

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2767
CALIBRATION DATE: 04-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34182481e-003
h = 6.33924022e-004
i = 2.18037133e-005
j = 2.03869343e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121473e-003
b = 5.94165271e-004
c = 1.52370075e-005
d = 2.04013460e-006
f0 = 2938.938

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	2938.938	-1.5002	0.00002
0.9999	3110.062	0.9999	-0.00003
4.4999	3361.620	4.4999	-0.00001
7.9998	3627.523	7.9998	0.00003
11.4999	3908.182	11.4999	-0.00004
14.9998	4203.975	14.9998	0.00005
18.4999	4515.285	18.4999	-0.00001
21.9999	4842.469	21.9999	-0.00000
25.4999	5185.879	25.4999	-0.00002
28.9999	5545.861	28.9999	0.00000
32.4999	5922.735	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

