

# 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: 0189  
CALIBRATION DATE: 22-Jan-13

WEBB GLIDER CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -1.017481e+000	CPcor = -9.5700e-008
h = 1.338484e-001	CTcor = 3.2500e-006
i = -3.497724e-004	WBOTC = 3.0149e-008
j = 4.248202e-005	

BATH TEMP (ITS-90)	BATH SAL (PSU)	BATH COND (Siemens/m)	INST FREQ (Hz)	INST COND (Siemens/m)	RESIDUAL (Siemens/m)
22.0000	0.0000	0.00000	2763.76	0.00000	0.00000
0.9999	34.9493	2.98624	5482.36	2.98624	-0.00000
4.4999	34.9288	3.29428	5688.84	3.29429	0.00001
15.0000	34.8855	4.27920	6302.95	4.27920	-0.00001
18.5000	34.8756	4.62538	6504.74	4.62537	-0.00001
23.9999	34.8640	5.18493	6817.96	5.18494	0.00002
29.0000	34.8557	5.70804	7097.90	5.70805	0.00000
32.5000	34.8475	6.08081	7290.61	6.08081	-0.00001

$$f = \text{INST FREQ} * \text{sqrt}(1.0 + \text{WBOTC} * t) / 1000.0$$

$$\text{Conductivity} = (g + hf^2 + if^3 + jf^4) / (1 + \delta t + \epsilon p) \text{ Siemens/meter}$$

t = temperature[°C]; p = pressure[decibars];  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Residual = instrument conductivity - bath conductivity

