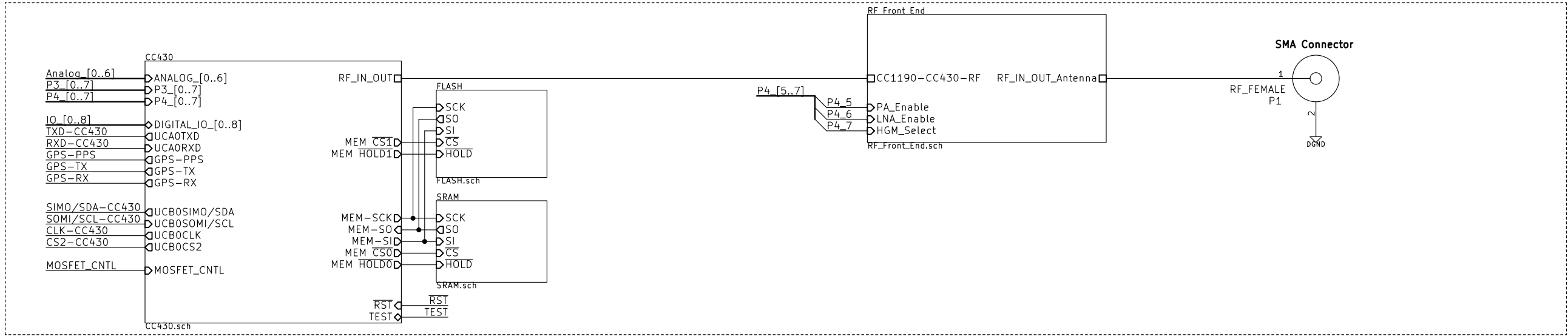
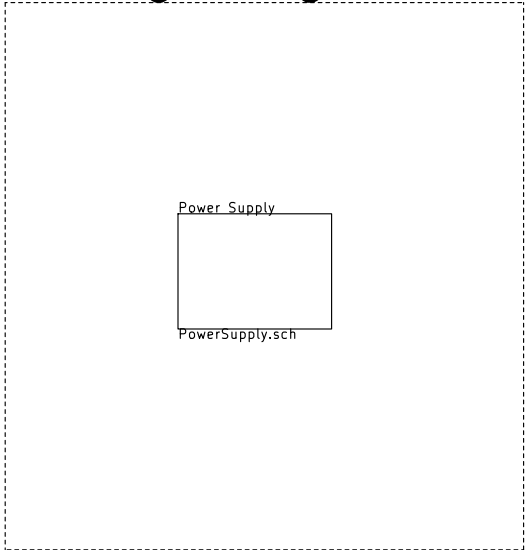


