

GE Healthcare



Revolution ACT

Your Aspirations. Realized.





Helping you feel
MORE CONFIDENT
about moving to the next level,
**CLINICALLY &
ECONOMICALLY**
— that's intelligent
innovation.

Your Aspirations. Realized.

Healthcare today offers new opportunities for growth, and the quality of CT services can make all the difference in what you're able to achieve. Simple and fast, CT is arguably the most valuable diagnostic imaging tool in healthcare.



Redefine what's possible with CT

Revolution™ ACT is designed not only as a product, but as a solution to easily help you provide **more diagnostic confidence, clinical excellence, and better patient care while managing your financial performance.**

All revolutions start somewhere. Our revolution began with the Revolution CT system — designed from the ground up for pioneering the future of CT. Revolution ACT inherits many technologies from Revolution CT system — like the new Clarity panel detector, or new user interface.

We're with you all the way

With the full support of GE Healthcare education, training and uptime services, you can offer the CT services that are most attractive to your physicians and patients, do it most efficiently, and grow your value.

We want to offer **more services** while still **managing costs**

Improve your ability to provide outstanding CT scan services while managing the overall cost of care. Revolution ACT can help reach more patients and enables them to benefit from a full range of care.

Engineered for lower operating costs

Benefit from a proven compact geometry platform that has **small footprint 10.1 m²**, a weight 51% lighter than previous generation and low power input requirements to ease siting and installation.

Ready when you are

Be prepared at all times with an innovative power management system. Once patients arrive, our **intelligent workflow** with many automated tools helps you achieve efficiency and higher throughput.

Stay up and running for your peace of mind

In addition to user training and applications education, benefit from the combination of remote diagnostic technologies and the support of a **large and experienced network** of GE Healthcare field and online service engineers. Our global and local supply chain helps to ensure high quality spare parts are readily available should you need them.

Expand your clinical reach

Revolution ACT **very easy to use**, provides all the essential tools and routine clinical applications needed including vascular and perfusion. Designed to support your advanced studies with Smart Prep and Dynamic transition along with applications such as Auto Bone Xpress and Vessel IQ.

CT compact

10.1
m²

47%

LOWER POWER
requirement*



WEIGHT
51%
LIGHTER*

* Compared to the previous generation



We want to provide a more **informed diagnosis**

Patients are counting on you. Count on Revolution ACT to help enhance your reputation for clinical excellence. It is purposely designed to help you deliver higher quality results with more consistency and speed at the right dose.

Impact patient care more profoundly

You'll clearly see more with the new Clarity panel detector design that delivers a **spatial resolution of 18 lp/cm**. And Revolution CT-based electronics with DAS on Detector (DoD) helps lower noise by 20% for better image quality.

Be more confident on anatomical details and clinical confidences

Technologies like ultra-kernel with sub-millimeter imaging gives you sharp **high resolution** images to see anatomical structures in detail and clarity.

Manage radiation dose

Provide dose-conscious care to your patients with ASiR™* – our iterative reconstruction technology that can **lower dose up to 40%** at comparable image quality. Smart Dose gives you access to an array of dose reduction technologies for a wide variety of patients.

LOWER NOISE
by **20%** for better IQ**

LOWER DOSE up to*** **40%**
AT COMPARABLE IQ

* Option available on select product configurations
** Compared to previous DAS
*** Compared to standard image reconstruction without reducing imaging quality

Technologies that revolve around you



Clarity Panel Detector



Designed with your needs in mind, Revolution ACT helps you improve standards of patient care by providing new levels of image quality, patient safety, economic value, and advanced applications. Powering these advances is a host of integrated, largely exclusive technologies.

Improved imaging chain

a spatial
resolution of
18
lp/cm

Clarity panel detector

Innovative detector technology which is an industry first to introduce **a segmented panel design** with many design elements inherited from our premium Revolution CT.

Improved spatial resolution

Clarity panel detector delivers **exceptional spatial resolution of 18 lp/cm** to enable high quality imaging and visualization of anatomy in 3D.

Up to 20% lower electronic noise

An integrated detector design built with modern chipsets and DAS on detector (DoD) technology used in our premium Revolution CT to **lower noise** and achieve high signal to noise performance.

Low power efficient design

A compact and power efficient design, each detector module consumes a paltry 2mW per channel. **Intelligent thermal management** is tightly integrated within the detector so it is ready to scan within minutes.

Ultra Kernel

Adaptive Enhance Level Adjustment (AELA) can improve visual **spatial resolution** while maintaining pixel noise standard deviation. This kernel may be helpful in enhancing the visualization of small anatomical structures with high contrast.

