TOP SIDE

01 Maskrom Key
02 LEDs
03 NVMe M.2 M-Key
04 MIPI CSI RX0
05 MIPI CSI RX1
06 Power LED
06 1x Type-C PD 12V Input
07 1x RJ45

19 Reset & Power Key
20 WIFI6 & BT5.2
18 RTC Battery
17 Fan

15 2 X Analog Speaker
16 1 X 30 pin GPIO header
15 1 X Analog MIC
14 3.5mm Audio Jack
13 1 X HDMI IN
13 2 X HDMI OUT
12 2x USB2.0

08 MIPI D-PHY TX0
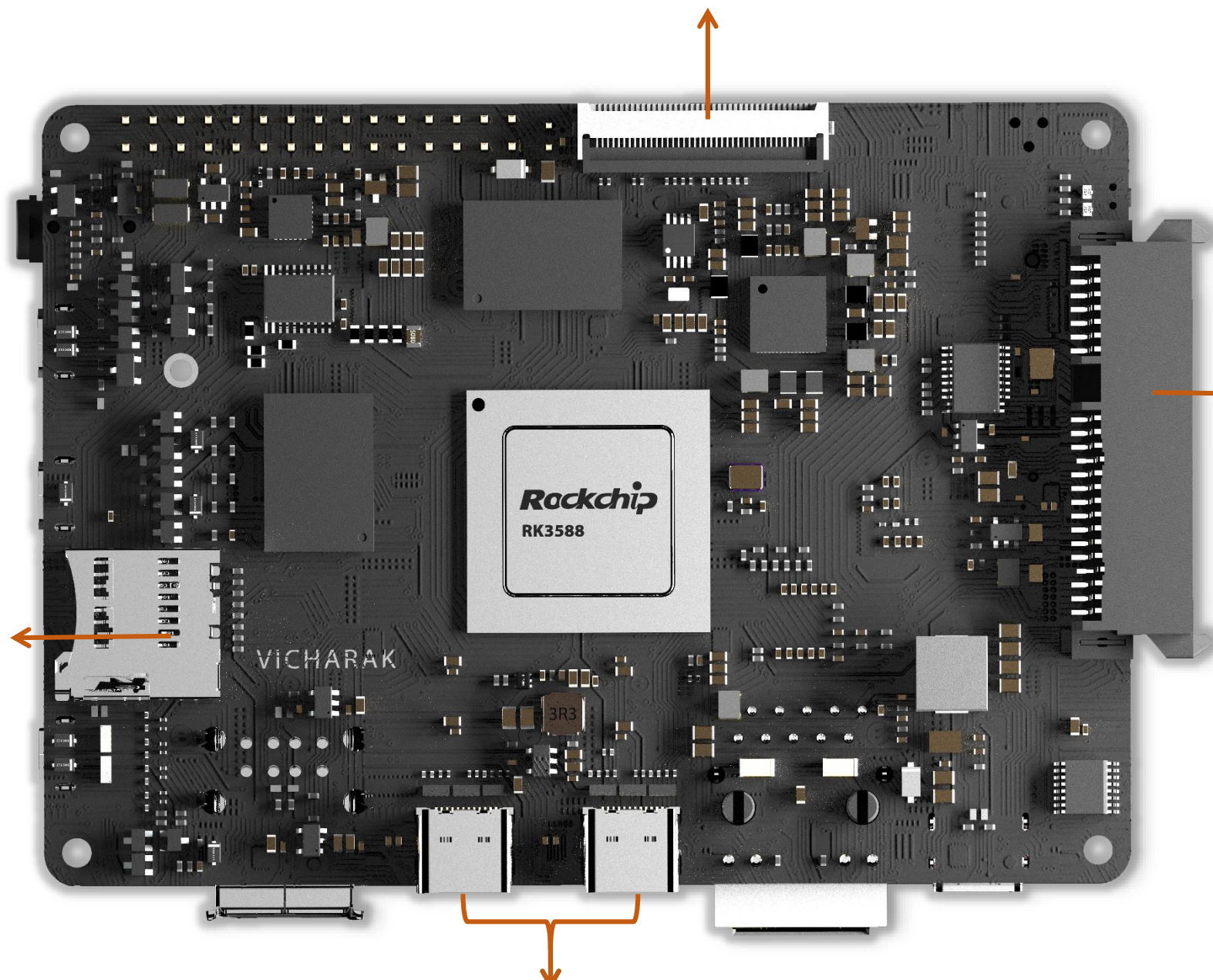09 MIPI D-PHY TX1
11 MIPI D-PHY RX1
10 MIPI D-PHY RX0

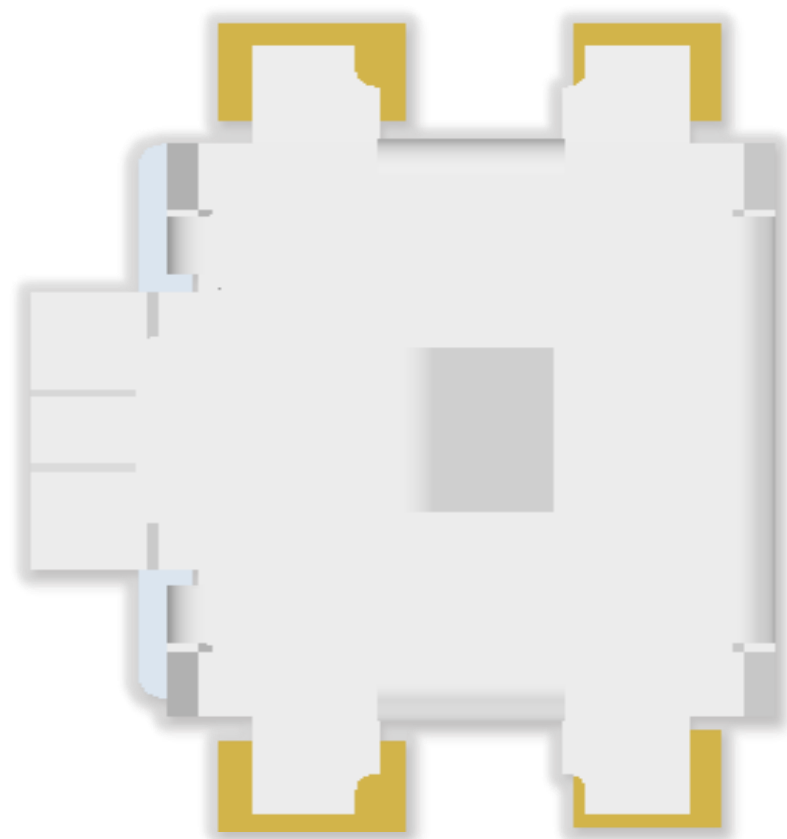**21** 2 X PCIE Gen 2.0/SATA3.0 (40 Pin FPC Connector)
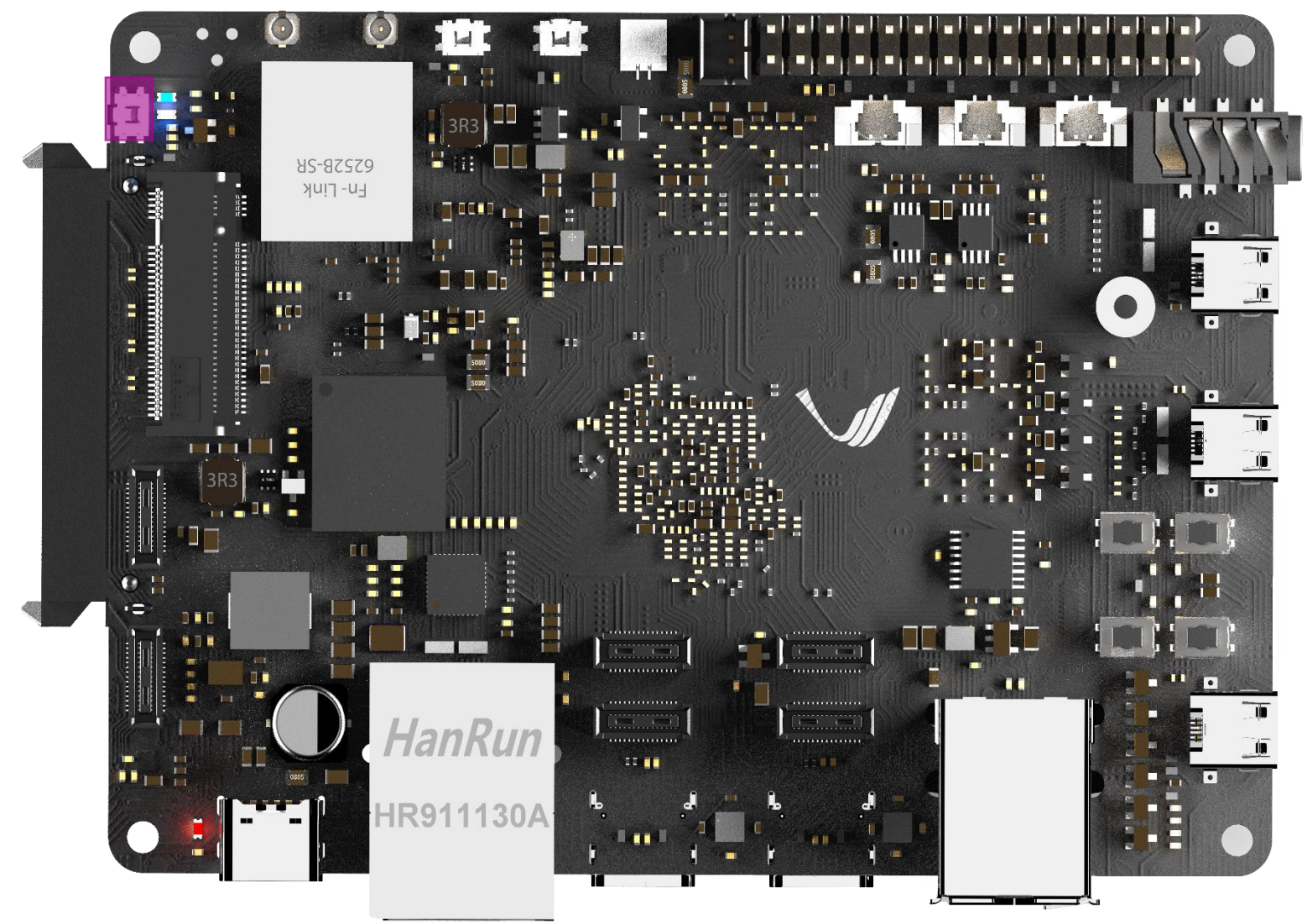
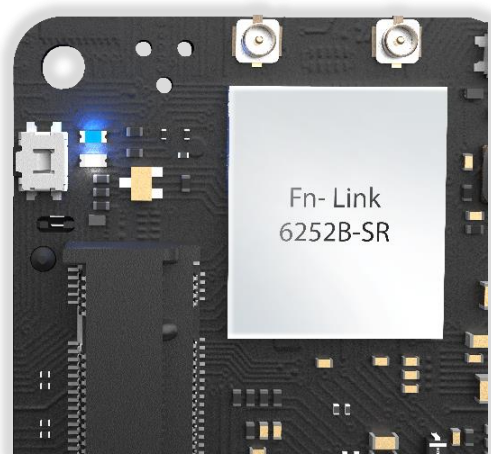**24** 1 X SATA3.0 (22 pin Standard SATA Connector)

