Transducers

ACUSON Juniper Ultrasound System

Release 2.5

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ACUSON Juniper

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Contents

Curved

5C1 Transducer

Form factor	Curved
Design	1D, Hanafy, Piezoceramic
Number of Elements	128
Bandwidth	1.4–5.0 MHz
Axial and Lateral resolution	2.0 mm x 2.0 mm
Max. depth	350 mm
Field of view	70 deg
Physical footprint	22.8 mm x 70.6 mm
Total weight	488 g

6C1 Transducer

Form factor	Curved
Design	Single Crystal
Number of Elements	128
Bandwidth	1.0–5.6 MHz
Axial and Lateral resolution	2 mm x 3 mm
Max. depth	350 mm
Field of view	72 deg
Physical footprint	18.2 mm x 63.3 mm
Total weight	466 g

7C2 Transducer

Form factor	Curved
Design	1D, Hanafy, Piezoceramic
Number of Elements	128
Bandwidth	2.1–7.0 MHz
Axial and Lateral resolution	2.0 mm x 3.0 mm
Max. depth	300 mm
Field of view	70 deg
Physical footprint	22.9 mm x 70.6 mm
Total weight	548 g

9VC2 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Number of Elements	128
Bandwidth	1.8–8.5 MHz
Axial and Lateral resolution	2 mm x 3 mm
Max. depth	300 mm
Field of view	69 deg
Physical footprint	47 mm x 72 mm
Total weight	750 g

Linear

11L4 Transducer

Form factor	Linear
Design	Piezoceramic
Number of Elements	128
Bandwidth	3.6–12.9 MHz
Axial and Lateral resolution	0.5 mm x 0.5 mm
Max. depth	160 mm
Field of view	120 mm
Physical footprint	18.8 mm x 50.6 mm
Total weight	398 g

12L3 Transducer

Form factor	Linear
Design	1D, Hanafy, Piezoceramic
Number of Elements	192
Bandwidth	2.6–11.5 MHz
Axial and Lateral resolution	0.5 mm x 1.0 mm
Max. depth	160 mm
Field of view	133 mm
Physical footprint	14.6 mm x 61.9 mm
Total weight	483 g

13L4 Transducer

Form factor	Linear
Design	1D, Piezoceramic
Number of Elements	192
Bandwidth	3.9–12.6 MHz
Axial and Lateral resolution	0.5 mm x 2 mm
Max. depth	160 mm
Field of view	150 mm
Physical footprint	12.7 mm x 47.5 mm
Total weight	445 g

14L4 Transducer

Form factor	Linear
Design	1D, Piezoceramic
Number of Elements	256
Bandwidth	4.0–12.7 MHz
Axial and Lateral resolution	0.5 mm x 1 mm
Max. depth	160 mm
Field of view	150 mm
Physical footprint	12.9 mm x 60.3 mm
Total weight	409 g

16L4 Transducer

Form factor	Linear
Design	1D, Piezoceramic
Number of Elements	192
Bandwidth	4.3–15.4 MHz
Axial and Lateral resolution	0.5 mm x 1.0 mm
Max. depth	60 mm
Field of view	65 mm
Physical footprint	12.1 mm x 43.3 mm
Total weight	401 g

18H5 Transducer

Form factor	Linear
Design	1D, Piezoceramic
Number of Elements	192
Bandwidth	4.5–18.0 MHz
Axial and Lateral resolution	0.5 mm x 0.5 mm
Max. depth	80 mm
Field of view	68 mm
Physical footprint	10.2 mm x 35.8 mm
Total weight	450 g

Endocavity

9MC3 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Number of Elements	192
Bandwidth	3.2–8.5 MHz
Axial and Lateral resolution	1 mm x 2 mm
Max. depth	140 mm
Field of view	220 deg
Physical footprint	17 mm x 22 mm
Total weight	490 g

9VE4 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Number of Elements	128
Bandwidth	3.1–8.7 MHz
Axial and Lateral resolution	1 mm x 1 mm
Max. depth	160 mm
Field of view	145 deg
Physical footprint	26 mm x 26 mm
Total weight	800 g