FaradayRF Wireless Module

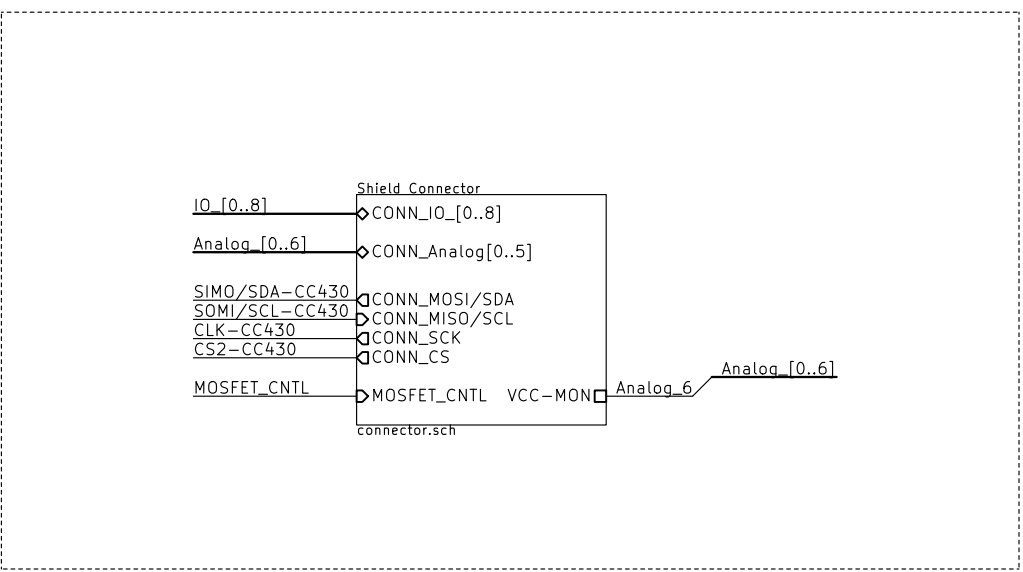
RF & Control Section



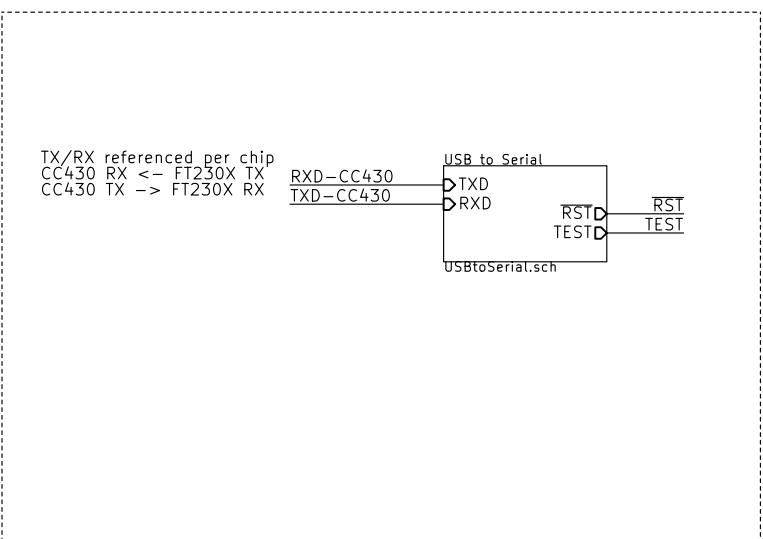
Voltage Regulator



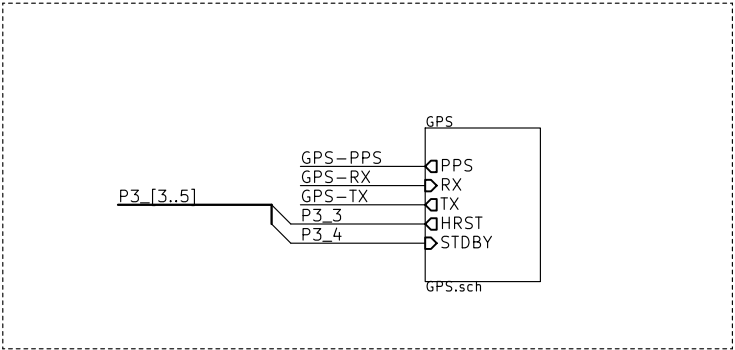
Connectors



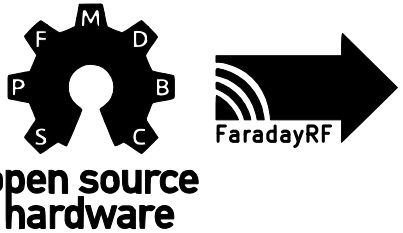
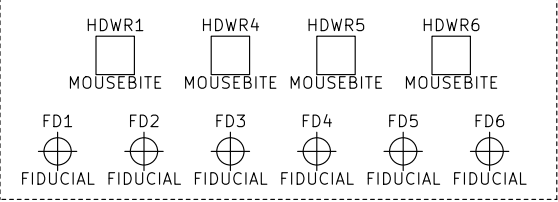
USB <--> UART



GPS Receiver



Manufacturing

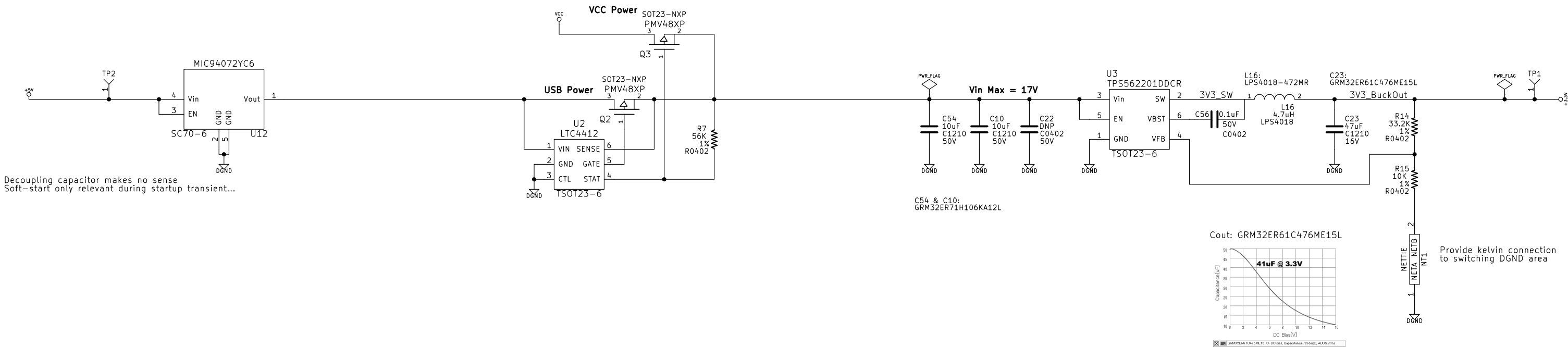


TAPR OHL V1.0: http://www.tapr.org/OHL		
Bryce Salmi (KB1LQC), Brenton Salmi (KB1LQD)		
www.FaradayRF.com		
FaradayRF		
File: Faraday.sch		
Sheet: /		
Title: Faraday Wireless Node		
Size: B	Date: 15 nov 2016	Rev: D1
KiCad E.D.A.		Id: 1/11

