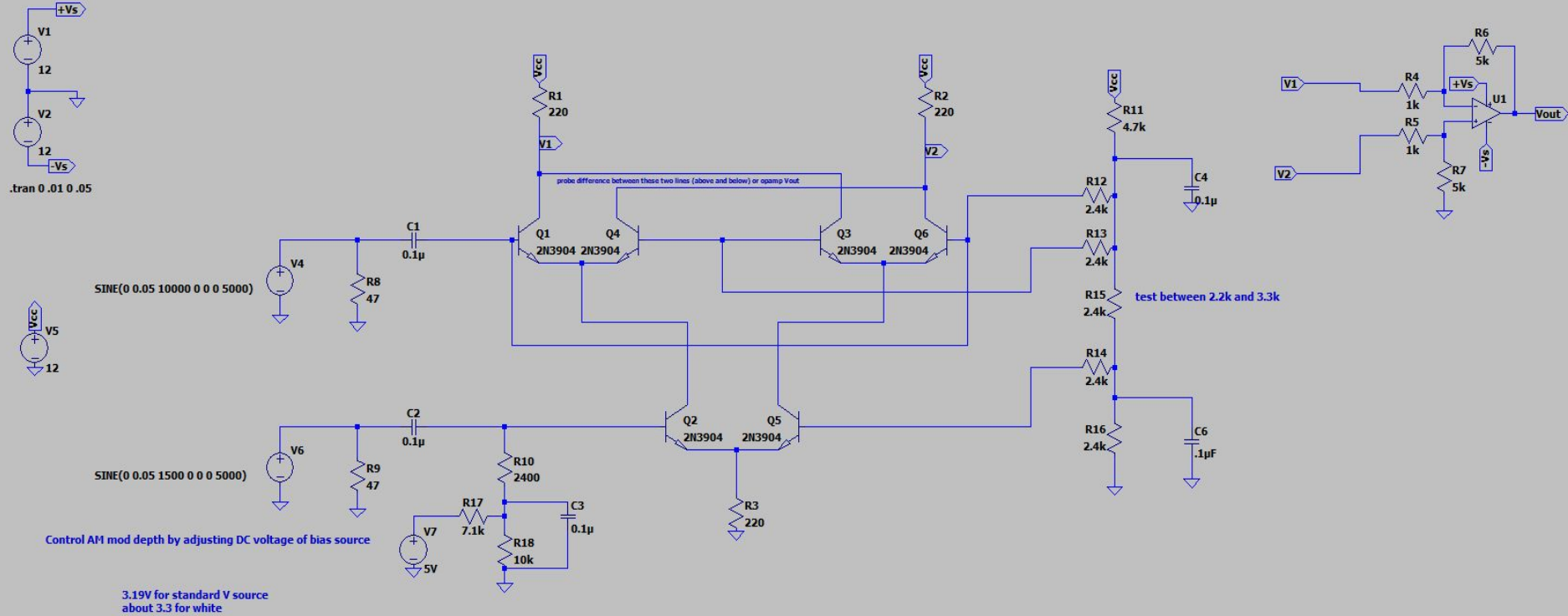
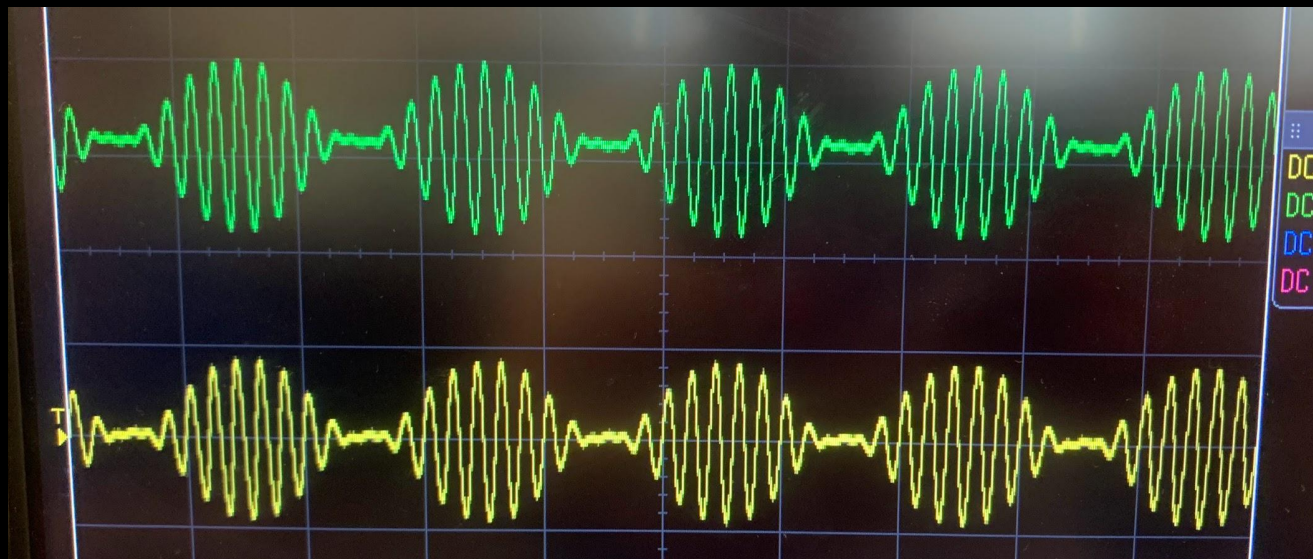
