OCXO

File: OCXO.kicad_sch

DAC_CPU

File: DAC_CPU.kicad_sch

Block Diagram

Sheet: /
File: Master_OCXO_DAC.kicad_sch

Title: OCXO with DAC control for PI4

Size: A4   Date: 2022-08-21   Rev: V1.0
KiCad E.D.A. kicad (6.0.7-1)-1   Id: 1/3

AVR-ISP-6

J1

VCC 2
MISO 1 MISO
MOSI 4 MOSI
SCK 3 SCK
RST 5 RST
GND 6

+5V

C1
100n

U1
ATtiny85-20S

VCC 8
AREF/PB0 5
PB1 6
PB2 7
XTAL1/PB3 2
XTAL2/PB4 3
RESET/PB5 1
GND 4

SCK MISO MOSI RST

TP1
TestPoint

C2
4u7

C3
100n

R1 R2
4k7 4k7

J2
1 2
3 4
EXT I2C

External Alignment Jig
Connection

U2
MAX5217

SCL 3
SDA 4
AUX 5
ADDR 2
VDD 7
REF 1
OUT 6
GND 8

REF_V

OCXO_F

PPM sync input

R3
470

J3
1
2

RV1
5V

CPU + DAC

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Not Mounted on PCB

U3 LM7805
Y1 CTI 10Mhz
U5 NB3N551
U4 REF5030

PWR_FLAG
PWR_FLAG

+5V

CLK

Cntrl

REF_V

OCXO_F

J4
1
2
3

C4 10u
C6 330n
C7 100n
C8 10u
C11 100n
C12 100n
C16 100n
C14 100n
C15 100n
C13
C5 1u
C9 1u
C10 10u

R7 10k
R4 10k
R6 2k7
R5
R8 49.9
R9 49.9
R10 49.9
R11 49.9
R12 49.9
R13 49.9
R14 49.9
R15 49.9

D1

J5
J6
J7
J8

H1 H2 H3 H4

VCC   OUT
N.C. GND Cntrl

ICLK VDD Q1
             Q2
OE   GND Q3
      EP   Q4

Vin   Vout
Temp Trim/NR
GND

V1.2 Errata

Changed Output driver
to NB3L551
R9/R10 Optional

CTI 10Mhz OCXO

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