22 SD Card Slot

23 2 X Type-C Alt Display Port
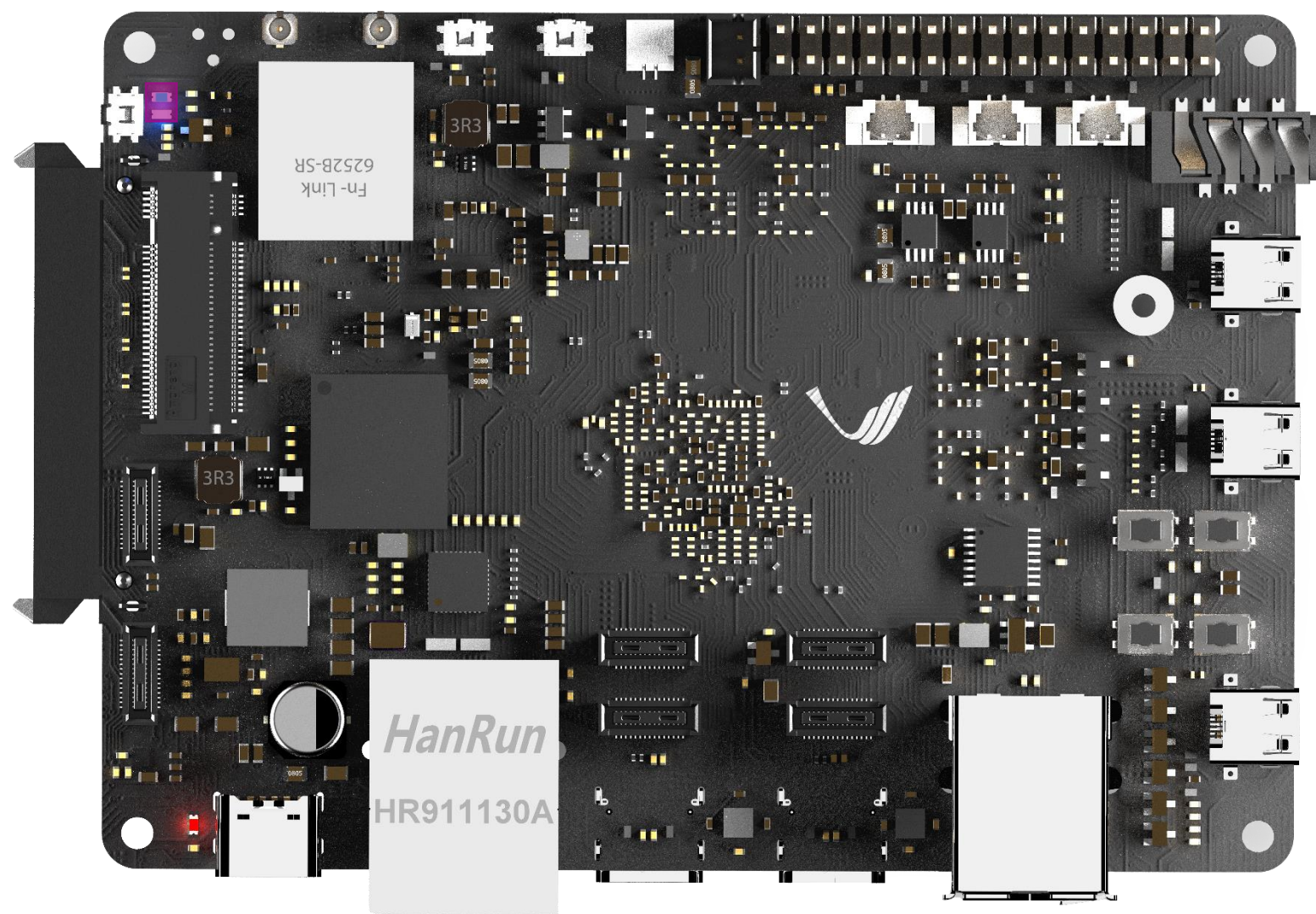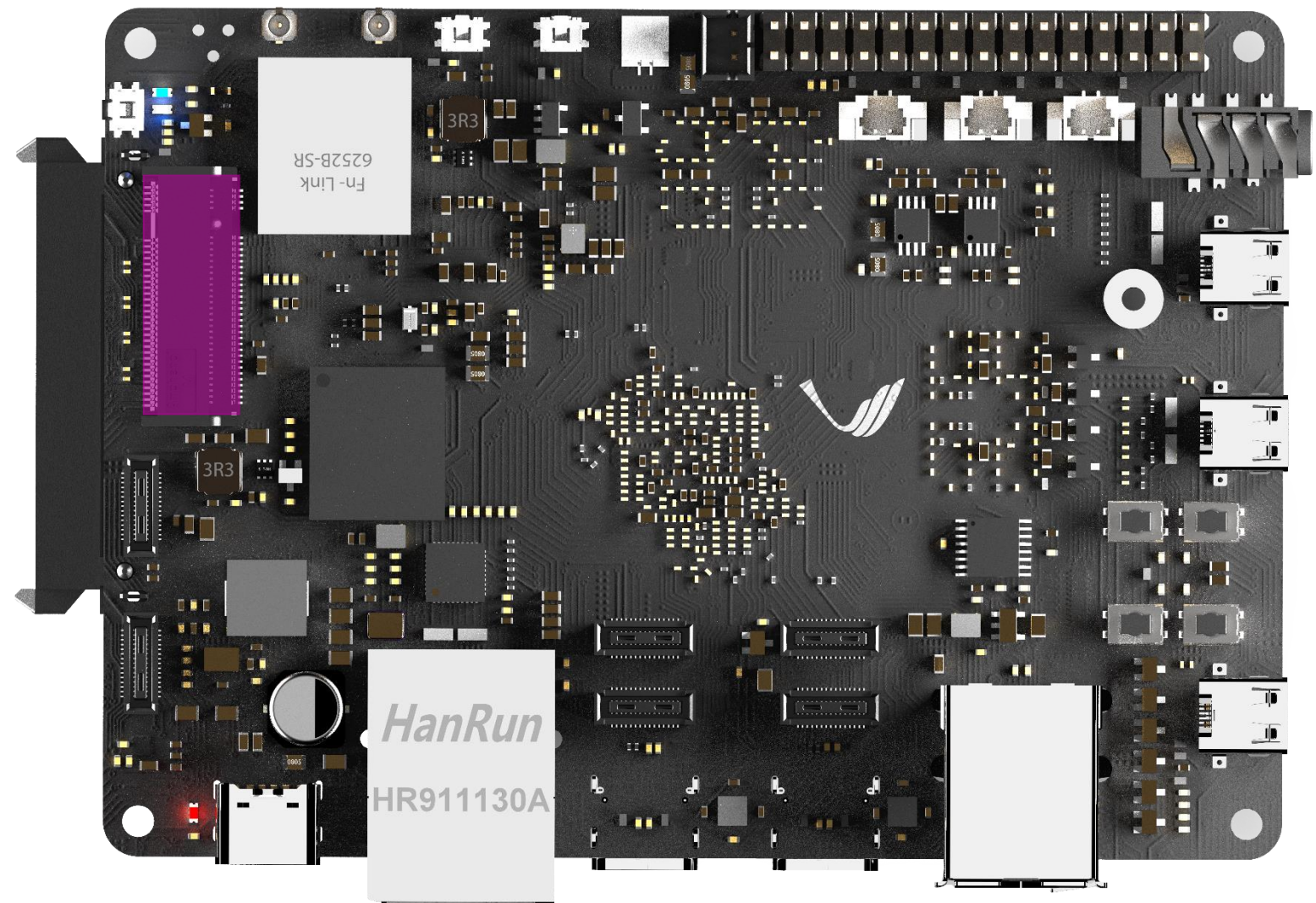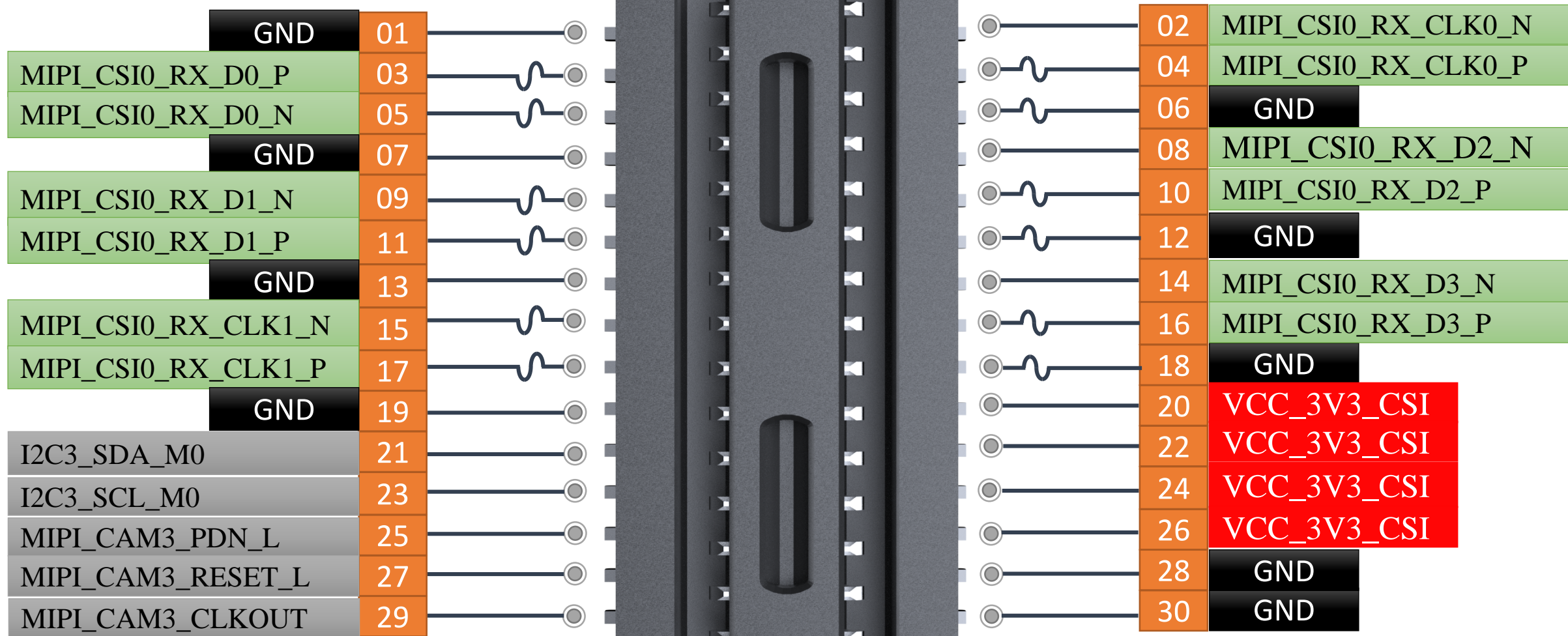
BOTTOM SIDE

