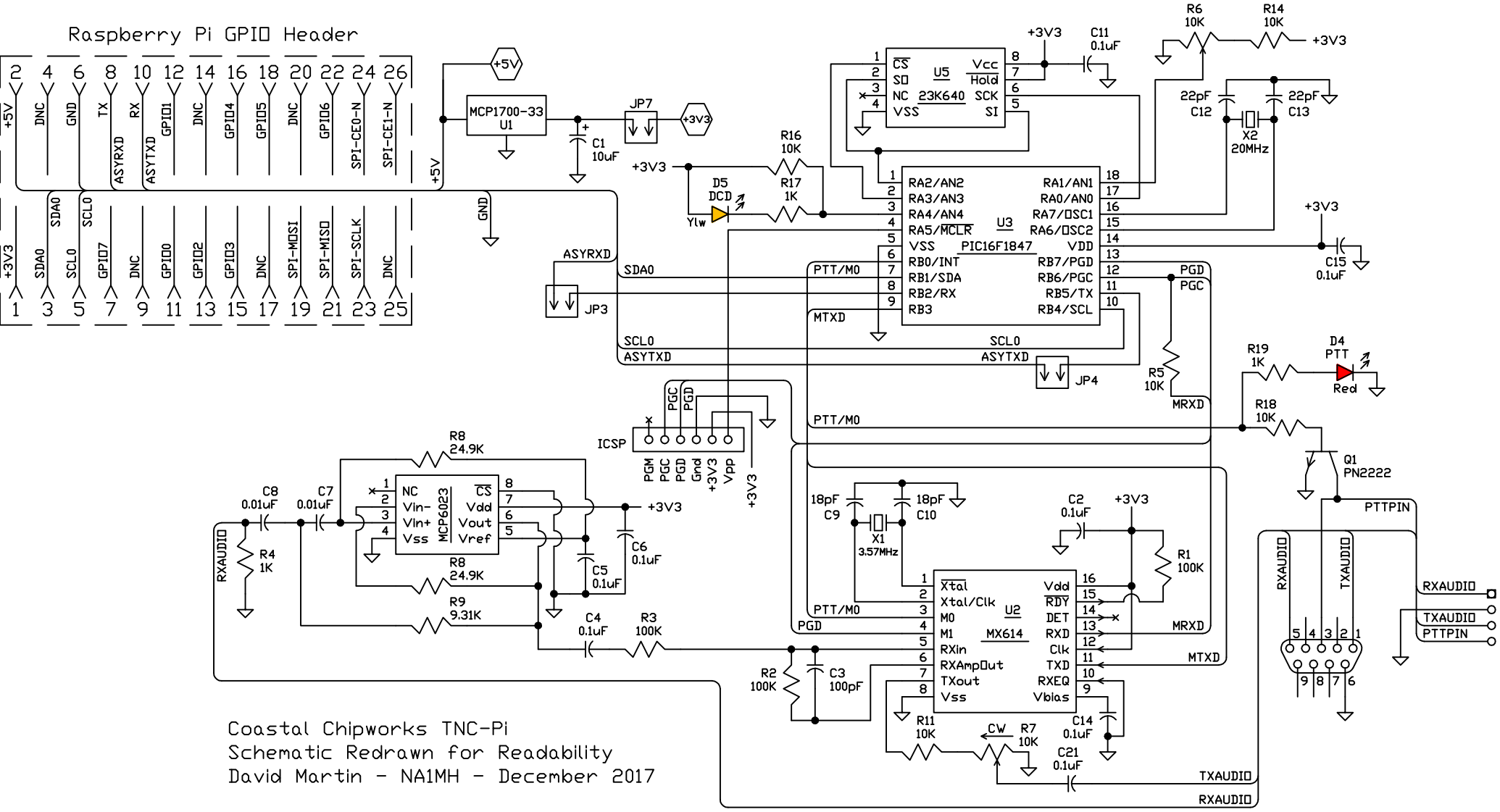

Raspberry Pi GPIO Header
2 4 6 8 10 12 14 16 18 20 22 24 26
+5V DNC GND TX RX GPIO1 DNC GPIO4 GPIO5 DNC GPIO6 SPI-CE0-N SPI-CE1-N
ASYRXD ASYTXD
1 3 5 7 9 11 13 15 17 19 21 23 25
+3V3 SDA0 SCL0 GPIO7 DNC GPIO0 GPIO2 GPIO3 DNC SPI-MOSI SPI-MISO SPI-SCLK DNC
SDA0 SCL0
+5V
MCP1700-33
U1
C1
10uF
JP7
+3V3
GND
D5
DCD
Ylw
R16
10K
R17
1K
U5
23K640
C11
0.1uF
R6
10K
R14
10K
22pF
C12
22pF
C13
X2
20MHz
U3
PIC16F1847
RA2/AN2
RA3/AN3
RA4/AN4
RA5/MCLR
VSS
RB0/INT
RB1/SDA
RB2/RX
RB3
RA1/AN1
RA0/AN0
RA7/ISC1
RA6/ISC2
VDD
RB7/PGD
RB6/PGC
RB5/TX
RB4/SCL
C15
0.1uF
ASYRXD
SDA0
SCL0
ASYTXD
JP3
JP4
PTT/M0
MTXD
PGD
PGC
MRXD
R5
10K
R19
1K
D4
PTT
Red
R18
10K
Q1
PN2222
PTTPIN
ICSP
PGM PGC PGD Gnd +3V3 Vpp
R8
24.9K
C8
0.01uF
C7
0.01uF
MCP6023
NC Vin- Vin+ Vss
CS Vdd Vout Vref
C6
0.1uF
C5
0.1uF
R4
1K
RXAUDIO
R9
9.31K
C4
0.1uF
R3
100K
18pF
C9
18pF
C10
X1
3.57MHz
C2
0.1uF
R1
100K
U2
MX614
Xtal
Xtal/Clk
M0
M1
RXin
RXAmpOut
TXout
Vss
Vdd
RDY
DET
RXD
Clk
TXD
RXEQ
Vbias
R2
100K
C3
100pF
R11
10K
CW
R7
10K
C14
0.1uF
C21
0.1uF
TXAUDIO
RXAUDIO
5 4 3 2 1
9 8 7 6
Coastal Chipworks TNC-Pi
Schematic Redrawn for Readability
David Martin - NA1MH - December 2017