of connecting additional clients.
- The SMART OR NETWORK SUITE expands the software’s capability even further, allowing you to connect multiple ORs to your clinic network and to archive and manage data centrally.

SMART OR is a software solution that performs the routing and streaming of audio and video data in conjunction with a hardware encoder; it is also responsible for archiving. SMART OR is flexible and can be configured in a variety of ways. It can be used on a single-user system as well as for a multi-user system in the OR. SMART OR can also be implemented as a clinic-wide solution.
The SMART OR S 500 C is a medical recorder for image and video documentation tasks, which is used in hospitals, clinics and medical offices. The appliance solution combines the proven CLINIO hardware with the optimally customized SMART-OR® software. The result is a powerful recording device with an intuitive user interface.
SMART OR RECORDER

Medical video recorder and documentation solution

The SMART OR S 500 C is a recorder solution that has been specifically developed to record and play video signals in full HD quality. It boasts a wide spectrum of inputs and allows the recognition as well as the digitization of VGA, HDMI, DVI and 3G SDI signals in different formats.

Perfect for everyday clinical applications: Compact, mobile and versatile

The slimline design and the low power consumption make it possible to run the device on a cart. The recording control can be activated via the trigger inputs with the foot or hand button as well as via a connected touch monitor. The SMART OR RECORDER does not only have the capability to record videos and photos of patient examinations, but also provides the entire patient file from KIS and PACS via the optional HL7 or DICOM extensions.

Assists physicians, helps patients

With the assistance of the SMART OR RECORDER, doctors can make consultations with patients more approachable. The videos and images recorded during a procedure are accessible at any time during a patient consultation and can be shared via a USB stick or printed out.
DOOR SIGN supports the communications processes within the surgical suite by displaying the surgery and room status as well as warnings. The patient's personal data are protected since they are displayed in an encrypted mode. Only the hospital staff that has the required authorizations (e.g. via password or RFID card) can view patient data.
DOOR SIGN

The digital DOOR SIGN improves the work flow in surgery departments

The digital DOOR SIGN visualizes work flow information at the hospital, in particular in surgery departments, where it is posted on the doors to surgery preparation areas and surgery suites. It shows the hospital staff the status of current procedures, risks of infection and general room information, such as the documentation of cleaning processes. Moreover, the signs post warnings, for instance if x-ray examinations or laser procedures are in progress. The all-around LED light frame supports the visibility of the warnings and of the room status.

Intelligent communication thanks to connections to SMART OR®, HL7 and DICOM

Select patient information is automatically shared via HL7 or DICOM. Surgery times are recorded and visualized. Information from the SMART OR network, such as room or procedure status, is also displayed. This optimizes the surgical work flow. Data privacy and process step automation are guaranteed through the authentication with optional RFID technology.

Hygienic, versatile, informative

DOOR SIGN is equipped with a 10.1“ display and PCAP touch. Therefore, all functions and entries can be accessed and made directly on the digital DOOR SIGN. The power supply is ensured via PoE (Power over Ethernet); hence, the solution does not require an external power adapter. The display, which is completely covered to protect it withstands treatment with cleaning and disinfectant products, does not have any gaps, grooves or dripping edges and is easy to clean.
CLASS 1 MEDICAL PRODUCTS

All OPERION and CLINIO models are Class 1 medical products. They can therefore be combined with other medical products without electrical isolation, including in areas close to patients.
Monitor or workstation for RIS, HIS, PACS etc.

The unique functions of the OPERION make it the ideal OR monitor: Automatic Lumination Stabilisation (ALS), DICOM and colour space presets, QuadView, 4k2k resolution and picture-in-picture display are just some of the features the OPERION can offer.

Furthermore, the OPERION is ready for PC kit integration. Depending on the desired performance, the mainboard is equipped with an Intel Core™ i5™ or i7™ quad core processor and up to 16 GB of RAM. All common PC interfaces are available for communication and control functions. We offer 4 kV isolators for the PC interfaces as an accessory for the various usage scenarios.

OPERION

There are three types of enclosure available for each OPERION: flush mount (FB), cover mount (BR) & BODY

FB: In modern operating rooms with modular wall systems, the OPERION seamlessly blends into the OR wall as a hygienically integrated glass element.

