

The Most Popular CT in the World*

The new SOMATOM Emotion



www.siemens.com/medical

SOMATOM Emotion

The difference more than 5,000 SOMATOM Emotions make? The most popular CT in the world.

Siemens' customer-focused philosophy has always been to continually integrate cutting-edge imaging applications into daily clinical routine, providing high quality patient care while simultaneously lowering costs. And the success of this philosophy is easily recognizable: More than 5,000 satisfied and knowledgeable customers have purchased the SOMATOM® Emotion, making it the world's most popular CT scanner. This should be no surprise to medical professionals. After all, Siemens has been a leader in CT innovation since 1974. We are now continuing this unparalleled success story in an increasingly competitive and rapidly changing healthcare market. While patients continue to expect higher diagnostic accuracy, healthcare institutions and physicians are being forced to reduce time to diagnosis and unnecessary hospitalization. To meet these and tomorrow's demands for higher quality and cost-efficient healthcare, we have developed the new SOMATOM Emotion. With both 6-slice and 16-slice configurations outfitted with Siemens' newest technological advances, CT scanning has never before been so efficient and pleasurable. You can expect, and will receive, high-end imaging performance from an unbelievably compact scanner that can continuously protect your investment. If you are a radiologist, technologist, or financial administrator, you will enjoy knowing that you own the world's most popular CT scanner.



SOMATOM Emotion

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G. Mostbeck, MD, Otto Wagner Spital, Vienna, Austria **"The SOMATOM Emotion** delivers unbelievable high-end image quality and detail. And the intelligent programs offered allow me to concentrate my efforts on diagnosis and on my patients. Simply amazing."





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Details that Make Your Workday Exceptional

From the very beginning of CT technology, image quality has been the first priority, and this is still true today. But, as the demand for faster and more certain diagnosis has increased, workflow concepts and clinical applications have become more important. The SOMATOM Emotion beautifully illustrates Siemens' attention to detail and insistence on excellence. Designed to make your workday easier and clinically more successful. Innovative imaging technology supported by outstanding workflow concepts and a broad spectrum of dedicated applications will make your workday exceptional.





Clinical Benefits

- Highest possible image quality while maintaining low dose with CARE Dose4D.
- Small diagnostic detail for acquisition of sub-mm lung in one breath-hold.
- Confidence through second-reader support with CAD tools and remote access.
- Wide range of clinical applications tailored to your needs.
- Diagnostic speed and confidence with CT Oncology and CT Neuro Engine.
- Accessories at hand in specially designed storage box.

Economic Benefits

- Faster diagnostic speed with pre-processing and CAD-tools.
- Reconstruction on-the-fly with up to 16 images/second.
- Time savings with WorkStream4D[™]: direct reconstruction of sagittal, coronal, oblique, and double-oblique views from raw data parallel to scan acquisition.
- Shared database with *syngo*[®] CT Workplace for simultaneous acquisition and image processing.
- syngo WebSpace thin-client-server solution allows access to CT data where and when you need it.*
- Attracting referrals with cutting-edge imaging technology.
- Automated entry of examination information with e-logbook making handwritten entries obsolete.

Technical Benefits

- Fast sub-mm coverage of up to 48 mm/s with SureView[™].
- Smallest collimation with 6 x 0.5 mm; and collimation with 16 x 0.6 mm.
- Smallest focal spot size of down to 0.5 x 0.8 mm for sharp images.
- High-end UFC[™] detector technology for high image quality at low dose.

^r Requires connection to the network.

From the very first patient each workday, SOMATOM Emotion's exclusive technology acquires images with the finest diagnostic detail within seconds. Our high-end Ultra Fast Ceramic (UFC)™ Detector is designed to deliver exceptional images while maintaining minimum dose. With a collimation down to 6 x 0.5 mm or 16 x 0.6 mm and the industry's smallest focus spot, the SOMATOM Emotion provides clarity and sharpness. In addition, Siemens' proprietary SureView[™] concept, a dedicated spiral imaging reconstruction algorithm, makes challenging, high-quality long scans routine. This allows you, for example, to obtain a high-quality sub-mm lung scan in just one breath-hold. And CARE Dose4D[™], Siemens' fully automated dose management, reduces dose to a minimum while maintaining maximum image quality.

