

OC_ADJ - OC determined by comparing low side fet Vds and OC_ADJ input. OC_ADJ is set to DVdd to disable overcurrent detection.

CP1 and CP2 - Gate drive charge pump. Internal TPS54160 is set to output 5V, charge pump doubles that to 10V@30mA for gate drive.

REF - Reference voltage to set output of shunt amplifiers with a bias voltage which equals to half of the voltage set on this pin. Connect to ADC reference in microcontroller.

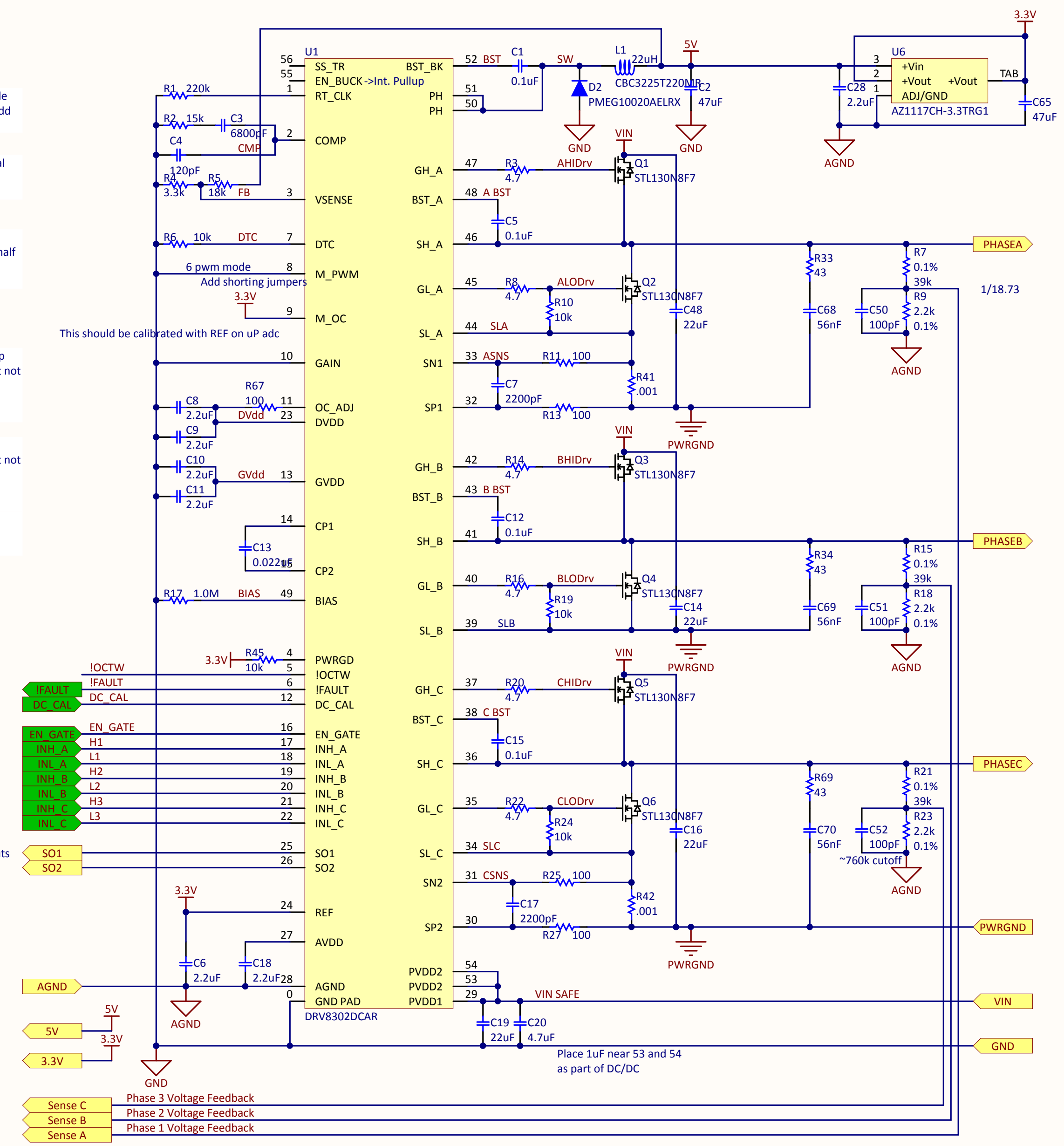
DVDD - Internal 3.3-V supply voltage. DVDD cap should connect to AGND. This is an output, but not specified to drive external circuitry.

