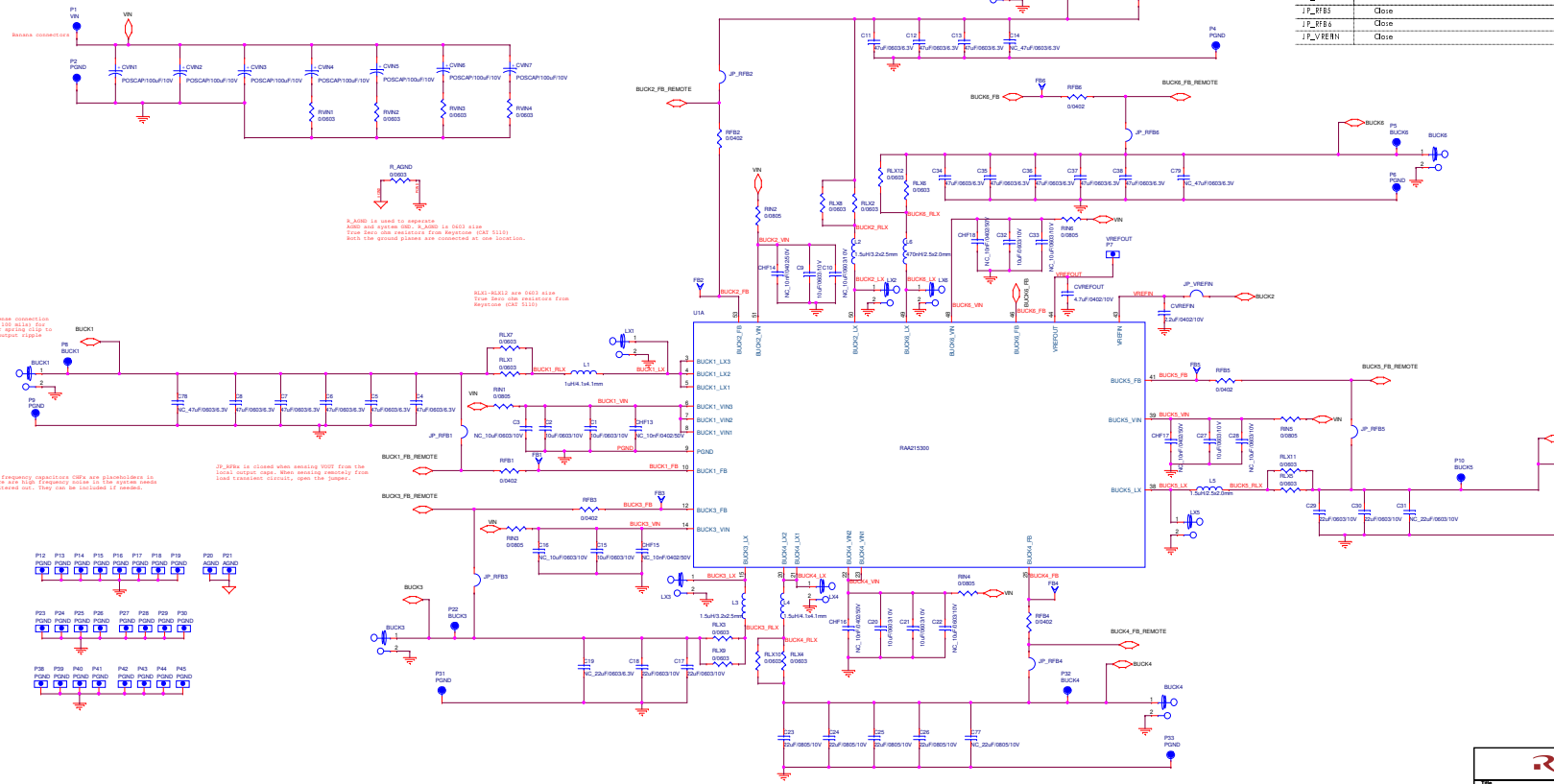


Buck regulators

There are total of 6 buck regulators. Each buck has a series resistor RINx for measuring the input current, and RLXx for measuring the inductor current.

