

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 5052
CALIBRATION DATE: 23-Oct-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39605477e-003
h = 6.45293361e-004
i = 2.30989468e-005
j = 2.17597063e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121181e-003
b = 6.00944745e-004
c = 1.56191969e-005
d = 2.17747376e-006
f0 = 3158.190

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3158.190	-1.5000	0.00004
1.0000	3339.939	1.0000	-0.00003
4.5000	3606.923	4.5000	-0.00004
8.0000	3888.898	8.0000	-0.00001
11.5000	4186.263	11.5000	0.00004
15.0000	4499.399	15.0001	0.00005
18.5000	4828.681	18.5000	0.00001
22.0000	5174.474	21.9999	-0.00005
25.5000	5537.139	25.5000	-0.00001
29.0000	5916.998	29.0000	-0.00001
32.5000	6314.380	32.5000	0.00003

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