01 Maskrom key

Maskrom Key

1.User LED
2. Status LED

**NVME M.2 M-Key
PCIe Gen3**

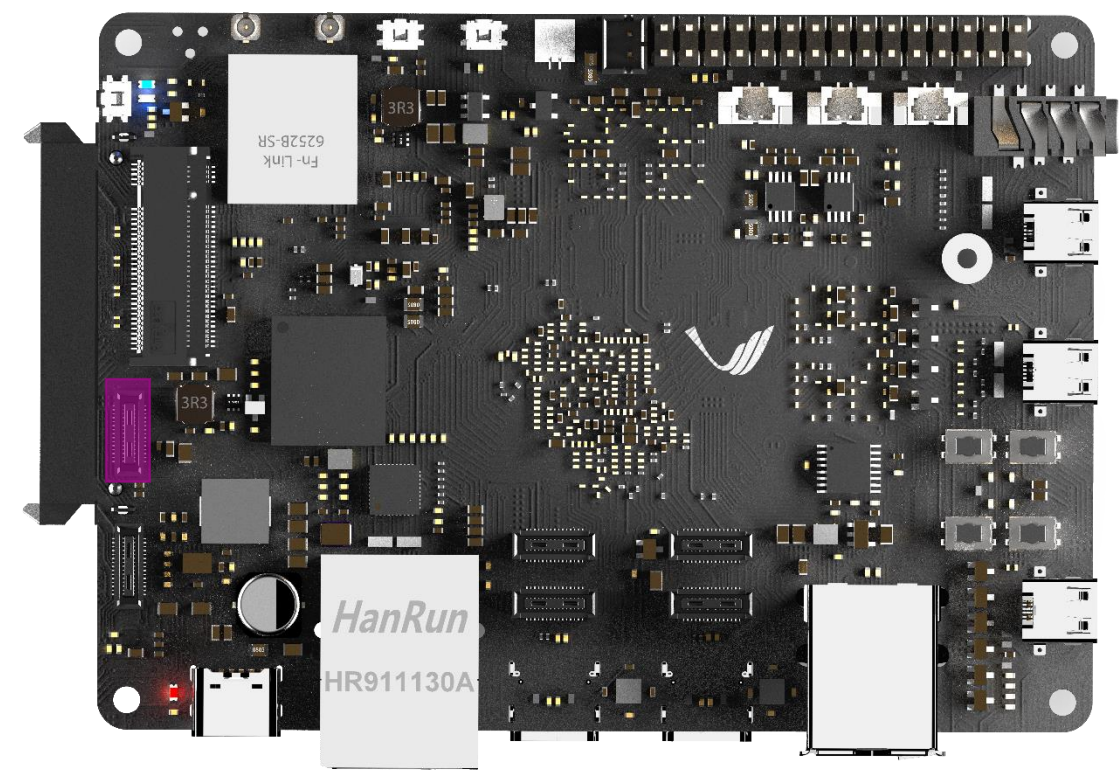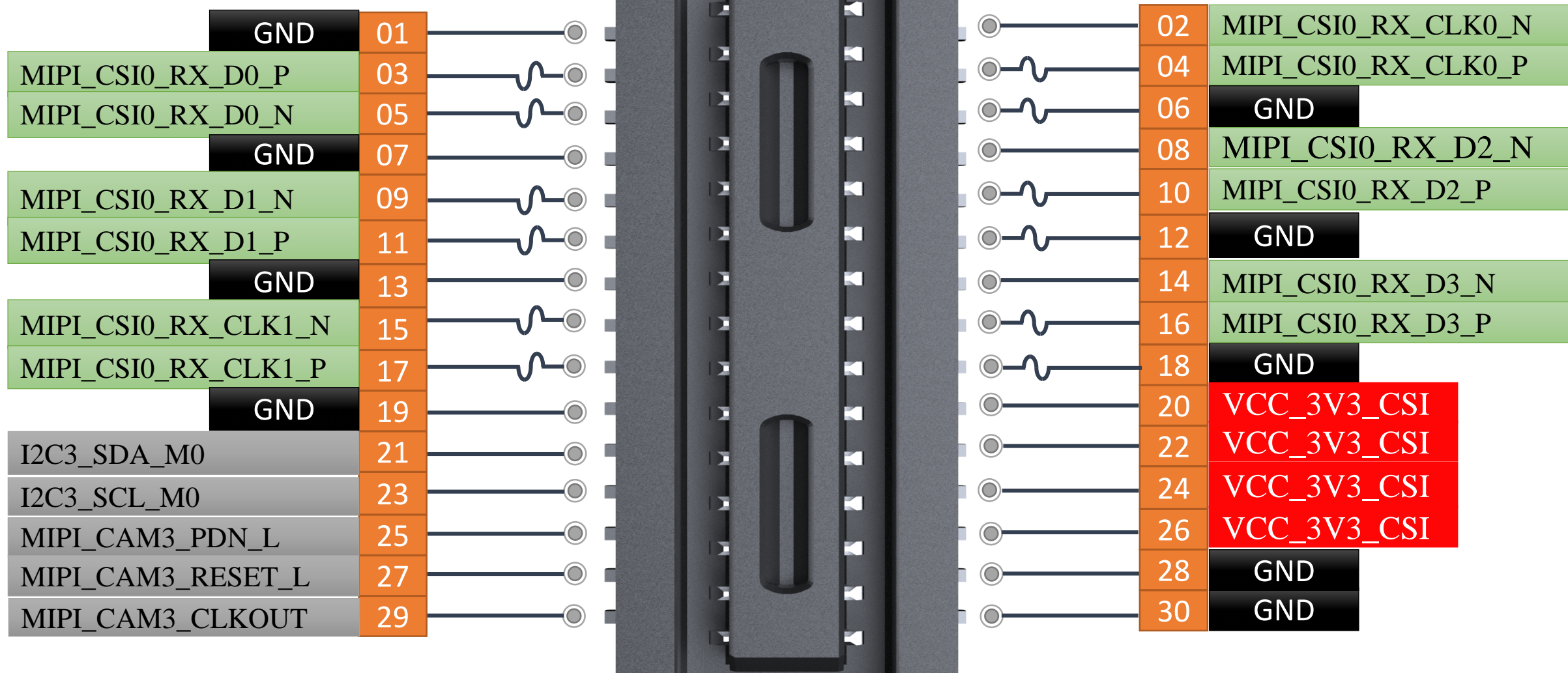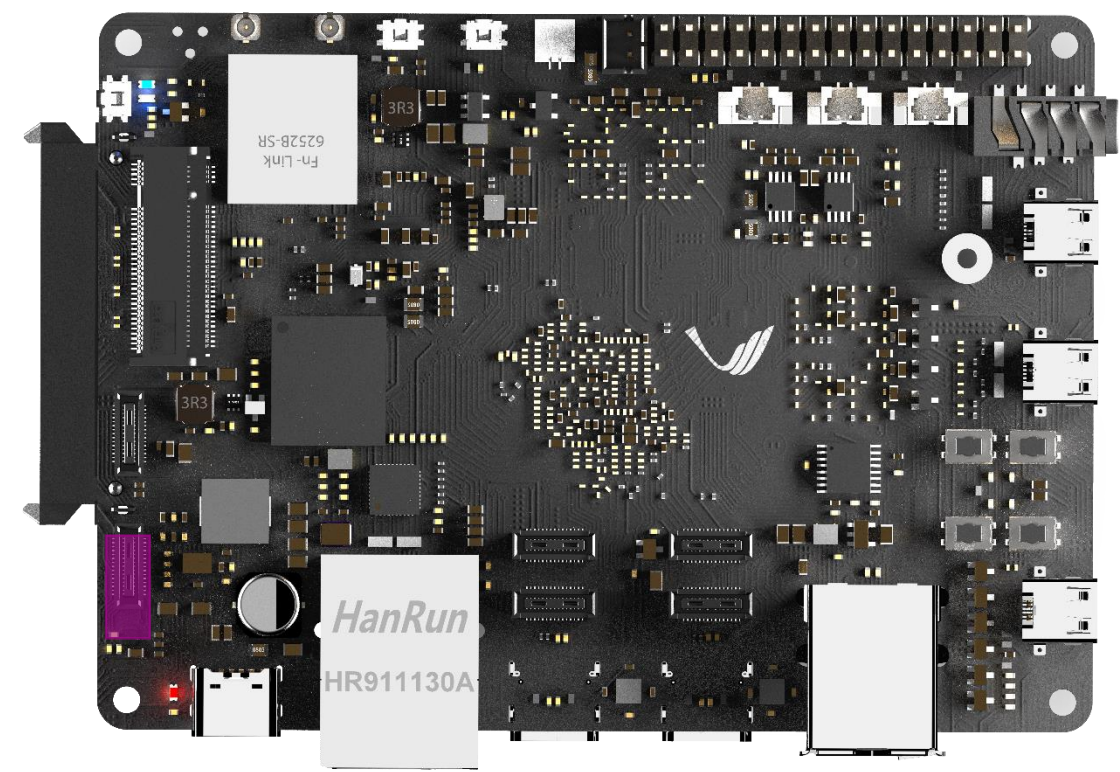|					
GND	01		02	MIPI_CSI0_RX_CLK0_N	
MIPI_CSI0_RX_D0_P	03		04	MIPI_CSI0_RX_CLK0_P	
MIPI_CSI0_RX_D0_N	05		06	GND	
GND	07		08	MIPI_CSI0_RX_D2_N	
MIPI_CSI0_RX_D1_N	09		10	MIPI_CSI0_RX_D2_P	
MIPI_CSI0_RX_D1_P	11		12	GND	
GND	13		14	MIPI_CSI0_RX_D3_N	
MIPI_CSI0_RX_CLK1_N	15		16	MIPI_CSI0_RX_D3_P	
MIPI_CSI0_RX_CLK1_P	17		18	GND	
GND	19		20	VCC_3V3_CSI	
I2C3_SDA_M0	21		22	VCC_3V3_CSI	
I2C3_SCL_M0	23		24	VCC_3V3_CSI	
MIPI_CAM3_PDN_L	25		26	VCC_3V3_CSI	
MIPI_CAM3_RESET_L	27		28	GND	
MIPI_CAM3_CLKOUT	29		30	GND	

MIPI CSI RX0

On-Board Connector
30 Pin
0.4mm Pitch
MPN : DF40HB(2.0)-30DS-0.4V(51)

Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

GND	01		02	MIPI_CSI0_RX_CLK0_N
MIPI_CSI0_RX_D0_P	03		04	MIPI_CSI0_RX_CLK0_P
MIPI_CSI0_RX_D0_N	05		06	GND
GND	07		08	MIPI_CSI0_RX_D2_N
MIPI_CSI0_RX_D1_N	09		10	MIPI_CSI0_RX_D2_P
MIPI_CSI0_RX_D1_P	11		12	GND
GND	13		14	MIPI_CSI0_RX_D3_N
MIPI_CSI0_RX_CLK1_N	15		16	MIPI_CSI0_RX_D3_P
MIPI_CSI0_RX_CLK1_P	17		18	GND
GND	19		20	VCC_3V3_CSI
I2C3_SDA_M0	21		22	VCC_3V3_CSI
I2C3_SCL_M0	23		24	VCC_3V3_CSI
MIPI_CAM3_PDN_L	25		26	VCC_3V3_CSI
MIPI_CAM3_RESET_L	27		28	GND
MIPI_CAM3_CLKOUT	29		30	GND

MIPI CSI RX1

On-Board Connector
30 Pin
0.4mm Pitch
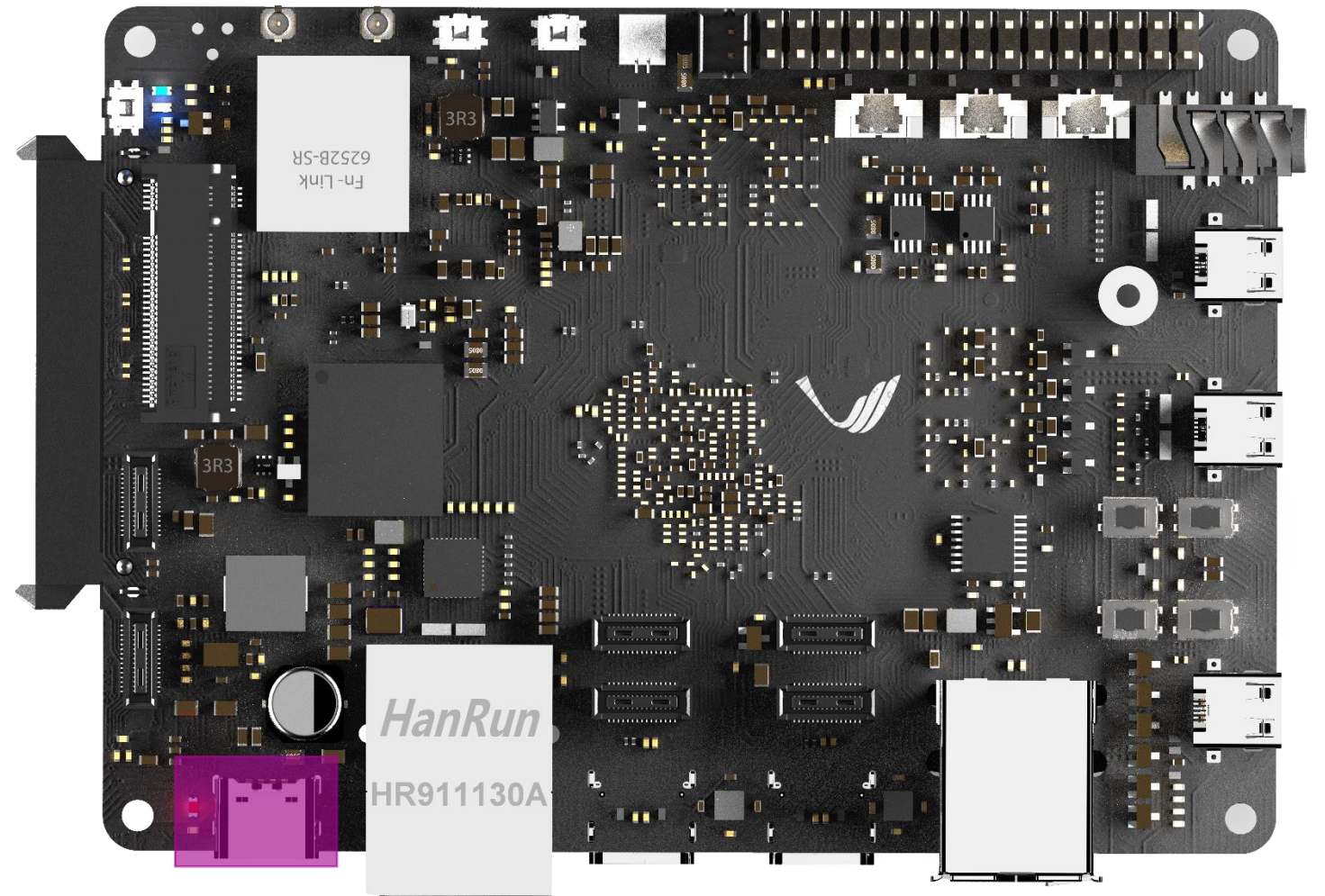MPN : DF40HB(2.0)-30DS-0.4V(51)