Sharpness and astonishing detail, illustrated by this ductus semicirculares.



Brilliant visualization of small vessels.

Phenomenal imaging of Y-stent.

Excellent visualization of intra- and extracranial vessels by using automated bone subtraction algorithms of *syngo* Neuro DSA CT.





Outstanding gray-white matter differentiation.



CAD-tools for automated lesion differentiation. Finding of the *syngo* LungCAD software in the upper right lobe (circled in red) indicating the need for varification by the radiologist.



Artifact-free scanning in spite of the presence of metal.

Excellent image quality is, of course, the main criterion, but a successful workday in CT is also made up of dozens of highly important details which increase efficiency and throughput. For example, the simple but practical storage box that holds all needed accessories within easy reach greatly facilitates patient positioning. Another valuable detail is the automatic e-logbook that makes handwritten entries obsolete. Additionally, a dedicated second syngo CT Workplace permits instant access to patient data through a shared database between the syngo Acquisition Workplace and the syngo CT Workplace. This lets you process the data of the first patient, while the second patient is being scanned. In this way, simultaneous planning, scanning, and pre-processing is made possible, saving you valuable time and increasing your patient throughput. In addition, WorkStream4D[™] combined with up to 16 images per second reconstruction speed virtually eliminates the need for time-consuming manual reconstruction steps. Oblique and double-oblique reconstructions are immediately available, thus enabling faster examinations.

But speed alone is not sufficient. We want to make your diagnosis as confident and your workday as comfortable as possible. Therefore, we have integrated a broad spectrum of dedicated applications as well as computer-assisted detection tools. syngo LungCAD and syngo Colonography PEV assist you in the visualization of lesions and help you to identify, segment, measure, and analyze suspicious pathology. Moreover, in the event you want further advice from a colleague, syngo Expert-i functionality allows you to share diagnostic data with a clinician sitting in a different room. This way you get a second opinion in real time with neither of you having to leave your desk. To make diagnosis even more comfortable, the syngo WebSpace thin-client-server solution brings 3D CT data not only to your workstation, but wherever* you need it.

High-end imaging technology, streamlined workflow, and advanced diagnostic tools all contribute to SOMATOM Emotion's popularity. But it is the overall, intelligent combination of details that makes your workday exceptional.



Convenient storage box for clinical accessories.

M. Keiper, MD, Scottsdale Medical Imaging Ltd, Scottsdale, Arizona, USA "I could not believe my eyes as the SOMATOM Emotion was wheeled down the hallway into the CT-suite for installation. The system is so small and compact. I love working with it."





Competitive information provided is based on interpretation of available data and may require independent verification.

With the Smallest Footprint You'll Take Giant Steps

From the time of installation, even before you have made your first scan, the SOMATOM Emotion makes the first giant step in savings. The modern, compact design permits easy and efficient installation and requires very little of your expensive floor space. And this is just the beginning of the savings story: Due to lowest power requirements and cooling demands, you save additional money every time you use your SOMATOM Emotion. But the benefits will be more than just financial ones. Your reputation will also enjoy a giant step forward as your patients discover the open, friendly design and comfortable scans of the SOMATOM Emotion.v

Clinical Benefits

- Excellent access and patient positioning due to slim gantry depth and flared opening.
- Patient-friendly design.
- Freedom of movement in clinical intervention.

Economic Benefits

- Low siting and life-cycle costs due to compact size and air cooling.
- Reduced room renovation expenses.
- Low room rental cost.
- Easily upgradable from 6 to 16 slices.
- Lowest power supply requirements (70 kVA).