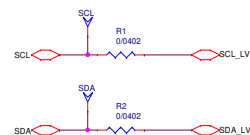


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WD_LDO1OUT to HD_LDO1OUT and WD_LDO1VIN to HD_LDO1VIN are used for connection to external board for PSRR measurement. Do NOT close these headers.

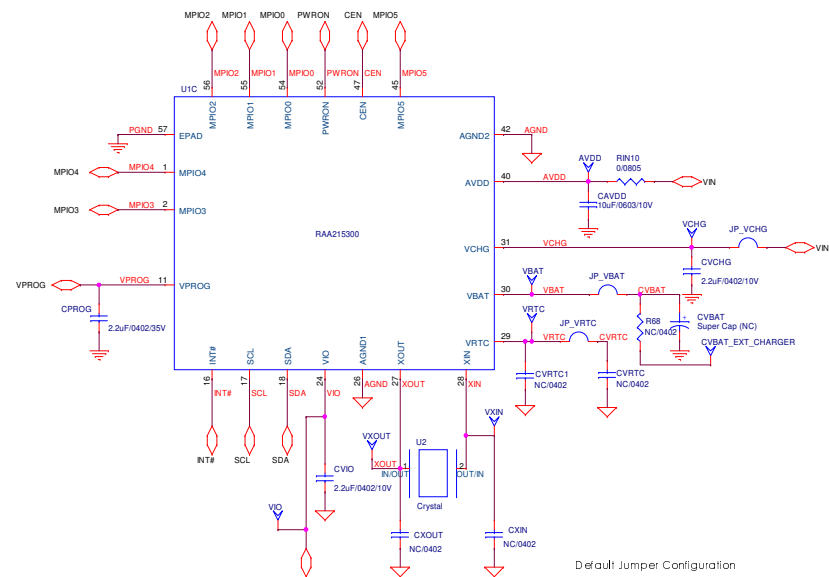


Connection to the I2C level shifter circuit

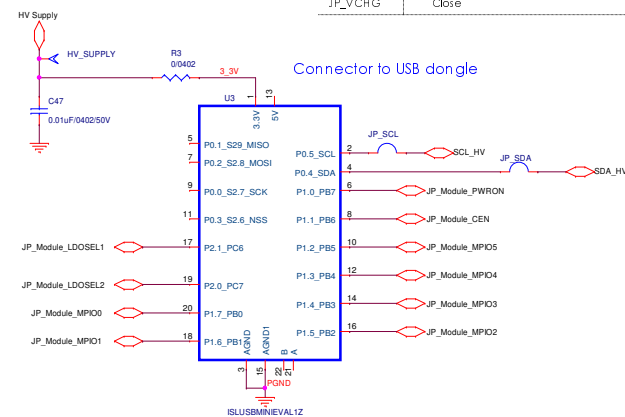
By default I2C pullup is connected to one of the buck supplies. If the buck regulator is disabled, it can also be configured to connect to external 1.8V supply

By default I2C pullup is connected to one of the buck supplies. If the buck regulator is disabled, it can also be configured to connect to external 1.8V supply

I2C Level Shifter (convert the 3.3V supply from USB dongle to a lower supply voltage)



JP_SCL	Close
JP_SDA	Close
JP_VRTC	Open
JP_VBAT	Close
JP_VCHG	Close



External Control Circuitry for Digital Pins

Digital pins summary

LDO_SEL1	Select between two voltages settings for LDO1
LDO_SEL2	Select between two voltages settings for LDO2
CEN	Chip Enable
PWRON	Regulator output enable
INT#	Interrupt output
MPIOx	Active LOW or HIGH, Open drain output or full CMOS output. Can be configured to be specific function shown in the table below or general purpose I/O

