



Sustainable cardiovascular ultrasound solutions for a resilient tomorrow

Vivid™ *iq* Ultra Edition Ultrasound





Creating a more sustainable future requires us to care for the planet and its inhabitants.

It is essential that we continue to drive progress toward early, precise, and accessible diagnosis and treatment of more patients. For the planet, it is critical that we do so with a reduced impact on precious and rare resources that are imperative to life. We believe that the advancement of precision health, greater digitization of healthcare, and increased access to quality care are fundamental to accomplishing this goal.

We support carbon policies that reduce greenhouse gas emissions and promote sustainable development. We are committed to achieving net zero by 2050 and are part of the UN-backed “Race to Zero,” with a goal of reducing emissions based on the Paris Agreement. We’ve also set a public goal to achieve a 50% reduction in our own operational emissions by 2030. As a result of these efforts, we want to enable a more sustainable health system by addressing not only the environmental impacts of our products but also the challenges healthcare professionals and their patients face with resilient, digital options.



We are committed to achieving **net zero** emissions by 2050.

We’ve set a public goal of a **50% reduction** in our own operational emissions by 2030.

**We deliver sustainable,
intelligently efficient
solutions for a resilient
tomorrow.**

Building a healthier world to
help improve access to care and
enable better patient outcomes.



Green

Using fewer resources for a healthier planet.

Digital

Transforming healthcare through innovation.

Resilience

Building flexibility and dependability across healthcare systems.



Vivid *iq* ultrasound helps create a resilient tomorrow.

Our cardiovascular ultrasound Vivid *iq* and its services help ensure that cardiology professionals and the patients they serve have the technology necessary to create a sustainable and resilient tomorrow.

Reducing environmental impact

- The Vivid *iq* system is designed to be refurbished, reused, or recycled at the end of its product life to minimize unnecessary waste.

Improving outcomes

- AI-based measurement tools reduce exam time.
- Ergonomic design improves the user experience and reduces strain on clinicians and system operators.





Contributing to a healthier planet

More than half of the healthcare sector’s climate footprint, approximately 53%, is attributable to energy use.¹ As a result, we have strengthened our commitment to environmentally conscious design and sustainable practices across our product manufacturing, sourcing, distribution, installation, and service operations. This includes improving energy efficiency, optimizing the use of limited or rare materials, providing digitally enabled and remote predictive and maintenance service throughout the product lifespan, and offering refurbishment and recycling options at the end of product life.

GE Healthcare environmental management system is ISO 14001 certified.

Our production and service operations align to ISO 14001 standards.

We’re committed to environmental product design.

This product conforms with IEC60601-1-9.

Materials

GE Healthcare reviews the environmental aspects of the material supply used within our products to increase recyclability and decrease the use of hazardous substances, when possible.

Recyclable

We’re committed to high recyclability of our products and reuse when possible.

Reduce the use of hazardous substances

EU RoHS directive 2011/65/EU
REACH (EC) 1907–2006

¹ Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org)



Packaging and distribution

GE Healthcare imaging equipment has a robust and multi-sourced supply chain for systems and spare parts across all product portfolios.

Improved packaging

Vivid *iq* system:
Wood: 0 kg/0%
Corrugated cardboard: 1.51 kg/73.66%
Others: 0.55 kg/26.83%

Vivid *iq* optional cart:
Wood: 10 kg/53.16%
Corrugated cardboard: 4.5 kg/23.92%
Metal: 0.91 kg/4.84%
Others: 3.4 kg/18.08%

Product transportation

Packaging material is recyclable and FSC certified.

Air transport: 80%
Ocean transport: 1%
Truck transport: 19%

Manufacturing

Through our environmental reviews, we also focus on implementing renewable energy and reducing waste.

Renewable energy

Vivid *iq* units are manufactured in GE Healthcare's Wuxi, China, site, which has recently installed a rooftop solar system designed to generate 100M kW·h per year.

The Wuxi site features energy-efficient air conditioning and a smart energy management system, which is designed to continuously reduce energy consumption by 90%.

Prior to the addition of the rooftop solar system, ultrasound manufacturing at the Wuxi manufacturing facility required 876,376 kW·h. The solar-generated energy should reduce that by about 18%, or 100M kW·h per year.



Product utilization

Our imaging products are designed to help enable energy efficiency through dedicated features and advanced applications to reduce the environmental impact.

