Focusing on sustainability in Diagnostic Cardiology

MAC VU360™, MAC™ 7 and MAC 5
Resting ECG Systems

GE HealthCare

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 medicine, 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. GE HealthCare is committed to achieving net zero by 2050, and we have signed up to the Science Based Targets initiative (SBTi) business ambition for 1.5C, a group of visionary corporate leaders taking ambitious climate action, and we have committed to implementing science based targets. This includes a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030 against a 2019 baseline. 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 solutions.

We are committed to achieving net zero emissions by 2050.

We've set a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030.

Leading a new era in sustainability for a more resilient tomorrow

We’re creating a world where healthcare has no limits, helping to improve access to care and enable better patient outcomes.

Environmental
Using fewer resources for a healthier planet.

Digital
Transforming healthcare through innovation.

Resilience
Building flexibility and dependability across healthcare systems.

MAC Resting ECG systems helps create a more sustainable tomorrow

Our MAC Resting ECG systems ensure clinicians and the patients they serve have the technology necessary to create a more sustainable and resilient tomorrow.

Reducing environmental impact

- Energy consumption: MAC VU360 uses 35% less energy, MAC 7 uses 45% less energy and MAC 5 uses 38% less energy.*
- Packaging volume: MAC VU360, MAC 7 volume is 43% smaller, MAC 5 volume is 63% smaller.*
- Packaging mass: MAC VU360, MAC 7 is 48% less mass, MAC 5 is 40% less mass.*

Improving care

- Over 23 validated clinical algorithms spanning arrhythmia detection, sudden cardiac death risk and more
- Minimize repeats by helping users get the right ECG first time, every time
- Bidirectional communication to streamline processes, reduce errors and control costs

*All reference are to the MAC 5500 legacy product.

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 we are implementing more 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 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	MAC VU360 fulfills EN 60601-1-9:2008+A2:2020 requirements.[2] MAC 7 and MAC 5 fulfills EN 60601-1-9:2008 requirements.[3]

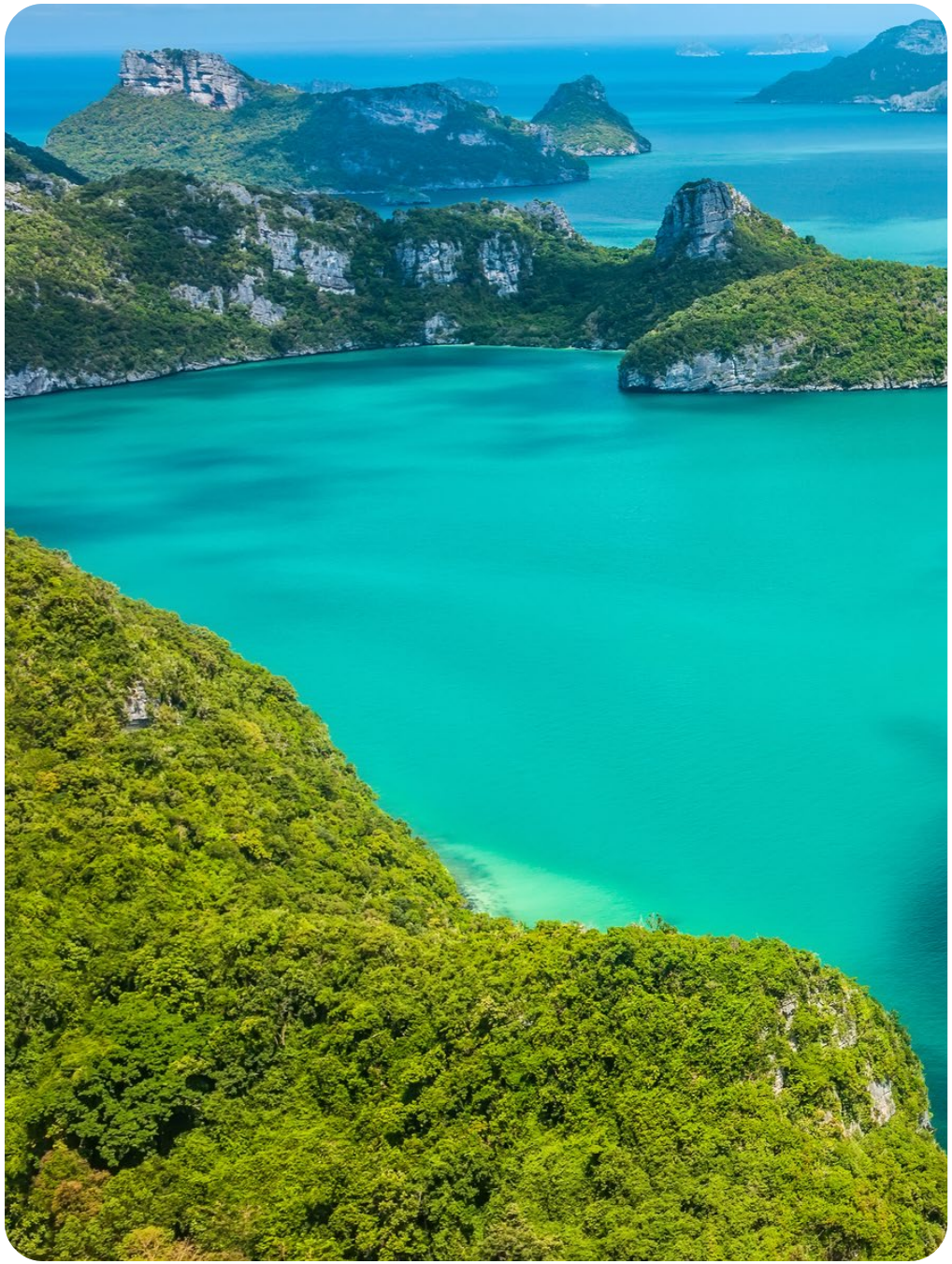
[1] Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org), based on 2019 report
[2] DOC2782510—MAC VU360
[3] DOC2239173 MAC 7 IEC 60601-1-9 compliance report
DOC2608829 MAC 5 ANNA EN 60601-1-9 compliance checklist