Overlap reconstruction*

A higher sampling density provides better representation of the original signal and can potentially lead to improved image quality and fidelity. Using GE's conjugate cone beam reconstruction algorithm, the conjugated rows of projections are considered jointly in the back-projection step and delivers improved Z-axis **visualization performance**.

*Option available on select product configurations only

Conventional CT Reconstruction

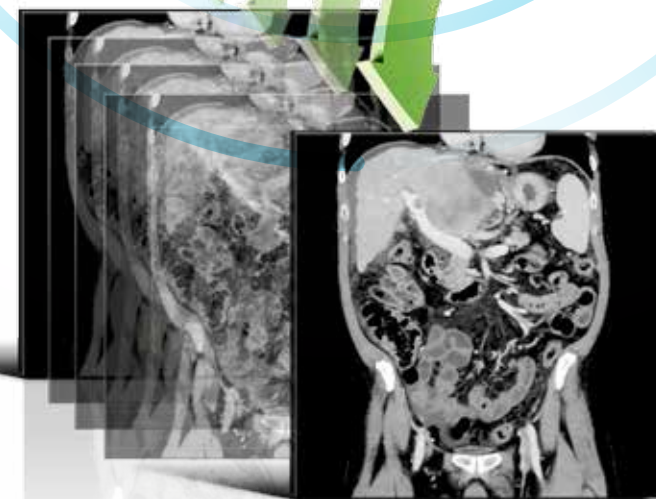


Raw data



Photon statistics
and object noise
modeling

Iteration 1



Full
image

Smart Dose Technologies

ASiR* Image quality at significantly lower dose

ASiR is an advanced iterative reconstruction technique that provides breakthrough image quality in multi-slice CT exams at significantly less dose than before. It allows healthcare providers to **lower dose by up to 40%** to your patients as compared to standard image reconstruction without reducing imaging quality.

ASiR uses sophisticated statistical modeling to remove noise in images while preserving anatomical detail. It improves low-contrast detectability and can have equivalent IQ to an acquisition with 1.67 times the mA.

The maximum tube power and current of ASiR allows achieving the same image quality at a lower mA with less tube heat output, which enables the tube for longer duration under helical scan.

Revolution ACT performance will be equivalent to 40 kW and 333 mA (@120 kV, 3.3 MHU tube heat capacity equivalence with ASiR). This improved efficiency helps lower power consumption and operational costs to the administrators.

**Option available on select product configurations only*

ASiR Adaptive Statistical Iterative Reconstruction

ASiR provides equivalent image quality at up to 40% lower dose compared to a non-ASiR acquisition.

ViSR Volumetric Image Space Reconstruction

Advanced filters help manage photon starvation and reduce noise without compromising resolution, for clear visualization of brain, tumor, and pediatric cases.

ODM Organ Dose Modulation

Developed to act as a virtual shield. Reduces radiation dose up to 40% when imaging superficial tissues like breasts and eyes through ODM.

DOSE CHECK

Receiving notifications and alerts if your predetermined dose levels will be exceeded.

3D mA MODULATION

Optimizes (according to patient shape and scan protocol) tube current in x-y-z directions with negligible effect on image quality.

DOSEWATCH™

A comprehensive dose management solution. Keep dose levels as low as reasonably achievable (ALARA) while producing sharp, focused diagnostic images to prevent excessive radiation dose.

In clinical practice, the use of ASiR 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. Low contrast detectability (LCD), image noise, spatial resolution and artifacts were assessed using reference factory protocols comparing ASiR and FBP.

Enhance your **impACT**

The wheels of innovation have not stopped rolling. Experience a remarkable clinical performance, exceptional image clarity, enhanced user workflow, and higher productivity – all within your reach.

User Console

Inspired by our most premium product, Revolution CT, the console of Revolution ACT has been designed from the ground up to make it **easy to learn and use, saving 79% of clicks***. Its modern look and feel is created from insights obtained from a wide cross section of radiologists and technologists.

Auto Exam Description

This advancement offers pre-programmed common exam description types in the protocol setup. It provides exam description, automatically tied up to the selected scan and reduces manual steps and scan setup time.

SmartPlan

Makes scan setup simpler and efficient by **recognizing scout image anatomies and assisting users to set up the localizer**. SmartPlan provides the initial localizer based on different anatomies including head, chest, abdomen, and pelvis. SmartPlan feature can be enabled through protocol management.

IQ Enhance

This advanced algorithm enables **helical pitch acceleration up to 3.0x** while still achieving the same image quality as a conventional scan. Completing scans faster helps your patients breathe easier with shorter breath hold time.

DMPR

Enable Direct Multi Planar Reformats directly in real time. DMPR reduces manual steps and processing time and simplifies advanced processing. 10 sets of prospective multiple reconstructions.