Technical Benefits

- Slim gantry of 69 cm (27 in) in depth and only 26.4 cm (10.4 in) between front of the gantry and scan plane for more options in interventional procedures.
- Siting flexibility with smallest footprint of 18 m² (194 ft²); possible installation in trailer and mobile container.
- Short installation time of 1–2 days.
- Easy installation due to air-cooling.
- Uniquely engineered stabilizing frame enables horizontal installation access.
- Low heat dissipation (< 6.8 kW).



SOMATOM Emotion's horizontal installation frame.

Easy installation even in complex environments.

You will notice from the moment it arrives at your site that everything about the SOMATOM Emotion is easy. Due to its very small footprint of 18 m² (194 ft²), the scanner fits into rooms that are often too small for conventional CT scanners. In combination with easy and efficient installation procedures such as horizontal access, there is no need for complex room preparation or a cooling system. You will immediately realize giant steps in cost reduction and appreciate the minimum disruption to your busy schedule. Looking towards the future, across the entire life cycle, the intelligent and economical design permits low power and cooling costs. This significantly contributes to savings.



An additional giant step in comfort for you, your staff, and your patients is the excellent access permitted by the gantry's flared opening and the industry's smallest gantry depth of 69 cm (27 in). With only 26.4 cm (10.4 in) between the front of the gantry and the scan plane, SOMATOM Emotion offers not only a new level of patient comfort, but also adequate freedom of movement during interventional procedures.

J. F. Casoria, Business Manager, Hartsdale Imaging, Hartsdale, New York, USA "As an outpatient center, we work in a very competitive environment. With our SOMATOM Emotion we can offer full clinical performance within the smallest space. I know I've made the right decision."





Uptime is the Only Time You Can Afford

By making uptime a top priority from the start, you will enjoy reliable performance for years to come. The newly designed, modern, high-quality construction is more than robust, it is virtually indestructible. In addition we offer innovative service solutions based on Siemens Remote Service (SRS) technology. One of which, the Guardian Program[™] backs SOMATOM Emotion to ensure uninterrupted workflow. Every minute of your working day - and even while you sleep - the SOMATOM Emotion is being monitored in real time to detect potential weaknesses before they become problems. Furthermore, we make sure that your SOMATOM Emotion is not only up and running, but that it is running at maximum performance – day-in, day-out. And with Siemens's non-obsolescence program, we keep you constantly at the technological and clinical cutting-edge, allowing you to participate in the latest CT developments. Finally, the SOMATOM Emotion is known for its uptime, and uptime is the only time you can afford.





Clinical Benefits

- High availability provided through proven system design.
- Virus Protection* and Guardian real-time monitoring offers you peace of mind.
- Reliable system operation allows optimal patient planning.
- Download of latest proven scan protocols via Internet.
- UPTIME Service Centers and applications hotline for optimized clinical performance.

Economic Benefits

- Maximized system efficiency with Utilization Reports.
- Low installation costs due to short initial system start-up.
- Maximized system potential with customer care program Life.
- High-performance and long-lasting X-ray tube reduces repair and downtime.
- Customizable service contracts tailored to your specific needs.
- Utilization Management* to assess performance and utilization data to maximize patient throughput.

Technical Benefits

- Uptime security with Guardian Program[™]* Siemens' unique real-time monitoring service.
- Scan protocol assistant for easy handling of scan protocols.
- System robustness allows reliable operation under extreme conditions.

^{*} Based on SRS (Siemens Remote Service).



Backed by all the know-how and expertise we have acquired over 30 years at the forefront of clinical CT, you can expect high level performance and reliability from your new SOMATOM Emotion. Our extensive manufacturing experience supplemented with the feedback from thousands of enthusiastic users has made it possible for us to design and develop an extremely reliable and technically advanced system. And we should know, because no one has more experience in CT than Siemens. To give you even more certainty and peace of mind in your clinical routine, we offer the Guardian Program[™], which provides real-time system monitoring. By proactively observing your system, deviations can be detected before major problems occur. In the event of a system malfunction, a pre-defined high-speed escalation process is activated to quickly guide you through the critical phase.

Example report from the Utilization Management Software.

