CLINIO®

COMPUTERS, MONITORS & THIN CLIENTS
HYGIENIC & MEDICALLY CERTIFIED
INDIVIDUAL SOLUTIONS IN 22", 24", 27" AND 32"

THE CLINIO FAMILY AT A GLANCE

CLINIO ALL-IN-ONE PC

The CLINIO C is an all-in-one PC that comes into its own in a range of medical applications such as RIS, HIS, PACS and EPA. With a wide range of options and high performance for computationally intensive applications, it meets all the requirements for use in hospitals, doctors' surgeries and other medical facilities. It is available screen diagonals 22", 24" and 27". (p. 8-11)

CLINIO SLIM ALL-IN-ONE PC

The CLINIO S is the slim version of the all-in-one computer, making it the perfect alternative for the tightest spaces and workplaces. Thanks to its chip architecture, this CLINIO consumes significantly less power, yet its computing power is more than sufficient for most of the applications in daily hospital life. It is available screen diagonals 22" and 24".

The CLINIO S is thus ideally suited as a ThinClient system. We trust IGEL Tech nology GmbH's almost 20 years of experience with their Linux-based IGEL OS, the next-gen edge operating system for cloud workspaces in virtual environments. (p. 12-13)

CLINIO MONITOR

The design of the CLINIO MONITOR makes an impression - and not just on the wall: The CLINIO is particularly impressive on surgical swivel and spring arms. With the optional stand, it can be used at any workplace. It is available screen diagonals 27" and 32" Its greatest advantage, however, is the variability of the input formats and the brilliant picture display. (p. 14-15)

CLINIO PC

The CLINIO PCs are quiet, energy-saving and powerful. The absence of ventilation slots and cooling fins makes the units easy to clean and disinfect. The germicidal lacquering provides additional safety and makes the units even safer from a hygienic point of view.

It is available in two versions, the powerful CLINIO 600C and the CLINIO S 500C. These units are the counterpart to the CLINIO C and CLINIO S All-In-One PCs. (p. 16-17)

CLINIO

The hygienic flap and the various cable seals prevent dust, dirt and liquids from entering the housing

MAKES THE DIFFERENCE

Made in Germany: Safe & reliable

The CLINIO series is a German success story, as these units have been designed and manufactured in Germany for over 10 years. This guarantees the highest quality and flexibility. Only hardware for industrial use, featuring long availability and particularly high fail-safety, is used in the CLINIO. This means that we can offer an optional warranty extension of up to five years for our devices.

Internal power supply unit

All CLINIOs have an internal power supply unit. This enables simple installations, e.g. in the operating theatre on a ceiling arm. If desired, the CLINIO can serve as a power source for other components. An external power supply unit is also available as an option, so it can also be operated with an external voltage source.

