



Certificate of Calibration

Ocean Sonics, Ltd.

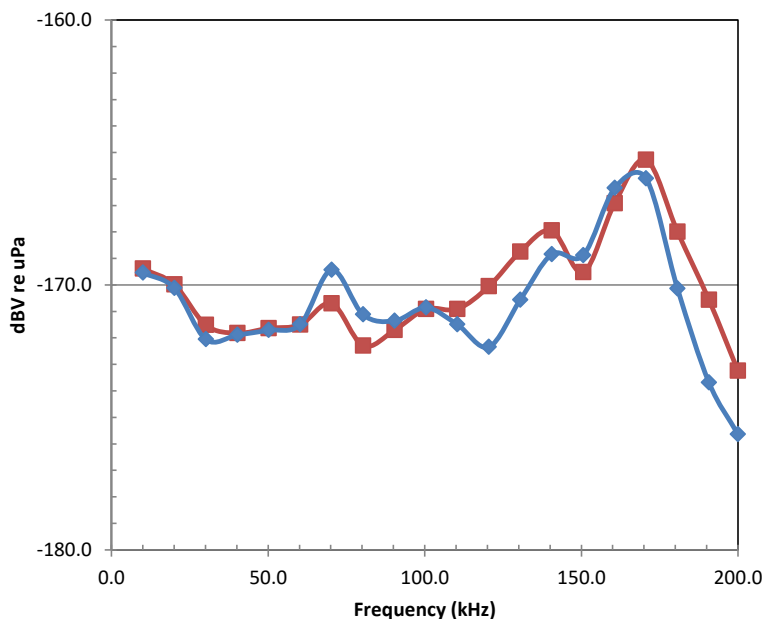
Calibration Certificate Number: **C4540**

Test Result: 10 kHz to 100 kHz: -170.8 ± 1.5
10 kHz to 200 kHz: -170.5 ± 5.2

Model Number SB35-ETH
Serial Number 1362
Manufacture Date 7-Sep-2018
Measurement Date 26-Sep-2018
Certificate Date 26-Sep-2018
Sensitivity @ 26 Hz -168.7 dB re V / uPa
Case Type Titanium
Element Manufacturer GeoSpectrum
Element Model M24HF
Element Serial 1771
Preamp Model 04-300419-01
Calibrated By S.MacLean
Work Order Number W1727
Test Type RX Sensitivity
Test Procedure Complex RMS
Test Location Tank #2, 1 m
Water Temperature 18 °C

Projector Manufacturer Ocean Sonics
Projector Model TH2-SER-4F
Projector Serial 2210
Measurement Distance 1 m
Output Level 131.9 dB re uPa @ 1 m
Tone Burst 100.0 us / 300 ms
Reference Manufacturer Ocean Sonics
Reference Model RB9-ETH
Reference Serial 1773
Primary Calibration 8-Nov-2017
Preamp Manufacturer Ocean Sonics
Preamp Model 04-300434-01
Preamp Serial 912
Preamp Gain 36 dB
ADC Manufacturer Ocean Sonics
ADC Model Number 04-300423-01
ADC Serial Number 586

Receive Sensitivity



Frequency kHz	Sensitivity [dBV re uPa]	
	0 deg	90 deg
10.0	-169.4	-169.5
20.1	-170.0	-170.1
30.1	-171.5	-172.1
40.2	-171.8	-171.9
50.2	-171.6	-171.7
60.2	-171.5	-171.5
70.3	-170.7	-169.4
80.3	-172.3	-171.1
90.4	-171.7	-171.4
100.4	-170.9	-170.9
110.4	-170.9	-171.5
120.5	-170.1	-172.3
130.5	-168.7	-170.6
140.5	-167.9	-168.8
150.6	-169.5	-168.9
160.6	-166.9	-166.3
170.7	-165.3	-166.0
180.7	-168.0	-170.1
190.7	-170.6	-173.7
200.0	-173.2	-175.6