But at Siemens, uptime means more than just a perfectly functioning scanner, it means Utilization Management to maximize patient throughput. Analytical tools to assess performance and utilization data will help you maximize uptime, increase patient throughput, and optimize your system utilization.

What's more, Siemens' extensive Evolve program protects your investment from obsolescence, keeping your scanner stateof-the-art. Technological improvements will enable you to add new clinical applications as they become available. Even after several years, when your patient throughput might have increased to an extent that makes a major upgrade advisable, your SOMATOM Emotion will have retained its high value and allows for an easy upgrade.



Average number of patient exams per time frame

G. Mostbeck, MD, Otto Wagner Spital, Vienna, Austria "Siemens is a technology leader in CT, and has been so for a long time. The way they integrate innovations into my clinical routine is simply fantastic."



The Underlying Technology

CARE Dose4D

CARE Dose4D[™], an unparalleled combination of maximum image quality at minimum dose, is an example of our philosophy to provide a wide range of dose-reduction solutions. Because every patient is unique in terms of size, weight, and anatomy, we developed a fully automated dose management system. The tube current is adapted in real-time and according to the anatomy of each individual patient's organ.



Detector

Siemens has a long history of unrivalled expertise regarding detector technology from scintillators and photodiodes to electronics - where only a few thousandths of a millimeter make the difference.

The Ultra Fast Ceramic (UFC[™]) detector system is the central part of all Siemens' CT scanners. Due to this component alone, many clinical innovations have been achieved. Speed, image quality, and low dose are what Siemens UFC detectors make possible.

Speed

Conventional ceramic scintillator material has a long afterglow effect. Siemens' ceramic UFC scintillators excel in fast decay behavior and an extremely short afterglow time.

Image guality

As CT systems become faster, the role of image quality becomes more important. Siemens' UFC scintillators acquire large patient volumes quickly and provides high image resolution.

Low dose

UFC ceramic scintillators allow for the lowest possible dose. Due to their luminous efficiency with an optimized wavelength, the detectors allow for the applied X-ray dose to be optionally evaluated according to the patient's anatomy.



Conventional detector material



Comparison of decay time and afterglow (for different detector materials).

SureView

The introduction of Multislice CT has opened the door to a new era of clinical applications. However, it also introduced certain limitations resulting from the increased complexity in image acquisition, reconstruction procedures, and algorithms. But there are innovative ways to overcome such pitfalls. The solution Siemens offers is the fast spiral image reconstruction software SureView[™].

High-quality imaging at low dose

To facilitate consistent image quality at any pitch even for long scans, Siemens invented SureView – the dedicated spiral image reconstruction algorithm.

Easy to use

SureView features easy-to-use scan protocols, where the user only needs to select the scan range, mAs, scan time, and slice width. All other parameters are automatically calculated by the scanner. Additionally, high power reserves allow up to 100 seconds of uninterrupted spiral acquisition. Comparison of volume coverage at highest image quality





Excellent image quality, motion-free sub-mm lung scanning.

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Workflow without Limitations

syngo It's All About You.

syngo, our unique solution for diagnostic and therapeutic cycles, knows how you work and what you need. What's most important, fast, easy, and intuitive syngo brings together all the solutions critical to you and to your patients. Uniquely role-based for your workflow, syngo completely integrates your day, your department and beyond, leading to a whole new level of clinical excellence. And a partnership you can grow with. It's the beginning of a virtual, "always on, anywhere" world of healthcare.

The time to syngo is now.

With SOMATOM Emotion, you get more than just a CT scanner, because we know that innovative scanner technology is not enough. We make a difference by providing software solutions that complement the hardware – for a smooth clinical workflow throughout your clinical organization and beyond. One example is syngo[®] WebSpace. We designed this software to offer you ultimate speed and flexibility across your entire workflow and allow real-time access to 3D CT data – wherever you are*. Up to 20 users can be interfaced to the server simultaneously. With syngo WebSpace, you not only have CT data in real time on the monitor of your syngo Acquisition Workplace, but you can access data with virtually zero delay from other CT workplaces or PCs (e.g., PACS reading workstation, office PC**, etc.).* With syngo WebSpace, you benefit from a new level of clinical workflow efficiency. Maximizing your investment and adding value to your existing resources makes a difference - it keeps costs down while helping to enhance diagnostic outcomes.