BR: Installation frames are the right choice for new and existing recesses in dry walls. The cover frame for this type of enclosure seals the OPERION to the wall and makes hygienic cleaning very easy.

BODY: If the OPERION can only be surface-mounted, there are high-quality solid aluminium enclosures available. With a depth of 12.5 cm, this type of OPERION enclosure only protrudes slightly into the operating room.
The CLINIO Panel PC is a hygienic and versatile all-in-one PC that is ideally suited to use in medical environments. Thanks to the smooth surface and IP65-protected front, the CLINIO is easy to clean and disinfect. Every CLINIO is custom-built to your requirements and can be configured in a variety of ways.

Slimline design

The Panel PC has multiple VESA 100 mounting options on the rear to attach the CLINIO to a ceiling arm or mount it directly on a wall. The new, very slim design opens up even more areas of application for the CLINIO. With its optional base, the CLINIO acts as a modern, all in one computer with impressive processing power.

Limitless expansion

The rear of the CLINIO also shows evidence of its versatility. The Panel PC communicates with all medical IT components via USB 3.0, RS232, GbE LAN, DisplayPort and DVI. The PCIe expansion slot guarantees maximum flexibility and is future-proof. The rear hygiene cover provides additional protection and can be custom-adapted to suit the cabling at the installation location.
CLINIO HARDWARE

Medical Display
DICOM Preset
DV-D
VGA
3G/HD-SDI
Galvanic Separation
Touchscreen
Warranty
VESA 100

IP65
Frontside
IP54
Backside

Ultra HD
High Brightness

80 cm Diagonal
69 cm Diagonal
61 cm Diagonal
56 cm Diagonal
59 cm Diagonal

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Perfect for daily use in hospitals

Thanks to the smooth surface and IP65-protected front, the CLINIO MONITOR, Class 1 medical product is easy to clean and disinfect. The display was designed to ideally meet the requirements of day-to-day hospital applications. As a result, there is no air exchange with the environment. This, together with the germicidal coating, significantly reduces the risk of cross-contamination. The CLINIO has no mechanical or protruding controls thanks to the COMMAND BAR – an integrated capacitive touchpad – and the optional ten-finger touchscreen. This makes operation easy and hygienic, even while wearing surgical gloves.

A family of monitors in four sizes with numerous features

The CLINIO MONITOR is available in four sizes: 22”, 24”, 27” (4K UHD) and 32” (4K UHD). The monitors have DICOM and color space presets (BT.709, BT.1886 and BT.2020) and various connection options. From VGA and CVBS right through to DisplayPort and HDMI, the monitors can display all kinds of signals. There is also a 3G-SDI connection with a loop-through function available as an option. Simultaneous display of multiple images (PIP and POP) is also possible.
CLINIO 500 PCs run quietly, conserve power and are very powerful. Since they do not have any ventilation slits and refrigeration fins, the devices are easy to clean and disinfect. The coating kills bacteria to provide additional safety and makes these devices hygienic as well as secure.
PC power for stationary and mobile deployment

CLINIO 500 PCs have been specifically developed for use in clinics and doctor's offices. They compact design and the fact that they are so easy to clean makes them ideal for a wide range of applications: they can be used as PACS viewers, KIS/RIS systems or PDMS work stations - and those are just some of the potential applications. The space-saving, hygienic design paired with the devices’ energy efficiency ensures that these PCs are not only optimal for stationary, but also for mobile use (on a cart).

CLINIO S 500 C - The efficient and compact PC solution for PACS et al

Thanks to its extremely compact dimensions, the CLINIO S 500 C is the best option for all applications that require energy efficiency, space-saving designs and sufficient PC speeds. The S variant of the CLINIO C is so small that it is almost invisible when used as a work station PC, regardless of whether it is being deployed as a stationary or mobile device. The capacity and speed this PC delivers is astounding: it provides sufficient power for all everyday clinical applications and solutions, such as PACS, RIS, KIS and PDMS. Connection to 4k screens can also be achieved without any problems.

