

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1609
CALIBRATION DATE: 31-May-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86637924e-003
h = 6.80515737e-004
i = 2.64704575e-005
j = 2.06340378e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121024e-003
b = 6.03721124e-004
c = 1.50075328e-005
d = 2.06485277e-006
f0 = 6399.452

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6399.452	-1.4998	0.00015
1.0000	6765.933	0.9999	-0.00012
4.5000	7304.055	4.4998	-0.00021
8.0000	7872.106	7.9999	-0.00009
11.5000	8470.857	11.5002	0.00020
15.0000	9101.032	15.0005	0.00047
18.5000	9763.161	18.4997	-0.00026
22.0000	10458.273	21.9998	-0.00024
25.4999	11186.926	25.4999	-0.00001
28.9999	11949.731	29.0000	0.00007
32.5000	12747.310	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

