

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0884
 CALIBRATION DATE: 23-Oct-12

SBE3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.85343516e-003
 h = 6.79967777e-004
 i = 2.76495343e-005
 j = 2.28668515e-006
 f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121193e-003
 b = 6.01566194e-004
 c = 1.50491168e-005
 d = 2.28816078e-006
 f0 = 6301.280

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6301.280	-1.5000	0.00003
1.0000	6663.506	1.0000	-0.00002
4.5000	7195.482	4.4999	-0.00005
8.0000	7757.187	8.0000	0.00000
11.5000	8349.374	11.5000	0.00003
15.0000	8972.800	15.0001	0.00009
18.5000	9628.145	18.5000	-0.00004
22.0000	10316.155	21.9999	-0.00006
25.5000	11037.494	25.5000	0.00001
29.0000	11792.768	29.0000	0.00001
32.5000	12582.592	32.5000	0.00001

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

