



Sustainable cardiovascular ultrasound solutions for a resilient tomorrow

Vivid™ T9 and Vivid T8 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.



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**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 T9 and Vivid T8 help create a resilient tomorrow.

The Vivid T9 and Vivid T8 cardiovascular ultrasound systems, along with their 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

- Vivid T9 and Vivid T8 systems are designed to be refurbished, reused, or recycled at the end of their product life to minimize unnecessary waste.

Improving outcomes

- Vivid T9 and Vivid T8 are exceptionally silent, with average system noise level of 31 dB, helping to reduce noise pollution.
- Vivid T9 and Vivid T8 offer an inverted black and white background printing, helping to prevent ink and paper waste.
- eDelivery remote software update solution helps decrease use of hardware drivers and reduce our service field engineers' carbon emission footprint.
- AI-based measurement tools reduce exam time and bring reproducibility of the measurement results.
- 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.

Vivid T9 and Vivid T8 systems contain recyclable aluminum and steel.

Reduce the use of hazardous substances

EU RoHS directive 2011/65/EU

REACH (EC) 1907–2006

Including Commission Delegated Directive 2015/863

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 T9 and Vivid T8:
Wood: 17.4 kg/61.44%
Corrugated cardboard: 8.2 kg/28.95%
Metal: 1.32 kg/4.66%
Others: 1.4 kg/4.94%

Product transportation

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 T9 and Vivid T8 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 to reduce staff burden

Ergonomic features include a highly portable, user-adaptable design with electronic adjustable height and keyboard, articulating and height-adjustable monitor, and lightweight transducers. These features, combined with a control panel that can swivel left-right, make the Vivid T9 an ergonomic-friendly cardiovascular ultrasound system.

The Vivid T9 and Vivid T8 also have an adjustable monitor:
290 mm vertical height adjustment
Swivel left-right: +/- 30° from center

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:
Max 35.15 dB
Min 28.8 dB



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 freeze time can be adjusted in application.

Off mode: 3.4 W
Standby (no scan): 92 W
Freeze mode: 121 W
Scan mode 2D Scanning: 132 W

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 Vivid T9 and Vivid T8.

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 refurbishment consideration, in which they are assessed for refurbishment, harvesting, or recycling at the appropriate time in the lifespan.²

100% of Vivid T9 and Vivid T8 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

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

Reduce keystrokes by up to 93% using Cardiac Auto Doppler with AI Auto Measure Spectrum Recognition. With the power of AI, a wide range of Doppler measurements can be completed with two clicks.⁵

Keep your imaging equipment up to date with advanced clinical applications

Vivid T9 and Vivid T8 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. eDelivery is supported from the Ultra Edition release.

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 Based on results of time and motion study conducted by GE "JB49055XX - Cardiac Auto Doppler"; study results indicated time savings-related productivity increase up to ~8 on an annual basis for a facility per sonographer.



Advancing clinical outcomes (Cont.)

Help improve patient outcomes with improved image quality

UD clarity and UD speckle-reduce imaging removes speckle in real-time examining the relative difference between neighboring pixel values and determining whether the grayscale variations have a sharp difference, follow a trend, or are random in nature.

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.⁶



⁶ 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

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. eDelivery is supported from the Ultra Edition release.

Cybersecurity

GE Healthcare’s Design Engineering Privacy and Security (DEPS) process follows GDPR, HIPAA, NIST 800-53, NIST 800-30, 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 T9 and Vivid T8 have 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.

AI Auto Measure Spectrum Recognition enables automated recognition of the most common Doppler spectra and automatically starts the Auto Doppler measurement (where commercially available).

Ease of use

Many of our other automated tools are also designed for ease of use, including Auto EF 3.0 and AFI 3.0 with AI-based View Recognition and Cardiac Auto Doppler.

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.⁷

⁷<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.

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