GND A3V3 A3V3 GPIO21 CH_RX CH_TX GPIO22 GPIO19/SPI1_MISO A3V3

Top left - U1 RT9080-3.3 regulator

GND GND
C1 10uF C2 100nF   U1   C3 100nF C4 10uF
V_BUS   VIN VOUT   3V3
GND   GND
R2 100K   EN   BP
RT9080-3.3

R1 330R
LED1 红色
GND
GND

3V3 R7 330R A3V3
C5 10uF C6 100nF
GND

IC1 ESP32-PICO-V3/D4

ANT1 A3V3

49 48 47 46 45 44 43 42 41 40 39 38 37
GND NC_7 NC_6 VDDA_3 NC_5 NC_4 VDDA_2 IO21 U0TXD/IO1 U0RXD/IO3 IO22 IO19 VDD3P3_CPU

1 VDDA_1   NC_3 36 GPIO23/SPI1_MOSI
2 LNA_IN   NC_2 35 GPIO18/SPI1_SCK
3 VDDA3P3_1   IO5   34 GPIO5/SPI1_SS   R3 100K GND
4 VDDA3P3_2   SD1/IO8 33 FLASH_SD1
5 SENSOR_VP/I36   SD0/IO7 32 FLASH_SD3
SENSOR_VP
6 SENSOR_CAPP/I37   CLK/IO6 31 FLASH_CLK
GPIO37
7 SENSOR_CAPN/I38   CMD/IO11 30 FLASH_SD2
GPIO38
3V3 R4 100K
8 SENSOR_VN/I39   SD3/IO10 29 GPIO10
SENSOR_VN
9 EN   SD2/IO9 28 GPIO9
EN
10 VDET_1/I34   IO20 27 FLASH_SD0
GPIO34
11 VDET_2/I35   VDD_SDIO 26
GPIO35
12 32K_XP/IO32   NC_1 25 FLASH_CS
GPIO32

13 14 15 16 17 18 19 20 21 22 23 24
32K_XN/IO33 IO25 IO26 IO27 MTMS/IO14 MTDI/IO12 VDD3P3_RTC MTCK/IO13 MTDO/IO15 IO2 IO0 IO4

GPIO33 GPIO25 GPIO26 GPIO27 GPIO14 GPIO12 GPIO13 GPIO15 GPIO2 GPIO0 GPIO4
A3V3

USBC1 ATYPE-C 2.0 -16P

GND
GND GND
USBC1 ATYPE-C 2.0 -16P

B4 VBUS VBUS A9   VUSB
VUSB B5 CC2 SBU1 A8
USB_D_P B6 DP2 DN1 A7 USB_D_N
USB_D_N B7 DN2 DP1 A6 USB_D_P
B8 SBU2 CC1 A5
VUSB B9 VBUS VBUS A4 VUSB
B12 GND GND A1

GND

U2 CH340C

GND
1 GND   VCC   16 3V3
CH_TX 2 TXD R232 15
CH_RX 3 RXD RTS# 14 RTS
3V3 4 V3   DTR# 13 DTR
5 D+   DCD# 12
6 D-   RI#   11
7 NC   DSR# 10
8 OUT# CTS# 9
U2 CH340C

D? SS14
VUSB D? V_BUS
SS14

Auto Program Circuit

EN
Q1 SS8050 R8 10K DTR

AUTO PROGRAM CIRCUIT

DTR	RTS	RST	GPIO0
1	1	1	1
0	0	0	1
1	0	1	1
0	1	1	0

Q2 SS8050 R9 10K RTS
GPIO0

SW1 EN
C8 100nF
GND

Headers JP1-JP5

JP3
1 2 3 4 5 6 7 8 9 10 11 12
GPIO12 GPIO14 GPIO27 GPIO26 GPIO25 GPIO33 GPIO32 GPIO35 GPIO34 SENSOR_VN
GND

JP4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
3V3
GPIO13 GPIO15 GPIO2 GPIO0 GPIO4 GPIO9 GPIO10 GPIO5/SPI1_SS GPIO18/SPI1_SCK GPIO23/SPI1_MOSI GPIO19/SPI1_MISO GPIO22 GPIO21 SENSOR_VP GPIO37 GPIO38

JP1
1 2 3 4 5 6 7 8
V_BUS
GND

JP2
1 2 3 4 5 6 7 8
GPIO5/SPI1_SS
GPIO18/SPI1_SCK
GPIO19/SPI1_MISO
GPIO23/SPI1_MOSI
GND

JP5
1 2 3 4 5 6
EN

Comment	Description	Designator	Footprint	LibRef	Quantity
ANT_CERAMICS	PCB板载天线	ANT1	ANT-Rainsun-AN5120	ANT_CERAMICS	1
10uF	贴片电容/MLCC电容	C1, C4, C5	C0603_L	C	3
100nF	贴片电容/MLCC电容	C2, C3, C6, C8	C0402_M	C	4
SS14	肖特基二极管	D?	SMA	SS14	1
ESP32-PICO-V3/D4	Integrated Circuit	IC1	ESP32PICOV3	ESP32-PICO-V3	1
HDR-1X8	8P接插件	JP1, JP2	HDR2.54-LI-8P	Header 8	2
HDR-1X12	12P接插件	JP3	HDR2.54-LI-12P	Header 12	1
HDR-1X18	18P接插件	JP4	HDR2.54-LI-18P	Header 18	1
HDR-1X6	6P接插件	JP5	HDR2.54-LI-6P	Header 6	1
红色	贴片LED	LED1	LED0603_R	LED-SMD	1
SS8050	高频放大-NPN型	Q1, Q2	SOT23-3N	8050-SMD	2
330R	贴片电阻	R1, R7	R0402_M	R	2
100K	贴片电阻	R2, R3, R4	R0402_M	R	3
10K	贴片电阻	R8, R9	R0402_M	R	2
3x6x5	3x6轻触开关	SW1	SW SMD-3*6*2.5	SW 3x6	1
RT9080-3.3	LDO 1.8V/0.3A	U1	SOT-23-5	RT9193-18GB	1
CH340C		U2	SOIC-16	CH340C	1
TYPE-C 2.0 -16P	USB2.0_Type-C_16Pin母座	USBC1	USB-C-SMD_16P	USB2.0_Type-C_16Pin	1