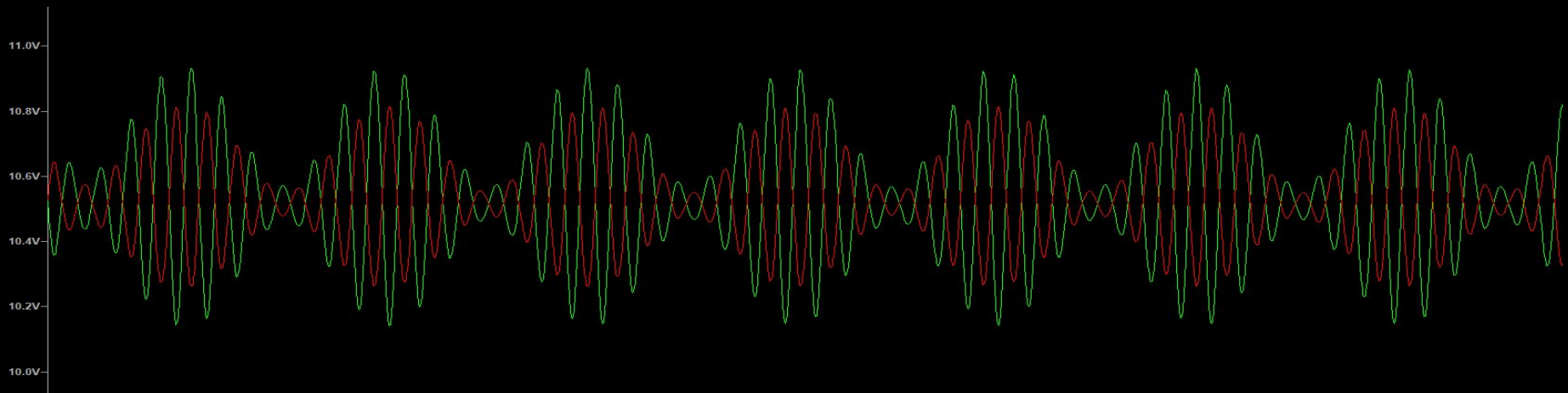


