

SIEMENS

Cios Alpha

See the power with Full View FD.

www.siemens.com/cios-alpha



Answers for life.

Cios Alpha lets you see more and gives you the power to do more.



Outstanding image quality coupled with powerful performance and simple operation: welcome to a new era in surgical imaging.

Whether you're repairing an abdominal aortic aneurysm or checking the placement of pedicle screws in spinal surgery, the more you can see, the more confidently you can perform the procedure. Well suited to advanced operating theaters, Cios Alpha covers the needs of all the most relevant clinical disciplines, opening up new possibilities in surgical imaging.

Outstanding images, greater confidence

The first mobile C-arm to use Full View flat detector technology, Cios Alpha delivers outstandingly detailed, distortion-free images. With its Full View technology, the collimators uniquely track the image rotation to provide the maximum field of view all the time, giving you up to 25% more image coverage* even when rotated. So you get the complete picture, all the time.

More power, more vision

Capable of generating the power you need for the most challenging situations and the longest procedures, Cios Alpha's active cooling system** combined with intelligent imaging and power management provides excellent penetration at the lowest possible dose. So you get consistently clear, sharp images without having to worry about overheating or image quality degradation.

Exceptional precision, effortless control

Fast, intuitive and convenient, Cios Alpha's intelligent features are designed for flexible, efficient operation and seamless integration into your workflow. Engineered to let you see more and do more, its compact detector design provides extended free space for excellent patient access while the remote user interface** and single-touch positioning** give you direct control from the sterile field for complete versatility, saving time and effort.

Innovative features for clinical applications

Versatile and efficient, Cios Alpha covers the surgical imaging needs of all the most relevant clinical disciplines in a single system. From vascular and cardiac surgery to gastroenterology, urology, trauma and spine surgery, whatever your surgical discipline, Cios Alpha integrates seamlessly into your workflow.

* Compared to today's conventional image intensifiers

** Option



“It’s all a question of vision.”

When we started to design Cios Alpha, we had one goal in mind: making the jobs of people in operating rooms easier so that they can concentrate on providing even better care.

To achieve this, we developed a new imaging chain, specifically created for the latest generation of flat detectors. It provides surgeons with more information and greater image detail so that they can work faster and more effectively. Even during long procedures and in difficult situations. With Cios Alpha I’m happy to say we’ve exceeded our goal.”

*Christian Wilke, Research and Development,
Siemens Healthcare X-ray Products*



Cios Alpha at a glance.

Full View FD Technology

30 cm x 30 cm (12" x 12"), 1.5K x 1.5K* detector provides a large field of view and distortion-free imaging with higher dynamic range for greater detail. Its unique collimation technology means you always get the maximum field of view, even when the image is rotated.

FD mounted brake controls

Simple, convenient control right where you need it.

Compact flat detector

85 cm of extended free space for excellent patient access.

25 kW high power generator*

The most powerful mobile C-arm generator available for best possible penetration and clear, detailed images. Its energy storage unit* triples the mean power that can be applied.

Active cooling system*

Coupled with intelligent power management means you never have to worry about overheating, even with the longest, most difficult procedures.



*Option

Complete control

To give you complete flexibility and control, Cios Alpha can be operated from its touch screen user interface (UI) on the monitor cart, the table-side remote UI*, or the C-arm UI.

High-brightness, high-contrast TFT displays

Horizontally and vertically adjustable* 19" monitors, rotatable through 180° with wide 170° viewing angle ensure you see as much detail as possible, even from a distance.

Advanced applications for optimal vascular workflow support*

- Stenosis quantification
- AAA live graphical overlay
- Injection trigger
- Multifunctional foot switch

Clinical image not generated by Cios Alpha

Advanced connectivity

Seamless integration into hospital networks with data interfacing via LAN/WLAN*.

Monitor out function* and video manager* supporting the most common video standards for video in and video out functionality.

Storage capacity of 100,000 images on hard disk, documentation with CD / DVD, USB and DVD recording.

Less effort, more precision

Motorization package*, single-touch positioning* and electromagnetic brakes for precise, effortless operation.

Intuitive operation

Color-coded axes correspond to brake controls for intuitive operation.

Compact, lightweight monitor cart

Space saving design for easy maneuverability.