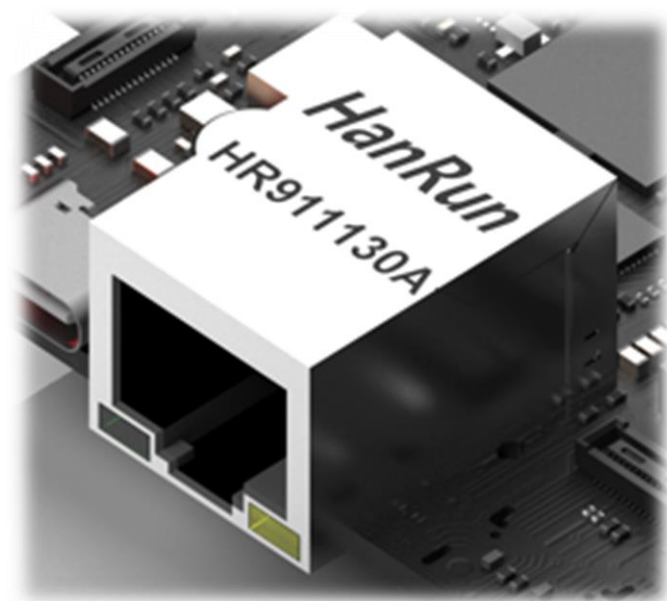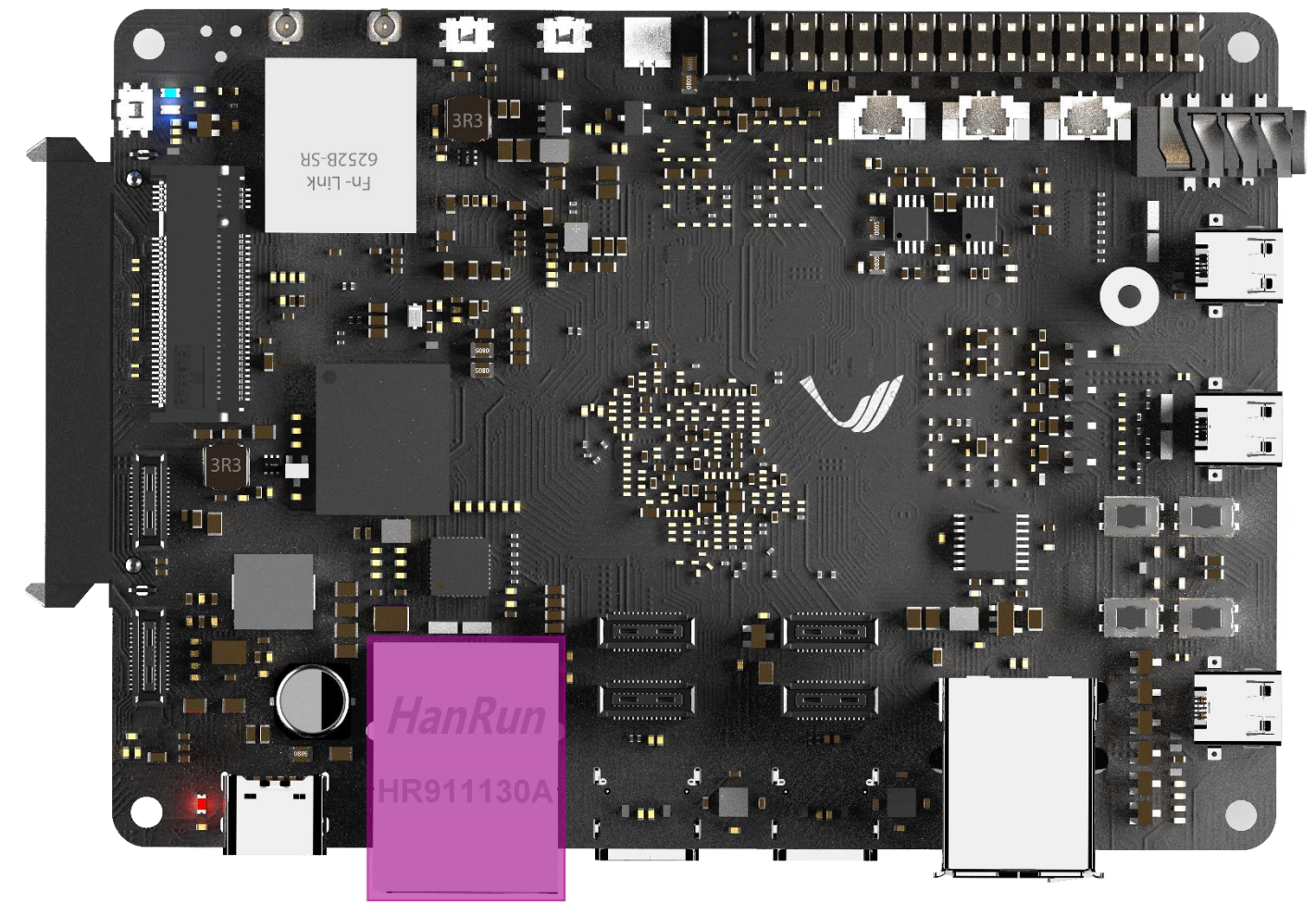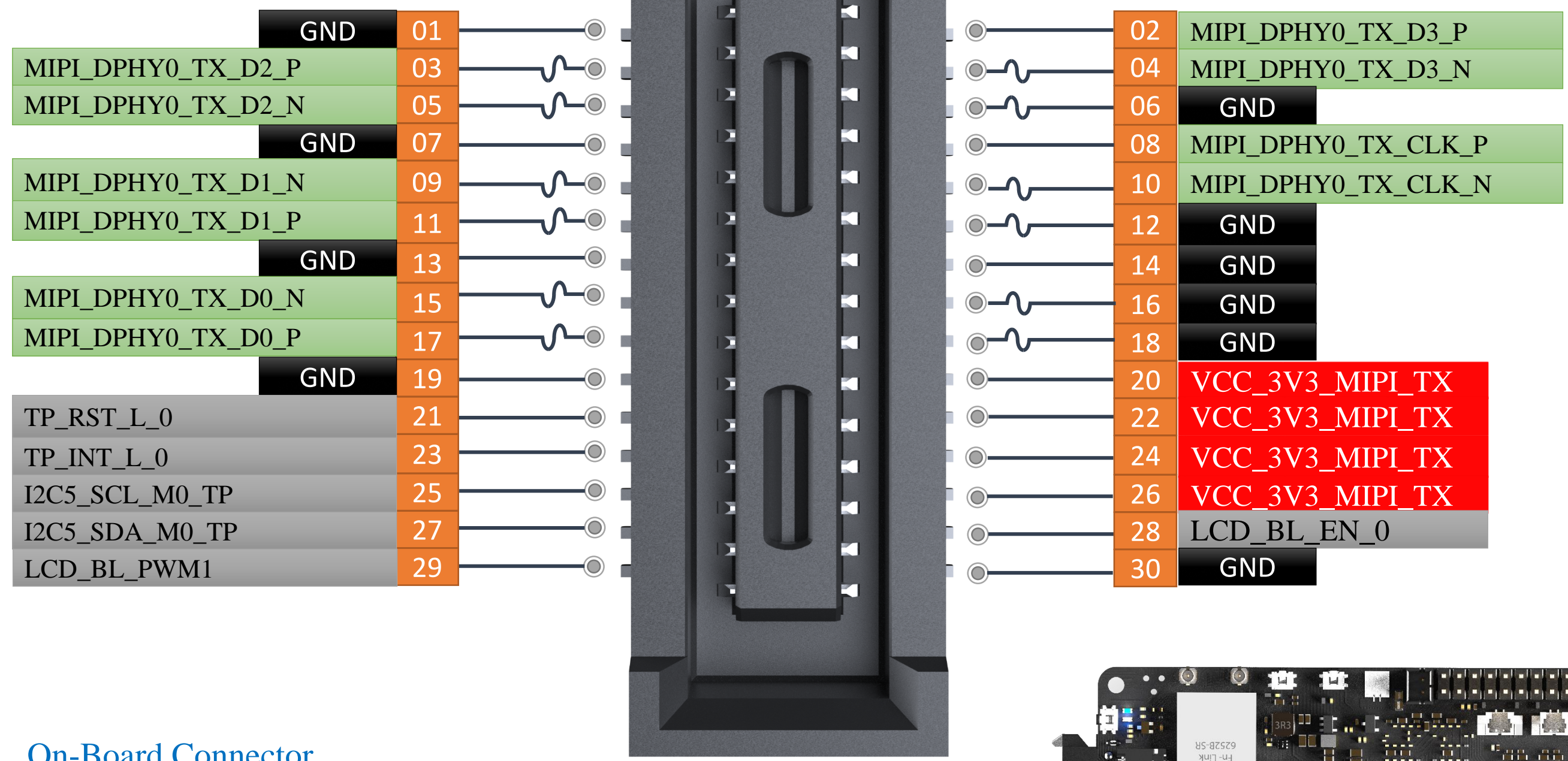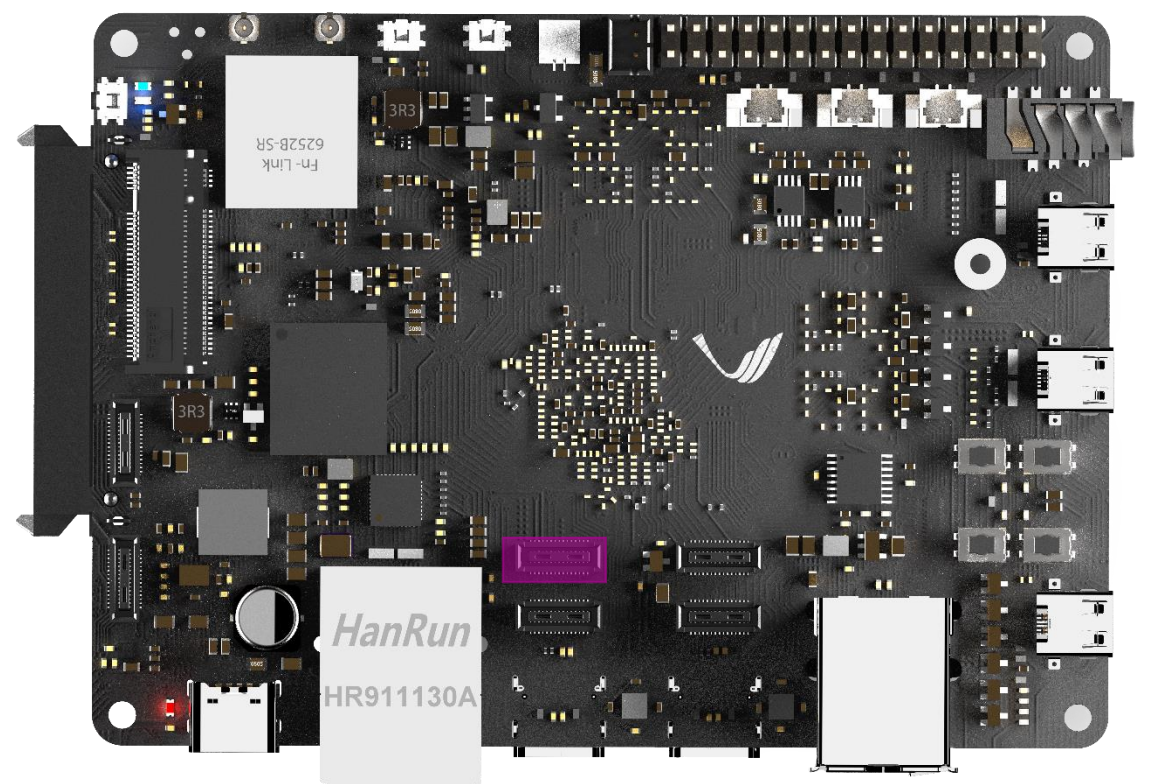Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

PWR LED

Type-C Power Input (12VDC-5A)

**ETHERNET
(10/100/1000Mbps)**

GND	01		02	MIPI_DPHY0_TX_D3_P
MIPI_DPHY0_TX_D2_P	03		04	MIPI_DPHY0_TX_D3_N
MIPI_DPHY0_TX_D2_N	05		06	GND
GND	07		08	MIPI_DPHY0_TX_CLK_P
MIPI_DPHY0_TX_D1_N	09		10	MIPI_DPHY0_TX_CLK_N
MIPI_DPHY0_TX_D1_P	11		12	GND
GND	13		14	GND
MIPI_DPHY0_TX_D0_N	15		16	GND
MIPI_DPHY0_TX_D0_P	17		18	GND
GND	19		20	VCC_3V3_MIPI_TX
TP_RST_L_0	21		22	VCC_3V3_MIPI_TX
TP_INT_L_0	23		24	VCC_3V3_MIPI_TX
I2C5_SCL_M0_TP	25		26	VCC_3V3_MIPI_TX
I2C5_SDA_M0_TP	27		28	LCD_BL_EN_0
LCD_BL_PWM1	29		30	GND

MIPI DPHY TX0

On-Board Connector
30 Pin
0.4mm Pitch
MPN : DF40HC(3.5)-30DS-0.4V(51)