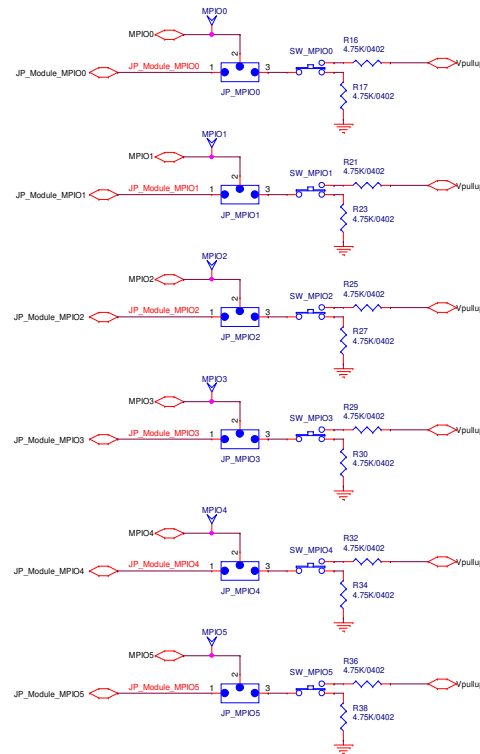
MPIOx functions

MPIO0	MPIO1	MPIO2	MPIO3	MPIO4	MPIO5
PRST#(O)	PRST#(O)	PGOOD(O)	SLEEP#(I)	WDT_RST#(I)	CRST_IN#(I)
PRST#(O)	PRST#(O)	VR_EN(O)	VR_PG(I)	WDT_RST#(I)	CRST_IN#(I)
PRST#(O)	PRST#(O)	VR_PG(I)	VR_EN(O)	WDT_RST#(I)	CRST_IN#(I)
PRST#(O)	RTC_RST#(O)	S2KHZ_CLK(O)	SLEEP#(I)	VR_EN(O)	VR_PG(I)

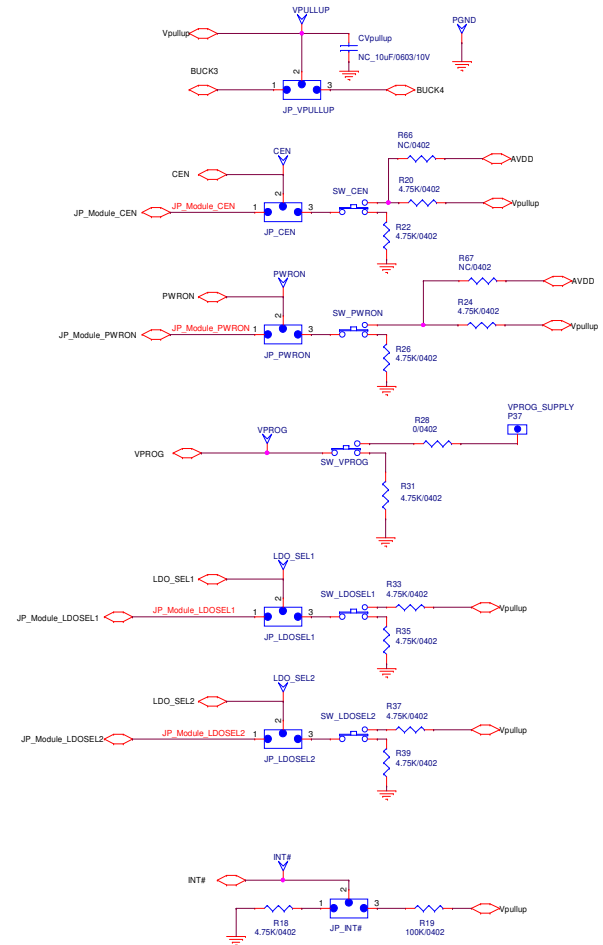
Default Jumper Configuration

JP_MPIO0	Jump 2-3
JP_MPIO1	Jump 2-3
JP_MPIO2	Jump 2-3
JP_MPIO3	Jump 2-3
JP_MPIO4	Jump 2-3
JP_MPIO5	Jump 2-3
JP_VPULLUP	Open
JP_CEN	Jump 2-3
JP_PWRON	Jump 2-3
JP_LD0SEL1	Jump 2-3
JP_LD0SEL2	Jump 2-3
JP_INT#	Jump 2-3

MPIOx pin can be pulled up HIGH or pulled down LOW when configured as open drain output or input. When configured as push-pull output, leave the jumper open.



