USB1 — Type-C

GND	A1	GND	GND	B12	GND
TX1+	A2	TX1+	RX1+	B11	
TX1-	A3	TX1-	RX1-	B10	
VCC_5V — VBUS	A4	VBUS	VBUS	B9	VCC_5V
CC1	A5	CC1	SBU2	B8	
USB_D_P — D+	A6	D+	D-	B7	USB_D_N
USB_D_N — D-	A7	D-	D+	B6	USB_D_P
SBU1	A8	SBU1	CC2	B5	VCC_5V
VCC_5V — VBUS	A9	VBUS	VBUS	B4	
RX2-	A10	RX2-	TX2-	B3	
RX2+	A11	RX2+	TX2+	B2	
GND	A12	GND	GND	B1	
SH1	1	SH1	SH3	3	
GND — SH2	2	SH2	SH4	4	GND

R3 0402 5.1K — GND

VCC_5V — ZD1 200mW SOD-123 BZT52C5V1S — GND

VCC_3V3 — ZD2 200mW SOD-123 BZT52C3V9S — GND

P4 — 2.54 DIP 2x8

BT_PCM2_SYNC	2	1		BT_PCM2_CLK
BT_PCM2_OUT	4	3		BT_PCM2_IN
GND —	6	5		GND
BT_PIO5	8	7		BT_PIO4
BT_PIO2	10	9		BT_PIO1
BT_PIO3	12	11		BT_PIO0
BT_PIO22	14	13		BT_PIO21
BT_PIO24	16	15		BT_PIO23

P3 — 2.54 DIP 2x8

BT_UART_CTS	2	1		BT_UART_RTS
BT_UART_RX	4	3		BT_UART_TX
GND —	6	5		GND
BT_USB_UART	8	7		BT_SPI_PCM
BT_VREG_EN	10	9		BT_NRST
GND	12	11		GND
GND	14	13		GND
VCC_3V3	16	15		VCC_5V

U2 — CP2104

VCC_5V — C6 1uF 0402 X7R 16V — GND
C7 0.1uF 0402 X7R 16V

VBUS	8		RI	1	
REGIN	7		DCD	24	
			DTR	23	
D+	3		DSR	22	
D-	4		TXD	21	BT_UART_RX
VDD	6		RXD	20	BT_UART_TX
VIO	5		RTS	19	BT_UART_RTS
NC	10		CTS	18	BT_UART_CTS
nRST	9		GPIO.0	14	
VPP	2		GPIO.1	13	
			GPIO.2	12	
			GPIO.3	11	
GND	25		SUSPEND	17	
PAD			nSUSPEND	15	

RN1 0603 47R

USB_D_N — R4 0402 22R — CP_USB_D_N
USB_D_P — R5 0402 22R — CP_USB_D_P
VCC_CP_3V45

C8 0402 1uF X7R 16V
C9 0402 0.1uF X7R 50V — GND
R8 0402 10K
C10 0402 4.7uF X7R 16V — GND

U3A — CSR8311A08

BT_UART_TX	12	UART_TX	PIO[0]	32	BT_PIO0
BT_UART_RX	13	UART_RX	PIO[1]	29	BT_PIO1
BT_UART_RTS	14	UART_RTS	PIO[2]	28	BT_PIO2
BT_UART_CTS	17	UART_CTS	PIO[3]	30	BT_PIO3
			PIO[4]	27	BT_PIO4
			PIO[5]	22	BT_PIO5
USB_D_N — R6 0402 22R	15	USB_DN			
USB_D_P — R7 0402 22R	16	USB_DP			
BT_VREG_EN	1 / 8	NC / VREG_EN	PCM_IN/SPI_MOSI/PIO[21]	34	BT_PIO21
BT_NRST	11	NRST	PCM_OUT/SPI_MISO/PIO[22]	33	BT_PIO22
BT_USB_UART	19	USB_UART#	PCM_SYNC/SPI_NCS/PIO[23]	36	BT_PIO23
BT_SPI_PCM	21	SPI_PCM_SEL#	PCM_CLK/SPI_CLK/PIO[24]	35	BT_PIO24
XTAL26_OUT	3	XTAL_OUT	PCM2_CLK	23	BT_PCM2_CLK
XTAL26_IN	4	XTAL_IN	PCM2_SYNC	24	BT_PCM2_SYNC
			PCM2_IN	25	BT_PCM2_IN
BT_RF	38	BT_RF	PCM2_OUT	26	BT_PCM2_OUT

