

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1366  
CALIBRATION DATE: 30-Oct-07

SBE3 TEMPERATURE CALIBRATION DATA  
IPTS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

g = 4.83476265e-003  
h = 6.76894980e-004  
i = 2.59693836e-005  
j = 2.03424722e-006  
f0 = 1000.0

## ITS-68 COEFFICIENTS

a = 3.68121254e-003  
b = 6.02956435e-004  
c = 1.49366837e-005  
d = 2.03568167e-006  
f0 = 6124.561

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6124.561	-1.5000	-0.00002
1.0000	6475.801	1.0000	0.00002
4.5000	6991.532	4.5000	0.00001
8.0000	7535.961	8.0000	-0.00001
11.5000	8109.838	11.5000	-0.00002
15.0000	8713.892	15.0000	0.00002
18.5000	9348.801	18.5000	-0.00002
22.0000	10015.267	22.0000	0.00001
25.5000	10713.922	25.5000	0.00001
29.0000	11445.388	29.0000	-0.00001
32.5000	12210.271	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