Standard FD image



Field of view with conventional FD systems once the image has been rotated even by as little as 0.1°



Field of view with Cios Alpha providing up to **25% more coverage**, even when rotated



Cios Alpha's unique Full View
FD technology gives you
outstanding image quality
at the lowest possible dose.

Outstanding images, greater confidence

The vision you need: from the big picture to the tiniest detail.

From the initial image acquisition to viewing and archiving, Cios Alpha provides outstanding image quality every step of the way. Its unique Full View FD system and fully digital imaging chain help you see all the detail you need. Where you need it, when you need it. Whether you're identifying micro-fractures or precisely positioning fine catheters and implants, Cios Alpha allows you to perform complex procedures with confidence and control.

See the full picture...

Cios Alpha's advanced collimation system – a first for mobile C-arm technology – allows the collimators to track the image rotation providing optimal coverage, with up to 25% more anatomical visibility and better orientation at any time, during and after image rotation. So whatever you're viewing, you always get the Full View.

With its 30 cm x 30 cm (12" x 12"), 1.5K x 1.5K* flat detector, Cios Alpha delivers a larger field of view with exceptionally high levels of spatial resolution and dynamic range to help you clearly differentiate tissue and surrounding structures. And because they are distortion free, images are geometrically optimized for accurate measurement and ultra-precise positioning such as capsule placement in brachytherapy.

...in all its detail

To help you get the full benefit of the digital flat detector, two high-brightness, high-contrast TFT displays present the image information you need – before, during and after the procedure. Horizontally and vertically adjustable*, and rotatable through 180° to suit your environment, their wide 170° viewing angle and high-contrast screens ensure you see as much detail as possible. Plus, with the monitor out function*, you can add additional external ceiling or wall-mounted monitors for all-around visibility.

* Option

Outstanding images, greater confidence

Outstanding image quality and lower dose: it's EASY.

Providing brilliant images in every situation thanks to a range of image processing features, Cios Alpha's Enhanced Acquisition System (EASY) automatically analyzes the full 1.5K x 1.5K image matrix in real time. It then adjusts and optimizes the dose, contrast and brightness accordingly, making intraoperative imaging as simple as possible. Even off-center objects are displayed with excellent clarity.

Lower dose

To keep the dosage as low as possible, Cios Alpha is equipped with a range of innovative features, including the latest generation FD technology. Advanced series-processing algorithms and specifically optimized organ programs help reduce dose while maintaining optimal image quality.

The detachable grid together with radiation-free collimator visualization and integrated laser light localizers* help reduce dose further, while Cios Alpha's unique single-touch positioning function* eliminates the need to make multiple "trial and error" exposures when returning the detector to a previous projection.



“As the responsible surgeon, I need to be completely confident about the procedures I’m undertaking.

For that, I need the best possible image quality so I can see the fine detail.”



Two bright high-contrast TFT displays present the image information you need.



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Cios Alpha provides the power you need for best penetration possible, e.g. with obese patients.

Clinical image not generated by Cios Alpha



More power, more vision

The mobile C-arm that stays cool: so you can keep yours.

The most powerful mobile C-arm on the market, Cios Alpha's 25 kW* high power generator gives you almost unlimited power reserves for the best possible penetration to deliver clear, detailed images in all situations.

The power to work longer...

With its advanced active cooling system* and tube design with rotating anode, Cios Alpha stays cool longer. If the temperature begins to rise, the intelligent power management system automatically manages heat dissipation to stay within the thermal limits, so you don't have to worry about over-heating. Cios Alpha stays cool even during long-lasting interventions so you can continue working, uninterrupted and without image quality degradation for longer.

Intelligent power management automatically prevents overheating.

...when it's needed

Cios Alpha's Energy Storage Unit* (ESU) buffers energy, tripling the mean power that can be applied. The energy storage unit makes the max power available for significantly higher penetration capability in series acquisition when it's needed, for example when operating on obese patients.

...so you can do more

With its combination of higher penetrating power, uninterrupted operation and smart dosage control, Cios Alpha opens up new opportunities, letting you perform a wide variety of procedures, from multi-purpose to high-end hybrid OR applications – such as endovascular procedures – that were once only possible with fixed C-arms.



