Transducers

ACUSON Redwood Ultrasound System

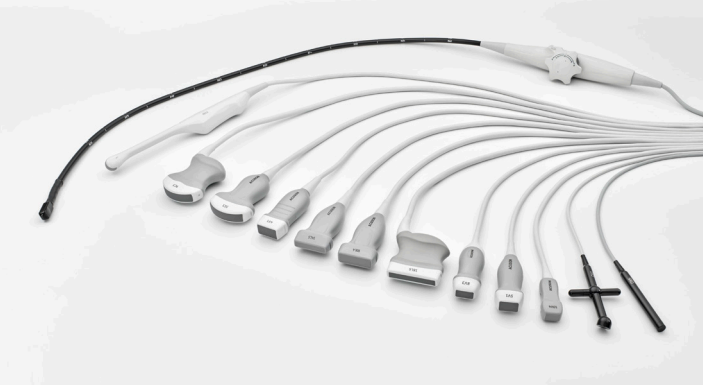
Release 2.0

siemens-healthineers.com/redwood

SIEMENS Healthineers

Comprehensive suite of transducers

The ACUSON Redwood ultrasound system has a comprehensive suite of over 16 transducers supporting a diverse range of clinical applications



Contents

Curved

5C1 Transducer

Form factor	Curved
Design	1D, Single Crystal
Gesture detection	No
Bandwidth	1.0–5.7 MHz
Axial and lateral resolution	0.67 and 1.2 mm
Field of view	72 deg
Physical footprint	63.3 x 18.2 mm
Total weight	743 g

7VC2 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	1.8–6.9 MHz
Axial and lateral resolution	2.0 and 3.0 mm
Field of view	75 x 90 deg
Physical footprint	52.6 x 22.6 mm
Total weight	1200 g

9C3 Transducer

Form factor	Curved
Design	1D, Hanafy, Piezoceramic
Gesture detection	No
Bandwidth	2.2–9.2 MHz
Axial and lateral resolution	0.56 and 0.96 mm
Field of view	78.6 deg
Physical footprint	69.56 x 20.47 mm
Total weight	780.4 g

9VE4 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	3.2–9.9 MHz
Axial and lateral resolution	0.3 and 0.7 mm
Field of view	165 x 145 deg
Physical footprint	24 x 24 mm
Total weight	1200 g

Linear

10L4 Transducer

Form factor	Linear
Design	Multi-D, Piezoceramic
Gesture detection	No
Bandwidth	2.9–9.9 MHz
Axial and lateral resolution	0.3 and 0.52 mm
Field of view	38.2 mm
Physical footprint	49.25 x 18.85 mm
Total weight	723.2 g

14L5 Transducer

Form factor	Linear
Design	Multi-D, Piezoceramic
Gesture detection	No
Bandwidth	4.8–13.6 MHz
Axial and lateral resolution	0.3 and 0.38 mm
Field of view	38.2 mm
Physical footprint	49.58 x 12.89 mm
Total weight	726.9 g

18H6 Transducer

Form factor	Linear
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	5.5–21.1 MHz
Axial and lateral resolution	0.2 and 0.23 mm
Field of view	28 mm
Physical footprint	13.6 x 40.4 mm
Total weight	630 g

18L6 Transducer

Form factor	Linear
Design	1D, Hanafy, Piezoceramic
Gesture detection	No
Bandwidth	4.6–17.8 MHz
Axial and lateral resolution	0.3 and 0.43 mm
Field of view	57.5 mm
Physical footprint	69.22 x 16.48 mm
Total weight	761.8 g

Endocavity

9EC4 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	2.9–8.1 MHz
Axial and lateral resolution	0.46 and 0.8 mm
Field of view	176 deg
Physical footprint	17.0 x 22.0 mm
Total weight	700 g

Vector

4V1 Transducer

Form factor	Vector
Design	1D, Hanafy, Piezoceramic
Gesture detection	No
Bandwidth	1.4–5.1 MHz
Axial and lateral resolution	0.9 and 1.1 mm
Field of view	90 deg
Physical footprint	35.5 x 20.2 mm
Total weight	639 g