* Where the Internet is available. ** PC must meet minimum requirements.



Benefits

- Planning, Preparation, Scanning, and Reconstruction for several patients on two parallel workplaces.
- Immediate data access at the Acquisition Workplace and CT Workplace through a shared database.
- Virtually zero delay availability of thin slice data through Fast Data Link to WebSpace Server.

- 3D data where needed with syngo WebSpace.
- Get a second opinion with syngo Expert-i.
- Parallel 3D Reading by concurrent sessions.



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Vascular

Complete assessment of vascular structures of the head and neck through a unique CT Digital Subtraction Angio (DSA)

Stroke

Complete diagnosis of ischemic stroke – looking at the whole brain and all feeding vessels.

Tumor

Fully automated perfusion protocols for quantitative

CT Clinical Engines are a unique combination of Siemens' innovative CT technology and syngo solutions intelligently integrated into clinical solutions. They are available for oncology and neurologic imaging in order to maximize the clinical performance of your SOMATOM Emotion.

With CT Clinical Engines, you benefit from synergy across your entire clinical workflow - with everything you need for optimal image acquisition and guality, exceptional visualization, comprehensive evaluation, robust guantification, and flexible reporting, all in one intuitive syngo environment.

CT Neuro Engine

The CT Neuro Engine delivers the technology required to perform artifact-free imaging with the high spatial and temporal resolution you need for fast and accurate visualization of complex neurological disorders of head, neck, and spine as well as injuries and stroke.

Our unique portfolio of syngo automated software tools for Neuro CT, will help you deliver excellent diagnostic outcomes – bone subtraction in Neuro DSA CT studies for comprehensive evaluation of complex vascular structures, fast brain perfusion for stroke patients, and differentiation of brain tumors. Your diagnosis will be fast and confident, turning data into a diagnostic outcome within minutes.

Fully automated syngo Neuro Perfusion CT facilitates quantitative evaluation for the differential diagnosis of ischemic stroke in under ten minutes and supports simultaneous multislice processing as well as the stringent time and workflow requirements necessary for an emergency setting.

CT Oncology Engine

The CT Oncology Engine offers you a unique combination of the most innovative scanner and *syngo* solutions for diagnostic imaging, evaluation, and follow-up in your diagnostic oncology setting. Our intuitive *syngo* computer-assisted reading tools, combined with intelligent evaluation, automated follow-up, and imageguided intervention, offer you a new level of confidence for preventive care, staging, follow-up exams, and realtime guided biopsies. Comprehensive tumor perfusion enables a fast, easy visualization of tumor enhancement and aids you in differentiating tumors.

syngo Colonography with PEV and syngo LungCAD are state-of-the-art clinical application solutions, incorporating a second reader tool for quantitative evaluation of colon and lung lesions.



Detection

Clinically proven CAD and second-reader software aids detection of clinically relevant lesions – and with auto preprocessing the results are ready when you are!

Follow-up Match the right nodule first time, every time wi fully automated nodule matching and lesion

Intervention Precision patient positioning at the click of a button for high accuracy needle placement.



J.-C. Steffens, MD, Israeli Hospital, Hamburg, Germany "The overall customer care from Siemens is a reassuring factor in my clinical routine that is priceless. In addition to my scanner's high uptime, I have the comfort of knowing that someone is always watching over me. This is why I choose Siemens."

