

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2548
CALIBRATION DATE: 28-Oct-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.27148219e-003
h = 6.18900072e-004
i = 1.97578481e-005
j = 1.56273762e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121590e-003
b = 5.84754083e-004
c = 1.51793500e-005
d = 1.56409085e-006
f0 = 2670.176

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5003	2670.176	-1.5003	0.00004
0.9998	2828.231	0.9997	-0.00005
4.4998	3060.860	4.4998	-0.00004
7.9997	3307.109	7.9998	0.00007
11.4997	3567.385	11.4998	0.00005
14.9997	3842.085	14.9997	-0.00003
18.4998	4131.621	18.4997	-0.00006
21.9998	4436.363	21.9998	-0.00001
25.4997	4756.681	25.4998	0.00006
28.9998	5092.951	28.9998	-0.00000
32.4998	5445.518	32.4998	-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

