

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: 1455
CALIBRATION DATE: 25-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84635166e-003
h = 6.78159757e-004
i = 2.61733007e-005
j = 2.04542058e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121231e-003
b = 6.03099760e-004
c = 1.49791587e-005
d = 2.04686006e-006
f0 = 6225.913

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6225.913	-1.5000	0.00000
1.0000	6582.875	1.0000	0.00001
4.5000	7107.008	4.5000	-0.00002
8.0000	7660.307	8.0000	-0.00002
11.5000	8243.532	11.5000	0.00002
15.0000	8857.401	15.0000	-0.00001
18.5000	9502.649	18.5000	0.00003
22.0000	10179.940	22.0000	0.00002
25.5000	10889.930	25.5000	-0.00005
29.0000	11633.286	29.0000	-0.00000
32.5000	12410.585	32.5000	0.00002

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

