# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2786
CALIBRATION DATE: 10-Jan-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.37651429e-003
h = 6.44580133e-004
i = 2.31201103e-005
j = 2.17753522e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121013e-003
b = 6.01167081e-004
c = 1.58383766e-005
d = 2.17905632e-006
f0 = 3061.398

| BATH TEMP (ITS-90) | INSTRUMENT FREQ (Hz) | INST TEMP (ITS-90) | RESIDUAL (ITS-90) |
|---|---|---|---|
| -1.4999 | 3061.398 | -1.4998 | 0.00006 |
| 1.0001 | 3237.510 | 1.0000 | -0.00005 |
| 4.5001 | 3496.224 | 4.5000 | -0.00006 |
| 8.0001 | 3769.474 | 8.0001 | -0.00003 |
| 11.5001 | 4057.650 | 11.5001 | 0.00005 |
| 15.0001 | 4361.128 | 15.0002 | 0.00015 |
| 18.5001 | 4680.246 | 18.5001 | -0.00004 |
| 22.0001 | 5015.399 | 22.0000 | -0.00006 |
| 25.5001 | 5366.919 | 25.5001 | -0.00001 |
| 29.0068 | 5735.838 | 29.0067 | -0.00006 |
| 32.5001 | 6120.336 | 32.5002 | 0.00006 |

Temperature ITS-90 = $1/\{g + h[ln(f_0/f)] + i[ln^2(f_0/f)] + j[ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature IPTS-68 = $1/\{a + b[ln(f_0/f)] + c[ln^2(f_0/f)] + d[ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: $T_{68}$ is assumed to be 1.00024 * $T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature