

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2572
CALIBRATION DATE: 23-Oct-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.37484828e-003
h = 6.44789808e-004
i = 2.34502017e-005
j = 2.20677808e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121233e-003
b = 6.00829642e-004
c = 1.60872112e-005
d = 2.20831989e-006
f0 = 3053.607

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3053.607	-1.5000	-0.00000
1.0000	3229.386	1.0000	0.00001
4.5000	3487.621	4.5000	-0.00004
8.0000	3760.403	8.0000	0.00004
11.5000	4048.108	11.5000	0.00002
15.0000	4351.117	14.9999	-0.00008
18.5000	4669.826	18.5000	0.00004
22.0000	5004.560	22.0000	0.00002
25.5000	5355.675	25.5000	-0.00001
29.0000	5723.506	29.0000	-0.00002
32.5000	6108.372	32.5000	0.00001

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

