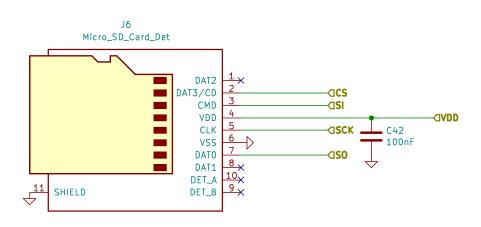


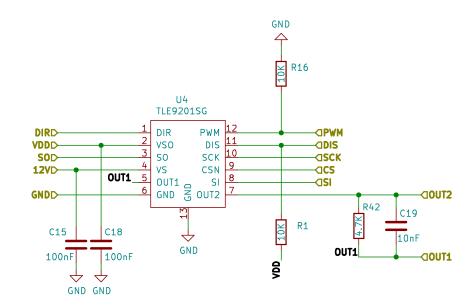
+ MCP6004

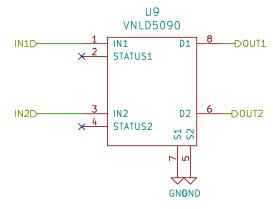
10K R76 10K R77 10K R78

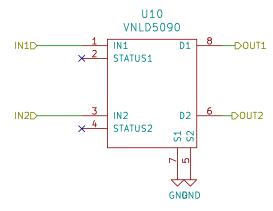
6.8K

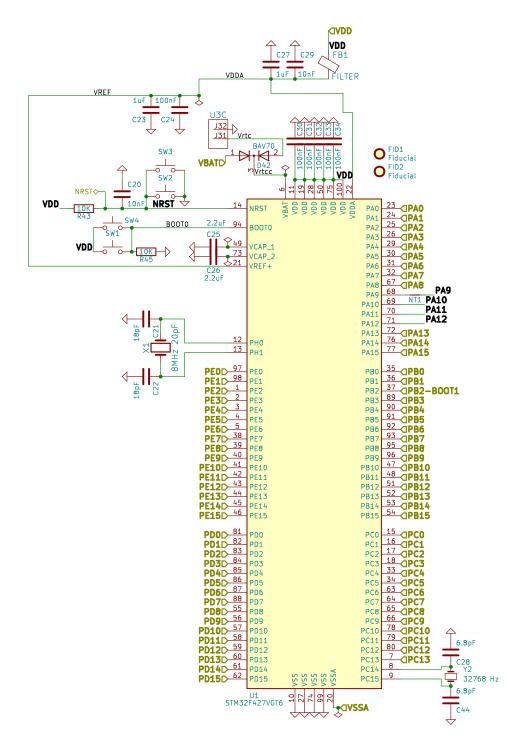
6.8K R74 6.8K R75







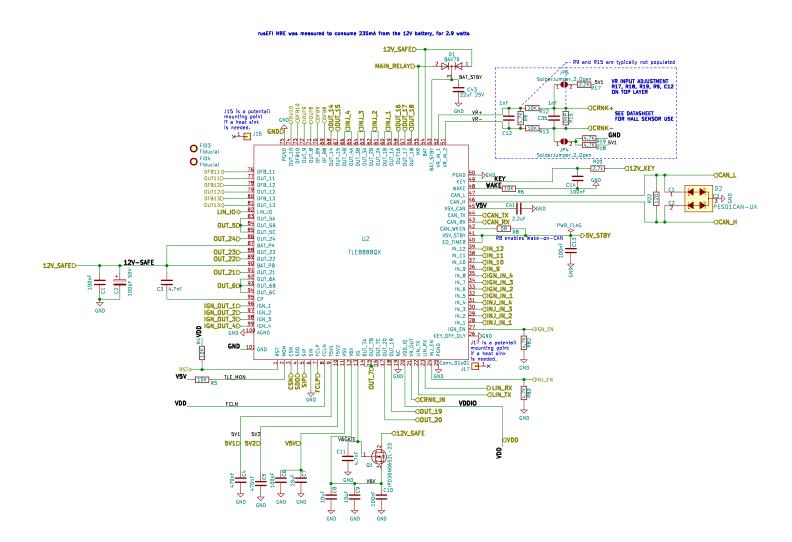




http://www.crystek.com/documents/appnotes/Plerce-GateIntroduction.pdf PCB per predictions with SaturnPCB has less then 3.5pF traces, STM32 pins assumed 5pF ESR = 800mms max???

Rf = 2meg could be between 1meg and 10meg.
Cload should be 8pf per XTAL datasheet
Cload = ([Cin+C1][C2+Cout])/(Cin+C1+C2-Cout)+PCBstray
Cload = ([5+4,7][4,7+5])/(5+4,7+4,7+5)+3.5= 8.35pF
C1=C2=C166=C167 = 4,7pF
Rs = 1/(2piFC2) = 1/(2*pi*8MHz*4.7pF) = 4.2ohms.

C36 C39 22uF 25V 3.3v **JVDD** U5 LM1117-3.3 5VD 5V 3 USB bulk head connector USB UB-20PMFP-LC7002 USB power LED-GREEN D14 Cover / Cap CAP-WADMLP_ _ 5٧ 2.2k **1**/2 USB_B_Micro 1 USB_ID 2 USB_D-3 USB_D+ 4 Vbus PA9 PA12 USB_D+ PA11 USB_D-PA10 • 2 GND shield D16 C37 SRV05-4 R47 **USB ESD protection** NRST 10 9 SWDIO PA13
GND 8 7 GND
SWIM SWO 6 5 5 SCK PA14
VDD 44 3 VDD 3.3V
5V_2 1 5V U3G NRSTJ210 J209SWDIO GNDJ208 J207GND "SWOJ206 J205SCK UVDDJ204 J203VDD 5VJ202 J2015V SWD SWO 6 GND 5 SCK 4 NRST 3 TC2030 SWDIO 2



6 channel high / low side driver