USB Soft-Start

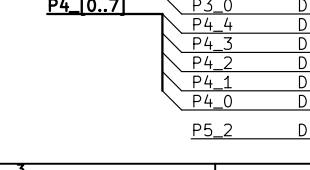
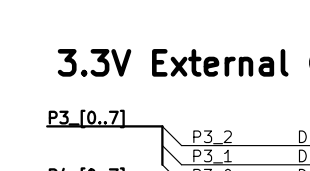
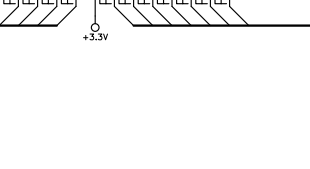
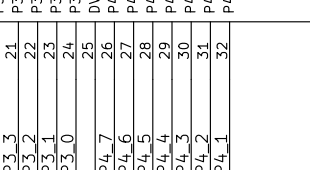
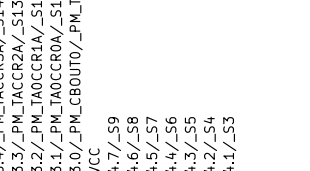
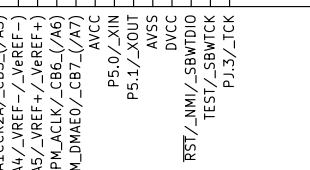
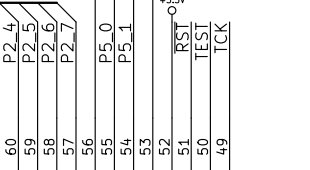
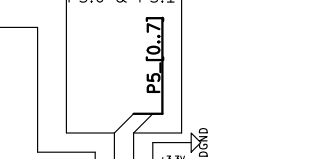
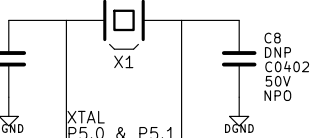
Ideal Diode Controller

3.3V Buck Regulator – 0.5A

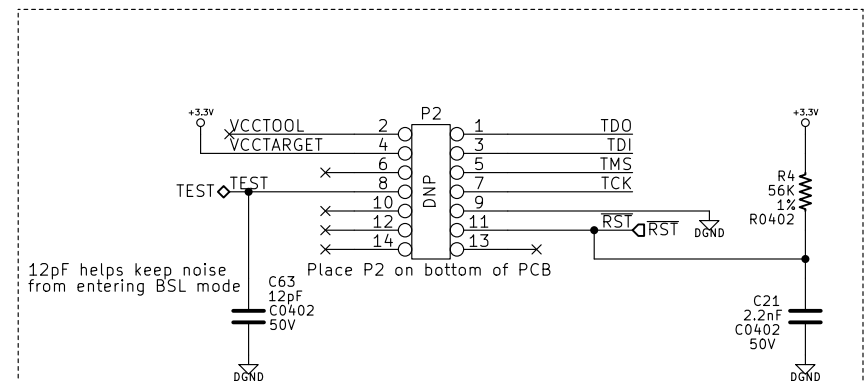


32.768KHz Watch Crystal

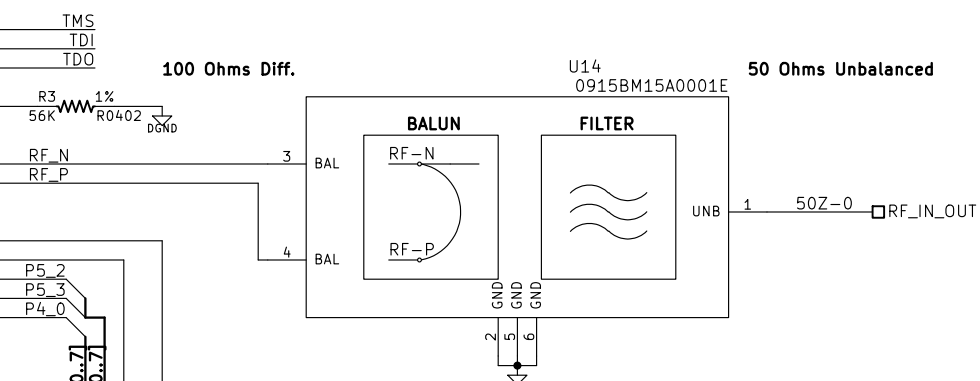
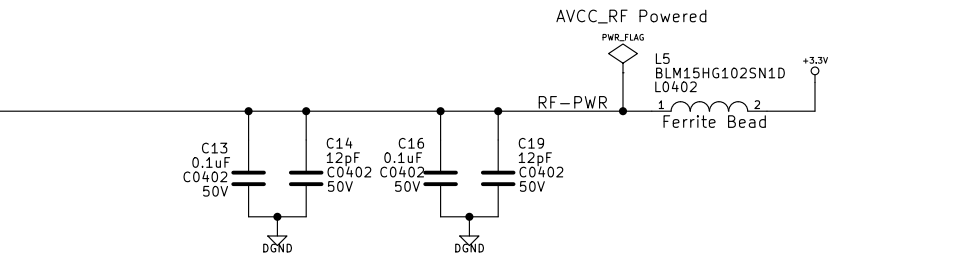
ST3215SB32768H5HPWAA