AVDD - Internal 6-V supply voltage, AVDD cap should connect to AGND. This is an output, but not specified to drive external circuitry.

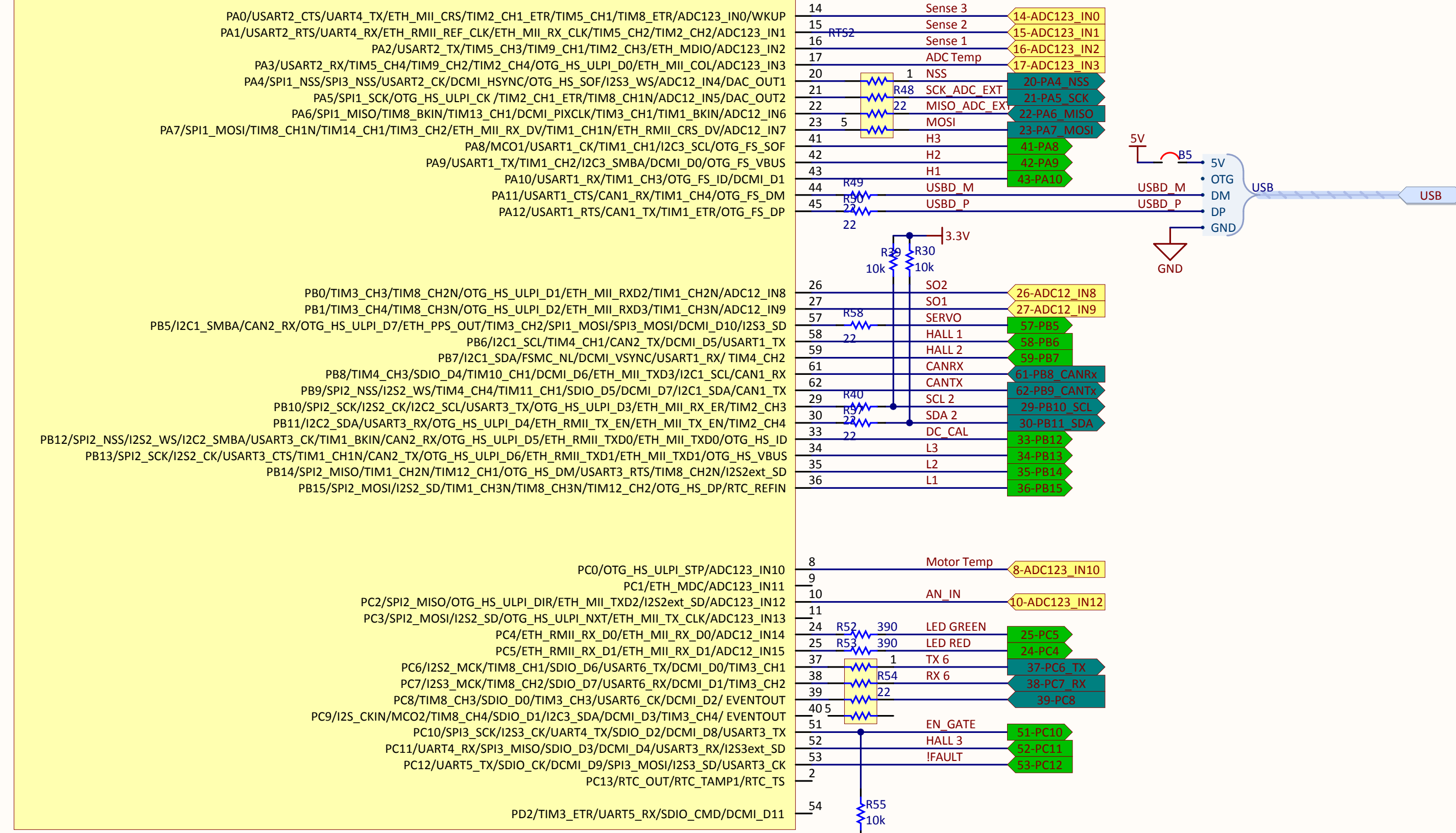
GAIN - LOW: 10V/V, HIGH: 40V/V
 Total gain is $.001 \times 10 = .01 \times I_p$
 $V_o = I_p \times .01 + V_{ref}/2$