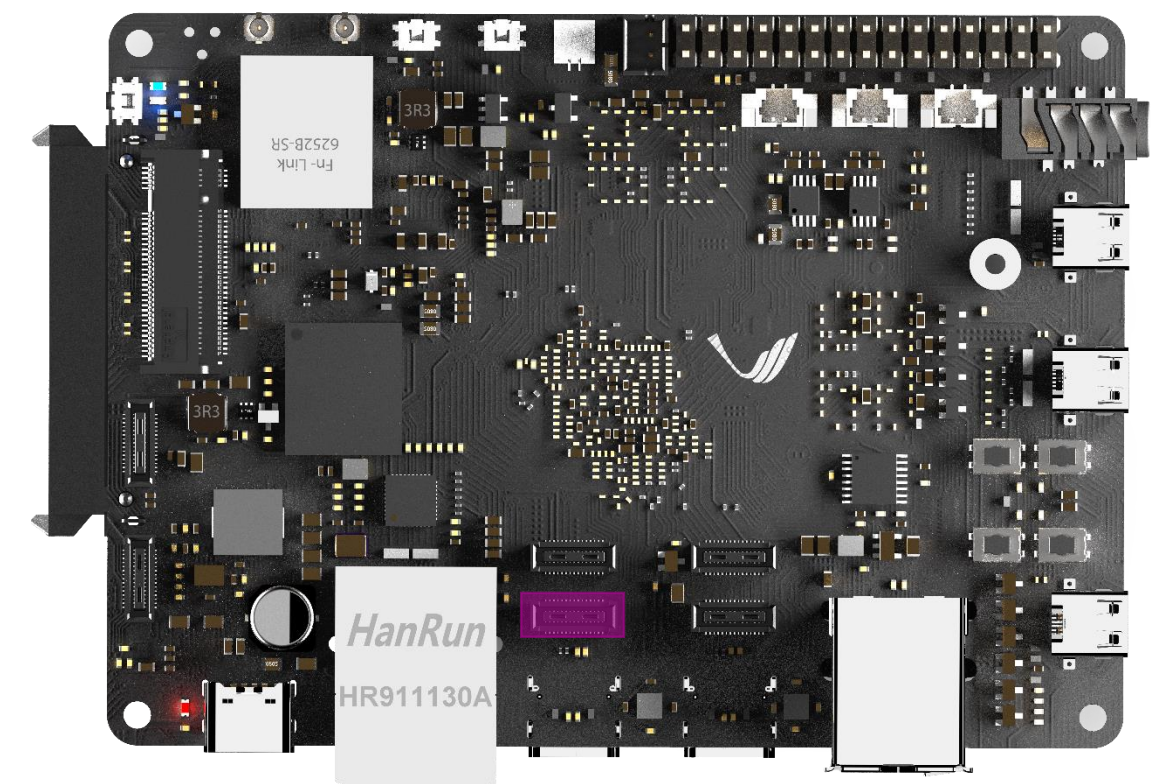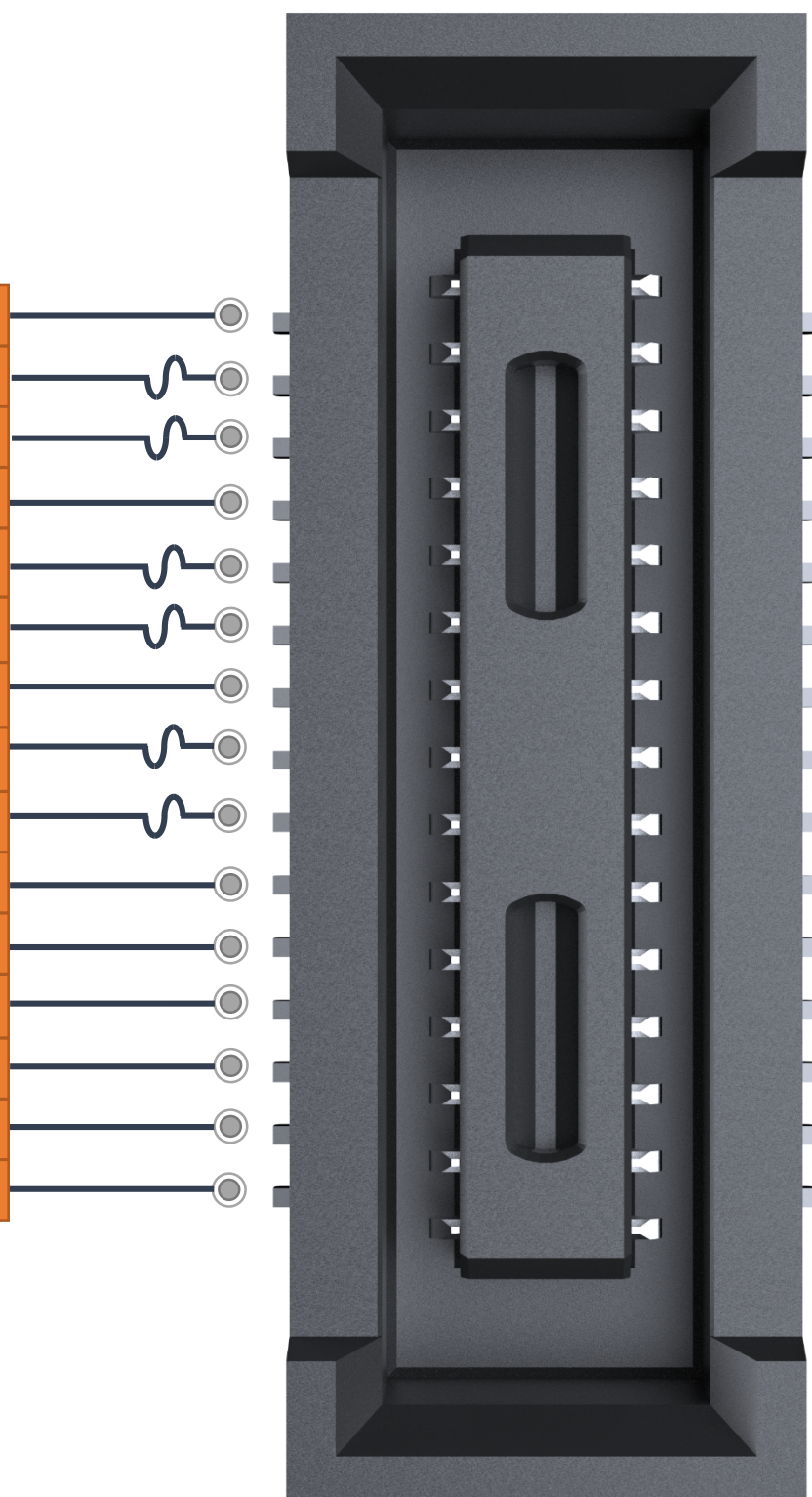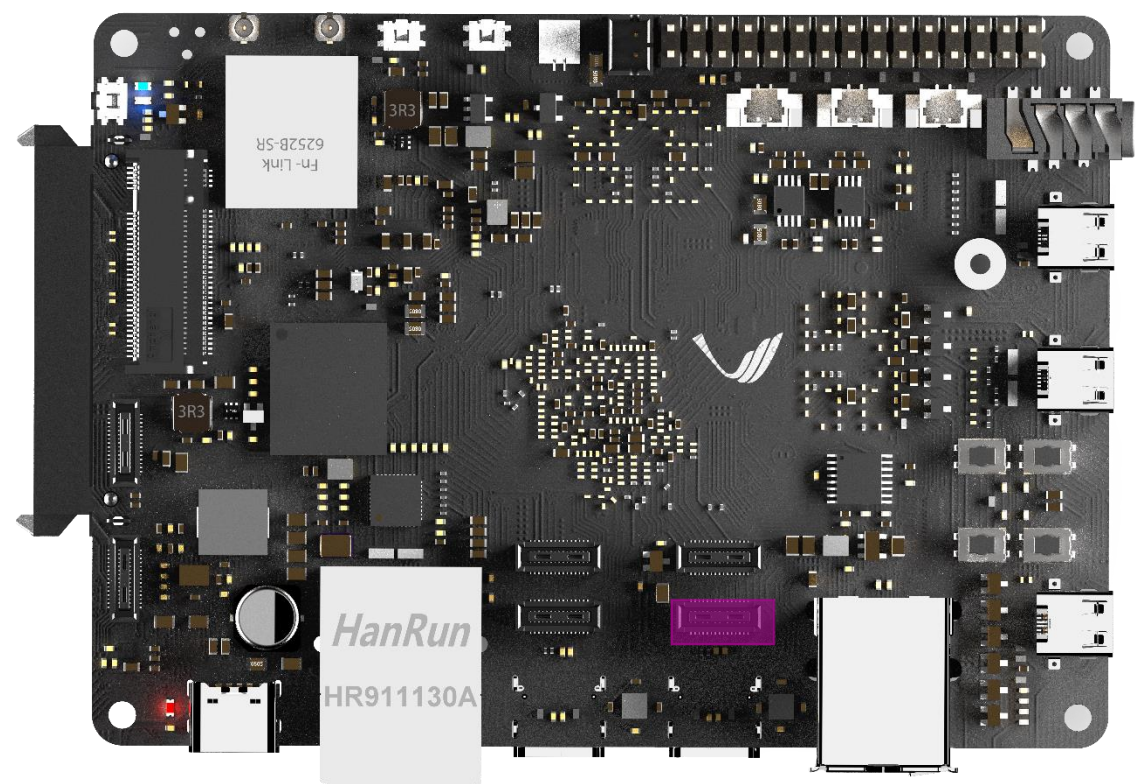Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

HanRun
HR911130A

GND	01	02	MIPI_DPHY1_TX_D2_P
MIPI_DPHY1_TX_D3_P	03	04	MIPI_DPHY1_TX_D2_N
MIPI_DPHY1_TX_D3_N	05	06	GND
GND	07	08	MIPI_DPHY1_TX_CLK_P
MIPI_DPHY1_TX_D1_P	09	10	MIPI_DPHY1_TX_CLK_N
MIPI_DPHY1_TX_D1_N	11	12	GND
GND	13	14	GND
MIPI_DPHY1_TX_D0_P	15	16	GND
MIPI_DPHY1_TX_D0_N	17	18	GND
GND	19	20	VCC_3V3_MIPI_TX
TP_RST_L_1	21	22	VCC_3V3_MIPI_TX
TP_INT_L_1	23	24	VCC_3V3_MIPI_TX
I2C5_SCL_M0_TP	25	26	VCC_3V3_MIPI_TX
I2C5_SDA_M0_TP	27	28	LCD_PWREN_1
LCD_BL_PWM2	29	30	GND

MIPI DPHY TX1

On-Board Connector
30 Pin
0.4mm Pitch
MPN : DF40HB(2.0)-30DS-0.4V(51)

Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

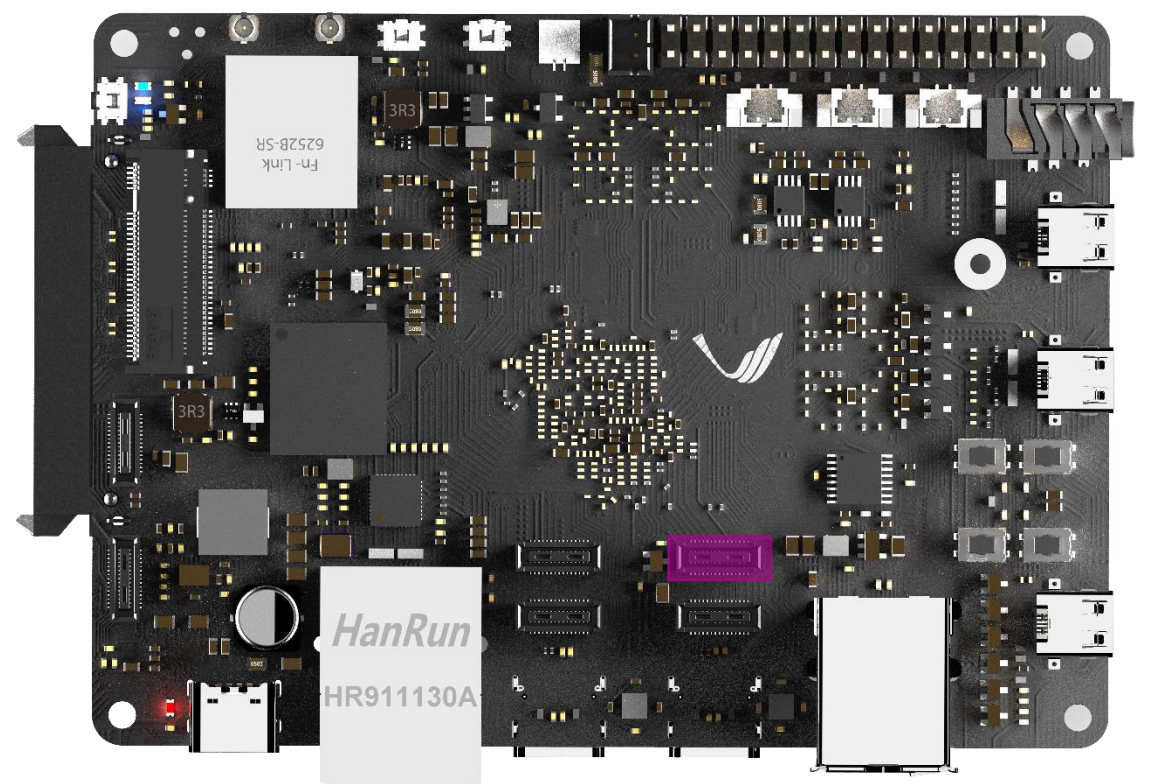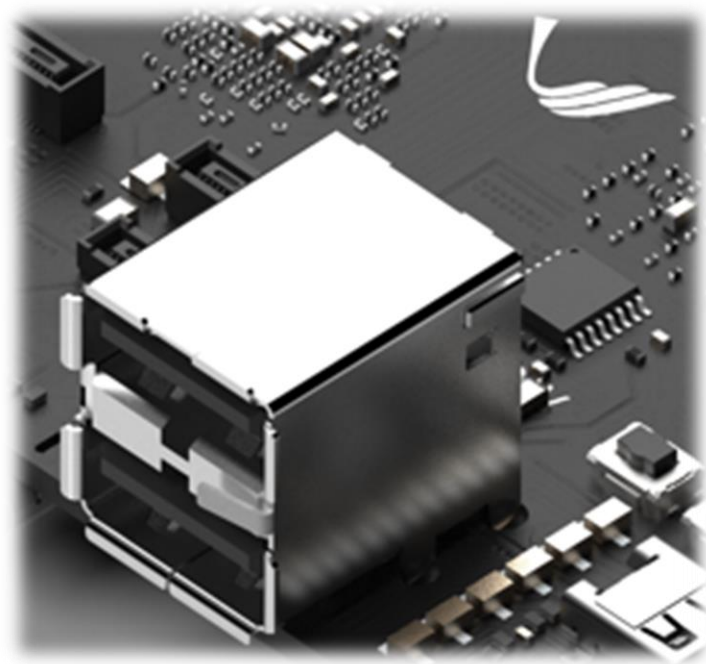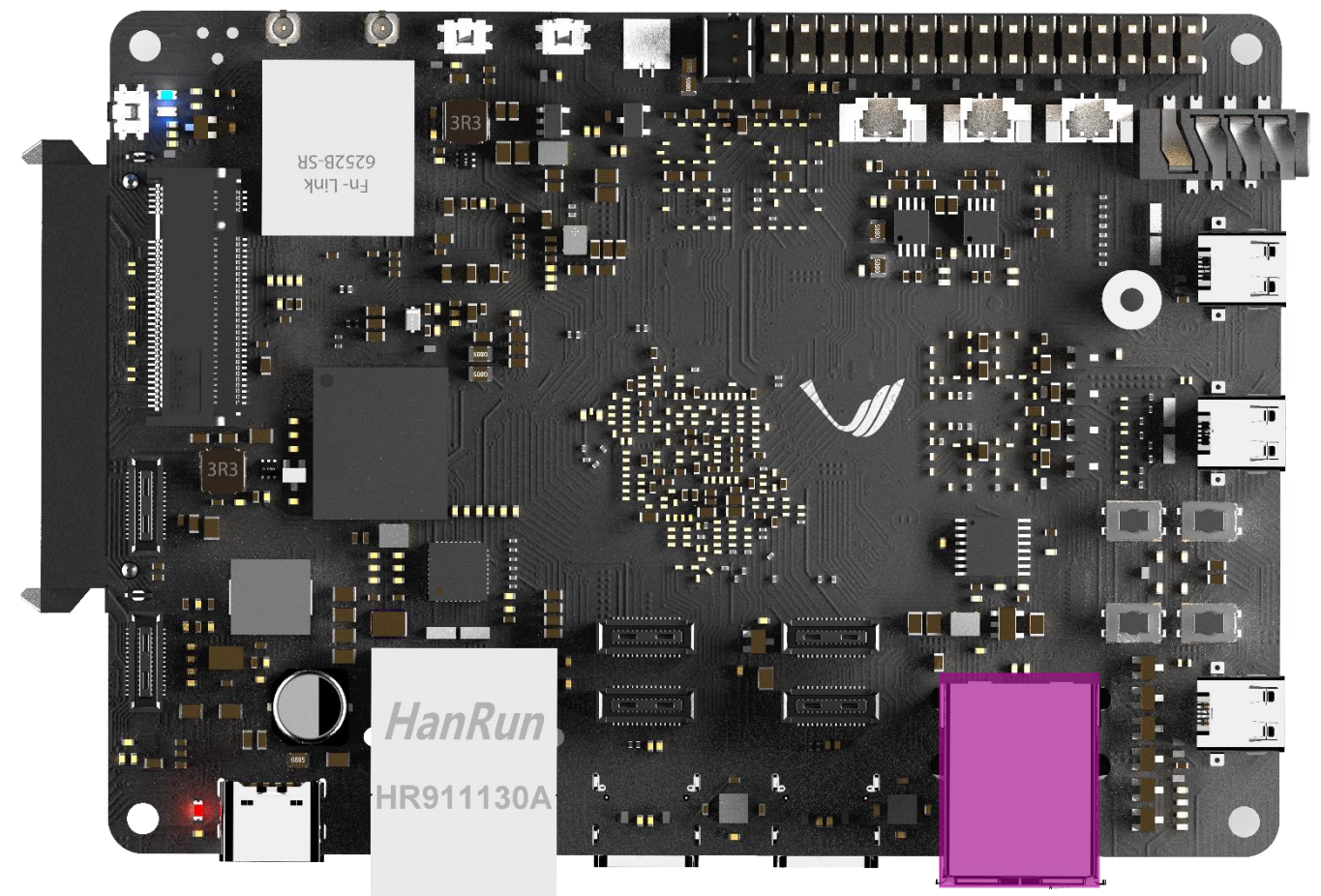|				
GND	01		02	MIPI_DPHY0_RX_D2_P
MIPI_DPHY0_RX_D3_P	03		04	MIPI_DPHY0_RX_D2_N
MIPI_DPHY0_RX_D3_N	05		06	GND
GND	07		08	MIPI_DPHY0_RX_CLK_P
MIPI_DPHY0_RX_D1_P	09		10	MIPI_DPHY0_RX_CLK_N
MIPI_DPHY0_RX_D1_N	11		12	GND
GND	13		14	GND
MIPI_DPHY0_RX_D0_P	15		16	GND
MIPI_DPHY0_RX_D0_N	17		18	GND
GND	19		20	VCC_3V3_MIPI_TX
MIPI_CAM2_CLKOUT	21		22	VCC_3V3_MIPI_TX
MIPI_CAM1/2_RESET_L	23		24	VCC_3V3_MIPI_TX
MIPI_CAM2_PDN_L	25		26	VCC_3V3_MIPI_TX
I2C2_SCL_M4_MIPI	27		28	GND
I2C2_SDA_M4_MIPI	29		30	GND

MIPI DPHY RX0

On-Board Connector
30 Pin
0.4mm Pitch
MPN : DF40HB(2.0)-30DS-0.4V(51)

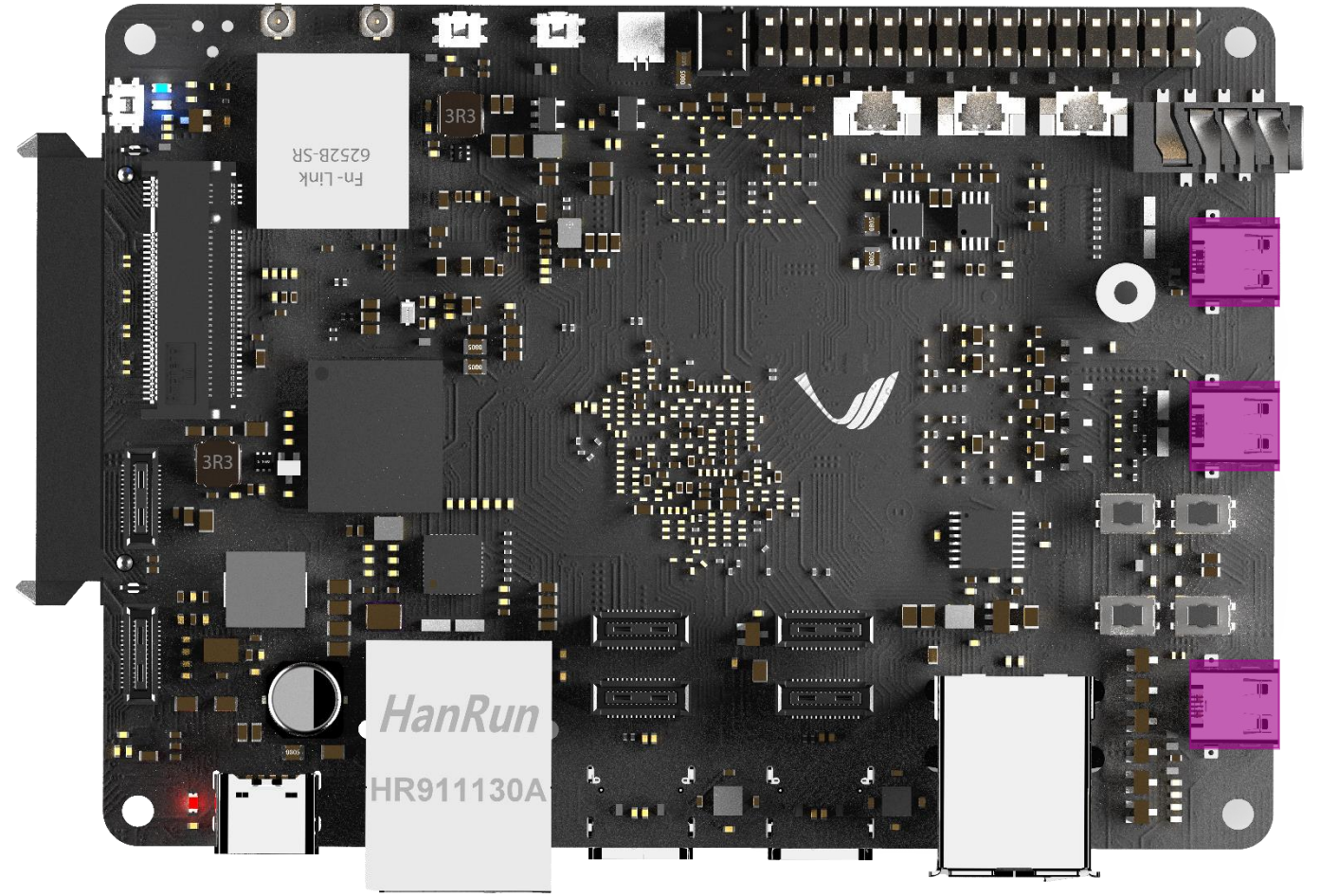Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

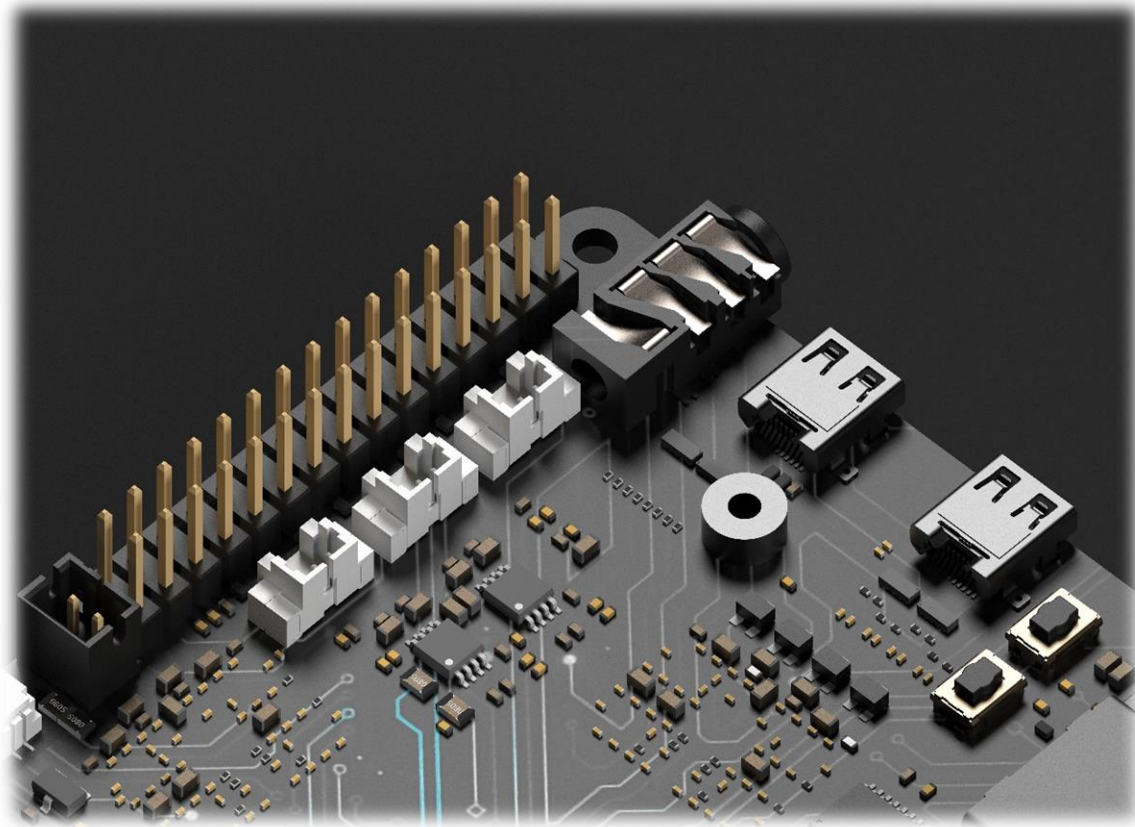|			
GND	01	02	MIPI_DPHY1_RX_D1_N
MIPI_DPHY1_RX_D3_P	03	04	MIPI_DPHY1_RX_D1_P
MIPI_DPHY1_RX_D3_N	05	06	GND
GND	07	08	MIPI_DPHY1_RX_D0_N
MIPI_DPHY1_RX_D2_P	09	10	MIPI_DPHY1_RX_D0_P
MIPI_DPHY1_RX_D2_N	11	12	GND
GND	13	14	GND
MIPI_DPHY1_RX_CLK_P	15	16	GND
MIPI_DPHY1_RX_CLK_N	17	18	GND
GND	19	20	VCC_3V3_MIPI_TX
MIPI_CAM1_CLKOUT	21	22	VCC_3V3_MIPI_TX
MIPI_CAM1/2_RESET_L	23	24	VCC_3V3_MIPI_TX
MIPI_CAM1_PDN_L	25	26	VCC_3V3_MIPI_TX
I2C2_SCL_M4_MIPI	27	28	GND
I2C2_SDA_M4_MIPI	29	30	GND