Life – Customer Care by Siemens

With the new technology of SOMATOM Emotion, we make a difference. But what's more, we also make a difference when it comes to customer care. Life is the unique customer care solution from Siemens that helps you get the most from your investment. From the moment of your purchase, Life surrounds you with an array of programs and support that enables the continuous development of your skills, productivity, and technology. Allowing you to broaden your capabilities. Increase profitability. And, take patient care to the next level. To ensure you are always up-to-date on what is happening in the world of Computed Tomography, we offer you free information services. SOMATOM Sessions, our bi-annual customer magazine, provides you with clinical case studies and information on events and education. Find out about the latest news on clinical outcomes or new options and updates for your system via the monthly CT Customer e-Newsletter. It provides information that will support your daily work with your SOMATOM CT scanner.





Skills

Maximizing your skills and clinical know-how is the key to becoming excellent. Choose from a wide range of education programs – from application training to clinical education. Benefit from the professional knowledge of our education specialists and clinical partners. Learn in your department, workshops, fellowships, and symposia or even via e-learning tools. Optimize your clinical skills and use the full potential of your system. Explore LifeNet, the information portal at your scanner for downloading educational material. Educate, stay up-to-date!

Productivity

System performance and efficient workflow go hand in hand. We make sure that your system is not only up and running, but that it is running at maximum performance dayin, day-out. From safety checks and pro-active remote services to updates and corrective maintenance – we cover everything. Analytical tools to assess performance and utilization data will help you to maximize uptime, increase patient throughput, and optimize your system utilization.

Technology

You want to stay at the technological and clinical cutting-edge and participate in the latest developments? With the programs we designed, we'll keep your scanner state-of-the-art. Technological improvements will enable you to add new clinical applications. These new functionalities will empower you to get more referrals and open opportunities for additional reimbursement possibilities. What's more, we let you try out the latest, most promising clinical developments before you buy. As a LifeNet user, you have fast and easy access to download our new CT applications for a trial period.



	SOMATOM Emotion 6-slice configuration	SOMATOM Emotion 16-slice configuration
Technical specification		
High-quality CT at low costs	yes	yes
Number of slices	6 x 0.5 mm/6 x 3 mm	16 x 0.6 mm/16 x 1.2 mm
Rotation time	0.8 s/0.6 s*	0.6 s/0.5 s with HeartView CT [*]
Reconstruction speed	8 images/s	16 images/s
Smallest footprint	18 m² (194 ft²)	18 m² (194 ft²)
Slimmest gantry	69 cm (27 in)	69 cm (27 in)
Smallest focal spot size	0.8 x 0.5/0.8 x 0.7	0.8 x 0.5/0.8 x 0.7
High-end detector material	yes	yes
Practical storage box	yes	yes
2 nd CT Workplace with shared database	yes*	yes*
syngo WebSpace	yes*	yes*
Software options		
Wide application portfolio	yes*	yes*
CAD tools	yes*	yes*
SureView	yes	yes
CARE Dose4D	yes	yes
WorkStream4D	yes	yes
e-logbook	yes*	yes*
<i>syngo</i> Expert-i	yes*	yes*
CT Clinical Engines		
CT Oncology Engine	yes*	yes*
CT Neuro Engine	yes*	yes*
Services and programs		
Guardian	yes*	yes*
Utilization Management	yes*	yes*
Evolve	yes*	yes*
e-Tune	yes*	yes*

Proven Outcomes. This is what Siemens is helping to deliver right now. Outcomes that result from truly efficient workflow. Outcomes that improve your bottom line. Outcomes that lead to a level of care that feels exceptional to the patient and the care provider. Proof positive of the value of integrating medical technology, IT, management consulting, and services. In a way that only Siemens can. Siemens cannot predict whether or when the FDA the terms of this offer.

guarantee that all products included in this may vary by country and is subject to change without prior notice. Some/All of the features and the United States.

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Siemens AG Wittelsbacherplatz 2 D-80333 Muenchen Germany

Headquarters

Siemens AG, Medical Solutions Henkestr. 127, D-91052 Erlangen Germany Telephone: +49 9131 84-0 www.siemens.com/medical

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of detail when reproduced.

Contact Address Germany

Siemens AG, Medical Solutions Computed Tomography Siemensstr. 1, D-91301 Forchheim Germany Telephone: +49 9191 18-0