AM Radio Transmitter

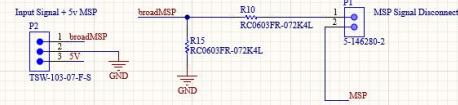
Thomas Rasa & Christian Cipolletta

Gilbert Cell Mixer + Diff Amp Output

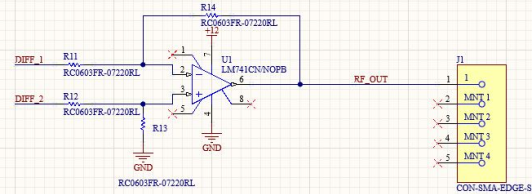




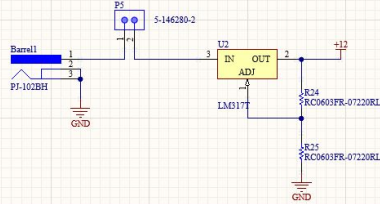
MSP Interface



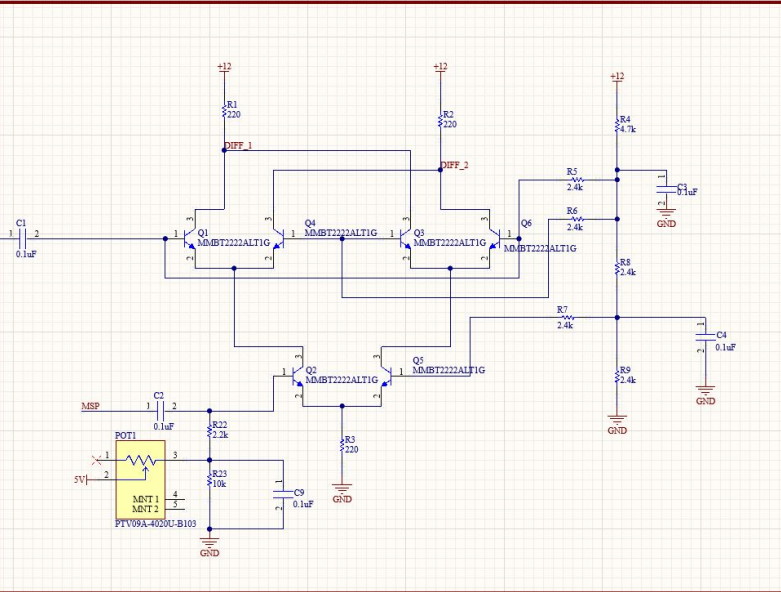
Diff Amp w/ RF Output



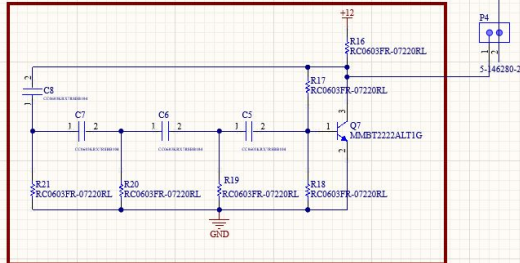
12V Power with Disconnect



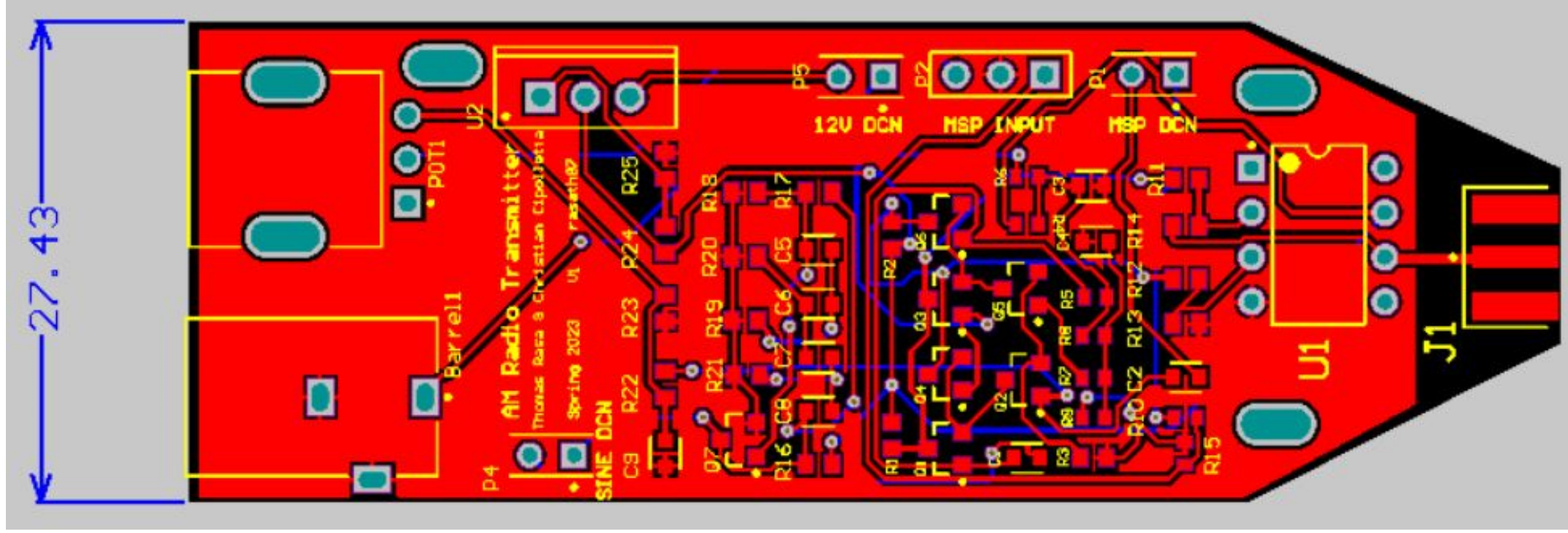
Signal Mixer



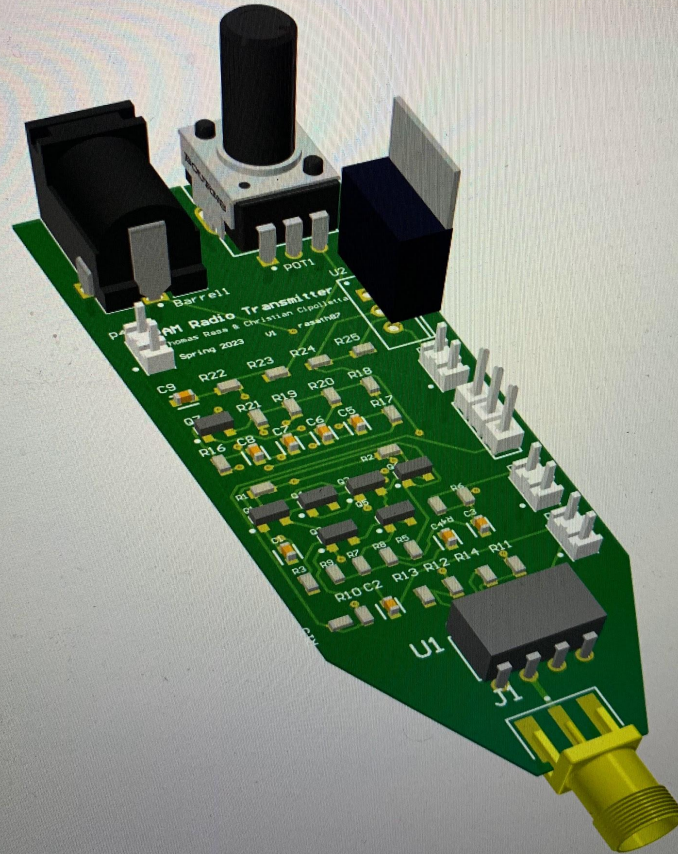
Sine Generator (Disconnectable)