Illustration of a CLINIO 32" UHD (COMMAND BAR depending on controller)
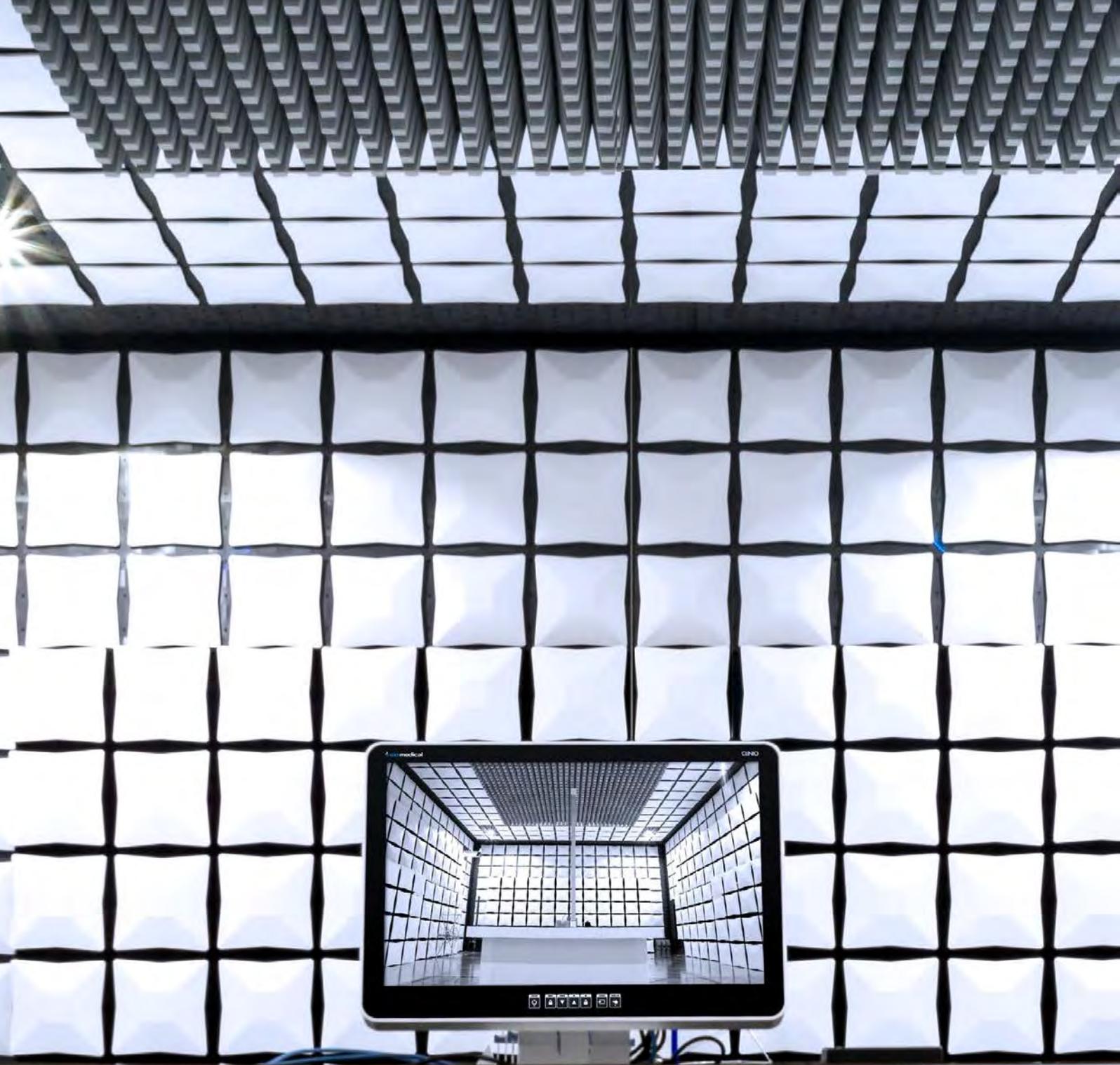
Certified medical device

The CLINIO is a Class 1 medical device. All units of this series are tested according to the international standards IEC 60601-1 and IEC 60601-1-2. This allows operators to easily and safely combine our CLINIOs with medical systems in the near-patient environment.

Safe operation

Not just the front of the CLINIO but the entire housing is free of niches and edges where germs can settle. The monitors and All-In-One PCs are operated via the COMMAND BAR, a touch field on the front of the unit that can be operated safely and comfortably even with surgical gloves.

The COMMAND BAR switches the CLINIO to-One PC into standby mode or resets it. In addition, the optional touch screen and COMMAND BAR can be temporarily disabled to clean the screen.

HYGIENIC & SAFE

Hygienic design

The CLINIO is closed all around and can be operated by optical touch via a touch-sensitive panel. The result: A flat surface that can be easily cleaned and disinfected. The optionally IP65-protected housing is insensitive to commercially available cleaning agents and disinfectants. The surface is coated with a germicidal powder coating (POLYFLEX® STERIDUR II coating), which provides additional safety and enables easy wipe disinfection. The closed housing prevents air exchange with the environment and thus reduces the risk of germs being deposited and stirred up.

CLINIO

ALL-IN-ONE PC

Three sizes - unlimited possibilities

All models of the CLINIO C (available in the sizes 22", 24" and 27") can be mounted on ceiling and spring arms by means of a Vesa device and are thus equally suitable for wall mounting and for mobile carts. With the optional stand, they can also be placed on the desk.

Efficient & Individual

The CLINIO All-in-One computer features impressively powerful components such as the high-quality Active Matrix LCF TFT panel and Intel® Q370 Express chipset. The CLINIO is continuously adapted and further developed to the requirements of the users. For example, when a new generation of i5/i7 CPUs from INTEL® is released, it is extensively tested in our laboratory and then incorporated into current production as part of a model update.