Exceptional precision, effortless control

Complete flexibility. Precisely where you need it.

Cios Alpha has been designed to provide you with the information you need simply and quickly without getting in your way. Every aspect has been carefully thought out to make it as convenient and intuitive as possible for optimum support of the surgical workflow.

Direct table-side control

To give you complete flexibility, Cios Alpha can be controlled from the monitor cart, the C-arm or directly at the table using the remote user interface* (UI). Wherever you work from, you get a consistent, intuitive interface. In addition, touch-sensitive brake controls mounted directly on the detector housing allow quick and simple adjustment of the C-arm.



Greater convenience

Surgeons can control the C-arm orientation directly from within the sterile field.

With its motorization package* and electromagnetic brakes, positioning is quick, effortless and precise. Color-coded brakes and scales make operation simple and intuitive. So you can get on with the procedure as quickly as possible.

A system that remembers where it was

With Cios Alpha's single-touch positioning function*, you can record a specific projection and return the C-arm to it later, all simply at the touch of a button. Orbital and angular positions are stored together with the collimator setting, allowing exact reproduction of the relevant projection, saving time and effort.



Local control

The remote user interface* provides complete table-side control.

Electromagnetic brake controls mounted directly on the detector housing make repositioning and locking the C-arm quick and convenient.



Exceptional precision, effortless control

From ergonomics to EMotion: detail that's music to your ears.

From its ergonomic side rails and handles to single-handed steering lever, centralized footbrake and cable deflecting wheels, Cios Alpha's smart features and attention to detail make work easier, letting you concentrate on the patient.

Find room to move

Lightweight and compact, Cios Alpha's monitor cart has been designed for greater maneuverability.

Enjoy the freedom to work

Expanding flexibility of operation, the multifunctional footswitch* gives direct access to all operating modes and image capture and can be user-configured for quick, hands-free control and X-ray release.

Be in tune with your workspace

EMotion*, Cios Alpha's onboard sound system lets you connect an MP3 player so that you can listen to the music of your choice for a pleasant working environment.



Clinical image not generated by Cios Alpha

Lightweight and compact monitor cart design for greater maneuverability.



“When we’re in the middle of an operation, we need to give 100% attention to the procedure.”

The equipment we rely on needs to be there when we need it, intuitive and flexible enough to meet our needs without getting in the way.”

Ergonomic side rails and highly precise orbital roller bearings provide effortless positioning.



Innovative features for clinical applications

Clinical applications: we've got you covered.

Vascular surgery

Ideally suited for vascular interventions such as AAA, femoral artery bypass or placement of carotid stents, Cios Alpha includes a range of innovative features to improve efficiency and make your life easier.

AAA live graphical overlay*

Cios Alpha's AAA live graphical overlay feature makes drawing on monitors a thing of the past. Precise and efficient, it supports vascular workflow and saves you time.

Stenosis quantification*

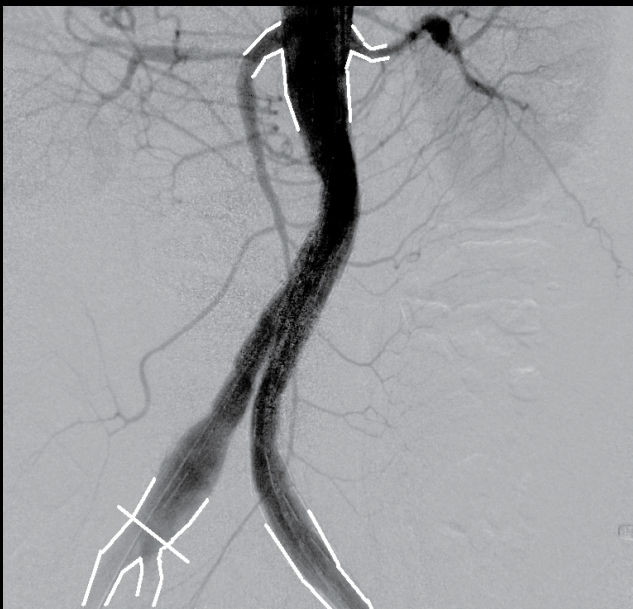
Stenosis quantification software calculates the degree of stenosis. The vessel is automatically analyzed and the minimum value in relation to a reference value. The geometric and densitometric parameters of the stenosed vessels are then displayed for simple and effective intraoperative control.

