

EXHIBIT E2

FREQUENCY STABILITY VS. VOLTAGE

Instruments Used:

HP 500 MHz Universal Counter
Model 5328A S/N 1848A10091

10 MHz Rubidium Frequency Standard
EFRATOM Model FRK-L S/N 25016879

Fluke Digital Voltmeter
Model 8050A

Variable DC Power Supply

Assigned Frequency = 460.0000 MHz

Battery Voltage	Frequency (MHz)	Variance (PPM)
3.60	460.000 415	+0.90
3.50	460.000 261	+0.57
3.40	460.000 370	+0.80
3.30	460.000 292	+0.63
3.20	460.000 225	+0.49
3.10	460.000 180	+0.39
3.00	460.000 327	+0.71
2.90	460.000 276	+0.60
2.80	460.000 242	+0.53
2.70	460.000 421	+0.92

Microcontroller disables operation below this voltage.

Measurements made and recorded by:

Sept. 27, 1999

Nathan R. Jacob P. Eng

FREQUENCY STABILITY VS. TEMPERATURE

Instruments Used:

HP 500 MHz Universal Counter
Model 5328A S/N 1848A10091

10 MHz Rubidium Frequency Standard
EFRATOM Model FRK-L S/N 25016879

Associated Environmental Chamber
Model EK2114

Assigned Frequency = 460.0000 MHz

Temperature (°C)	Frequency (MHz)	Variance (PPM)
50	459.999 990	0.02
40	459.999 885	0.25
30	459.999 800	0.43
20	459.999 947	0.12
10	460.000 078	0.17
0	459.999 945	0.12
-10	459.999 777	0.49
-20	459.999 750	0.54
-30	459.999 875	0.27

Microcontroller disables operation beyond this temperature range.

Measurements made and recorded by: _____

Sept. 27, 1999

Nathan R. Jacob P. Eng.