

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2421
CALIBRATION DATE: 05-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.31020854e-003
h = 6.41867966e-004
i = 2.30218092e-005
j = 2.18517911e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121233e-003
b = 6.02091212e-004
c = 1.64071302e-005
d = 2.18674507e-006
f0 = 2754.498

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2754.498	-1.5000	-0.00000
1.0000	2912.721	1.0000	0.00001
4.5000	3145.149	4.5000	-0.00001
8.0000	3390.642	8.0000	-0.00002
11.5000	3649.555	11.5000	0.00000
15.0000	3922.231	15.0000	0.00004
18.5000	4208.994	18.5000	-0.00002
22.0000	4510.179	22.0000	-0.00002
25.5000	4826.095	25.5000	0.00001
29.0000	5157.037	29.0000	0.00001
32.5000	5503.292	32.5000	-0.00000

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

