0 = 40 mV  
500 = 600 mV  
1000 = 1.24 V  
1500 = 1.88 V  
2000 = 2.44 V  
2500 = 3.08 V  
3000 = 3.72 V  
3500 = 4.28 V

257 cycles for one interrupt so 7.5% for a 440Hz sinewave

Resolution ~ 0.6/500 = .0012 V

Range =

Precision

Accuracy