

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0655  
CALIBRATION DATE: 01-Apr-11

SBE16 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

g = 4.17243698e-003  
h = 5.87326564e-004  
i = 3.09892532e-006  
j = -1.85614339e-006  
f0 = 1000.0

## IPTS-68 COEFFICIENTS

a = 3.64763887e-003  
b = 5.77373798e-004  
c = 8.13498120e-006  
d = -1.85579858e-006  
f0 = 2459.877

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
0.9999	2459.877	0.9997	-0.00019
4.5000	2664.123	4.5004	0.00035
15.0000	3348.674	14.9997	-0.00027
18.4999	3602.063	18.4998	-0.00010
24.0000	4027.053	24.0002	0.00017
29.0000	4442.813	29.0002	0.00023
32.5000	4751.047	32.4998	-0.00020

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