A barcode reader is available as an optional accessory. Thus, both 1D barcodes (e.g. EAN, UPC, and IAN) and 2D barcodes, so-called QR codes, can be read.

Beyond the standard configuration

There is no standard CLINIO! Every CLINIO COMPUTER is optimally adapted to your needs. This applies not just to the operating system, CPU, RAM or hard disk size: With a total of more than 20 options - including touch screen, monitor stand, WLAN, external power supply and galvanic isolation - a wide range of configuration preferences are catered for.

Flexible

Each CLINIO COMPUTER has two DisplayPort and one DVI output. Images can thus be displayed on two additional monitors. If desired, the CLINIO display can be cloned, i.e. all three monitors display the same content. Alternatively, the desktop is extended to cover the entire surface.

Limitless expandability

The CLINIO COMPUTER optionally provides a full PCIe x16 slot for expansion. Frame grabber card or other system extensions can thus be easily integrated. Behind the hygiene cover, the CLINIO COMPUTER showcases its connectivity: With USB 3.0, RS232, GPIO, audio, GbE LAN, DisplayPort*, HDMI* and DVI*, the PC communicates with all components of the medical IT world.

* Depending on equipment

The CLINIO computer is used wherever serviceability and hygiene are important, for instance here in the Helios Amper Hospital in Dachau. The hospital relies on Rein Medical for the modernisation and expansion of four operating theatres.
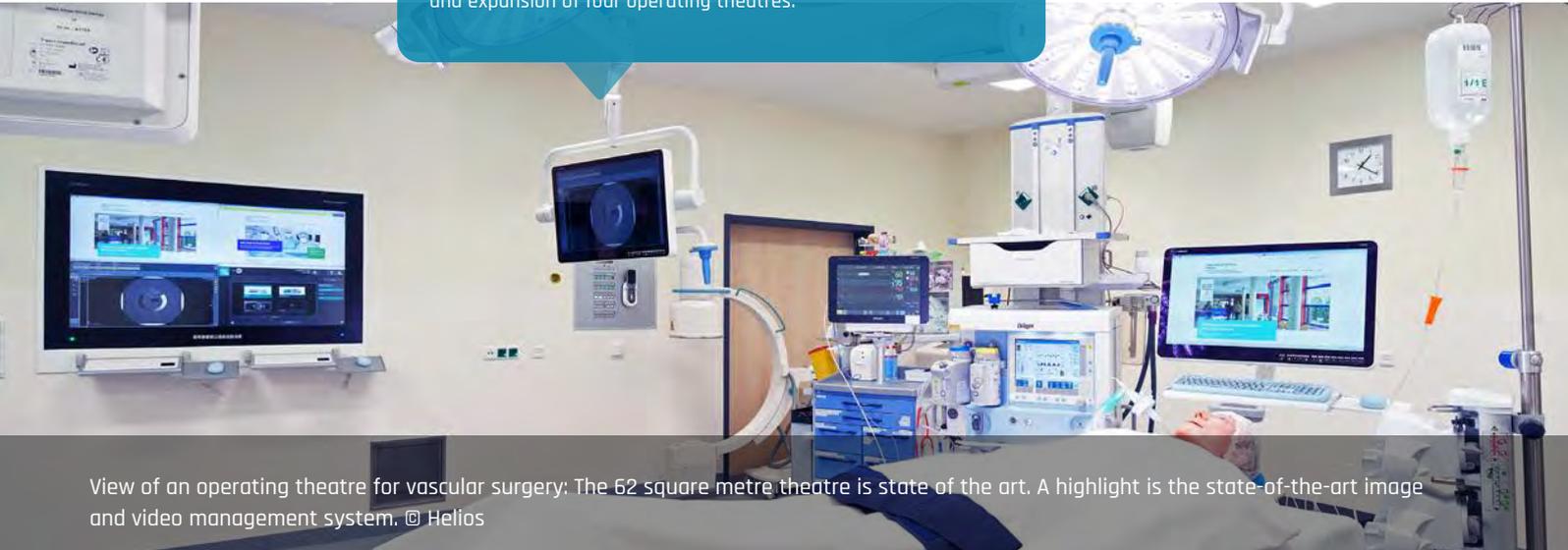
View of an operating theatre for vascular surgery: The 62 square metre theatre is state of the art. A highlight is the state-of-the-art image and video management system. © Helios

