

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2548
CALIBRATION DATE: 18-Nov-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.27148127e-003
h = 6.18876604e-004
i = 1.97222156e-005
j = 1.55054515e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121280e-003
b = 5.84765202e-004
c = 1.51796239e-005
d = 1.55189652e-006
f0 = 2670.187

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2670.187	-1.5000	-0.00004
1.0000	2828.244	1.0000	0.00005
4.5000	3060.867	4.5000	0.00003
8.0000	3307.106	8.0000	-0.00004
11.5000	3567.379	11.5000	-0.00003
15.0000	3842.084	15.0000	-0.00000
18.5000	4131.613	18.5000	0.00003
22.0000	4436.346	22.0000	0.00001
25.5000	4756.664	25.5000	0.00000
29.0000	5092.929	29.0000	-0.00001
32.5000	5445.500	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 ITS-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