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.

Recyclability	We're committed to high recyclability of our products and reuse when possible.
	Materials are recycled according to the product WEEE Passport.[4]
Reduce the use of hazardous substances	EU REACH (EC) 1907–2006[5]
	EU RoHS directive 2011/65/EU, Amendment EU/2015/863[6]

[4] 1DOC1991144 MAC VU360 WEEE Passport, DOC2233472 MAC 7 WEEE Passport DOC2609990 MAC5 WEEE Passport
[5] DOC2770795
[6] DOC2604137 DCAR all products



Packaging and distribution

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

Product packaging

Packaging material consists of following materials (% per weight)[6]

Cardboard

- 85%(MAC VU 360)
- 70% (MAC 7)
- 80% (MAC 5)

Plastics

- 13% (MAC VU360)
- 28 % (MAC 7)
- 18% (MAC 5)—recyclable PE and EPE
- Other—2% (Silica gel desiccant)

[6] 1DOC2003310 (FAIR_MAC VU 360 (ELO) Packaging Parts
DOC2512910 (BOP FAIR 2097940-001 MAIN PACKAGING CARTON—MAC VU360
Sonoco Packaging Sustainability Report attached to DOC2780084
DOC2404926 MAC 7 Package Design for Global Pzackaging Guideline PRE
DOC2212833 Part level verification report of MAC 7 PACKAGING ASSEMBLY
DOC2547783 Part level verification result and summary of MAC 5 packaging parts.

Manufacturing

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

Renewable energy	MAC VU360 systems manufactured at our Ciudad Juárez Mexico Site are manufactured by using 40% renewable electricity.
	MAC 7 and MAC 5 systems manufactured at our Ciudad Juárez Mexico Site are manufactured by using 40% renewable electricity and at our Wuxi China site using 50% renewable electricity.
Reducing electricity	Through our environmental reviews, we are committed on implementing renewable energy and reducing waste in our manufacturing facilities around the Globe.

Product utilization

Our MAC Resting ECG systems are designed to help enable energy efficiency through dedicated features and advanced applications to reduce the environmental impact. Ergonomic design can help to enhance health and potentially reduce environmental impacts, such as reducing waste and saving energy.

Ergonomically designed

Patient setup and positioning

Everything about the MAC experience is designed to keep you moving forward and keep the focus on patient care.

- Acquire ECG's in up to 31% fewer steps[7]
- Avoid variability. Enhanced Hookup Advisor™ guides even the newest user to a clean, high-quality ECG waveform.
- Minimize mix-ups. Smart Lead technology automatically detects a newly connected patient.