MIPI DPHY RX1

On-Board Connector
30 Pin
0.4mm Pitch
MPN : DF40HC(3.5)-30DS-0.4V(51)

Mating Connector
30 Pin
0.4mm Pitch
MPN : DF40C-30DP-0.4V(51)

2x USB2.0 HOST

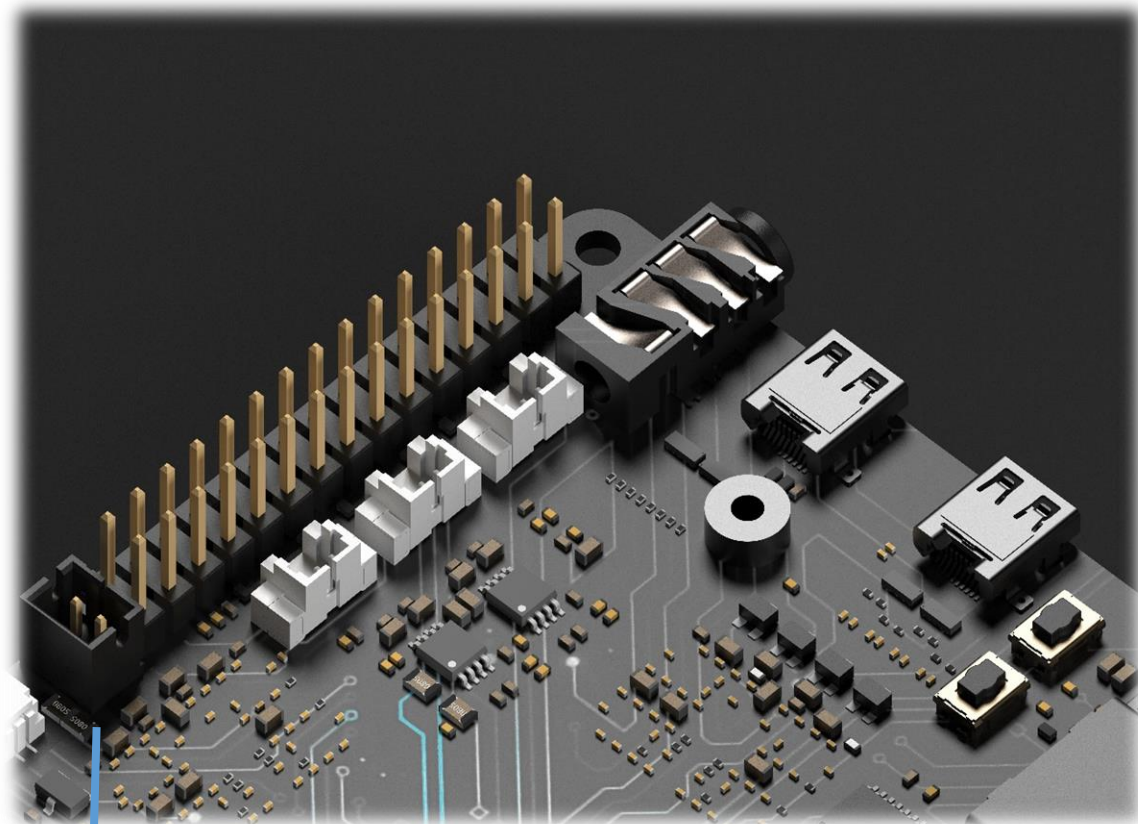**2x HDMI TX** **HDMI RX**

3.5mm Audio Jack with MIC

SPK_L   SPK_R   Analog MIC

	12V	01			02	GPIO0_B6	UART2_RX_M0__DEBUG	14
	GND	03			04	GPIO0_B5	UART2_TX_M0__DEBUG	13
	5V	05			06	GND		
	5V	07			08	GND		
81	GPIO2_C1	09			10	GPIO2_B6	78	
80	GPIO2_C0	12			12	GPIO2_B7	79	
	GND	13			14	3.3V		
	GND	15			16	3.3V		
56	GPIO1_D0	17			18	GPIO1_D1	57	
59	GPIO1_D3	19			20	GPIO1_D2	58	
	GND	21			22	3.3V		
43	GPIO1_B3	23			24	GND		
	GND	25			26	GND		
	SARADC_4	27			28	SARADC_3		
	SARADC_1	29			30	SARADC_2		

