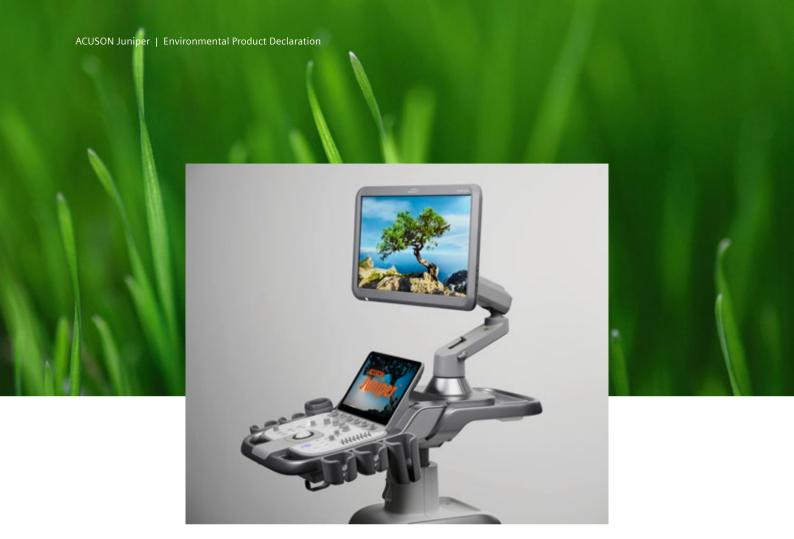


# ACUSON Juniper Ultrasound System Environmental Product Declaration

siemens-healthineers.com/juniper







# Helping you transform care delivery

Higher patient volumes. Larger patient sizes. Limited diagnostic certainty. In the face of these trending challenges, you need a reliable ultrasound system that can consistently deliver high-quality images across disease states—a system with optimized accessibility, expanded applications, and ease of use.

Created with these needs in mind, the ACUSON Juniper empowers you to image every patient, knowing you have the clinical information necessary for confident decision-making. Small on the outside, yet big on the inside, the system is designed to adapt to your every-day clinical and workflow challenges.

Where form and function meet, the result is the ACUSON Juniper, an ultrasound system that is smaller, more powerful, and capable of accommodating virtually all patients.

# **Key product features**

- Fits in almost any hospital room, up to 36% smaller and weighs an average of 27% less than other systems in its class
- Optimized for space, convenience, and user preference, 90° right and left rotation allows flexibility and improved transducer connector positioning
- 5 active transducer ports and 1 pencil port, ready to scan with little to no setup
- Among the quietest ultrasound systems (40% less than conventional ultrasound systems) in its class on the market, allows for a comfortable room environment
- Quick 5-second boot-up time with a 30-minute external battery pack
- 16 transducers deliver versatility to expand clinical offerings and cover a wide range of clinical needs

# ACUSON Juniper Ultrasound System

# Small on the outside, yet big on the inside

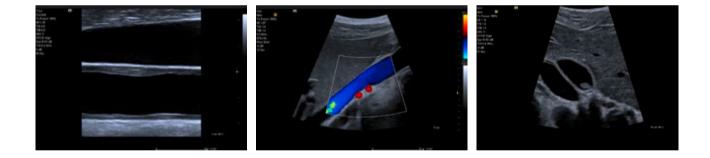
ACUSON Juniper is powered by a completely new platform, designed from the ground up to offer high-fidelity transmit and receive acoustic signals that greatly reduces noise and offers premium image quality and industry leading elasticity solutions.

## Where form and function meet

Performance comes at no cost to the functional design of the system. ACUSON Juniper offers one of the smallest market footprints in its class, effortless maneuverability, 5 active transducer ports and a simple, intuitive and highly customizable control panel.

## Technology

The ACUSON Juniper system offers outstanding system sensitivity and specificity with our new front end engine, signal processor and back end engine. These advances give you higher shades of grey and better contrast resolution for accurate tissue differentiation and faster image acquisition.



#### **Environmental benefits**

- Uses 18% less electricity during scanning<sup>1</sup>
- Weighs 22% less<sup>1</sup>
- Fast boot-up reduces electricity usage

#### **Customer benefits**

- ACUSON Juniper is a high-performance shared service ultrasound enabling institutions to offer a variety of clinical applications and Elastography at a low upfront investment.
- With 6 ports, 16 probes, 5-second bootup time and several automated features, ACUSON Juniper was designed to improve productivity, enhance workflow and eliminate user variabilities.
- Small footprint, screensavers and workflow automated features create a patient friendly environment, reduce scan time and ultimately improve satisfaction scores.
- With optional printers and standard USB ports, patients can leave the hospital with their ultrasound report.

# Environmental Management System

Siemens Healthineers gives high priority to achieving excellence in Environmental Protection, Health Management and Safety (EHS).

Across the globe, Siemens Healthineers has implemented a consistent EHS management system. It lays the foundation for the continuous improvement of our performance in these areas, and regular auditing assures our conformance.

As a result of this consistent approach, Siemens Healthineers is considered one organization and is certified in accordance with ISO 14001 and OHSAS 18001.

# **Environmental Product Design**



Material supply: From natural resources to delivery of semi-finished products



#### Production/delivery:

From production of components to operation startup by the customer



#### Use/maintenance:

Includes daily use by our customers as well as maintenance



#### End-of-life:

From disassembly at the customer site, through material and energy recycling

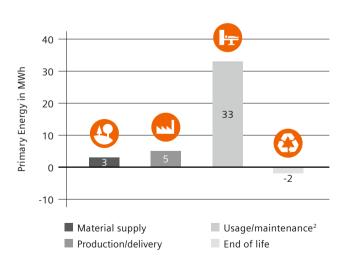
Siemens Healthineers considers environmental aspects in all phases of the product life cycle, including material supply, production/delivery, use/maintenance and end of life.