Reduce staff burden

MAC VU360—Ergonomic, height-adjustable trolley and tiltable display fit people of all heights, so user experience is improved and workplace injuries may be reduced.

Smooth, easy-to-clean flat surfaces.

[7] 1In an observational study comparing the usability of various ECG systems, when participants used GE HealthCare new resting ECGinterface, they were able to complete the same set of ECG tasks in 31% less steps.

Product utilization

Guidance for product utilization	Instructions are provided for use of the equipment to minimize the environmental impact during installation, use, and operation.
Power consumption[8]	Rhythm mode without printing at 100% brightness • 57 W(MAC VU360[9]) • 55 W (MAC 7) • 43 W (MAC 5) Rhythm mode with printing at 100% brightness & battery charging • 63 W(MAC VU360[9]) • 73 W (MAC 7) • 66 W (MAC 5)

[8]2088531-006_MAC VU360_Service_Manual section 3.1 Reducing Environmental Impact, User Manual of MAC 7 (2109599-001A) section 3.1 Reducing Environmental Impact, Operators Manual MAC 5 (5864335-00) section 3.1
[9]DOC1989433 for MAC VU360

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 support for upgrades and services throughout a product's lifespan, when available, 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 remaining parts are returned to dedicated recycling facilities.

Product utilization

Guidance for end of lifecycle	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.	Expected Service Life of the device is 7 years. However, software upgrades are available until end of life.[10]
Parts harvesting and refurbishment options are provided to reduce waste and environmental impacts while extending imaging access to less advantaged regions.	Target to have Gold-Seal refurbishment program available by the end of 2024. Harvesting parts is a part of the Gold-Seal activity.
Waste reduction	This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations.[11]

[10] DOC1945934 Expected Service Life MAC VU360, DOC2364246 MAC 7T Expected Service Life/Product Lifetime DOC2650136 MAC 5 Anna Expected Service Life/Product Lifetime
[11] DOC1991144 MAC VU360 WEEE Passport DOC2233472 MAC 7 WEEE Passport DOC2609990 MAC 5 WEEE Passport

Digitizing healthcare through transformative innovations for a more 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.

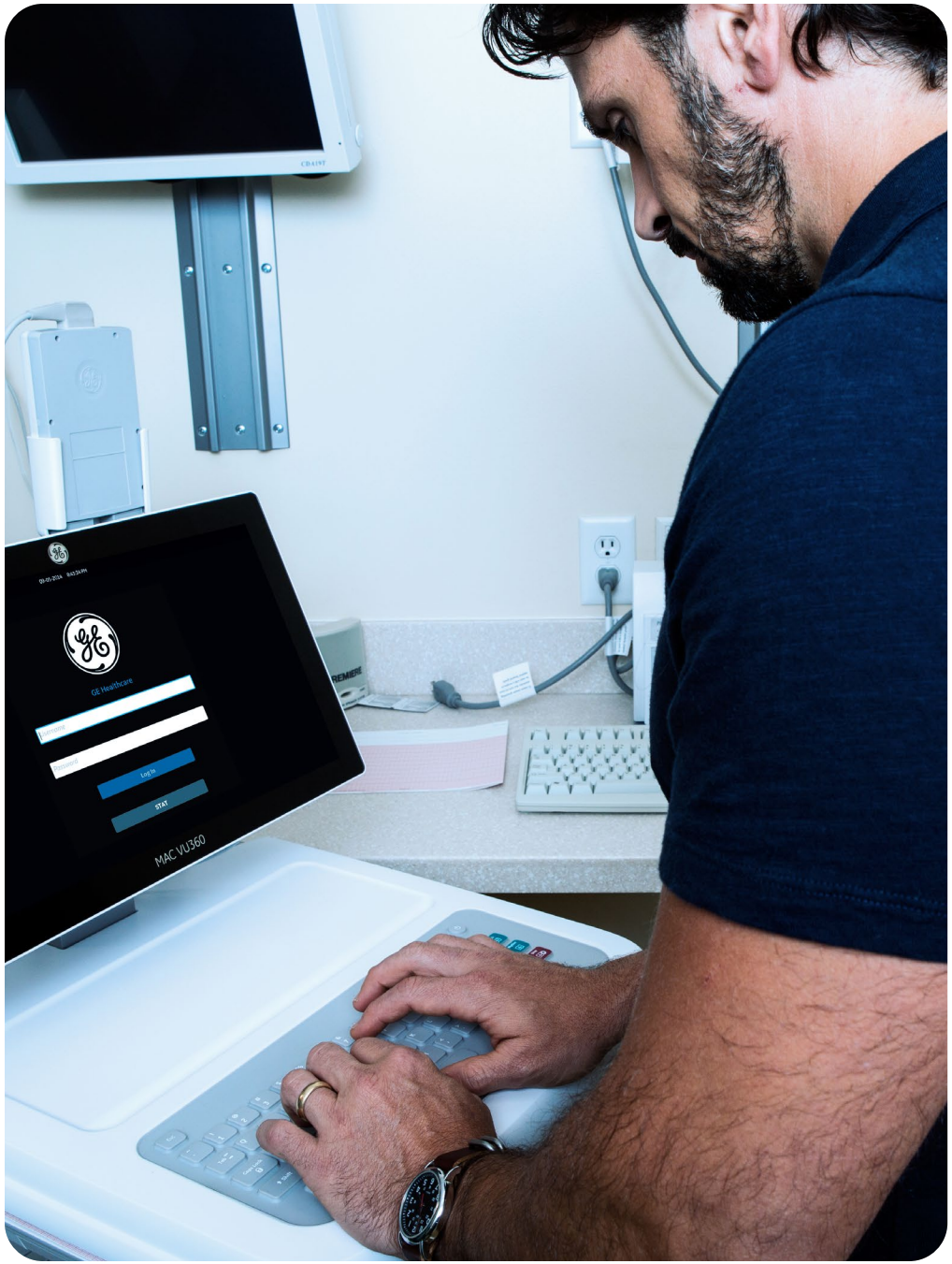
We are also dedicated to driving a more resilient and sustainable future in healthcare. Many factors, including the pandemic, climate-related weather disasters, and supply-chain issues amplified this need. Managing operations through these challenges requires resilience and perseverance.