CLINIO SLIM

Loads of reasons for IGEL

REIN MEDICAL integrates the technology of IGEL Technology GmbH. IGEL OS supports a wide range of remote display protocols and offers technology integrations with over 100 partners. The Next-Gen Edge OS was developed specifically for accessing virtual environments in companies. It is based on a highly secure Linux distribution that facilitates protection against malware and is adapted for the CLINIO S and 100% compatible. IGEL makes security easier. When you move Windows to the cloud - with technologies from providers such as Citrix, VMware, AWS and Microsoft - you already increase security because applications and data no longer reside on the endpoint. With the CLINIO S you get a fully functional, read-only endpoint for cloud workspaces. At the same time, IGEL provides a secure chain of trust from the user to the applications and workloads hosted in the cloud.

ALL-IN-ONE PC

Safe, efficient, economical

The CLINIO S All-In-One PC is optionally available with Microsoft Windows or IGEL OS operating system. It is available in 22" and 24" diagonals, can be mounted on ceiling and spring arms by means of a Vesa device and is thus equally suitable for wall mounting. The low power consumption makes it ideal for use on battery-powered mobile carts. (DC version optional) In addition to its smaller dimensions, the choice of power-saving components deserves special mention. They make the power consumption approx. 60% lower and even up to 75% lower when operating as a ThinClient. (Compared with CLINIO 624C in each case in full configuration under full load). Nevertheless, the computing power of the CLINIO S All-In-One PCs is more than sufficient for most applications used in daily hospital life, and it can also be individually configured.

UMS - Universal Management Suite

The simple yet efficient user interface of the UMS enables even non-experts to easily control and manage environments. Not matter whether these comprise 20 or 20,000 units. UMS not only makes end-user computing highly scalable and easy to use, but also offers simple cloud-based endpoint software licensing that allows licences to be ported between any compatible device.

More information is available at https://www.igel.de/

CLINIO S Green IT

From the front, CLINIO C and CLINIO S are identical, but from the side there is a clear difference. Where the CLINIO C scores with pure performance, the CLINIO S is set for maximum efficiency.
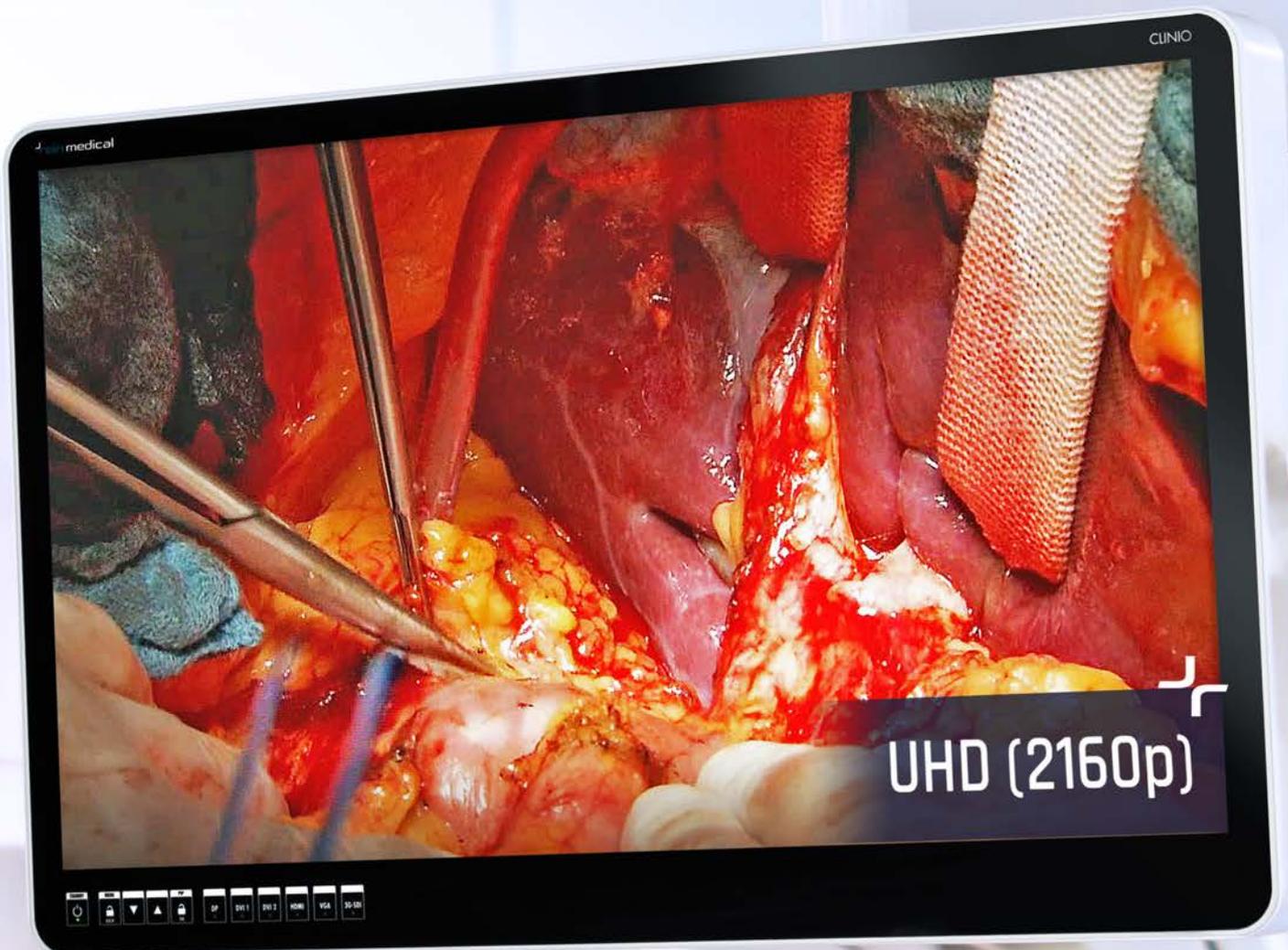
Automatic brightness stabilisation

