

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: 5233
CALIBRATION DATE: 23-Mar-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40266164e-003
h = 6.80254736e-004
i = 2.83983858e-005
j = 2.11199831e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121192e-003
b = 6.25272993e-004
c = 2.14116110e-005
d = 2.11399926e-006
f0 = 3026.955

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3026.955	-1.5000	0.00003
1.0000	3194.258	1.0000	-0.00003
4.5000	3439.630	4.5000	-0.00003
8.0000	3698.335	8.0000	-0.00001
11.5000	3970.734	11.5001	0.00005
15.0000	4257.168	15.0000	0.00003
18.5000	4557.984	18.5000	-0.00004
22.0000	4873.529	22.0000	0.00001
25.5001	5204.119	25.5001	-0.00003
29.0000	5550.057	29.0000	0.00001
32.5000	5911.664	32.5000	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