5V1 Transducer

Form factor	Sector / Vector
Design	1D, Single Crystal, Piezoceramic
Gesture detection	No
Bandwidth	1.1–4.9 MHz
Axial and lateral resolution	1.06 and 3.72 mm
Field of view	90 deg
Physical footprint	27.2 x 18.7 mm
Total weight	640 g

8V3 Transducer

Form factor	Sector / Vector
Design	1D, Hanafy, Piezoceramic
Gesture detection	No
Bandwidth	2.1–8.3 MHz
Axial and lateral resolution	0.59 and 0.79 mm
Field of view	90 deg
Physical footprint	26.9 x 16.6 mm
Total weight	644 g

10V4 Transducer

Form factor	Sector / Vector
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	3.4–10.4 MHz
Axial and lateral resolution	0.22 and 1.18 mm
Field of view	90 deg
Physical footprint	22.6 x 14.3 mm
Total weight	376 g

Pencil

CW2 Transducer

Form factor	Pencil
Design	N/A
Gesture detection	N/A
Bandwidth	N/A
Axial and lateral resolution	N/A
Field of view	N/A
Diameter	17 mm
Total weight	N/A

CW5 Transducer

Form factor	Pencil
Design	N/A
Gesture detection	N/A
Bandwidth	N/A
Axial and lateral resolution	N/A
Field of view	N/A
Diameter	11 x 7 mm
Total weight	N/A

Transesophageal echocardiography (TEE)

V5Ms Transducer

Form factor	Transesophageal echocardiography (TEE)
Design	1D, Piezoceramic
Gesture detection	No
Bandwidth	3.0–7.0 MHz
Axial and lateral resolution	0.22 and 1.18 mm
Field of view	90 deg
Physical footprint	14.8 x 11.6 mm
Total weight	1800 g

Table 1: Selectable frequencies[1]

Transducer	2D	THI	Color Doppler	PW Doppler	CW Doppler	Contrast
5C1	Low, Mid, High	HPen, HLow, HMid, HHigh	Low, Mid, High, Res	Low, Mid, High, Res	–	Low, Mid
7VC2	Pen, Low, Mid, High	HPen, HLow, HMid, HHigh, HRes	Pen, Low, Mid	Low, Mid	–	Low, Mid
9C3	Pen, Low, Mid, High	HPen, HLow, HMid, HHigh	Pen, Mid, Res	Low, Mid	–	Low, Mid, High
9VE4	Low, Mid, High	HLow, HMid, HHigh	Low, Mid, High	Low, Mid, High	–	Low, Mid
10L4	Low, Mid, High	HLow, HMid, HHigh	Pen, Mid, High, Res	Low, Mid	–	Low, Mid
14L5	on MSK exam only: Low, Mid, High, Res on the other exams: Low, Mid, High	HLow, HMid, HHigh	Pen, Low, Mid, High	Low, Mid	–	–
18H6	Mid, High	HHigh	Low, Mid, High, Res	Mid, High	–	Yes
18L6	on MSK exam only: Low, Mid, High, Res on the other exams: Low, Mid, High	HLow, HMid HHigh,	Pen, Mid, Res	Low, Mid, High	–	–
9EC4	Low, Mid, High	HLow, HMid, HHigh	Low, Mid, High	Low, Mid, High	–	Low, Mid, High
4V1	Low, Mid, High	HPen, HLow, HMid, HHigh	Pen, Mid, Res	Low, Mid, High	–	Low, Mid
5V1	Pen, Low	on Cardiac exam only: HLow, HMid, HHigh on the other exams: HPen, HLow, HMid, HHigh	Low, Mid, High	Pen, Low, Mid, High, Res	on Cardiac exam only: Mid on	Pen, Low, Mid, High, Res
8V3	Low, Mid, High, Res	HLow, HMid, HHigh	on Cardiac exam only: Low, Mid on the other exams:, Pen, Low, Mid, High	on Cardiac exam only: Low, Mid, on the other exams: Low, Mid, High	on Cardiac exam only: Low, Mid	–