ALS (automatic luminance stabilization) eliminates the backlighting fluctuations that may occur, for example, during the warm-up phase or due to temperature changes. It also compensates for the runtime-related decrease in the backlight. This guarantees optimal, bright images even after many years.

MONITOR

Always the right monitor

The CLINIO MONITOR is versatile and variable, always adapting to the require-
ments. With screen diagonals of 27" and 32" in Full HD and UHD, numerous
connection options (e.g. VGA, HDMI, DVI, Dis- playPort 1.2, 3G-HD-SDI) and
further equipment options (signal extender, Loop Through, PIP/POP, etc.), the
CLINIO is at home in every possible scenario.

Greyscale correction according to DICOM

The sensitivity of the human eye does not follow a linear function: To compen-
sate for these peculiarities, the CLINIO monitors have correction according to DI-
COM Part 14 GSDF. What's more, they represent different colour spaces (BT.709,
BT.1886 and BT.2020) to avoid colour shifts and misrepresentations.

Optimum colour rendition

The brilliant picture quality and constant colour reproduction is en-
sured by factory calibration. In addition, the reference calibration
offers the option of copying the image impression of an external
monitor onto our CLINIO. Learn more about calibration here:

The Maria Hilf Hospital in Mönchengladbach relied on the monitors of
the CLINIO family for its modernisation. The CLINIO is perfectly adap-
ted for use with SMART OR and OPERION. Rein Medical thus offers
optimal OR integration from a single source.

A view of the operating theatre after successful renovation.

CLINIO

COMPUTER

PC power for stationary and mobile use

The CLINIO PCs are specialised PCs designed for use in hospitals and doctors' surgeries. Their space-saving design and easy cleaning enable countless areas of application: PACS viewer, HIS/RIS system or PDMS workstation are just some of these possibilities. The compact design, the hygienic construction and the energy-efficient design allow the use on a mobile workstation (cart) in addition to stationary operation. TheCLINIO S 500 C is the screenless alternative to the CLINIO S and the CLINIO 600 C is the counterpart to the All-in-One PC.

CLINIO S 500 C - The efficient and compact PC solution for PACS & Co.

With its extremely compact dimensions, the CLINIO S 500 C is the ideal choice wherever energy efficiency, space-saving design and sufficient PC performance are required. The S variant of the CLINIO C is so small that it is almost invisible as a workstation computer, both in stationary and mobile use. The computing power that this CLINIO provides is enormous: There is enough power for all everyday applications and solutions such as PACS, RIS, HIS and PDMS. Even 4k screens can be controlled without any problems.

