

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2786  
CALIBRATION DATE: 06-Feb-14

SBE3 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

g = 4.37640299e-003  
h = 6.44334663e-004  
i = 2.29547445e-005  
j = 2.14213547e-006  
f0 = 1000.0

## IPTS-68 COEFFICIENTS

a = 3.68121153e-003  
b = 6.01158471e-004  
c = 1.57917753e-005  
d = 2.14364785e-006  
f0 = 3061.421

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3061.421	-1.4999	0.00006
1.0000	3237.538	1.0000	-0.00003
4.5000	3496.251	4.4999	-0.00009
8.0000	3769.502	7.9999	-0.00005
11.5000	4057.683	11.5001	0.00010
15.0000	4361.152	15.0001	0.00013
18.5000	4680.269	18.5000	-0.00002
22.0000	5015.410	21.9999	-0.00010
25.5000	5366.926	25.5000	-0.00004
29.0000	5735.129	29.0000	0.00001
32.5000	6120.334	32.5000	0.00004

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

