Input Power Supply
7.5 VDC 1A or USB

Attention! you cannot use an external power supply with a voltage greater than 7.5V, because the high voltage to high heat LDO on the Arduino board and the board may be damaged. It is also not recommended to use a power supply unit less than 6.5V since a voltage margin is needed to stabilize the LDO 5V voltage on the Arduino board.
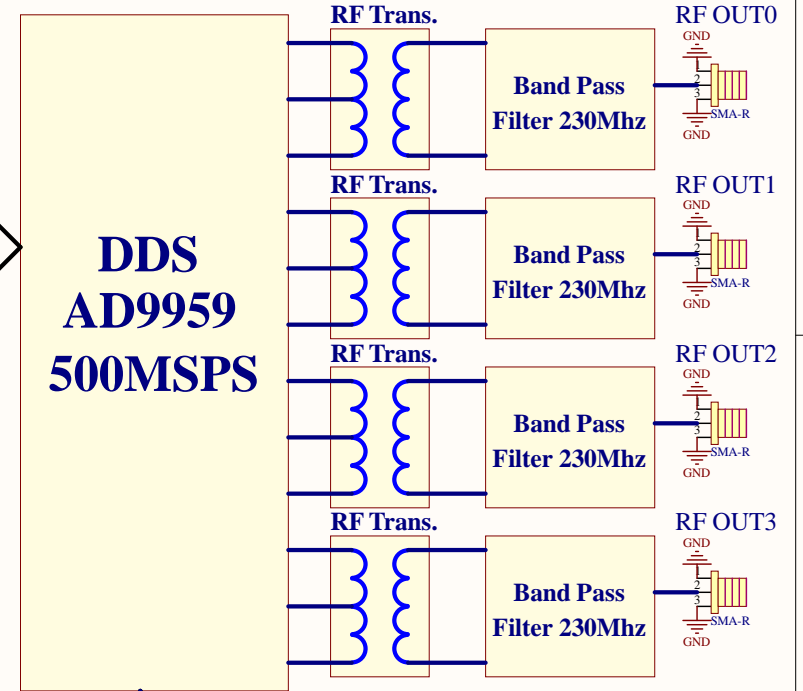
Power Supply

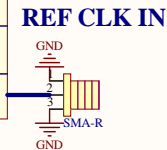| |
|---|
| LDO 3.3V for TCXO |
| LDO 1.8V DDS AVDD |
| LDO 1.8V DDS DVDD |
| LDO 3.3V DDS DVDD |

ARDUINO/DDS PINOUT

- Arduino PIN51 - SDIO_0_TTL
- Arduino PIN9 - SDIO_1_TTL
- Arduino PIN50 - SDIO_2_TTL
- Arduino PIN11 - SDIO_3_TTL
- Arduino PIN52 - DDS SCLK
- Arduino PIN6 - DDS CS
- Arduino PIN12 - MASTER_RESET_TTL
- Arduino PIN13 - PWR_DWN_CTL_TTL
- Arduino PIN5 - IO_UPDATE_TTL
- Arduino PIN16 - P0
- Arduino PIN15 - P1
- Arduino PIN14 - P2
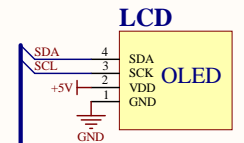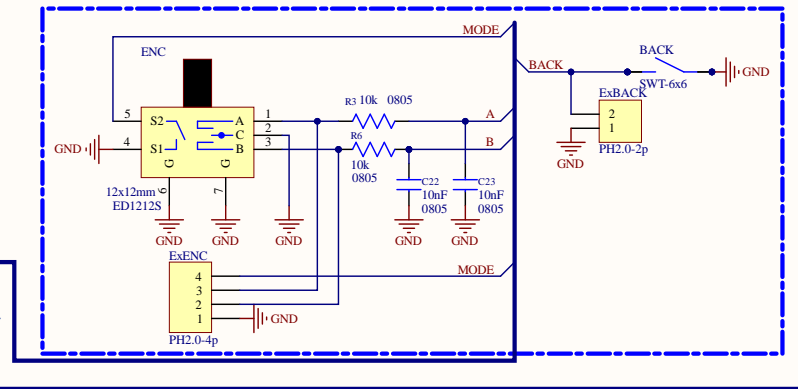- Arduino PIN4 - P3
- Arduino PIN17 - SYNC_CLK

Voltage-Level Shifter for 5V<->3.3V

DDS AD9959 500MSPS

RF Trans.

Band Pass Filter 230Mhz

RF OUT0
GND
SMA-R
GND

RF OUT1
GND
SMA-R
GND

RF OUT2
GND
SMA-R
GND

RF OUT3
GND
SMA-R
GND

Clock

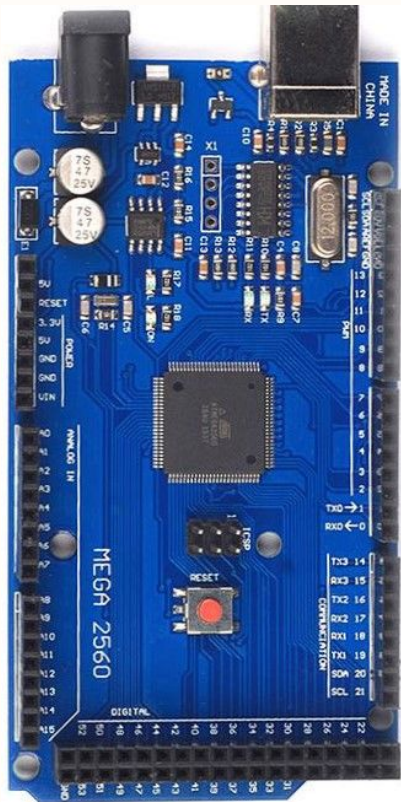|	
XO- Closed REF - Open	**XO - Crystal Oscillator 20ppm** Z1 - 25MHZ, C18, C19 - 39pF; C14, C17 - Non Install
XO - Open REF - Closed	**TCXO - Oscillator 1ppm** C20 - 1nF; Z1, C18, C19 - Non Install
	REF CLK IN - External Oscillator C20, Z1, C18, C19 - Non Install

REF CLK IN
GND
SMA-R
GND

Buttons Control Internal/External

ENC
MODE
BACK
BACK
ExBACK
SWT-6x6
GND
R3 10k 0805
A
R6
10k 0805
B
C22 10nF 0805
C23 10nF 0805
PH2.0-2p
GND
S2
S1
A
C
B
G
G
12x12mm
ED1212S
GND
GND
GND
GND
GND
MODE
ExENC
PH2.0-4p
GND

LCD

SDA	SDA
SCL	SCK
+5V	VDD
	GND

OLED
GND

ARDUINO/DDS PINOUT

- Arduino PIN10 - R-LCD1.3
- Arduino PIN18 - A
- Arduino PIN19 - B
- Arduino PIN2 - MODE Button
- Arduino PIN3 - BACK Button
- Arduino PIN20 - LCD SDA
- Arduino PIN21 - LCD SCL