Injection trigger*

Cios Alpha provides interfaces to external devices, such as its injector trigger for better synchronization of the contrast medium during subtractions for even greater flexibility and integration.

Subtraction image*

Up to 100% landmarking lets you add a subtraction image to the full picture for even better orientation. The ability to recalculate and reuse peak opacified images multiple times saves time and contrast medium while reducing dose.



AAA live graphical overlay
For precise and efficient marking

*Clinical image not
generated by Cios Alpha*

Cios Alpha's versatile features extend its flexibility to meet the needs of the most relevant clinical disciplines – from cardiac surgery, electrophysiology and gastroenterology to orthopedic, trauma, spine surgery, pain management and urology. The 30 cm x 30 cm (12" x 12")* and 20 cm x 20 cm (8" x 8") FD detector options coupled with 12 kW and 25 kW* generators let you tailor Cios Alpha to your exact surgical requirements.

Cardiac

Large, 25 kW*, power reserves and rotating anode deliver excellent performance, while the 20 cm x 20 cm (8" x 8") FD provides optimum focus and 30 pulse per second fluoro imaging rates for incredibly sharp images for the finest catheter placement.

Gastroenterology

With its large field of view, Cios Alpha's 30 cm x 30 cm (12" x 12") FD provides decisively more anatomical information and excellent images for fine structures and instruments. The integrated video manager* allows endoscopic images to be viewed on one screen simultaneously with X-ray images on the second.

Ortho, trauma and spine surgery

As equally suited to complex ortho and trauma cases as it is to complex spine surgery, Cios Alpha's excellent HD images allow fine detail visualization. Tube currents of up to 250 mA* ensure superior image quality for single images.

The intuitive touch screen user interface provides familiar and workflow-oriented operation.





Invest in tomorrow's technology today.

Cios Alpha represents an outstanding investment – for today and for tomorrow – with effortless operability, technical innovation and unique features that open up new opportunities in surgical imaging. All of which give surgeons the power to see more and do more. Now, they can work more efficiently, with fewer interruptions, and carry out procedures that they have never previously been able to perform with a mobile C-arm.

Closer by design

Closer to technology and closer to you, Siemens Healthcare Customer Services delivers extensive experience combined with innovative solutions to help protect and maximize your investment in Cios Alpha over the entire product lifecycle; services that help improve uptime, increase performance and optimize workflow for sustainable healthcare, while ensuring that your staff is trained to deliver the highest quality results possible.

Service tailored for you

Helping you prevent unscheduled downtime and improve workflow, Siemens comprehensive service options can be tailored to your precise requirements. From preventive maintenance to technical phone support, system updates and fast on-site response, our proven Performance Plans are designed to help improve reliability while ensuring predictable costs, lower risk and greater efficiency.

The problem's solved. Before you know it!

An efficient and comprehensive infrastructure offering device-related remote services, with Siemens Remote Services your system is monitored for parameter deviations so that remedial action can be taken proactively before problems arise. Plus, remote diagnosis allows defective parts to be identified and ordered, avoiding downtime and keeping repair times to a minimum.

“Modern healthcare is increasingly about doing more with less.

So when it comes to investing in capital equipment, my priorities are clear. I need to give our staff the tools that let them work as efficiently as possible and be flexible enough to meet their needs tomorrow as well as today.”

Experience why detail matters.

Whatever your needs, whatever your surgical discipline, Cios Alpha provides you with outstanding image quality combined with the power you need for extended, complex procedures. Its unique Full View FD technology and other industry-leading innovations together with excellent usability represent a significant step forward in mobile C-arm technology, opening up new opportunities that let surgeons see more and do more. Cios Alpha: because detail matters.



*Clinical image
not generated
by Cios Alpha*

The product is still under development and not commercially available yet. Its future availability cannot be ensured.

The information in this document contains general technical descriptions of specifications and options as well as standard and optional features that do not always have to be present in individual cases.

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Please contact your local Siemens sales representative for the most current information.

In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources and waste conservation), we recycle certain components.

Using the same extensive quality assurance measures as for factory-new components, we guarantee the quality of these recycled components.

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