Ergonomically designed

Reduce staff burden

System weight: 5.2 kg (11.46 lbs.)

Cart is height-adjustable adjustable cart for operator comfort.
Height: 835 mm–1115 mm

The Vivid *iq* system combines a full touch screen control with a trackpad swipe and click gestures to help operators maintain their wrists on an ergonomic wrist rest.

The probes have been ergonomically designed to handle and manipulate with ease, and an optional foot switch can be used for hands-free system control.

Noise Level

Typical acoustic noise (without cart):

Min 34.4 dB ambient less than 25 °C

Max 45.3 dB at 40 °C



Product utilization (Cont.)

Guidance for product utilization

Instructions are provided for use of the equipment to minimize the environmental impact during installation, use, and operation.

Reduce energy consumption during use

The system is designed to auto freeze after 2 minutes of scanning air.

The system will adjust LCD light to lowest level and turn off the keyboard backlight when lid is closed.

Off mode: 1.4 W

Standby (no scan): 184 W

Ready-to-scan @Freeze: 79.2 W

Ready-to-scan @M5SC-RS: 122 W

24h energy consumption, measurements according to COCIR guidance:

Off: 1.481 kW·h

Standby: N/A

Ready-to-scan: 2.928 kW·h

Power consumption

There are zero direct carbon emissions at place of use.

Reduce consumable energy utilization

System is fully ROHS compliant.



End of product life

We are increasingly putting our retired products' materials back into the supply chain to maximize efficient use and minimize unnecessary waste. This circularity model enables our imaging products to extend their clinical impact through longer lifespans while reducing the environmental footprint. Additionally, we offer our customers partnered support for upgrades and services throughout a product's lifespan to maintain optimal performance and help drive better patient outcomes.

Our refurbishment programs involve an extensive inspection and testing process, designed to bring equipment back to its original certified manufacturing specifications. If the system is not suitable for refurbishment, eligible parts are harvested for reuse after quality and performance testing, while the rest are returned to dedicated recycling facilities.

Product utilization (Cont.)

Guidance Equipment instructions are provided to minimize the environmental impact for disposal or recycling.

Upgradeable hardware and software options are provided as a solution to extend the product lifespan. Upgrades are available for the Vivid *iq* system.

Parts harvesting and refurbishment options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions. 94–96% of most systems are reused, refurbished, or recycled, extending the lifetime of each product.²

Cardiovascular ultrasound system parts are eligible for assessment through the refurbishment program, in which they are assessed for refurbishment, harvesting, or recycling at the appropriate time in the lifespan.²

100% of Vivid *iq* systems are eligible for refurbishment.

Waste reduction This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.

² Products within ultrasound are eligible for refurbishment, although whether a system is refurbished versus harvested for parts or otherwise recycled or reused is dependent on the state of the system when GE Healthcare takes possession of it. Data on file.



Digitizing healthcare through transformative innovations for a resilient tomorrow

We are committed to investing in digital capabilities that help accelerate clinical decision making, optimize imaging operations, and drive efficiencies in exam workflows, all of which can improve patient outcomes. Enabling digital transformation will further enhance our predictive and maintenance service operations for the life of your products.

We are also dedicated to driving a more resilient and sustainable future in healthcare. Many factors, including the pandemic, climate-related weather disasters, and supply-chain issues amplified this need. Managing operations through these challenges requires resilience and perseverance.

Advancing clinical outcomes

Advanced applications and cutting-edge AI tools provide personalized data to drive actionable insights, helping healthcare professionals make fast, accurate clinical decisions for care pathways.

Gain actionable clinical insights quicker for earlier diagnosis

Automated Functional Imaging (AFI) can lead to earlier diagnosis and improved outcomes.

The AI Auto Measure 2D tool eliminates up to 80%³ of clicks.

AI-based Cardiac Auto 2D Measurement option enables semi-automated quantification of the most common distance measurements performed on parasternal long axis 2D images with minimum user guidance.

Obtain ejection fraction and strain measurements in just one click and results in 15 seconds on average.⁴

Cardiac Auto Doppler automatically provides Doppler measurement results for the most common parameters with minimal user guidance.

Keep your imaging equipment up to date with advanced clinical applications

Vivid *iq* is designed to download software updates when they are available using InSite™. Software download monitors, notifies, delivers, and installs available system software updates. Remote update options via eDelivery are available in some markets.