CLINIO 600 C - The powerful and expandable PC

The CLINIO 600 C offers enough space for absolute CPU power: Thanks to its INTEL i5/i7 CPUs, there is sufficient computing power for every application. The all-round protected aluminium housing contains the internal power supply, offering ample space for extensions and additional PCI express cards, such as encoders or graphics solutions. Nonetheless, the PC manages completely without ventilation slots and cooling fins. This optimises hygiene and prevents dust and germs from being stirred up.

CLINIO FAMILY

Overview

- aluminium housing
- hygienic design
- certified medical device
- integrated power supply unit
- germicidal surface coating
- VESA compatible
- closed cooling
- optionally galvanically decoupled

Take advantage of our consulting expertise: We will find the ideal CLINIO for you!

CLINIO All-In-One Computer

- Medical All-in-one PC in 22", 24" und 27"
- 22" Full HD, 24" WUXGA and 27" Full HD
- IP65 protection front total IPx3 (IP65 rear optional)
- Intel i5 oder i7 CPU
- up to 64GB DDR4 SDRAM
- 240 GB M.2 NVMe/PCI SSD 3D TLC NAND
  (optionally other capacities or technologies)
- Multi-Touch (optional)
- Barcode Reader, RFID und WLAN (optional)
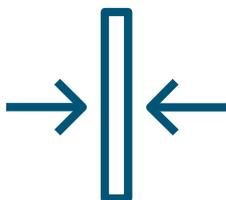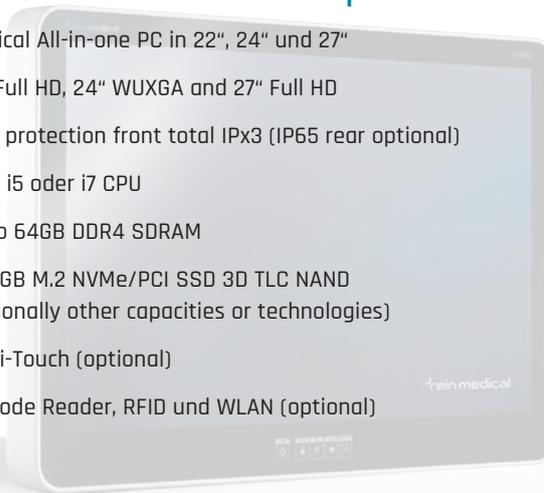
CLINIO SLIM All-in-One Computer

- Medical All-in-one PC in 22" Full HD and 24" WUXGA
- Microsoft Windows or Igel IGEL OS operating system optionally pre-installed
- IP65 protection front total IPx3 (IP565 rear optional)
- Intel® Pentium® Silver J5005 (QC @2.8GHz) Max. 10W TDP
- 16GB/120GB ThinClient/AIO PC
- 120 GB m.2 SATA 3.1 SSD 3D TLC NAND
  (optionally other capacities or technologies)
- Multi-Touch (optional)
- Barcode reader, RFID and WLAN (optional)
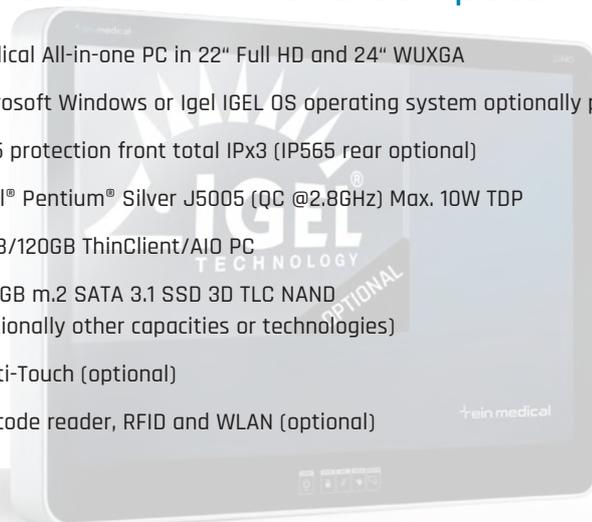
CLINIO monitor