The Vpullup needs to be either VIO or an external 1.8V supply.



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For more information about load transient circuit, review Evaluation Board Manual

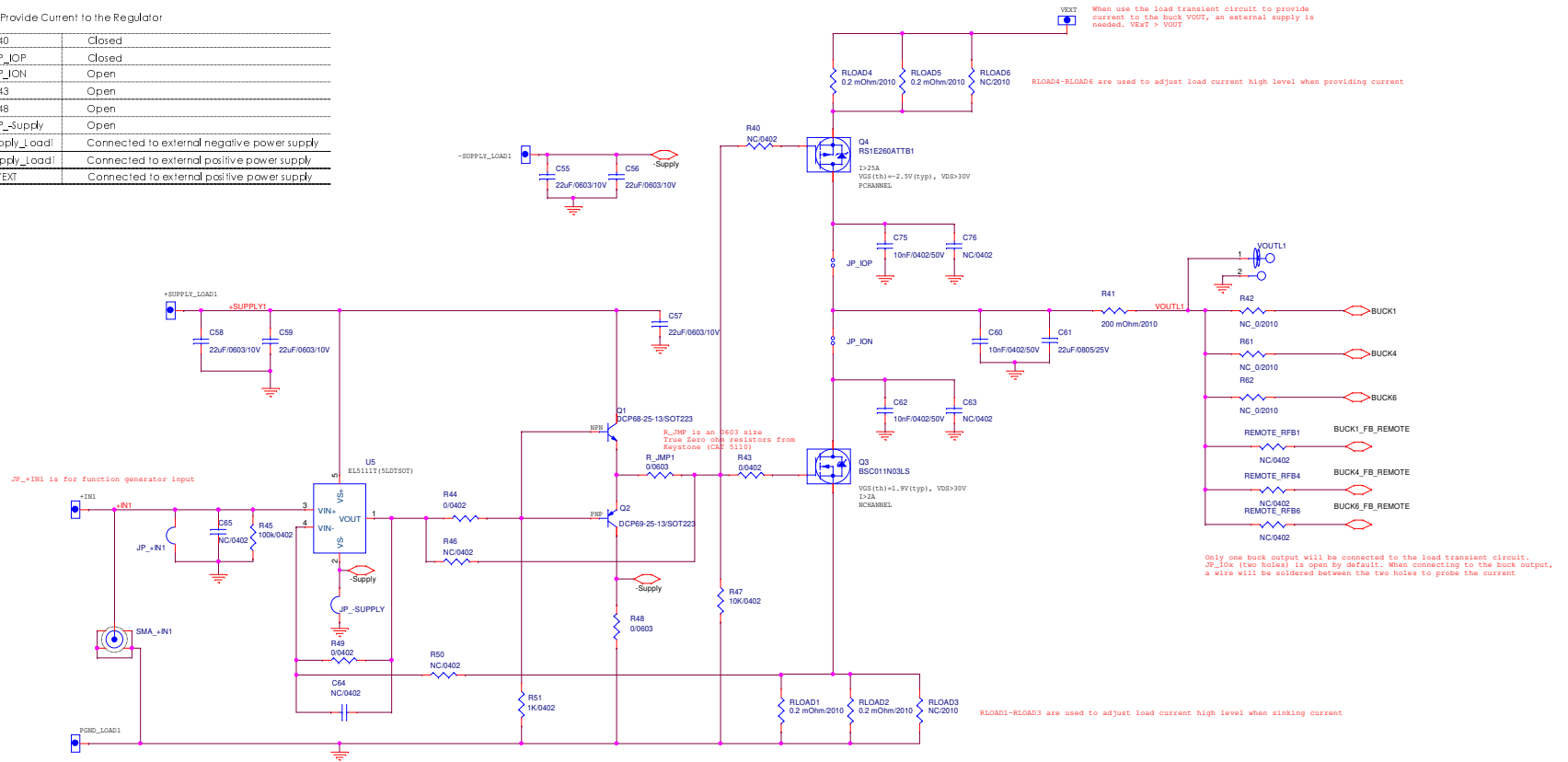
To Draw Current from the Regulator

R40	Open
JP_IOP	Open
JP_ION	Closed
R43	Closed
R48	Closed
JP_SUPPLY	Closed
-Supply_Load1	No connect
+Supply_Load1	Connected to external positive power supply
VEXT	No connect

To Provide Current to the Regulator