10MC3 Transducer

Form factor	Curved
Design	1D, Piezoceramic
Number of Elements	128
Bandwidth	3.5–10.2 MHz
Axial and Lateral resolution	1 mm x 2 mm
Max. depth	140 mm
Field of view	150 deg
Physical footprint	19 mm x 22.2 mm
Total weight	510 g

Micro-Convex

11M3 Transducer

Form factor	Micro-convex
Design	1D, Piezoceramic
Number of Elements	128
Bandwidth	3.5–11.0 MHz
Axial and Lateral resolution	2 mm x 2 mm
Max. depth	150 mm
Field of view	110 deg
Physical footprint	12.8 mm x 29 mm
Total weight	340 g

Phased Array

5P1 Transducer

Form factor	Phased
Design	1D, Single Crystal
Number of Elements	96
Bandwidth	1.1–5.0 MHz
Axial and Lateral resolution	2 mm x 1 mm
Max. depth	300 mm
Field of view	90 deg
Physical footprint	17.5 mm x 27.8 mm
Total weight	380 g

Vector

5VT Transducer

Form factor	Vector
Design	1D, Piezoceramic
Number of Elements	64
Bandwidth	3.1–9.2 MHz
Axial and Lateral resolution	1 mm x 1 mm
Max. depth	240 mm
Field of view	90 deg
Physical footprint	14.8 mm x 11.6 mm
Total weight	1800g

8V4 Transducer

Form factor	Vector
Design	1D, Piezoceramic
Number of Elements	64
Bandwidth	2.7–8.0 MHz
Axial and Lateral resolution	2 mm x 2 mm
Max. depth	150 mm
Field of view	90 deg
Physical footprint	14.1 mm x 15.2 mm
Total weight	402 g

10V4 Transducer

Form factor	Vector
Design	1D, Piezoceramic
Number of Elements	128
Bandwidth	3.4–10.4 MHz
Axial and Lateral resolution	1 mm x 1 mm
Max. depth	150 mm
Field of view	90 deg
Physical footprint	22.6 mm x 14.3 mm
Total weight	376 g

Pencil

CW2 Transducer

Form factor	Pencil
Design	1D, Piezoceramic
Bandwidth	N/A
Axial and Lateral resolution	N/A
Field of view	N/A
Physical footprint	17.1 mm
Total weight	181 g

CW5 Transducer

Form factor	Pencil
Design	1D, Piezoceramic
Bandwidth	N/A
Axial and Lateral resolution	N/A
Field of view	N/A
Physical footprint	12.0 mm
Total weight	190 g

CW8 Transducer

Form factor	Pencil
Design	1D, Piezoceramic
Bandwidth	N/A
Axial and Lateral resolution	N/A
Field of view	N/A
Physical footprint	8.2 mm
Total weight	67 g

