Comms

D+ ▷
D− ◁

TX ◁
RX ▷

MOSI ◁
MISO ▷
SCK ◁
SS_TB ◁
RST_TB ◁
MOTION ▷
SS_OLED ◁
DC ◁
RST_OLED ◁

MCU

▷ D+
◁ D−

◁ TX
▷ RX

◁ MOSI
▷ MISO
◁ SCK
◁ SS_TB
◁ RST_TB
▷ MOTION
◁ SS_OLED
◁ DC
◁ RST_OLED
◁ RGB

ROW0 ◁
ROW1 ◁
ROW2 ◁
ROW3 ◁
ROW4 ◁

COL0 ▷
COL1 ▷
COL2 ▷
COL3 ▷
COL4 ▷
COL5 ▷

ROTA ▷
ROTB ▷

Matrix

◁ ROW0
◁ ROW1
◁ ROW2
◁ ROW3
◁ ROW4

▷ COL0
▷ COL1
▷ COL2
▷ COL3
▷ COL4
▷ COL5

▷ ROTA
▷ ROTB

PSU

A1
Art

H1
Tooling Hole

H2
Tooling Hole

H3
Tooling Hole

RGB

◁ RGB_EX   RGB ◁

COL0 COL1 COL2 COL3 COL4 COL5

SW1 SW6 SW11 SW16 SW21 SW26
D1 D6 D11 D16 D21 D26
1N4148 1N4148 1N4148 1N4148 1N4148 1N4148

ROW0

SW2 SW7 SW12 SW17 SW22 SW27
D2 D7 D12 D17 D22 D27
1N4148 1N4148 1N4148 1N4148 1N4148

ROW1

SW3 SW8 SW13 SW18 SW23 SW28
D3 D8 D13 D18 D23 D28
1N4148 1N4148 1N4148 1N4148 1N4148 1N4148

ROW2

SW4 SW9 SW14 SW19 SW24 SW29
D4 D9 D14 D19 D24 D29
1N4148 1N4148 1N4148 1N4148 1N4148 1N4148

ROW3

SW5 SW10 SW15 SW20 SW25 SW30
D5 D10 D15 D20 D25 D30
1N4148 1N4148 1N4148 1N4148 1N4148 1N4148

ROW4

+3V3 S1 S2 +3V3
10k 10k
R2 R3
R1 A C B R4
10k 10k
ROTA ROTB
SW31
C1 GND C2
10n 10n
GND GND

+5V U1   +3V3
     AP2127K-3.3

     1 VIN VOUT 5
     3 EN

C3   GND   C4
4u7   4u7

         2

GND

+5V

100n 100n 100n 100n 100n 100n

C25   C30   C35   C40   C45   C50

C26   C31   C36   C41   C46   C51

100n 100n 100n 100n 100n 100n

100n 100n 100n 100n 100n 100n

C27   C32   C37   C42   C47   C52

C28   C33   C38   C43   C48   C53

100n 100n 100n 100n 100n 100n

100n 100n 100n 100n 100n 100n

C29   C34   C39   C44   C49   C54

GND

J2 — USB_In

Pin	Signal
A4	VBUS
A5	CC1
B5	CC2
B7	D−
A6	D+
B6	D+
A8	SBU1
B8	SBU2
A1	GND
S1	SHIELD

R11 5k1
R12 5k1

VBUS

D68 SMF5.0A
D69 B5819W SL

F1 nSMD100
D70 B5819W SL
+5V

FB1 60R@100MHz
GND

U4 SRV05−4
IO1 1 — D+
IO2 3 — D−
IO3 4 — D−
IO4 6 — D+
VP
VN 2
GND

J4 — Ogen

+3V3

Pin	Signal
1	MISO
2	MOSI
3	SCK
4	SS_TBD
5	MOTION
6	
7	RST_TBD
8	

GND

J5 — OLED

J6 — OLED_PH

+3V3

Pin	Signal
7	
6	MOSI
5	SCK
4	SS_OLED
3	DC
2	RST_OLED
1	

GND

J3 — Split_comm_link

Pin	Signal
A4	VBUS
A5	CC1
B5	CC2
A7	D−
B7	D−
A6	D+
B6	D+
A8	SBU1
B8	SBU2
A1	GND
S1	SHIELD

VBUS

D67 B5819W SL

FB2 60R@100MHz
GND

U5 SRV05−4
IO1 1 TX — RX
IO2 3 RX — TX
IO3 4
IO4 6
VP
VN 2
GND