R40	Closed
JP_IOP	Closed
JP_ION	Open
R43	Open
R48	Open
JP_SUPPLY	Open
-Supply_Load1	Connected to external negative power supply
+Supply_Load1	Connected to external positive power supply
VEXT	Connected to external positive power supply

Load Transient Circuit for Buck1, 4, 6

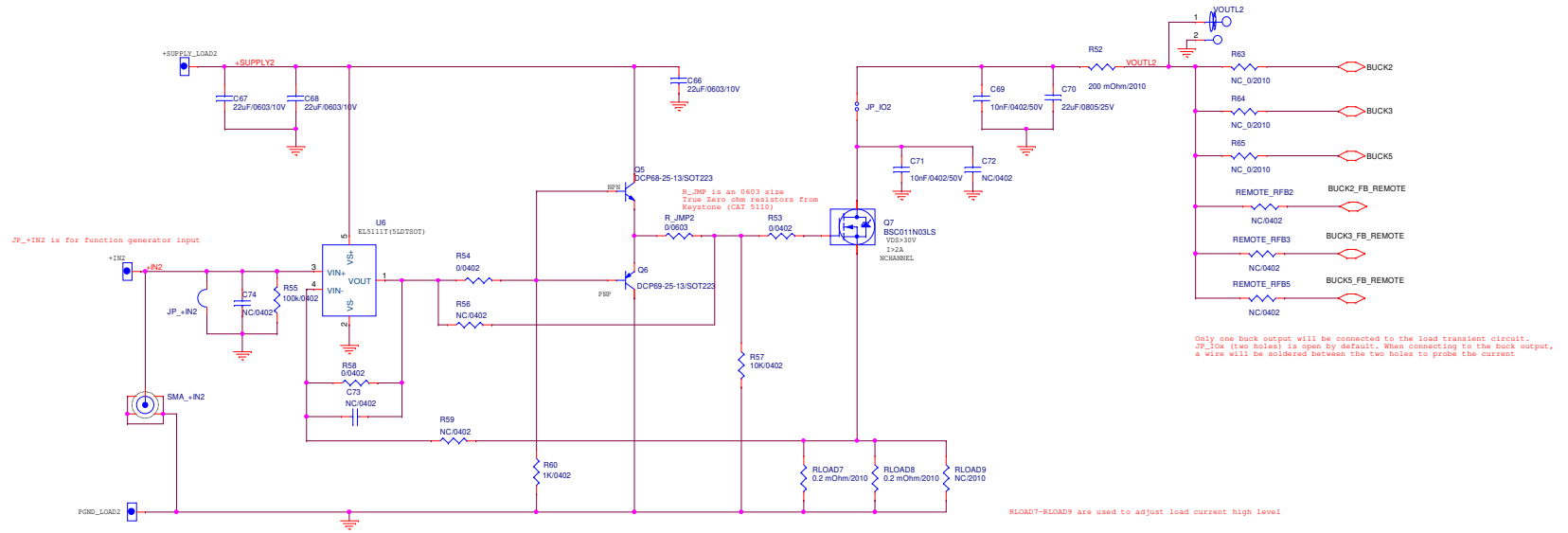


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Load Transient Circuit for Buck2, 3, 5



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