[1] *System specific*

Transducer	2D	THI	Color Doppler	PW Doppler	CW Doppler	Contrast
10V4	Low, Mid, High, Res	HLow, HMid, HHigh	Low, Mid, High	Low, Mid, High	on Cardiac exam only: Low, Mid	–
CW2	–	–	–	–	Mid	–
CW5	–	–	–	–	Mid	–
V5Ms	Pen, Low, Mid, High	HLow, HMid	Low, Mid	Low, Mid	Low, Mid	–

Table 2: Cable length

Transducer	Cable length
5C1	2.1 m
7VC2	2.1 m
9C3	2.1 m
9VE4	2.5 m
10L4	2.1 m
14L5	2.1 m
18H6	2.1 m
18L6	2.1 m
9EC4	2.2 m
4V1	1.9 m
5V1	2.1 m
8V3	2.2 m
10V4	2.2 m
V5Ms	1.9 m

Table 3: Connector type

Transducer	Connector type
5C1	Compact Pinless Connector
7VC2	Compact Pinless Connector
9C3	Compact Pinless Connector
9VE4	Compact Pinless Connector
10L4	Compact Pinless Connector
14L5	Compact Pinless Connector
18H6	Compact Pinless Connector
18L6	Compact Pinless Connector
9EC4	Compact Pinless Connector
4V1	Compact Pinless Connector
5V1	Compact Pinless Connector
8V3	Compact Pinless Connector
10V4	Compact Pinless Connector
CW2	Hirose
CW5	Hirose
V5Ms	Micro Pinless Connector

Table 4: Needle guide

Transducer	Product description	Guidance angle selection – depth
5C1	Verza™ needle guidance system	1 – 2.2 cm 2 – 3.8 cm 3 – 6.1 cm 4 – 9.9 cm 5 – 15.0 cm
7VC2	N/A	N/A
9C3	Ultra-Pro II™ needle guide	A – 5 cm B – 10 cm
9VE4	Under development	N/A
10L4	Verza needle guidance system	1 – 2.2 cm 2 – 3.6 cm 3 – 5.6 cm 4 – 8.6 cm 5 – 13 cm
14L5	Verza needle guidance system	1 – 1.8 cm 2 – 3.0 cm 3 – 4.3 cm 4 – 6.4 cm 5 – 8.9 cm
18H6	N/A	N/A
18L6	Ultra-Pro II needle guide	A – 2.1 cm B – 5.4 cm
9EC4	Disposable Endocavity Guide Kit – 24 pack	1° Needle Path angle
9EC4	Reusable Endocavity Guide	1° Needle Path angle
4V1	Ultra-Pro II needle guide	A – 5 cm B – 10 cm

Table 5: Advanced applications

Transducer	Strain Elastography	Point Shear Wave Elastography	2D Shear Wave Elastography	Contrast Imaging	Fusion Imaging	Freehand 3D
5C1	N/A	Yes	N/A	Yes	N/A	N/A
7VC2	N/A	N/A	N/A	N/A	N/A	N/A
9C3	N/A	N/A	N/A	Yes	N/A	N/A
9VE3	N/A	N/A	N/A	N/A	N/A	N/A
10L4	Yes	Yes	Yes	Yes	N/A	N/A
14L5	Yes	N/A	N/A	N/A	N/A	N/A
18H6	N/A	N/A	N/A	N/A	N/A	Yes
18L6	Yes	N/A	N/A	N/A	N/A	Yes
9EC4	Yes	N/A	N/A	Yes	N/A	Yes
4V1	N/A	Yes	N/A	Yes	N/A	N/A
5V1	N/A	N/A	N/A	Yes	N/A	N/A
8V3	N/A	N/A	N/A	N/A	N/A	N/A
10V4	N/A	N/A	N/A	N/A	N/A	N/A
CW2	N/A	N/A	N/A	N/A	N/A	N/A
CW5	N/A	N/A	N/A	N/A	N/A	N/A
V5Ms	N/A	N/A	N/A	N/A	N/A	N/A

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