

**SIEMENS**

SOMATOM  
Perspective

# SOMATOM Perspective

The Most Economical CT of Its Class

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Answers for life.

# SOMATOM Perspective

## The Most Economical CT of its Class

Healthcare providers face economic challenges, while demand for high-quality diagnostic images has intensified. An economical solution awaits you—the SOMATOM® Perspective, a high-end CT scanner that delivers operational benefits without compromising clinical results.

With innovative features such as the iterative reconstruction SAFIRE, the SOMATOM Perspective helps institutions improve their financial performance and expand their clinical portfolio. At the same time, it may enhance patient and user comfort. Put simply, the SOMATOM® Perspective is the most economical CT scanner of its class.

### With the SOMATOM® Perspective, you can:

- Image faster with up to 128 slices per rotation.
- Perform robust cardiac imaging at 195 ms temporal resolution.
- Lower dose by up to 60% through raw-data-based iterative reconstruction with SAFIRE.
- Save wear and tear on the system with the unique eMode.
- Achieve higher efficiency with FAST Planning, FAST Cardio Wizard, and FAST Spine.
- Limit energy use with only 3.7 kW used in standby mode.
- Offer a pleasant atmosphere with the Illumination MoodLight.

\*In clinical practice, the use of SAFIRE may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. The following test method was used to determine a 54 to 60% dose reduction when using the SAFIRE reconstruction software. Noise, CT numbers, homogeneity, low-contrast resolution, and high-contrast resolution were assessed in a Gammex 438 phantom. Low dose data reconstructed with SAFIRE showed the same image quality compared to full dose data based on this test. Data on file.



# Manage your financial performance



## **Optimize Your Total Cost of Ownership**

With 64- and 128-slice configurations, your investment can be tailored to your needs.

Through the system's low power consumption and cooling requirements, you can reduce operational costs.

The SOMATOM Perspective is designed for operating efficiency. It not only caters to the high demands of modern hospitals and clinics in terms of quality, but also optimizes the total cost of ownership. In short, it offers technological innovation at a great price.

## **Efficient scanner usage with eMode**

The unique eMode sets the optimal scan parameters for each scan, so that the system runs as efficiently as possible. In a single click, you can reduce the wear and tear on the components and increase the scanner's life cycle. And, the eMode service contracts offer additional economical benefits. Remote monitoring, for instance, detects potential problems early on and facilitates routine maintenance, thus potentially improving system uptime.

## **Optimize total cost of ownership**

To meet your facility's needs, the SOMATOM Perspective can be tailored to individual needs. In fact, the system can grow with you as your services evolve. It can be fully upgraded on-site from a 64- to a 128-slice configuration.

Operational costs are further reduced thanks to the SOMATOM Perspective's low heat dissipation. It requires less air conditioning and operating power than other scanners: 70 kVA or less of electricity and cooling sufficient for only 8.5 kW or less of heat dissipation while scanning.

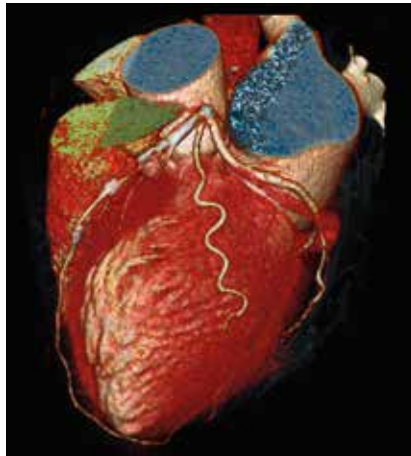
# Widen your clinical portfolio



Fast sub-mm coverage for acute care environments.

Sustainable radiation reduction with SAFIRE\*.

Excellent temporal resolution for cardiac studies with iTRIM.



The SOMATOM Perspective combines innovative technologies and a ground-breaking design with a wide array of applications that open up new possibilities in CT. Challenging examinations become clinical routine. The SOMATOM Perspective helps to widen your clinical spectrum, so that you may gain advantage in an increasingly competitive environment.

## Visualize fine details at outstanding scan speed

In an acute care scenario, the visualization of small fractures or bleeding can be challenging for any scanner. The SOMATOM Perspective masters these challenges with its unique features. The Interleaved Volume Reconstruction (IVR) allows visualization of small diagnostic details by using information from up to 128 slices. With SureView and a 38.4-mm detector width, trade-offs between scan speed and image quality are no longer necessary. And, long scan ranges at sub-millimeter collimation are no longer difficult.



## Reduce dose and increase temporal resolution

The SOMATOM Perspective also offers an impressive spectrum of dose reduction features. Siemens UFC™ Detector paired with CARE Dose4D™ provides a potent combination to help you reduce radiation dose. Sinogram Affirmed Iterative Reconstruction (SAFIRE) achieves up to 60%\* dose reduction for a wide range of applications and delivers excellent image quality. Thanks to the reconstruction speed of up to 15 images/sec, SAFIRE can easily be incorporated into your daily routine. For complex cardiac imaging, iTRIM (iterative Temporal Resolution Improvement Method) offers a temporal resolution as low as 195 ms. In addition, there is the FAST Cardio Wizard, which provides step-by-step guidance toward higher reliability and reproducibility.