CLINIO 500 C - the powerful and extendable PC

The CLINIO 500 C offers ample capacity for absolute CPU power. Equipped with INTEL i5/i7 CPUs, it delivers sufficient computer power for every application. The aluminum housing, which is protected all-around, contains the internal power adapter and offers plenty of room for extensions and additional PCI cards, such as encoders or graphics solutions. Nonetheless, this PC does not require any ventilation slits and cooling fins. This optimizes the hygienic use and prevents the distribution of dust and bacteria.
Universal and versatile

The SILENIO Panel PC meets all the requirements that are placed of a modern, medical AIO: It is easy to clean and therefore hygienically safe, powerful and fully equipped. Furthermore, it is also very versatile, as it can be used as a ceiling mount monitor, PC workplace or – thanks to the optional uninterruptible power supply – on a cart.

RFID for the future

RFID technology offers the world of medicine wide-ranging opportunities: Instrument tracking, access logging, patient identification or other safety aspects can all become a reality with RFID. Even if you’re not yet using RFID: The SILENIO gives you the security of knowing that you can embrace this technology at any time without having to upgrade or replace your entire PC hardware.
SILENIO Monitor:
large, flat, versatile

Every SILENIO monitor is also available with a touchscreen function. The PCT touchscreen enables you to operate the computer with your fingertips. The touch can also be operated to input performed with gloves. The SILENIO monitors can either be mounted on the monitor arm or placed on a desk using the optional base.

Four full HD pictures displayed simultaneously on the 43” and 55”

The largest monitors in the SILENIO series are the 43” and 55”. This monitors have four DVI inputs through which it can receive various signals. The 43” and 55” SILENIO have 4K UHD resolution (3840 x 2160 pixels), which means it can display four full HD pictures at the same time (QuadView). The brilliant image quality, low energy consumption and compact design make the SILENIO the perfect surgical monitor, thanks to its new imaging technology.
Hygienic keyboards and mice

Keyboards and mice have become vital in medical environments, operating rooms and at nursing stations. However, traditional input devices are usually unsuitable for medical use for hygiene reasons. The MEDIGENIC keyboards and mice are simple and safe to clean and make it easier to comply with the required hygiene standards without sacrificing the intuitive operability.
MEDIGENIC keyboards and mice facilitate compliance with specified hygiene standards without sacrificing the intuitive operability. The specially developed design provides an excellent typing experience with tangible button movement. Operating speeds remain at a high level and there is no need to fear comparison with traditional keyboards. MEDIGENIC keyboards and mice are a reliable choice in all environments where hygiene and health are top priorities.

Hygienically clean in seconds

The flat, ergonomic keyboard design enables fast cleaning with all hospital-approved disinfectants. The moisture-resistant surface based on silicone is totally impermeable to liquids, latex-free and extremely durable.

MEDIGENIC keyboards provide sensory feedback when operated. This enables fast and reliable data input. The 3D surface of the key panel simulates the haptics of a keyboard with standard buttons and thereby makes it easier to position the fingers.
High resolution for greater certainty

Innovation is a matter of course for JVC. As such, many JVC greyscale monitors feature ISD, a technology that makes it possible to directly control the display’s sub-pixels. This means that, thanks to ISD, a 2 MP monitor can display images with a 6 MP resolution. This affords greater diagnostic reliability for the doctor and patient.

Calibration with just two clicks.

The regular acceptance and constancy tests required by the German X-Ray Regulation (Röntgenverordnung) are carried out by JVC monitors almost independently: The MEDIVISOR NX software calibrates the monitor with just two clicks. The QA MEDIVISOR then creates the required test reports in PDF format.

Three sensors for greater stability

All JVC i2 models have a reliable stabilisation system. Three sensors continuously monitor all important parameters and ensure that image reproduction is always stable. Not only is the temperature measured inside the display; the current brightness of the display is also measured. The brightness of the room in which the monitor is placed is also monitored.

Because of its unique technologies and comprehensive knowledge base, JVC, former TOTOKU, is one of the world’s leading manufacturers of medical monitors and touch panels. Continuous development allows JVC to ensure even greater certainty in primary diagnostics and to achieve technological progress in the medical imaging market.
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