Helping clinicians advance patient outcomes

Since its introduction in 1980 the Marquette™ 12SL ECG analysis program has been consistently refined and improved to offer our customers the best possible clinically validated decision support to help achieve faster accurate diagnosis.

Gain actionable clinical insights for quicker decision making	85% of users agree that they need minimal training[12]
	Up to 31% fewer steps[12]
Ensure your ECGs are efficiently acquired with high quality	Minimize mix-ups—Smart Lead technology automatically detects a newly connected patient.
	Integrated technology—The innovative cardiac acquisition module with built in bar code reader simplifies ECG acquisitions.
	Avoid variability—Enhanced Hookup Advisor™ guides even the newest user to a clean, high-quality waveform.
	Reduce repeats—Optional Auto-ECG algorithm immediately captures and displays the first clean, high-quality test.

[12] Double-blind study by an independent third-party research firm, Healthcare Research & Analytics (HRA) at Smith Research Facility, Chicago.



Optimizing resting ECG system uptime and security

Our solutions are designed to increase efficiencies across the resting ECG spectrum without increasing the administrative and training burden.

Software updates	Software upgrades & updates are deployed via USB drive to customer. The software upgrade kit, which contains the USB flash drive with the software files of the version to which the customer wants to upgrade.
Remote service and reduced downtime	RJ45 port Connects to an Ethernet network using a 10/100/1000 Base-T Ethernet connector. The network supports remote web applications such as a MUSE™ Cardiology Information System and supports software upgrade through a configured shared folder.
	On-board diagnostic test for parts with ability to display result on-screen, print or save to USB
	Designed for quick and easy access to critical parts
	Swappable battery
	Durable connectors and cables reduce breakage and maintenance

Optimizing resting ECG system uptime and security

Reduce exam time	Computer Based Training and Instructor Led Training is offered for biomeds and other technical personnel. The training provides information about how to install, maintain and repair MAC devices.
	Service offerings and training tailored to your needs.
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.
	Manufacturer Disclosure Statement for Medical Device Security (MDS2) with detailed information of the security and privacy capabilities can be found at
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* for updates.

Creating a healthy world to help enable better patient outcomes.

GEHealthCare.com/about/sustainability

Not all products or features are available in all geographies. Check with your local GE HealthCare representative for availability in your country. Commercial availability of GE HealthCare medical systems is subject to meeting local requirements in a given country or region. Not all features are included in the standard system configuration. Contact a GE HealthCare representative for more information. Intended for healthcare professionals only.

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