EXPERIENCE
enhanced imaging
workflow



ELEVATE
Clinical
performance

79%
LESS
CLICKS*



* Compared to the previous generation

* Compared to the previous generation

Essential and advanced **applications**



Volume Viewer

Harness the power of Volume Viewer **to make 3D visualization routine**. Get more information about the spatial relationships of different structures using multi-object volume rendering, multi-planar reformat, and MIP/min-MIP.

Navigation and Fly-Through

Use **Virtual Endoscopy** to visualize intra-luminal structures such as airways, sinuses, or vascular structures. A virtual “fly- through” mode lets you view images dynamically.

SmartPrep with Dynamic Transition

SmartPrep allows intermittent monitoring of IV contrast enhancement in an area of interest using low-dose scan. Dynamic transition provides **automatic** transition from monitor phase to scan phase.

Vascular Imaging and Processing

Allows enhanced analysis of vascular features by **automatically determining vessel centerline and tracking** multiple vessels. You can also view oblique cross sections of vascular images, and rotate curved views to more clearly visualize vascular lesions.

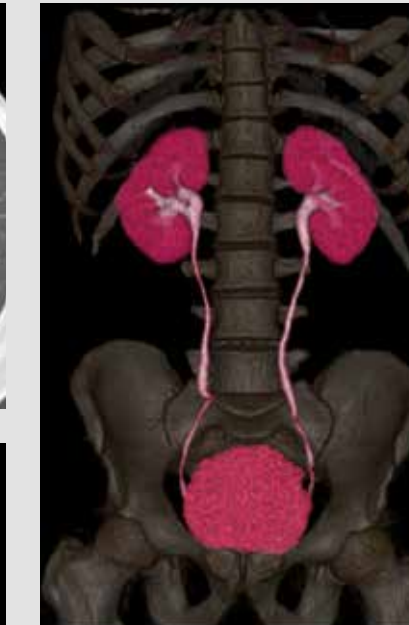
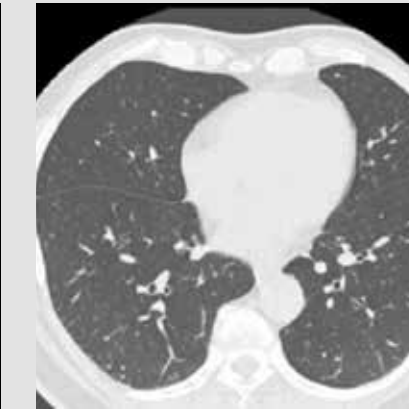
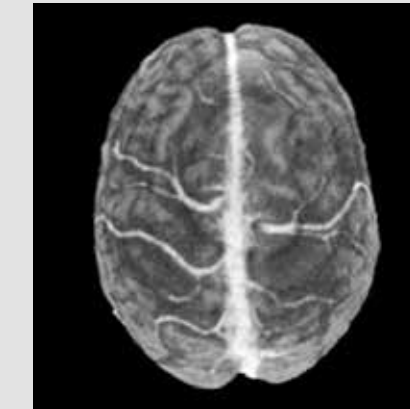
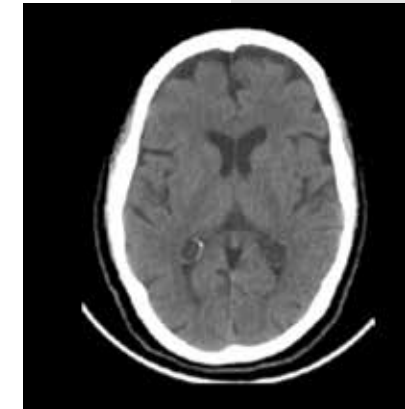
DentaScan

Creates a comprehensive set of cross-referenced composite axial, panorex, and oblique planar reformations of the mandible and/or maxilla. DentaScan gives you the information you need to plan dental implants or orthodontic surgery.

Advanced visualization powered AW - VolumeShare 7*

The AW VolumeShare 7 workstation gives you **powerful capabilities** aimed at increasing your diagnostic confidence, reducing your operating costs, and improving your departmental productivity.

**option*



Clinical excellence everyday



What are your aspirations?

In the end, Revolution ACT helps about you provide better patient care to more patients in an affordable way.

Revolution ACT is designed in a way that reduces the typical tradeoffs you face between quality and affordability.

Revolution ACT gives you investment security by opening the door to a host of modern technologies; a more informed diagnosis with higher image quality and wider array of clinical applications; and a patient centric workflow and dose management.

Since physicians began scanning patients with GE CT systems in 1976, few companies can point to the same number of advances to help healthcare providers take better care of their patients and do it more economically.

Your reputation depends on making the right choices. Ours depends on helping you make them.



GE Healthcare



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GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

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GE imagination at work



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