VCC

U2 TPS79930DDCT

L1
1 K @ 100MHz

3V3A

IN OUT
EN NR
GND

VDD_REG

C12 100nF
C52 2.2uF
C53 DNM
C41 10nF

GND

GND   GND   DNM

C311 15pF
C301 15pF   C302

X1 4-Pin Oscillator

GND

VDD_REG VDD_REG

GND GND GND

C291 47nF   C281 47nF   C271 47nF

GND GND

C261 47nF   C251 47nF   VDD_REG

R12 0R

GND

C11 47nF

GND

VDD_REG

C51 47nF

GND

C61 220nF

GND

P2 Header 10X2

+3V3A

GND

RESET_N   GPIO3

P1 Header 10X2

GND

GPIO0
GPIO2
CSN
SCLK
MOSI
MISO

U1 CC1120

EXT_XOSC 32
XOSC_Q2 31
XOSC_Q1 30
DCPL_XOSC 29
AVDD_XOSC 28
AVDD_SYNTH_CMOS 27
DCPL_PFD_CHIP 26
AVDD_PFD_CHIP 25

1 AVDD_GUARD
2 RESET_N
3 GPIO3
4 GPIO2
5 DVDD
6 DCPL_DREG
7 SI
8 SCLK

LFC_1 24
LFC_0 23
AVDD_SYNTH 22
DCPL_VCO 21
LNA_N 20
LNA_P 19
TRX 18
PA 17

SO/GPIO1 9
GPIO0 10
CS_N 11
DVDD 12
AVDD_1F 13
RBIAS 14
AVDD_FRONTEND 15
NC 16

RESET_N
GPIO3
GPIO2

MOSI
SCLK

MISO
GPIO0
CSN

C231 1.8nF

VDD_REG
C221 47nF GND

C201 5.1pF GND

L191 Inductor 56nH
L201 Inductor 27nH
C191 5.1pF
L193 Inductor 15nH
L192 Inductor 27nH GND

C211 10nF GND

C121 220nF
C131 220nF
R141 56K
C151 220nF

C174 39pF
L171 Inductor 56nH
L172 Inductor 15nH
C176 2.2pF
C181 5.1pF
L173 Inductor 43nH
C175 6.2pF
L174 Inductor 22nH

C177 DNM

P3 32K10A-40ML5

GND

R171 18R DNM
C173 56pF

C171 10nF DNM
C172 100pF

GND GND

VDD_REG VDD_REG VDD_REG

GND GND GND

GND

GND

ALTIUM

Comment	Description	Designator	Footprint	LibRef	Quantity
0805 Cap	0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - U2J, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%	C11, C12, C41, C51, C52, C61, C121, C131, C151, C171, C174, C175, C176, C181, C191, C201, C211, C221, C231, C251, C261, C271, C281, C291, C301, C311	0805 Cap	0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%	26
DNM	0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%	C53, C172, C173, C177, C302	0805 Cap	0805 MLCC - X7R, 10%, 0805 MLCC - NP0, 5%, 0805 MLCC - NP0, 5%, 0805 MLCC - X7R, 10%, 0805 MLCC - X7R, 10%	5
	digikey: 490-1041-1-ND	L1	0805 Resistor	Inductor	1
Inductor	Inductor	L171, L172, L173, L174, L191, L192, L193, L201	0805 Resistor	Inductor	8
Header 10X2	Header, 10-Pin, Dual row	P1, P2	HDR2X10	Header 10X2	2
32K10A-40ML5	SMA Straight Jack, Up to 12.4 GHz, -55 to 155 degC	P3	ROS-32K10A-40ML5_V	32K10A-40ML5	1
0805 Resistor	0805 Thick Film Resistor 1%	R12, R141, R171	0805 Resistor	0805 Thick Film Resistor 1%	3
CC1120	Digi-Key Part Number 296-35667-1-ND	U1		CC1120	1
TPS79930DDCT	Digi-Key Part Number 296-17782-1-ND	U2	TI-DDC5_N	TPS79930DDCT	1
4-Pin Oscillator		X1		4-Pin Oscillator	1