Our product design procedure fulfills the requirements of IEC 60601-1-9:2007 + A1 2013 Medical electrical equipment Part 1-9: General requirements for basic safety and essential performance – Collateral Standard: Requirements for environmentally conscious design.

This standard supports the effort to improve the environmental performance of our products.

## **Cumulative Energy Demand**

Energy consumption is the most important environmental characteristic of medical devices. This is why we use the Cumulative Energy Demand to assess environmental performance. Cumulative Energy Demand is the total primary energy<sup>1</sup> that is necessary to produce, use and dispose of a device – including all transportation. Our medical devices can be recycled almost completely for materials or energy. With an appropriate end-of-life treatment it is possible to return up to -2 MWh in the form of secondary raw materials or thermal energy to the economic cycle.



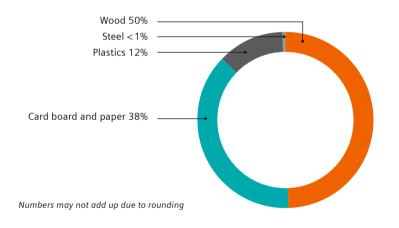
<sup>1</sup>Primary energy is the energy contained in natural resources prior to undergoing any man made conversions (e.g. oil, solar). <sup>2</sup>Based on 10 hours of use (5 hours scanning, 5 hours freeze) 5 days a week, 10 years usage.

## **Product Materials**

ACUSON Juniper Ultrasound System is mainly built out of metals. This ensures a high degree of recyclability.

Total weight: approx. 76 kg

Ferrous alloys, steels 27% Organic substances < 1% Other materials 2% Plastics 25% Inorganic materials, ceramics 6% Other metals and semi-metals < 1% Precious metals < 1% Nonferrous metals and alloys 39%



## **Packaging Materials**

It is our goal to minimize our packaging material and reduce the packaging waste by reusing and recycling it.

Nearly all the packaging is recyclable either for reuse of the materials or for energy recovery. Only an insignificant amount (~ 1%) has to be sent to landfill.

Total weight: 43.5 kg

### **Product Take Back**

Most of the materials used to produce the ACUSON Juniper system are recyclable. Over 99% (by weight) can be recycled for material content and 0.8% for energy. Disassembly instructions for disposal and recycling are available for our products.



# Operating Data

<u> </u>	
Heat emissions of the device • Off • Freeze • Scanning • Hibernate/standby	0.039 KW (115 V) 0.242 KW (115 V) 0.281 KW (115 V) 0.119 KW (115 V)
<ul><li>Allowed ambient temperature</li><li>During operation</li><li>During storage or transportation</li></ul>	+10°C to +40°C -20°C to +60°C
Allowed relative humidity • During operation • During storage or transportation	10–80% non-condensing 10–95% non-condensing
Typical power consumption • Off • Freeze • Scanning • Hibernate/standby	0.039 KW (115 V) 0.242 KW (115 V) 0.281 KW (115 V) 0.119 KW (115 V)
Power-on time • Virus protection on • Virus protection off	2 minutes 4 seconds 1 minute 36 seconds
Power-off time	47 seconds

### **Technical Specifications**

Interface for heat recovery	No
Possible type of cooling	Air
Complete switch-off is possible	Yes
Device is adjustable for the user in terms of height	Yes
Uniform operating symbols for device families	Yes

### Radiation

This product produces no ionizing radiation

#### **Electromagnetic Fields**

Measures/techniques to	<ul> <li>complies to EN 55011/CSPR11</li> </ul>	
minimize the exposure to	<ul> <li>power filtering</li> </ul>	
electromagnetic fields	<ul> <li>electromagnetic shielding</li> </ul>	
	<ul> <li>cable shielding</li> </ul>	
	<ul> <li>grounded metallic components</li> </ul>	

#### **Replacement Parts and Consumables**

None

an	approved	l disin	fectant	ediw	
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and disinfecting transducers. • Use only approved disinfectants on the holders for transducers and coupling gel holder.

> • Never use gauze pads, lint-free cloths, or solutions to clean the transducer ports.

• See Instructions for Use for cleaning

• Do not clean the system with chlorinated or aromatic solvents, acidic or basic solutions, isopropyl alcohol or strong cleaners such as

• Do not use spray cleaners on the

• Do not pour any fluid onto the ultrasound system surfaces. • Use only approved disinfectants wipes on the surfaces of the ultrasound

ammoniated products.

ultrasound system.

systems.

- Do not use disinfectant wipes on the glass surfaces of the touch screen or monitor. Carefully follow the instruction to clean the glass surfaces of the touch screen and monitor.
- Do not immerse the gel warmer in water or any solution.
- Use an approved disinfe to disinfect the ring, trackball, and trackball assembly.

Suitability of device for sterile No areas

Size of the surface to be cleaned 0.31 m<sup>2</sup>

Please refer to the dedicated user and reference manuals for system and components for a detailed list of approved and not approved cleaning substances and further instructions.

#### Further Ecologically Relevant Information

Elements of instructions are:	
<ul> <li>Recommendations for saving</li> </ul>	Yes
energy	
<ul> <li>Recommendations for</li> </ul>	Yes
efficient cleaning	
<ul> <li>Recommendations for</li> </ul>	Yes
appropriate use of	
consumables	



### **Disposal/Substance Information**

List of hazardous substance Yes (not contained in device)

Incompatible cleaning processes:

Restrictions for particular device

### Cleaning

Total device

components

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The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

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The statements by Siemens Healthineers' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

ACUSON Juniper is a trademark of Siemens Medical Solutions USA, Inc.

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