- 27" and 32" medical monitor (full HD or UHD)
- IP65 protection front total IPx3 (IP65 rear optional)
- Factory calibrated with reference calibration option
- Colour spaces BT.709, BT.1886 and BT2020 and greyscale correction via DI-COM Part 14
- Connection diversity (DVI-D, VGA, DP, HDMI, RS232 and optional 3G/HD-SDI)
- Remote control via GPIO and RS232
- Touchscreen (optional)
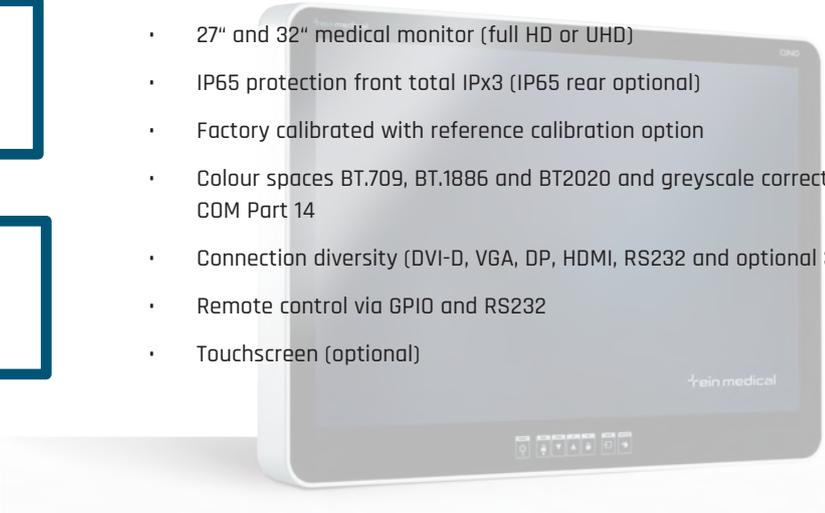
CLINIO PC

- Medical PC in 82 x 440 x 300
- IPx3
- Intel i5 or i7 CPU
- up to 64GB DDR4 SDRAM
- 240 GB M.2 NVMe/PCI SSD 3D TLC NAND (optionally other capacities or technologies)
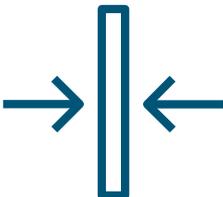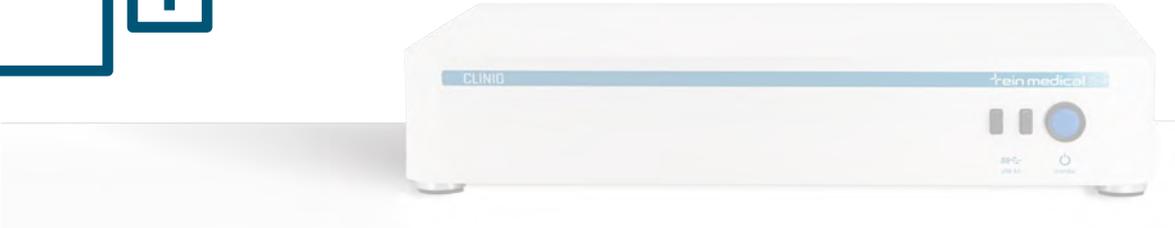
CLINIO PC S

- Medical PC in 56 x 220 x 170
- Intel® Pentium® Silver J5005 (QC @2.8GHz) Max. 10W TDP
- up to 16 GB DDR4 2400
- 120 GB m.2 SATA 3.1 SSD 3D TLC NAND (optionally other capacities or technologies)
- Medical-grade desktop power supply, AC 100 - 240 V ±10% (50/60 Hz), DC 12V, 63W

Who are we?

At Rein Medical, we drive innovation. Our German company with a team of almost 100 employees has been involved in medical IT for more than two decades. Nowadays, we're a system service provider that implements customised IT solutions from planning to handover from a single source. We also accelerate the digital transformation in practices, clinics and other medical facilities. We develop and produce individual all-in-one computer solutions, high-resolution displays, customised IT wall modules for operating rooms as well as video/audio and image management systems. Rein Medical has been part of the JVC Kenwood Corporation since March 2018 and is a globally active company.

Future „Made in Germany"

We stand for quality and set a hygienic benchmark with our certified IT.
From the design, development and production of our hardware to the programming of our software, we realise our IT solutions at the Mönchengladbach site. With our worldwide partnerships, we offer innovative holistic solutions for an optimised workflow, ensuring smooth and reliable processes in the operating room.

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