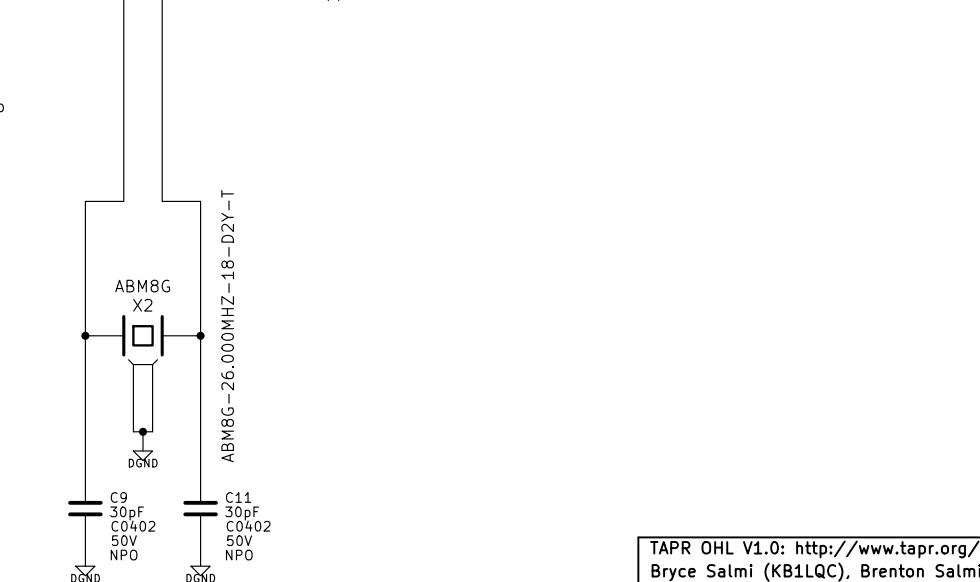
JTAG



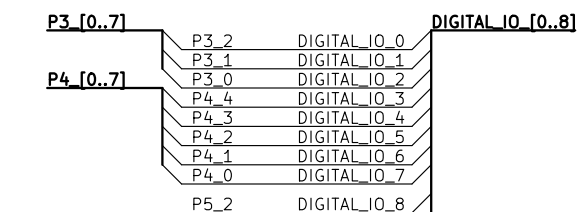
http://processors.wiki.ti.com/index.php/File:JTAG_4_wire_pinout.JPG