Enable Gate Drive

Current Amp Outputs

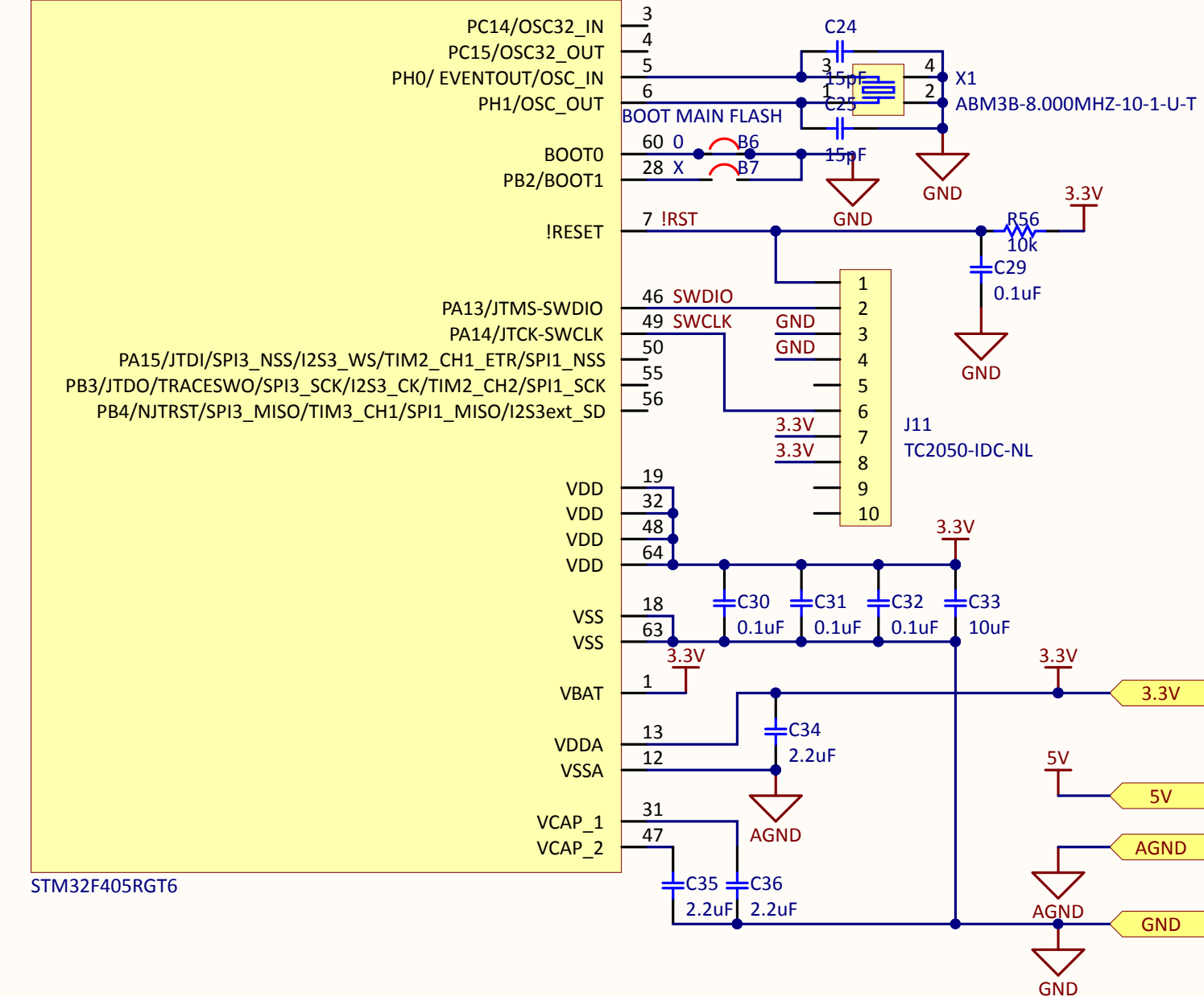


U3A



STM32F405RGT6

U3B



STM32F405RGT6

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	Drawn	NJW	1/18/2018	Dwg #: SM-1202
	Checked	NJW		Revision: A
	Mfg Appr			Project: ROV
	Special Appr			Page: 3 of 3

