

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2767  
CALIBRATION DATE: 19-Jun-09

SBE3 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

### ITS-90 COEFFICIENTS

g = 4.34198355e-003  
h = 6.34283381e-004  
i = 2.20512492e-005  
j = 2.09414421e-006  
f0 = 1000.0

### IPTS-68 COEFFICIENTS

a = 3.68121357e-003  
b = 5.94184734e-004  
c = 1.53053211e-005  
d = 2.09559795e-006  
f0 = 2938.892

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2938.892	-1.5001	0.00001
0.9999	3110.004	0.9999	-0.00001
4.4999	3361.553	4.4999	0.00001
7.9999	3627.455	7.9999	0.00001
11.4999	3908.107	11.4999	-0.00001
14.9999	4203.901	14.9999	0.00001
18.4999	4515.204	18.4999	-0.00001
21.9999	4842.389	21.9999	0.00002
25.4999	5185.796	25.4999	-0.00001
28.9999	5545.771	28.9999	-0.00001
32.4999	5922.639	32.4999	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