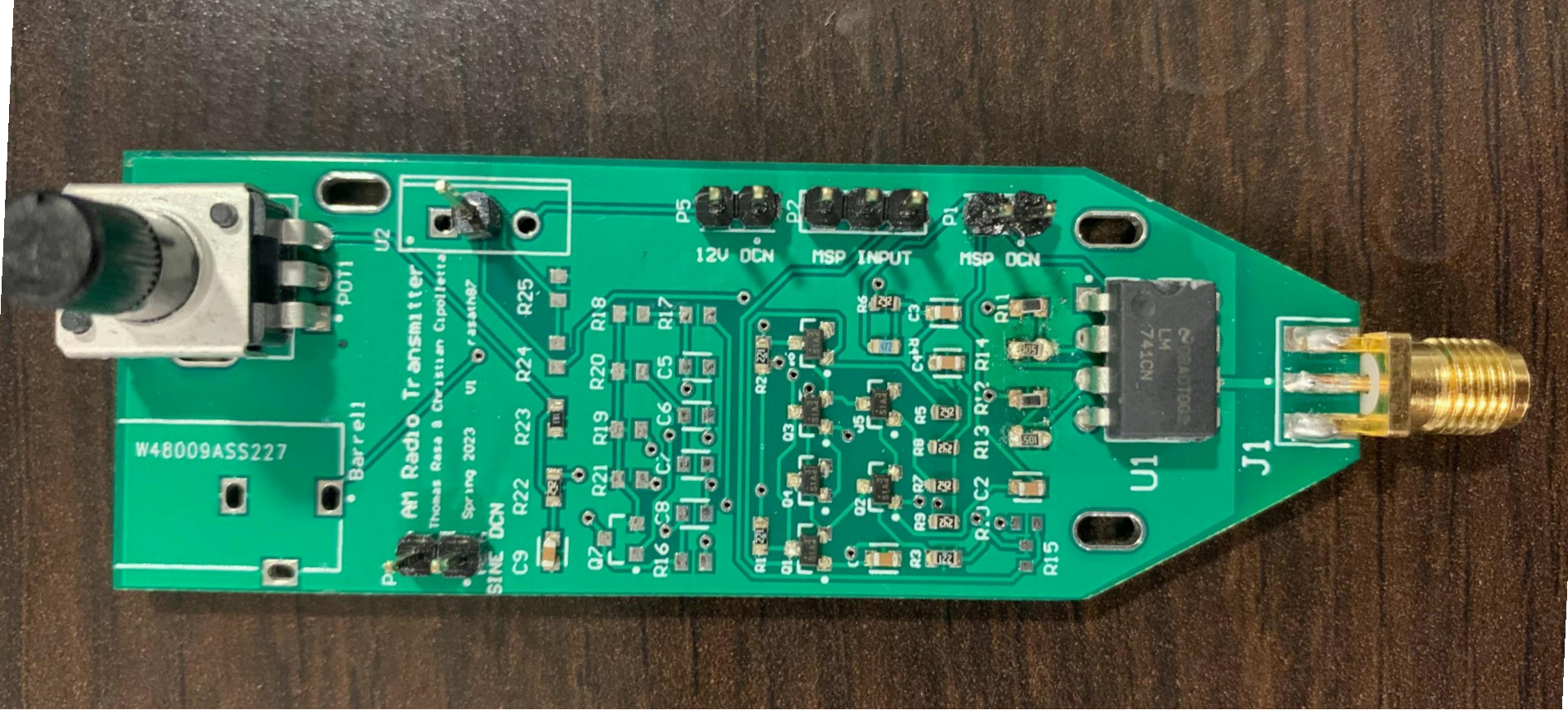


PCB



PCB





W48009ASS227

Barrel

P011

U2

AM Radio Transmitter

Thomas Rase & Christian Cipolletta

Spring 2023 U1 raseath87

SINE DCN

C9 R22 R23 R24 R25

Q7 R21 R19 R20 R18

R16 C8 C7 C6 C5 R17

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15

U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14 U15

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15

J1 J2 J3 J4 J5 J6 J7 J8 J9 J10 J11 J12 J13 J14 J15

K1 K2 K3 K4 K5 K6 K7 K8 K9 K10 K11 K12 K13 K14 K15

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L13 L14 L15

M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14 M15

N1 N2 N3 N4 N5 N6 N7 N8 N9 N10 N11 N12 N13 N14 N15

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15

S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15

U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14 U15

V1 V2 V3 V4 V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15

W1 W2 W3 W4 W5 W6 W7 W8 W9 W10 W11 W12 W13 W14 W15

X1 X2 X3 X4 X5 X6 X7 X8 X9 X10 X11 X12 X13 X14 X15

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y10 Y11 Y12 Y13 Y14 Y15

Z1 Z2 Z3 Z4 Z5 Z6 Z7 Z8 Z9 Z10 Z11 Z12 Z13 Z14 Z15

AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10 AA11 AA12 AA13 AA14 AA15

AB1 AB2 AB3 AB4 AB5 AB6 AB7 AB8 AB9 AB10 AB11 AB12 AB13 AB14 AB15

AC1 AC2 AC3 AC4 AC5 AC6 AC7 AC8 AC9 AC10 AC11 AC12 AC13 AC14 AC15

AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15

AE1 AE2 AE3 AE4 AE5 AE6 AE7 AE8 AE9 AE10 AE11 AE12 AE13 AE14 AE15

AF1 AF2 AF3 AF4 AF5 AF6 AF7 AF8 AF9 AF10 AF11 AF12 AF13 AF14 AF15

AG1 AG2 AG3 AG4 AG5 AG6 AG7 AG8 AG9 AG10 AG11 AG12 AG13 AG14 AG15

AH1 AH2 AH3 AH4 AH5 AH6 AH7 AH8 AH9 AH10 AH11 AH12 AH13 AH14 AH15

AI1 AI2 AI3 AI4 AI5 AI6 AI7 AI8 AI9 AI10 AI11 AI12 AI13 AI14 AI15

AJ1 AJ2 AJ3 AJ4 AJ5 AJ6 AJ7 AJ8 AJ9 AJ10 AJ11 AJ12 AJ13 AJ14 AJ15

AK1 AK2 AK3 AK4 AK5 AK6 AK7 AK8 AK9 AK10 AK11 AK12 AK13 AK14 AK15

AL1 AL2 AL3 AL4 AL5 AL6 AL7 AL8 AL9 AL10 AL11 AL12 AL13 AL14 AL15

AM1 AM2 AM3 AM4 AM5 AM6 AM7 AM8 AM9 AM10 AM11 AM12 AM13 AM14 AM15

Working Parts

- Able to transmit an AM Radio Wave
 - The MSP430 generates the broadcast signal while a function generator makes the carrier wave
- Able to change the broadcast signal with the press of a keyboard button
- Able to receive the AM wave using an AM Radio

Works in Progress

- The carrier signal generator circuit only generates a wave with a frequency of 80MHz
- The differential amplifier has little to no gain
- The antennas being used are not made for the AM Band