P1 — 2.54 DIP 1x15

GND		1	
BT_UART_CTS		2	
BT_UART_RTS		3	
BT_UART_RX		4	
BT_UART_TX		5	
GND		6	
BT_SPI_PCM		7	
BT_USB_UART		8	
BT_NRST		9	
BT_VREG_EN		10	
GND		11	
BT_PIO23		12	
BT_PIO24		13	
BT_PIO21		14	
BT_PIO22		15	

P2 — 2.54 DIP 1x15

	1		VCC_5V
	2		VCC_3V3
	3		GND
	4		BT_PCM2_CLK
	5		BT_PCM2_SYNC
	6		BT_PCM2_IN
	7		BT_PCM2_OUT
	8		GND
	9		BT_PIO5
	10		BT_PIO4
	11		BT_PIO2
	12		BT_PIO1
	13		BT_PIO3
	14		BT_PIO0
	15		GND

Crystal X1

C11 10pF 0402 COG 50V — XTAL26_IN
C13 10pF 0402 COG 50V — XTAL26_OUT
GND
X1 M26000J134 26M 3225-4

U3B — CSR8311A08

C12 2.2uF 0402 X7R 50V — GND

VCC_5V	10	VREG_IN_USB	VDD_ANA	2	
VCC_3V3	9	VREG_OUT_USB	VDD_RADIO	37	
			VDD_BT_LO	39	
GND — C14 2.2uF 0402 X7R 50V	5 / 6	VREG_IN_HV / VREG_OUT_HV	VDD_AUX	40	
VCC_3V3	18	VDD_HOST	VDD_DIG	7	
	31	VDD_PADS	VDD_DIG	20	
	41	EPAD			

C23 0402 2.2uF X7R 16V — GND
C18 0402 0.1uF X7R 16V — GND
C15 0402 470nF X7R 50V — GND
C16 0402 15pF COG 16V — GND
C17 0402 2.2uF X7R 50V — GND
C19 0402 2.2uF X7R 50V — GND

Reset / Config

VCC_3V3 — R10 0402 10K — BT_NRST
VCC_3V3 — R11 0402 10K — BT_VREG_EN
VCC_3V3 — R12 0402 10K — BT_USB_UART
VCC_3V3 — R13 0402 10K — BT_SPI_PCM

BTN1 Button — C20 0402 0.1uF X7R 50V — GND

S1 — SW-2P

| GND | 3 | 2 | BT_USB_UART |
| GND | 4 | 1 | BT_SPI_PCM |

Antenna

BT_RF — R16 0402 0R — Y1 AN2051-245 (1 2)
C21 NC — GND
C22 NC — GND

LibRef	Comment	Specification	Footprint	Quantity	Designator
Button	Button		BTN-4P-4.2*3.4*2	1	BTN1
CAP	10pF	COG 50V	CAP_0402	2	C11, C13
CAP	2.2uF	X7R 50V, X7R 16V	CAP_0402	5	C12, C14, C17, C19, C23
CAP	470nF	X7R 50V	CAP_0402	1	C15
CAP	15pF	COG 16V	CAP_0402	1	C16
CAP	0.1uF	X7R 16V, X7R 50V	CAP_0402	2	C18, C20
CAP	NC	X7R 16V	CAP_0402	2	C21, C22
HDR2x8	DIP 2x8		HDR2X8_2.54_180	2	P3, P4
RES	5.1K	±1%	RES_0402	1	R3
RES	22R	±1%	RES_0402	2	R6, R7
RES	10K	±1%	RES_0402	4	R10, R11, R12, R13
RES	0R	±1%	RES_0402	1	R16
SW-2P	SW-2P		SW-SMD-2-1.27	1	S1
CSR8311	CSR8311A08		QFN-40-P0.5	1	U3
USB-Type-C	Type-C		USB-Type-C	1	USB1
XTAL-4P	M26000J134	26M	XTAL_3225-4	1	X1
ANTENNA	AN2051-245		ANT_2.4G_5.1X2.	1	Y1
Diode-ZD	BZT52C5V1S	200mW	SOD-123	1	ZD1
Diode-ZD	BZT52C3V9S	200mW	SOD-123	1	ZD2