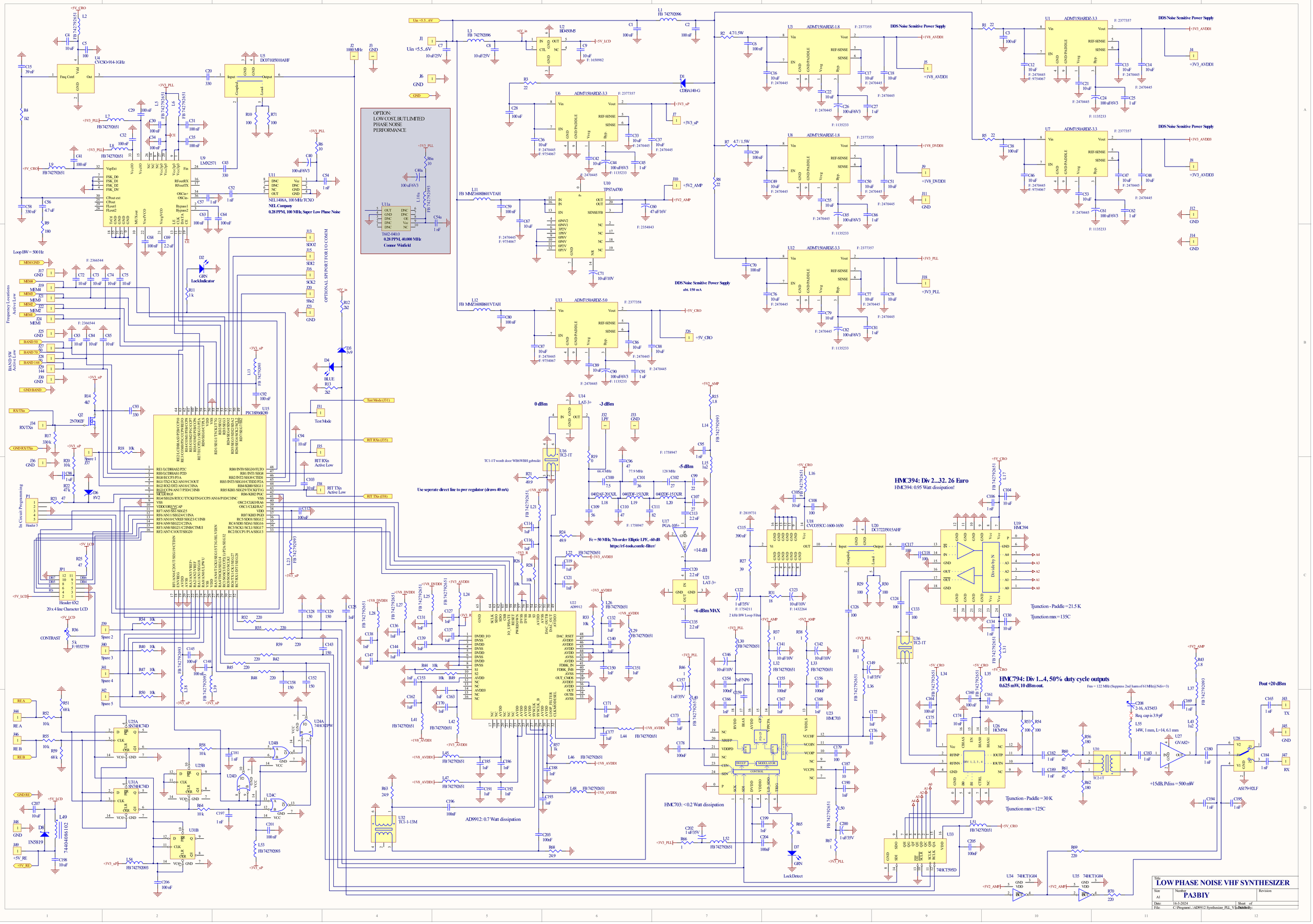
OPTION:
LOW COST, BUT LIMITED
PHASE NOISE
PERFORMANCE
NEL Company
0.28 PPM, 100 MHz, Super Low Phase Noise
0.28 PPM, 40.000 MHz
Connor Winfield
DDS Noise Sensitive Power Supply
abt. 150 mA
OPTIONAL SPI PORT FOR I/O COMM
Frequency Locations
Active Low
BAND SW
Active Low
In Circuit Programming
Header 5
Header 6X2
20 x 4 line Character LCD
CONTRAST
LockIndicator
Test Mode
RIT RXn
Active Low
RIT TXn
Active Low
Use seperate direct line to pwr regulator (draws 40 mA)
Fc = 50 MHz, 7th order Elliptic LPF, -60 dB
https://rf-tools.com/lc-filter/
+6 dBm MAX
2 kHz BW Loop Filter
HMC703: <0.2 Watt dissipation
AD9912: 0.7 Watt dissipation
HMC394: Div 2...32, 26 Euro
HMC394: 0.95 Watt dissipation!
Tjunction - Paddle = 21.5 K
Tjunction max = 135C
HMC794: Div 1...4, 50% duty cycle outputs
0.625 mW, 10 dBm out.
Tjunction - Paddle = 30 K
Tjunction max = 125C
+15dB, Pdiss = 500 mW
Pout +20 dBm
LOW PHASE NOISE VHF SYNTHESIZER
PA3BIY
A1
16-3-2024
C:\Programs...\AD9912 Synthesizer_PLL_V1.SchDoc