Drive advancements of precision health

AFI has been shown to be more sensitive than traditional parameters like ejection fraction. This means earlier diagnosis and improved outcomes.⁵

³ Applicable to the AI Auto Measure—2D algorithm. Results based on GE internal data (DOC2361011).

⁴ Time to strain measurement result may vary with heart rate, frame rate, and Vivid system. Verification of performance done by GEHC clinical application specialists using Vivid system (DOC2739637).

⁵ Global Longitudinal Strain Is a Superior Predictor of All-Cause Mortality in Heart Failure With Reduced Ejection Fraction, Morten Sengeløv, MB, Peter Godsk Jørgensen, MD, Jan Skov Jensen, MD, PHD, DMSC, Niels Eske Bruun, MD, DMSC, Flemming Javier Olsen, MB, Thomas Fritz-Hansen, MD, Kotaro Nochioka, MD, PHD, Tor Biering-Sørensen, MD, PHD, JACC: CARDIOVASCULAR IMAGING, VOL.8, NO.12, 2015.



Optimizing imaging operations

Our AI-based and advanced digital solutions are designed to increase efficiencies across the radiology spectrum without increasing the administrative and training burden on radiologists and technologists.

Increase productivity and consistency

The Vivid *iq* features GE Healthcare's exclusive technology, which delivers excellent auto-optimized image quality with little manipulation.

A Data Streaming option sends the image information to clients as digital video stream over Ethernet in real time.

Digital Expert enables the user to connect remotely to a GE Healthcare Clinical Specialist to receive application-related training and help.

Reduce downtime

The "Contact GE" onscreen button directly generates a real-time service request to a GE online engineering or application specialist.

GE Healthcare's predictive analytics tools reduce downtime, optimize workflow, and reduce service interventions.

The remote service platform InSite connects you with a GE Healthcare Online Service Engineer or Applications Support Engineer. It has remote diagnostics capability as well as the ability to request service.

Software updates are available for download via eDelivery.

An extended battery is integrated within the optional Vivid *iq* cart and provides approximately three additional scanning hours.

Cybersecurity

GE Healthcare's Design Engineering Privacy and Security (DEPS) process follows GDPR, HIPAA, NIST 800-53, NIST 800-30, ISO 27001, and NIST CSF requirements.



Enabling intelligent exam workflows

Intelligent automation features help drive consistency, enable fast, easy exams, and improve workflow with fewer resources, all while achieving similar or improved outcomes.

Reduce setup time

Our QuickApps offer both factory and user-programmable sub-preset features that keep 2D and geometry settings while adapting color flow or contrast parameters.

Vivid *iq* has pre-programmable measurement and annotation categories.

Reduce exam time

AI-powered applications, such as Auto 2D measure, Auto Doppler measure, and Auto EF, automate common clinical measurements.

Dynamic optimization of 2D images and automatic spectral optimization lead to reduced need for image manipulation.

Many of our other optional automated tools are also designed for ease of use, including 2D Auto EF 3.0 and AFI 3.0 Productivity Package with AI-based View Recognition, Cardiac Auto Doppler with AI Auto Measure—Spectrum Recognition, AI Auto Measure—2D, and Scan Assist Pro.

Ease of use

Likewise, many of our 4D imaging tools are engineered with ease-of-use in mind. These include Single Beat 4D, 4D Views, Advanced 4D User Toolbox including FlexiSlice, Advanced 4D User Quantification Package, 4D Auto LVQ, 4D Auto MVQ, 4D Auto AVQ, FlexiViews, 4D Markers, and View-X.

Cleanability

Our equipment is designed to be cleaned and disinfected easily. We continue to test and approve new cleaning and disinfecting agents. Visit [Cleaning.GEHealthcare.com](https://www.gehealthcare.com/cleaning) for updates. This includes validated cleaning and disinfection instructions for probes.



Building a healthy world to help enable better patient outcomes.

GE Healthcare is a member of COCIR, the European Trade Association representing the medical imaging, radiotherapy, health ICT, and electromedical industries.⁶

⁶<https://www.cocir.org/about-cocir/members.html>

Not all products or features are available in all geographies. Check with your local GE Healthcare representative for availability in your country. Not all features are included in the standard system configuration. Check with your local GE Healthcare representative.

© 2022 General Electric Company. GE, the GE Monogram, Vivid, and InSite are trademarks of General Electric Company.

JB22720XX