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# Ease your working day



With the SOMATOM Perspective, all processes are geared toward improved workflow and maximum efficiency. In times of increasing demands in terms of economics and diagnostic quality, a streamlined workflow means better utilization of resources and enables your staff to spend more time with patients.

## Optimize interventional procedures

The SOMATOM Perspective features the unique i-Control, an in-room intervention module for full remote control of the gantry, table, and user interface. In addition, FAST Spine smart software algorithms automatically label the spine and identify each vertebra's and disc's position for faster reconstruction.

## Guide workflow for faster examinations

The SOMATOM Perspective helps to make time-consuming and complex procedures faster and far more intuitive—from the preparation of an exam to the image reconstruction and data evaluation. It features Fully Assisting Scanner Technologies

(FAST), which make scanning more reproducible and less prone to errors. FAST Planning, for example, simplifies, speeds up, and standardizes the set-up of the scan. It lets you choose regions of interest from a list, suggests appropriate scanning areas in the topogram, optimizes the FoV, and, for head exams, automatically adjusts the isocenter. WorkStream4D virtually eliminates manual reconstruction steps for 3D reconstructions such as coronal, sagittal, and oblique reconstructions with speed up to 20 images/s.

## Improve patient satisfaction

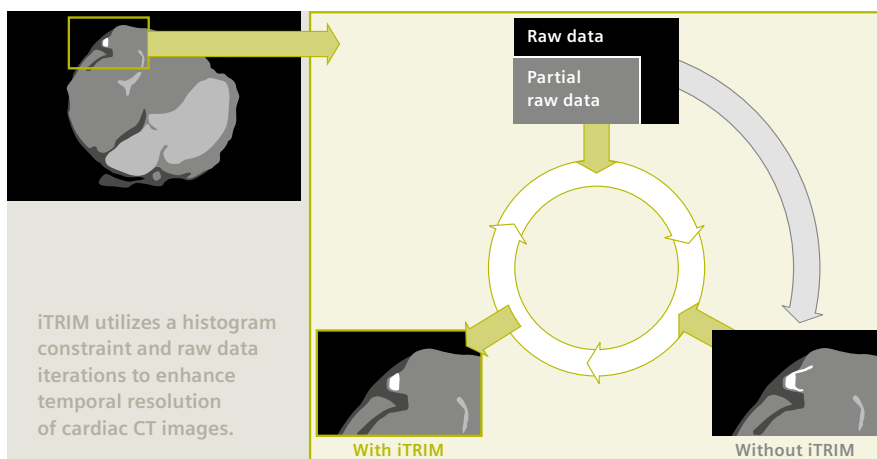
The most striking design element of the SOMATOM Perspective is the Illumination MoodLight LED panel. Its color and brightness can be adjusted to personal preferences. This unique and innovative feature creates a more pleasant atmosphere for patients and staff.

## Higher workflow efficiency in daily routine

- i-Control for full in-suite control during interventions (see image, upper left).
- Better results with Fully Assisting Scanner Technologies—FAST (middle).
- A pleasant environment with the Illumination MoodLight—an industry first.



# Core technologies



## iTRIM

Designed to improve cardiac images, the iterative Temporal Resolution Improvement Method (iTRIM) is based on the observation that the presence of motion artifacts does not significantly change the location of the maxima and minima in the histogram of a CT image. After a partial cardiac scan with weighted filtered back projection (WFBP), which results in a temporal resolution equivalent to 180° of CT data, an iterative reconstruction algorithm is started. This algorithm only uses a subset of the full 180° cardiac dataset. iTRIM thus enhances the temporal resolution by up to 20%. On the SOMATOM Perspective, iTRIM can obtain a temporal resolution as low as 195 milliseconds.

## SAFIRE

Sinogram Affirmed Iterative Reconstruction (SAFIRE\*) brings the full dose-saving potential of iterative reconstruction into clinical routine. After initial reconstruction with weighted filtered back projection (WFBP), a series of iterative reconstruction loops is performed. In this series, the current images are validated (or affirmed). Through the application of a raw-data-based noise model, geometric imperfections are corrected and image noise is reduced. At a reconstruction speed suitable for daily routine (up to 15 images/s), SAFIRE reduces dose by up to 60% or significantly improves image quality.

## eMode

eMode responds to the demand for more efficiency by operating the scanner in a patient-friendly and cost-effective way. It fine-tunes all routine standard protocols and reduces wear and tear on the system. If the software detects an efficiency conflict, eMode gives a recommendation to use the single click functionality and optimize parameter settings, helping to avoid ineffective use at peak or system limit values.

Unique eMode service benefits help you get the most out of your system. Siemens UPTIME Services, for example, focuses on real-time remote monitoring and preventive maintenance, enabling increased system availability, optimized performance, and workflow efficiency.

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