

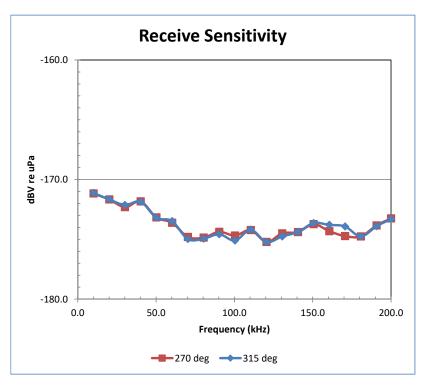
## Certificate of Calibration Ocean Sonics, Ltd.

Calibration Certificate Number: C7209

Test Result:  $10 \text{ kHz to } 100 \text{ kHz: } -173.1 \pm 2.0$ 

10 kHz to 200 kHz:  $-173.2 \pm 2.1$ 

**Model Number** SJ35-ETH **Projector Manufacturer Ocean Sonics Serial Number** TH2-SER-4F 6640 **Projector Model Manufacture Date** 14-Apr-2023 **Projector Serial** 2225 **Measurement Date** 27-Apr-2023 **Measurement Distance** 1 m **Certificate Date** 27-Apr-2023 **Output Level** 129.9 dB re uPa @ 1 m Sensitivity @ 26 Hz -172 dB re V / uPa **Tone Burst** 100.0 us / 300 ms **Case Type Titanium Reference Manufacturer Ocean Sonics Element Manufacturer Ocean Sonics Reference Model RB9-ETH Element Model** J001 **Reference Serial** 2080 **Element Serial** PIC2207037 **Primary Calibration** 20-Jan-2020 04-300451-06 **Ocean Sonics Preamp Model Preamp Manufacturer Calibrated By** D.Lee **Preamp Model** 04-300449-01 **Work Order Number** W270-315 **Preamp Serial M58 Test Type RX Sensitivity Preamp Gain** 36 dB **Test Procedure Complex RMS ADC Manufacturer Ocean Sonics Test Location** Tank #3, 1 m **ADC Model Number** 04-300426-01 **Water Temperature** 16 °C **ADC Serial Number** M59



Frequency	Sensitivity [dBV re µPa]	
kHz	270 deg	315 deg
10.0	-171.2	-171.1
20.1	-171.7	-171.7
30.1	-172.3	-172.1
40.2	-171.8	-171.9
50.2	-173.2	-173.2
60.2	-173.6	-173.5
70.3	-174.8	-175.0
80.3	-174.9	-174.9
90.4	-174.4	-174.6
100.4	-174.7	-175.1
110.4	-174.2	-174.2
120.5	-175.2	-175.2
130.5	-174.5	-174.8
140.5	-174.4	-174.4
150.6	-173.7	-173.6
160.6	-174.3	-173.8
170.7	-174.7	-173.9
180.7	-174.8	-174.8
190.7	-173.8	-173.9
200.0	-173.3	-173.3