

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER = 775  
 CALIBRATION DATE: 16-Nov-02

TEMPERATURE CALIBRATION DATA  
 ITS-90 TEMPERATURE SCALE

### ITS-90 COEFFICIENTS

g = 4.21342708e-03  
 h = 6.04683440e-04  
 i = 4.21144158e-06  
 j = -1.96992078e-06  
 $f_0 = 1000.000$

### IPTS-68 COEFFICIENTS

a = 3.64763416e-03  
 b = 5.91594220e-04  
 c = 9.81938677e-06  
 d = -1.96944391e-06  
 $f_0 = 2571.888$

BATH TEMP (ITS-90 °C)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90 °C)	RESIDUAL (ITS-90 °C)
1.0000	2571.888	1.0001	0.00006
4.4999	2780.076	4.4997	-0.00016
14.9998	3475.991	15.0003	0.00051
18.5000	3732.805	18.4997	-0.00025
23.9998	4162.801	23.9990	-0.00083
28.9999	4582.941	29.0011	0.00116
32.5001	4893.767	32.4996	-0.00050

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

