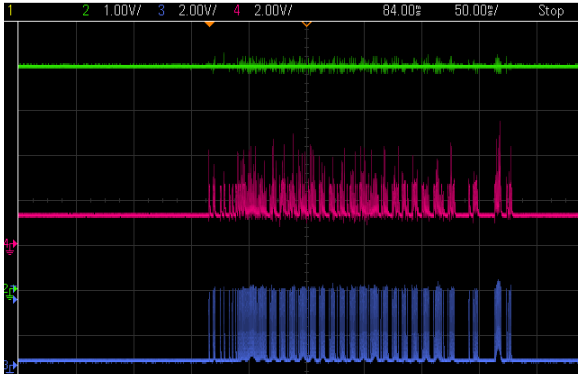
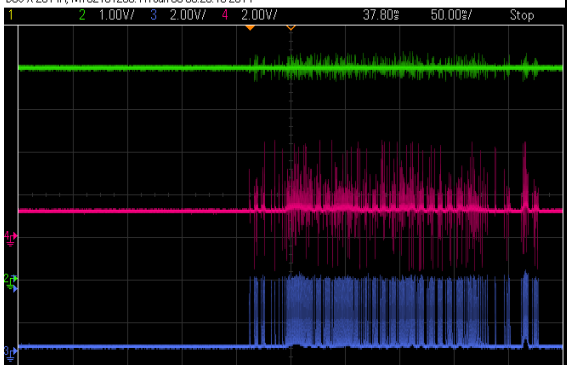
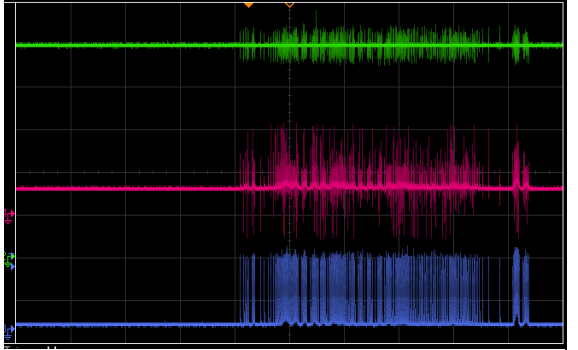
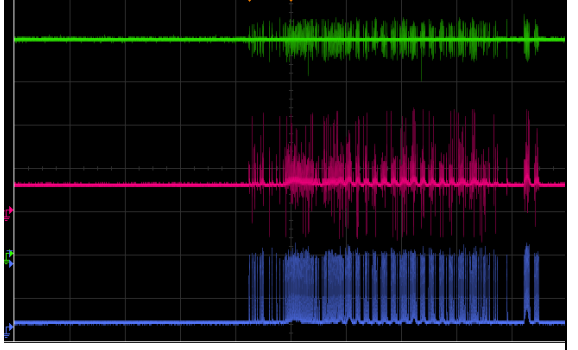
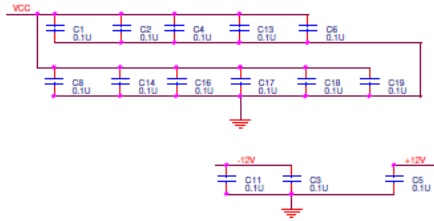


## Analysis of 3 alternative 5MHz Oscillators

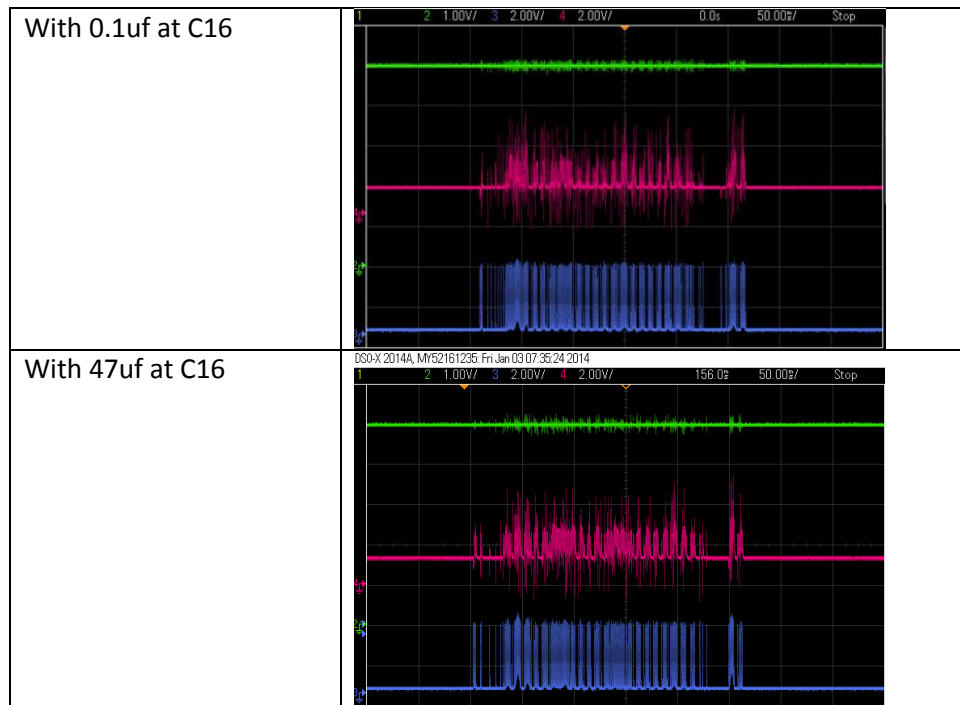
MXO45T-2C	
SGR-8002dB-PCM (TTL)	
SGR-8002dB-PHB (CMOS)	
ECS-P145-ANX	

### ESR and Induced Noise and Increased capacitive effects

The TGC only has 1.1uF of capacitance which are spread out among the semi conductors to dissipate filtering and storage of charge on the 5V line The TGC schematic total capacitance is as follows below. Of course, capacitor placement is different to offset ESR, each appears to be properly placed across vcc/gnd



A side by side comparison is below. What is funny is that it almost looks worse with the 47uF on the 5V alone and this really should not be possible since the capacitor is just filtering and providing extra storage of charge. The single is somewhat improved with the increased capacitance on the -12 and +12V lines



With  
C16=47uF (+5V)  
C11=47uF (-12v)  
C5 = 47uF (+12V)