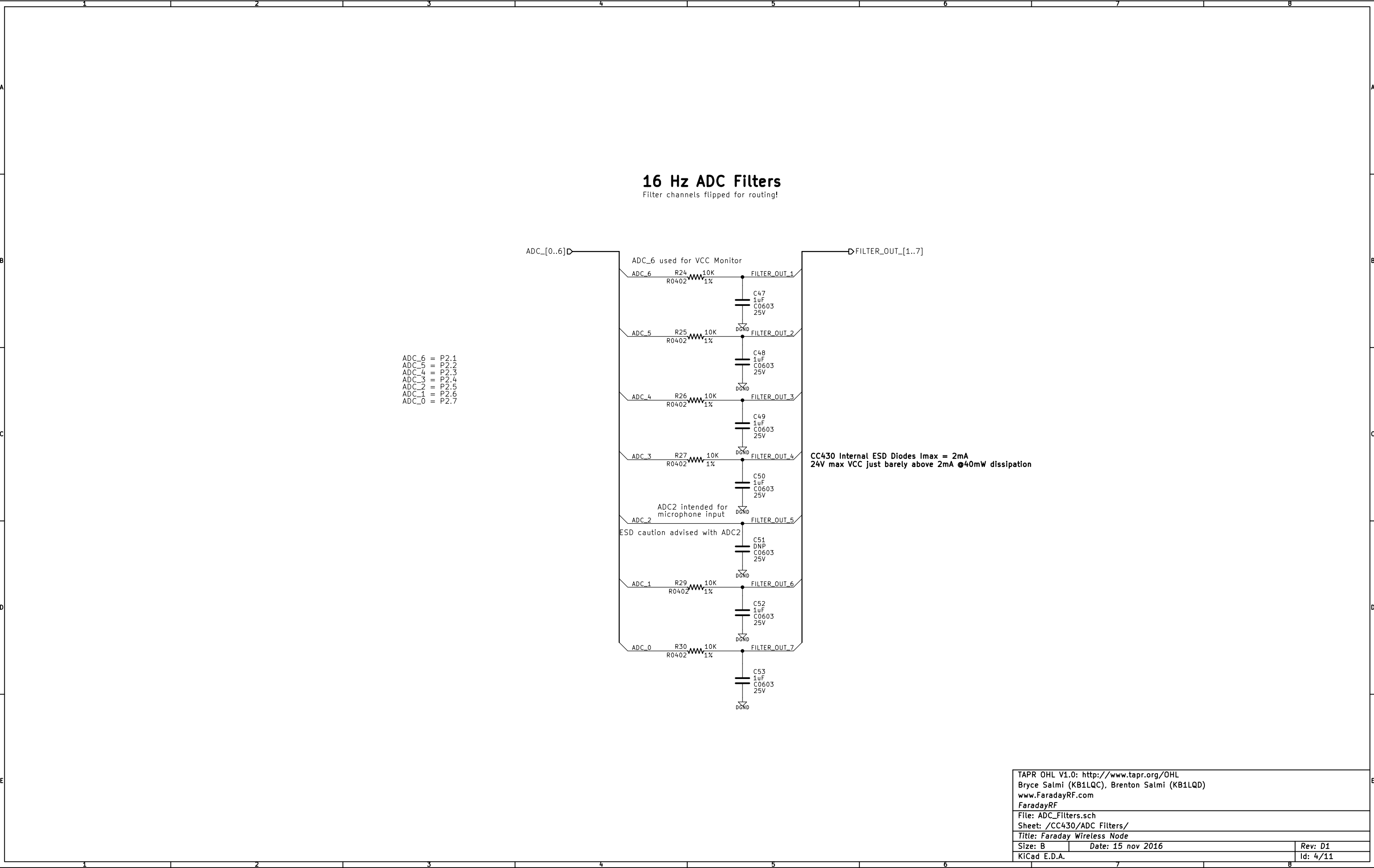


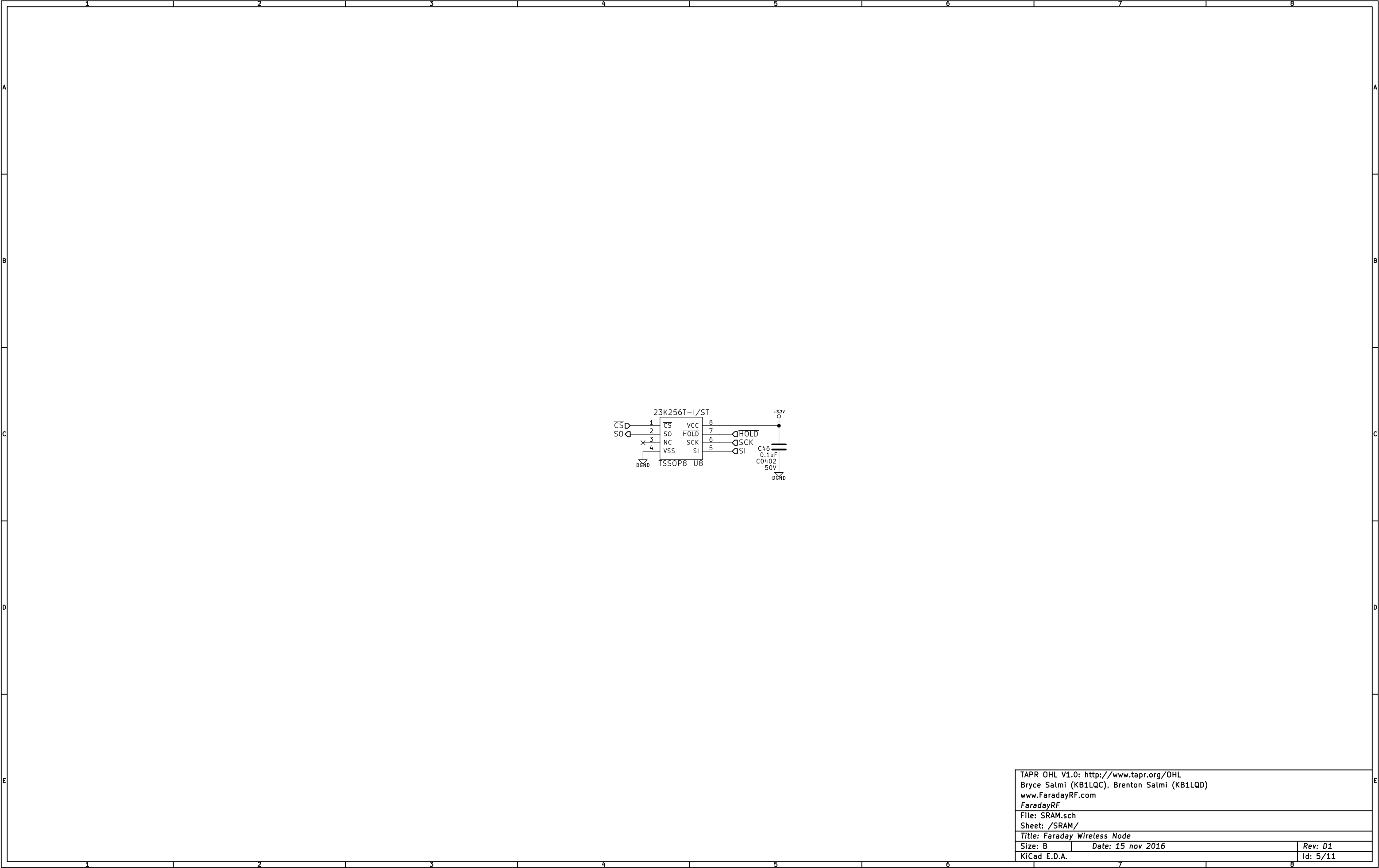
Application note for Balun/Filter is TI SWRA250A

