

#### **Revolution Apex** The new way to your best image

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#### Image quality makes all the difference

Revolution Apex<sup>™</sup> is a new ultra-premium CT system designed and engineered to provide you with the new way to your best image. Because of the inherently complex technological make-up of CT, every provider has their own "take" on how to reach the best image quality. This fragmentation across the industry can leave you with uncertainty on what CT is the most capable of elevating your clinical outcomes. With Revolution Apex, we've made the choice clear. By combining a powerful new imaging chain and TrueFidelity<sup>™</sup> Images, created using Deep Learning Image Reconstruction, Revolution Apex is an incredibly **powerful platform** designed to provide you with **breakthrough image quality** and access to all that CT has to offer through **uncompromised solutions**.



With great power comes great image quality

With Revolution CT, we solved one of the biggest challenges of CT technology with a platform that provided uncompromised access to all four core imaging attributes. It was the first time you could have a system that didn't force you to choose between temporal resolution, spectral imaging, spatial resolution and coverage. You could have them all. Revolution Apex builds off this "uncompromised" imaging approach with the Quantix<sup>™</sup> 160 Tube and Deep Learning Image Reconstruction, which together, supercharge all four key CT imaging attributes to deliver great image quality.



Elevate with Apex | Uncompromised clinical solutions

## The best image quality for every patient

The true testament of CT engineering is to make something work beyond the ideal patient under ideal circumstances. Revolution Apex accomplishes this with software and hardware that truly works together. The synchronization of technologies provides you with clinically impactful solutions to attain the best image quality not just for the ideal patient, but for every patient.

#### Body











Ultrafast exam with ultra-low dose. In less than one second. With full 50 cm FOV.

Uncompromised image quality. Even for morbidly-obese patients.



Without Smart MAR

With Smart MAR

Metal artifact reduction. Both in single and dual energy.

#### Cardiac





High-resolution imaging. Even with heavily calcified coronaries, plaque and stents.



One-beat cardiac. At any heart rate. Even in atrial fibrillation. With low dose.



CT TAVI/TAVR planning. Single scan. Single injection. With low contrast volume.

#### Cardiac



Dynamic whole-heart myocardial perfusion. Without shuttle. With low dose.

#### Stroke



Whole brain coverage for acute stroke workup. In less than five minutes.



0.625 mm FBP Filtered Back Projection 1972 - 2008



0.625 mm ASiR-V 50% Iterative Reconstruction 2008 - 2018



0.625 mm TrueFidelity TrueFidelity Images 2018 - Future

Breakthrough image quality

## A futuristic take on classic image reconstruction with TrueFidelity Images

For years, Filtered Back Projection (FBP) was the benchmark for image quality by which every CT image was held. To continue advancing patient care, we pioneered the second generation of image reconstruction back in 2008 when we helped set the standard for low-dose with an iterative reconstruction (IR) technology capable of lowering dose by up to 82 percent. Although we have continually made significant strides in dose, even with the most sophisticated Model Based IR technology, we know the image quality benchmark has continued to evolve. Radiologists are looking for an image texture with the classic, textbook quality look of the images they studied in medical school. To that end, we've introduced what we see as the future of image quality with the next generation of image reconstruction, TrueFidelity Images.

## Elevate every image to a powerful first impression

Generated by our Deep Learning Image Reconstruction, TrueFidelity Images are created using artificial intelligence to combine the low-dose of iterative reconstruction with the "classic-looking" image texture of FBP.





**Powerful platform** 

## A limitless platform for now and the future

Revolution Apex was engineered to take the "uncompromised" vision of the Revolution CT platform one step further. Not only does it give you access to the best in coverage, spatial resolution, temporal resolution and spectral imaging capabilities in one system, the power of the Quantix 160 Tube elevates each of these attributes to the next level of performance. The result is a platform with the limitless performance you need to achieve outstanding image quality for current and future patients.



## Quantix 160 Tube. When power meets coverage.

The power of the newly engineered Quantix 160 Tube is the result of three key technological achievements. At its core is a liquid metal bearing construction optimally designed to withstand 75 G of force. It also includes a new flat emitter cathode design and a wide-view anode that together are capable of achieving 1300 mA with 16 cm of coverage. As the most powerful whole-organ coverage tube in the industry, it provides the resources necessary to improve every clinical outcome.





Spectral imaging. With speed. Even with larger patients. The vision behind GSI Xtream has never wavered – a volume spectral imaging experience to help physicians diagnose disease with more confidence with a simplified workflow. Empowered by the Quantix 160 Tube, GSI Xtream on Revolution Apex takes that idea to the next level to enable spectral imaging on more challenging patients. See the bigger picture with volume spectral CT.



## Volume. Spectral. Simplified.

GSI Xtream extends to our Revolution Apex platform with its wide collimation and 50 cm FOV to deliver the only volume spectral CT. Enabled by ultrafast kV switching, you can scan more challenging patients and reduce the effects of motion. With a simplified workflow you can make part of your daily practice. From setup to post- processing, GSI Xtream is as intuitive as a single energy exam. These improvements, combined with native GSI reconstruction, deliver volume spectral CT workflow that's twice as fast. GSI Xtream helps you diagnose disease with more confidence, which could ultimately put patients on the right treatment path sooner.





# You lead the way

As a radiologist, patients and referring physicians alike look to you to provide them with the direction they need to determine the best course of care. Our goal is to provide you with every tool imaginable to lead the way regardless of what your specialty is or the types of patients you see. With a CT capable of delivering the best image quality for every patient, your leadership can reach even further. It not only provides you with greater confidence in your ability to serve the patients you already see today, but also gives you the tools you need to serve more patients with even greater clinical challenges going forward.



GE Healthcare is a leading provider of medical imaging, monitoring, biomanufacturing, and cell and gene therapy technologies. GE Healthcare enables precision health in diagnostics, therapeutics and monitoring through intelligent devices, data analytics, applications and services. With over 100 years of experience and leadership in the healthcare industry and more than 50,000 employees globally, GE Healthcare helps healthcare providers, researchers and life sciences companies in their mission to improve outcomes for patients around the world. Follow us on Facebook, LinkedIn, Twitter and The Pulse for latest news, or visit our website www.gehealthcare.com for more information.

#### Imagination at work

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