Table 1: Selectable frequencies

Transducer	Fundamental	Harmonic	Color Doppler	PW Doppler	CW	DTI
5C1	2.5, 3.1, 4.0	3.1, 3.4, 3.6, 4.4, 5.0	2.0, 2.7	2.7, 3.3	–	–
6C1	2.5, 3.1, 3.8	3.1, 3.4, 3.6, 4.4, 5.0 (OB)	2.0, 2.7, 3.3, 4.0	2.0, 2.7, 3.3, 4.0	–	–
7C2	3.6, 4.4, 5.0, 5.7	4.4, 5.0, 5.7	2.7, 3.3	2.7, 3.3	–	–
9VC2	4.4, 5.0, 5.3, 5.7, 6.1	4.4, 5.0, 5.3, 5.7, 6.1	2.7, 3.1, 3.3	2.7, 3.1, 3.3	–	–
9MC3	4.2, 5.7, 7.3	5.0, 5.7, 6.2, 7.3	4.0, 5.3	4.0, 5.3	–	–
9VE4	5.7, 6.6, 7.3	5.7, 6.6, 7.3	4.0, 4.7, 5.3	4.0, 4.7, 5.3	–	–
10MC3	5.0, 6.2, 7.3	6.6, 7.2, 9.4	4.0, 5.3, 6.2	4.0, 5.3, 6.2	–	–
11L4	6.2, 8.0, 10.0	7.3, 8.0, 9.4	4.0, 5.3, 6.2	4.0, 5.3, 6.2	–	–
12L3	6.2, 8.0, 13.3	6.7, 8.4, 10.0	4.0, 6.7	4.0, 6.7	–	–
13L4	6.2, 8.0, 10.0	7.6, 10.0, 13.3	4.0, 5.3, 6.2	4.0, 5.3, 6.2	–	–
14L4	6.2, 10.0, 14.0	7.6, 11.4, 14.0	4.4, 5.3, 6.2	4.0, 5.3, 6.2	–	–
16L4	8.0, 10.0, 13.3	9.4, 10.7, 12.3	5.3, 6.2	5.3, 6.2	–	–
18H5	8.0, 11.4, 13.3	10.6, 12.3, 14.5	6.2, 7.3	6.2, 7.3	–	–
11M3	4.0, 4.3, 5.7, 8.0	6.2, 7.3, 8.0	3.6, 4.4	3.6, 4.4	–	3.6, 4.4
5P1	1.6 (TCD), 2 (TCD), 2.5, 3.1, 3.6	2.7, 3.0, 3.7, 4.0	1.8, 2.2, 2.5	1.8, 2.2, 2.5	1.8	1.8, 2.2, 2.5
5VT	3.6, 4.0, 5.0, 5.7	5.0, 5.7	3.1, 3.8	3.1, 3.8	2.9, 3.3	3.1, 3.8
8V4	4.2, 5.7, 6.7	5.4, 6.2, 7.2	3.6, 4.4	3.6, 4.4	3.6, 4.0	4.2, 5.7, 6.7
10V4	4.0, 5.3, 7.2, 8.9	6.6, 7.2, 8.0, 8.8	4.0, 5.0, 6.2	4.0, 5.0, 6.2	4.0, 4.4, 5.0	4.0, 5.3
CW2	–	–	–	–	2.0	–
CW5	–	–	–	–	5.0	–
CW8	–	–	–	–	8.0	–

Table 2: Cable length

Transducer	Cable length
5C1	1.95 m
6C1	2.10 m
7C2	1.95 m
9VC2	2.20 m
9MC3	2.20 m
9VE4	2.20 m
10MC3	2.10 m
11L4	2.10 m
12L3	2.10 m
13L4	2.10 m
14L4	2.10 m
16L4	2.10 m
18H5	2.10 m
11M3	2.10 m
5P1	2.10 m
5VT	1.90 m
8V4	2.10 m
10V4	2.10 m
CW2	1.80 m
CW5	2.10 m
CW8	2.10 m

Table 3: Connector type

Transducer	Connector type
5C1	TC-ZIF
6C1	TC-ZIF
7C2	TC-ZIF
9VC2	TC-ZIF
9MC3	TC-ZIF
9VE4	TC-ZIF
10MC3	TC-ZIF
11L4	TC-ZIF
12L3	TC-ZIF
13L4	TC-ZIF
14L4	TC-ZIF
16L4	TC-ZIF
18H5	TC-ZIF
11M3	TC-ZIF
5P1	TC-ZIF
5VT	TC-ZIF
8V4	TC-ZIF
10V4	TC-ZIF
CW2	Hirose
CW5	Hirose
CW8	Hirose

Table 4: Needle guide

Transducer	Product description	Guidance angle selection – depth
5C1	Ultra-Pro II™ needle guide	A – 4 cm B – 8 cm
6C1	Verza™ needle guide	
7C2	Ultra-Pro II needle guide	A – 10 cm
9VC2	N/A	N/A
9MC3	Endocavity needle guide	15.7 cm (Disposable), 16 cm (Reusable)
9VE4	Disposable Endocavity guide	N/A
10MC3	Endocavity needle guide	0° angle
11L4	Ultra-Pro II needle guide	A – 2.4 cm B – 4.0 cm
12L3	Ultra-Pro II needle guide	A – 3.0 cm
13L4	Verza needle guide	1 – 2.1 cm 2 – 3.3 cm 3 – 4.8 cm 4 – 7.3 cm 5 – 10.4 cm
14L4	Verza needle guide	
16L4	Infinih	Free angle
18H5	N/A	N/A
11M3	N/A	N/A
5P1	N/A	N/A
5VT	N/A	N/A
8V4	N/A	N/A
10V4	N/A	N/A
CW2	N/A	N/A
CW5	N/A	N/A
CW8	N/A	N/A

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