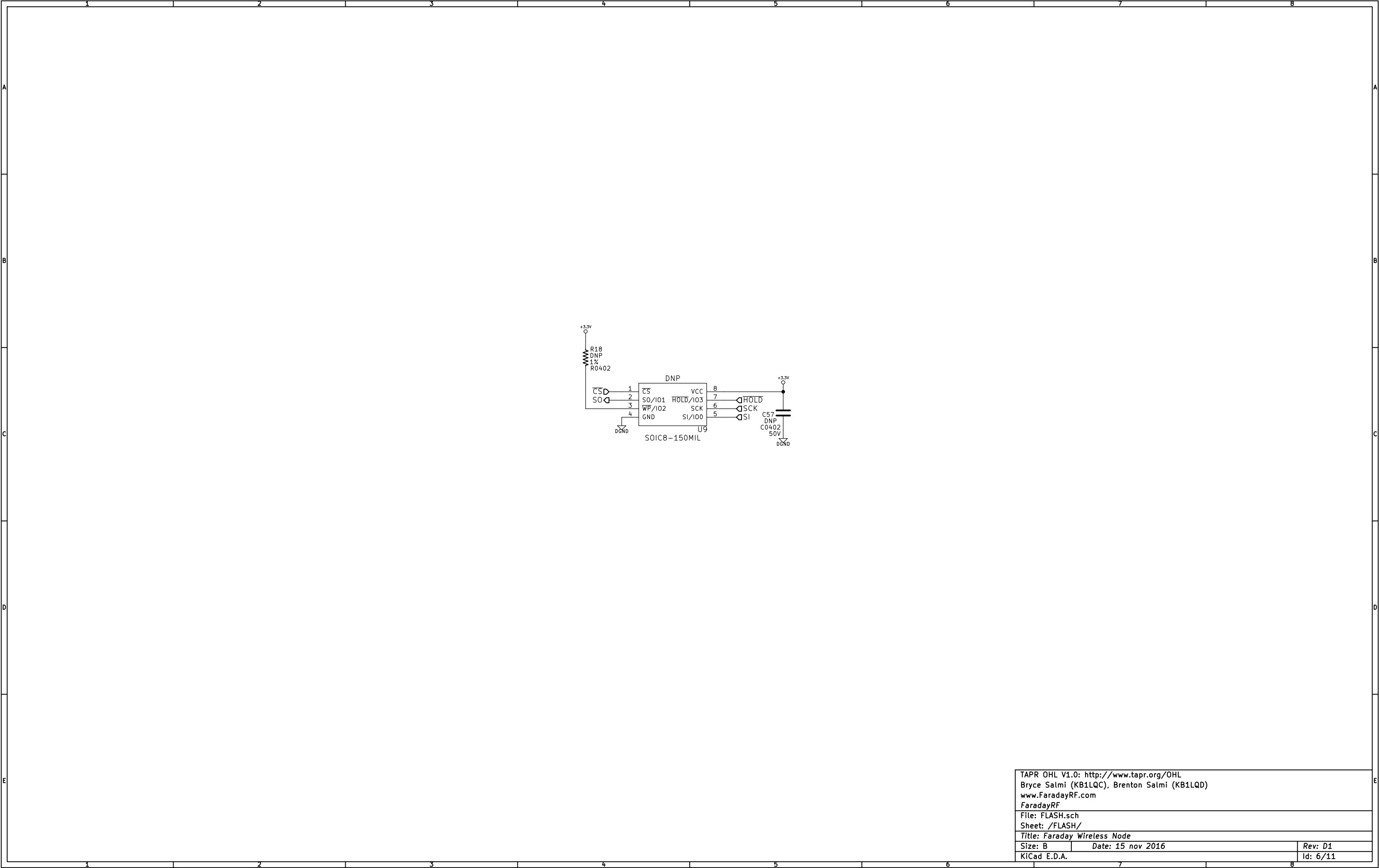


3.3V External GPIO Interface

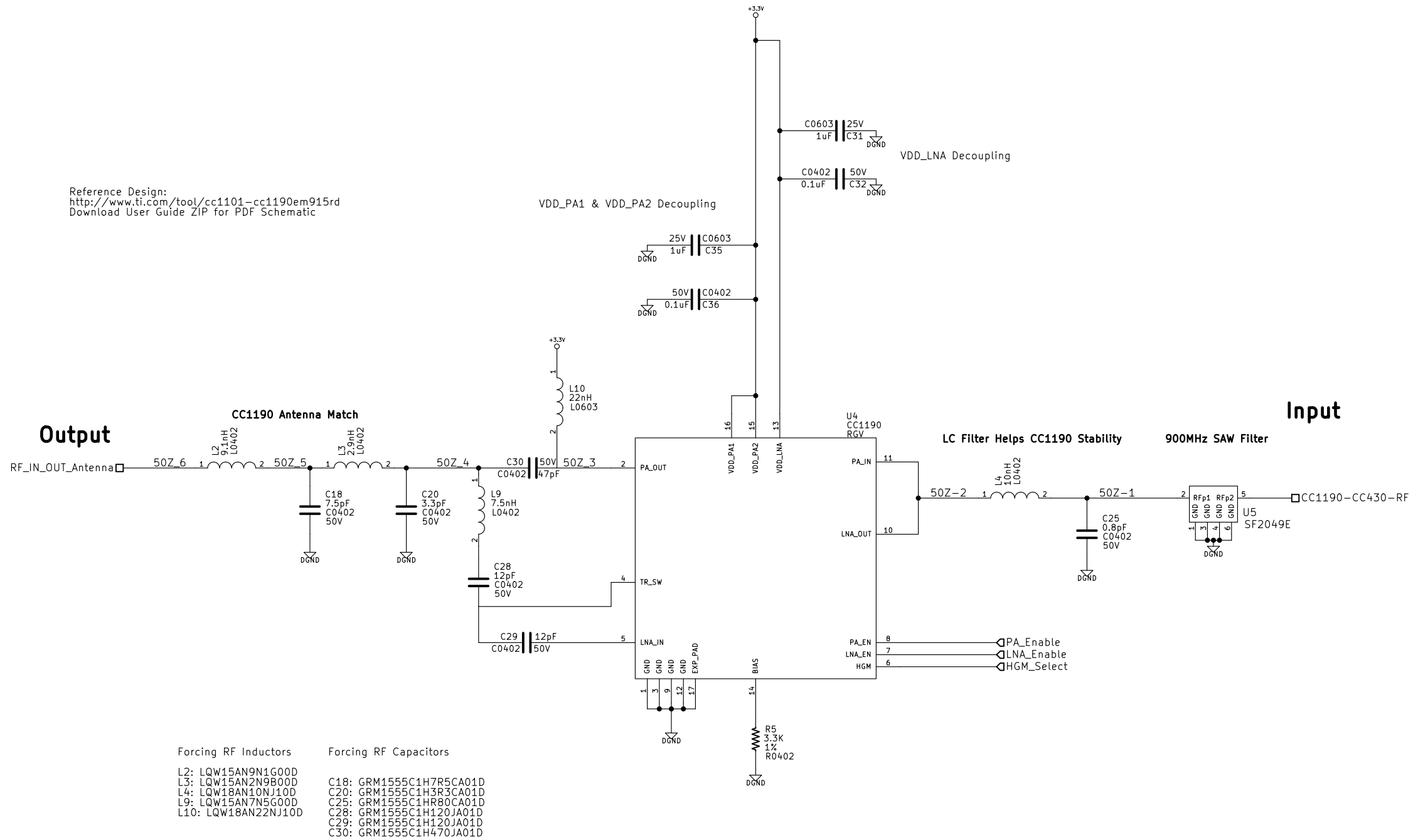


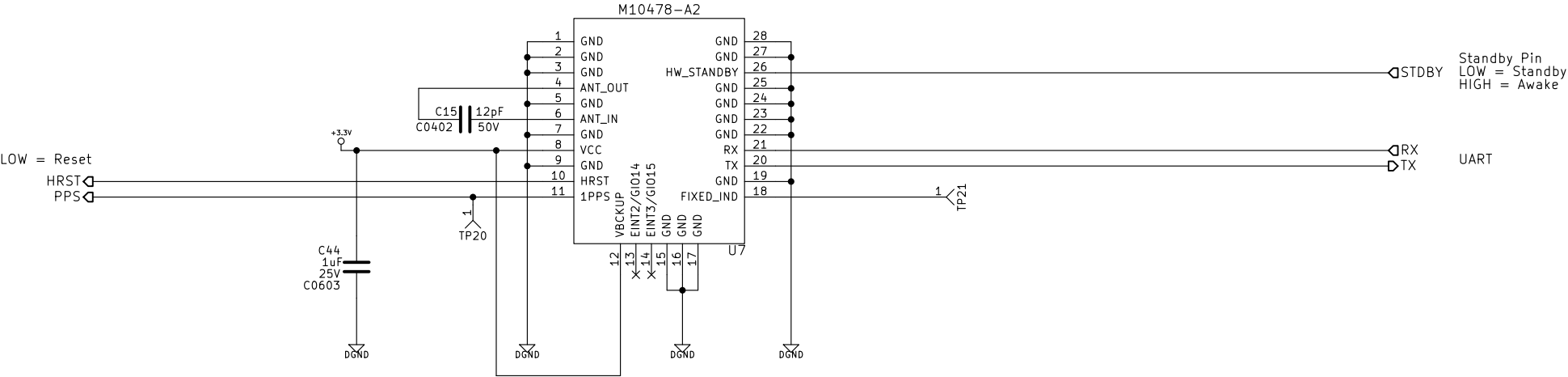




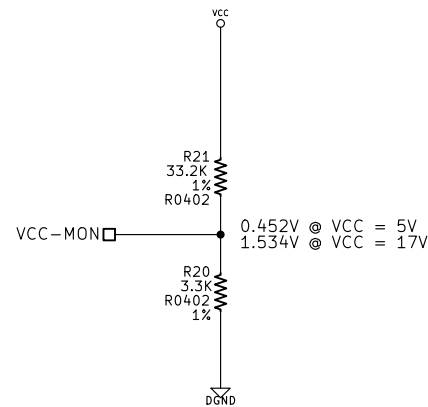


Reference Design:
<http://www.ti.com/tool/cc1101-cc1190em915rd>
Download User Guide ZIP for PDF Schematic

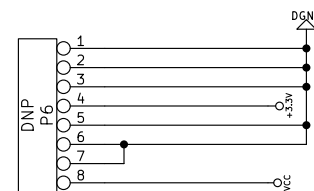




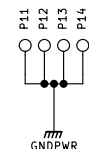
GPS can be DNP'd for cheap version w/ passives soldered
allowing for customer to buy GPS afterwards if needed



Power

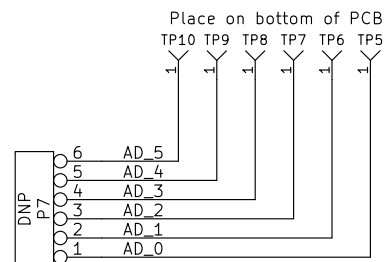


Mounting Holes 125 mil

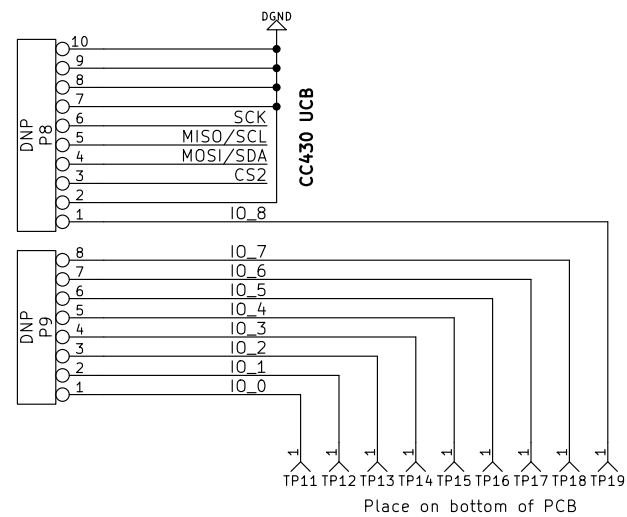


Connected to USB shield

Analog In



Digital



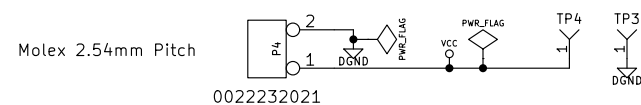
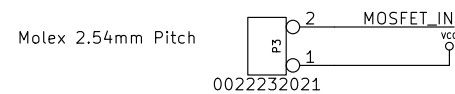
CONN_IO_[0..8] ↔ IO_[0..8]

CONN_Analog[0..5] ↔ AD_[0..5]

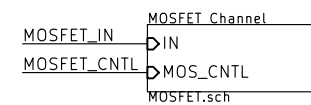
CONN_MOSI/SDA ↔ MOSI/SDA
CONN_MISO/SCL ↔ MISO/SCL
CONN_SCK ↔ SCK
CONN_CS ↔ CS2

MOSFET_CNTL ↔ MOSFET_CNTL

Ext. Power/MOSFET



Ground is driven



TAPR OHL V1.0: http://www.tapr.org/OHL		
Bryce Salmi (KB1LQC), Brenton Salmi (KB1LQD)		
www.FaradayRF.com		
FaradayRF		
File: connector.sch		
Sheet: /Shield Connector/		
Title: Faraday Wireless Node		
Size: B	Date: 15 nov 2016	Rev: D1
KiCad E.D.A.		Id: 10/11