Note :   GPIO Pin Number

RK3588 30Pin GPIO Header 2.54mm
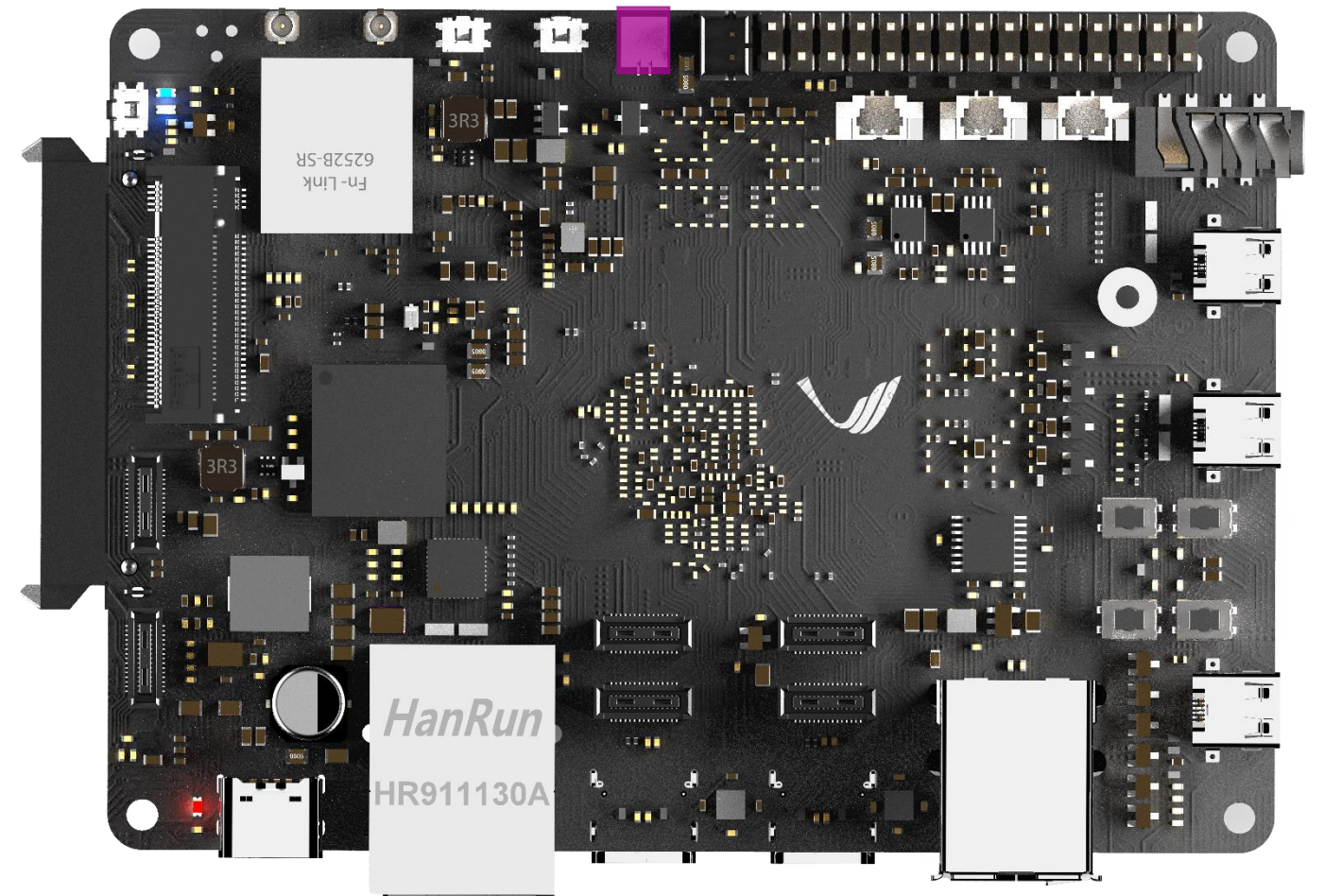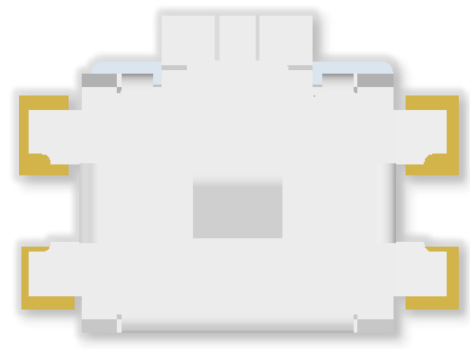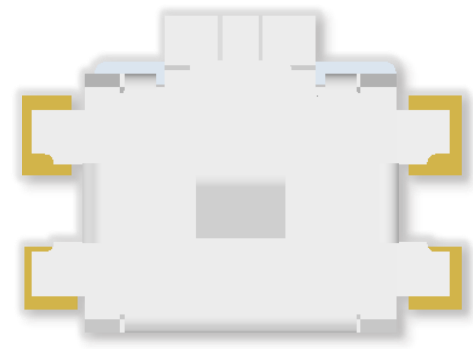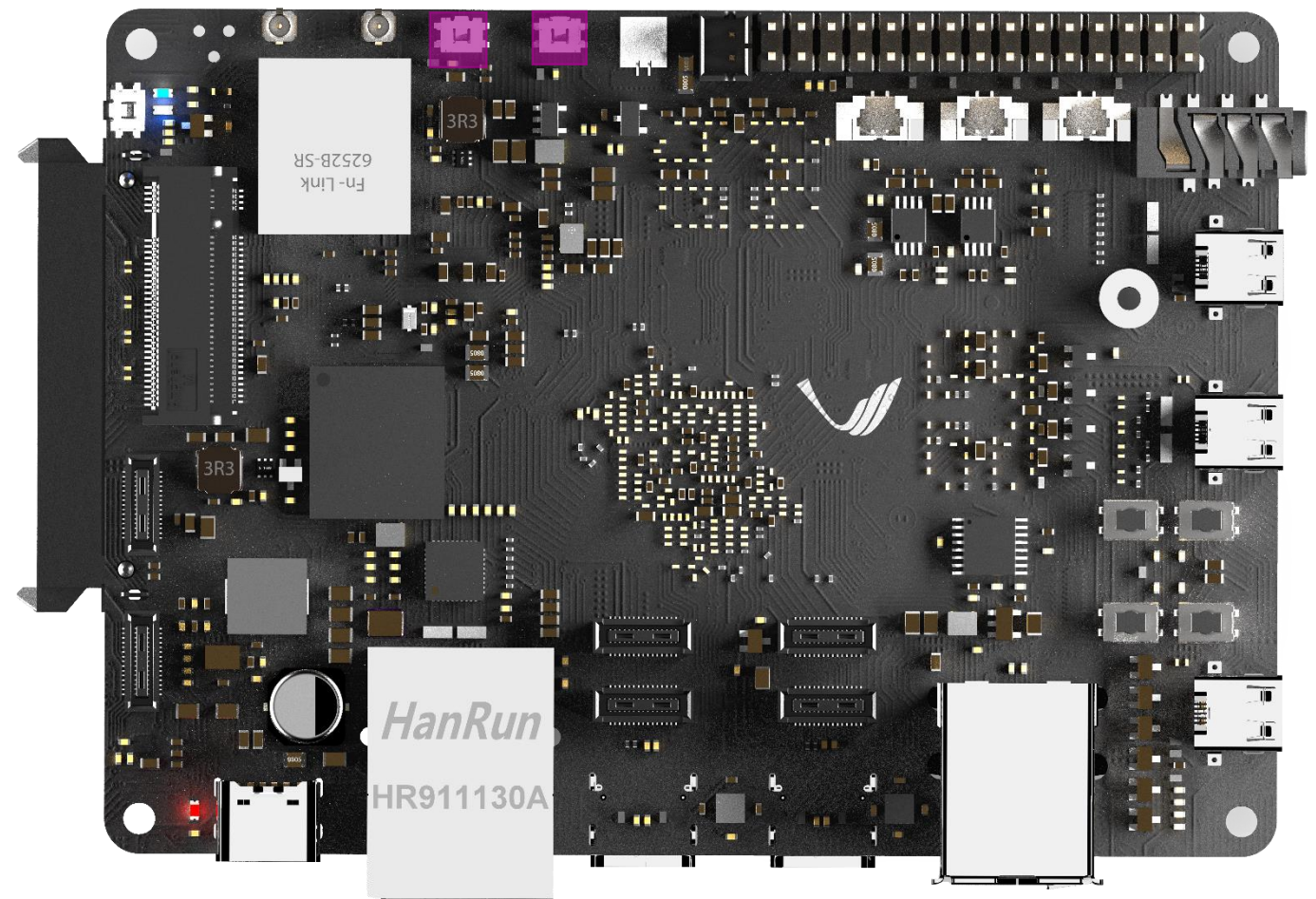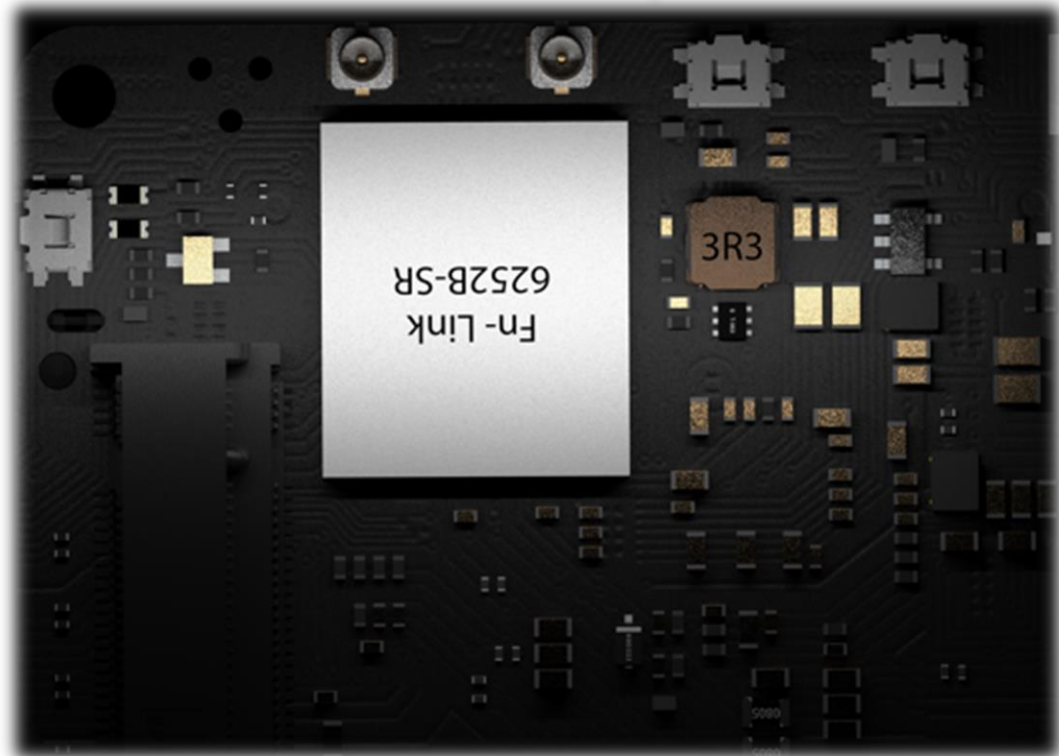
Fan Connector : 2.0mm Pitch
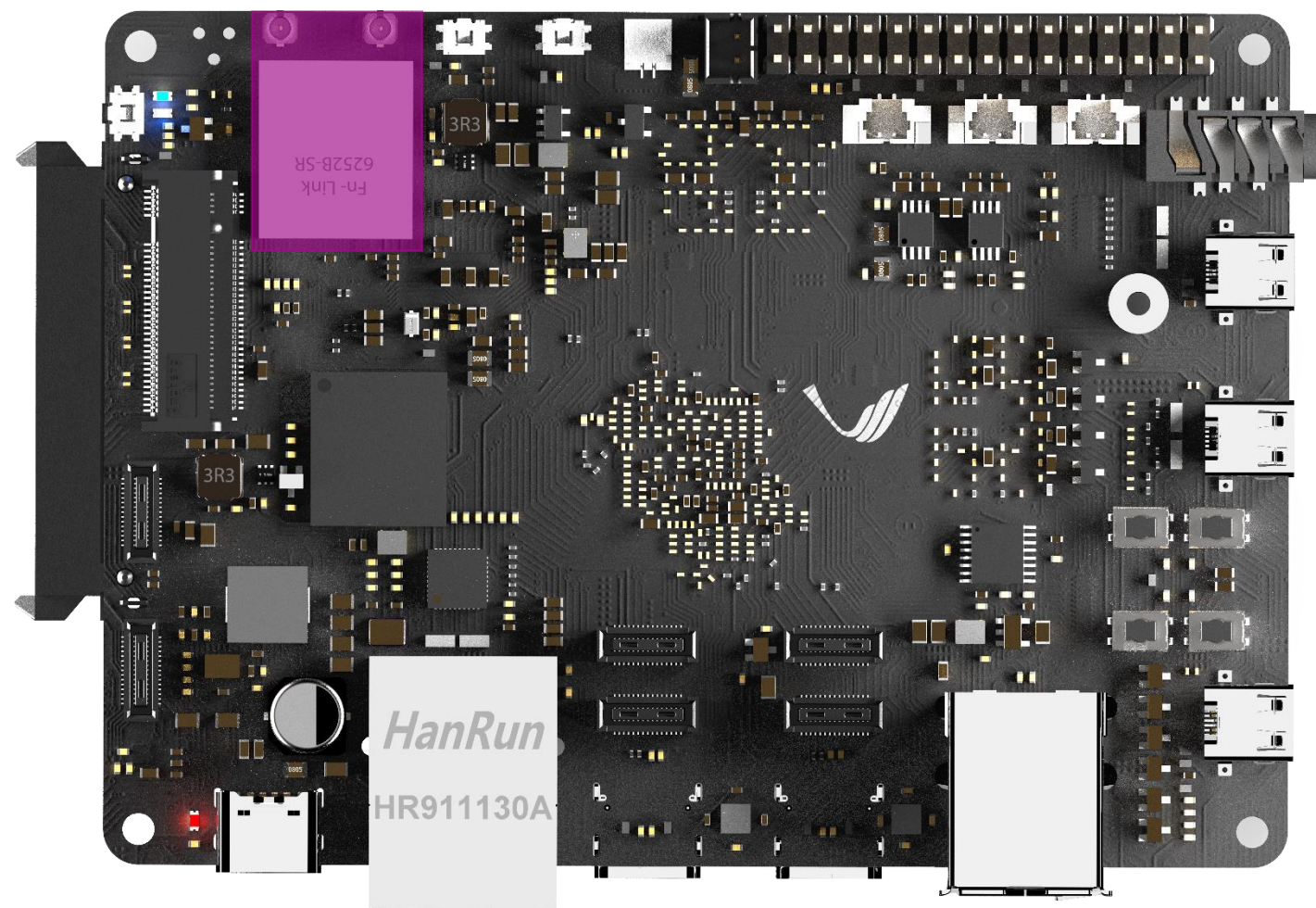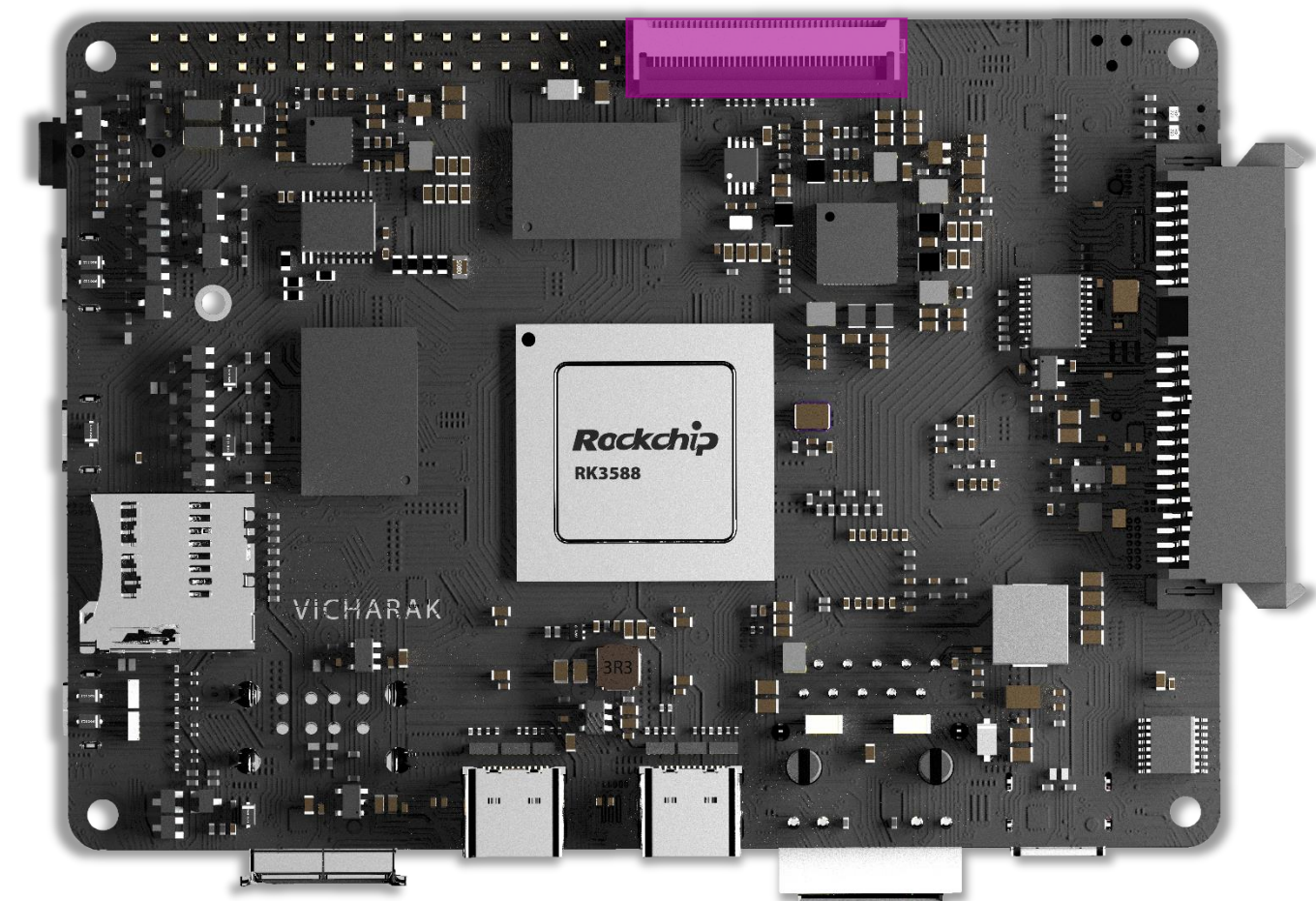
RTC Battery Connector

**PWR
on/off
Key**

**Reset
Key**

WIFI WIFI/BT

6252B-SR Wifi6 BT5.2 Module

Pin	Signal
01	GND
02-07	VCC_3.3V
08-12	GND
13	PCIE_PWREN_H
14	GND
15	PCIEx1_1_CLKREQn_M1_L
16	PCIEx1_1_WAKEn_M1_L
17	PCIEx1_1_PERSTn_M1_L
18	GND
19	PCIEX1_2_CLKREQn_M1_L
20	PCIEX1_2_WAKEn_M1_L
21	PCIEX1_2_PERSTn_M1_L
22	GND
23	PCIE20_1_TX/SATA30_1_TX_P
24	PCIE20_1_TX/SATA30_1_TX_N
25	GND
26	PCIE20_1_RX/SATA30_1_RX_P
27	PCIE20_1_RX/SATA30_1_RX_N
28	GND
29	PCIE20_1_REFCLK_P
30	PCIE20_1_REFCLK_N
31	GND
32	PCIE20_2_RX/SATA30_2_RX_P
33	PCIE20_2_RX/SATA30_2_RX_N
34	GND
35	PCIE20_2_TX/SATA30_2_TX_P
36	PCIE20_2_TX/SATA30_2_TX_N
37	GND
38	PCIE20_2_REFCLK_P
39	PCIE20_2_REFCLK_N
40	GND

PCIe2.0/SATA3.0 FPC Connector

FPC Connector
40 Pin
0.5mm Pitch
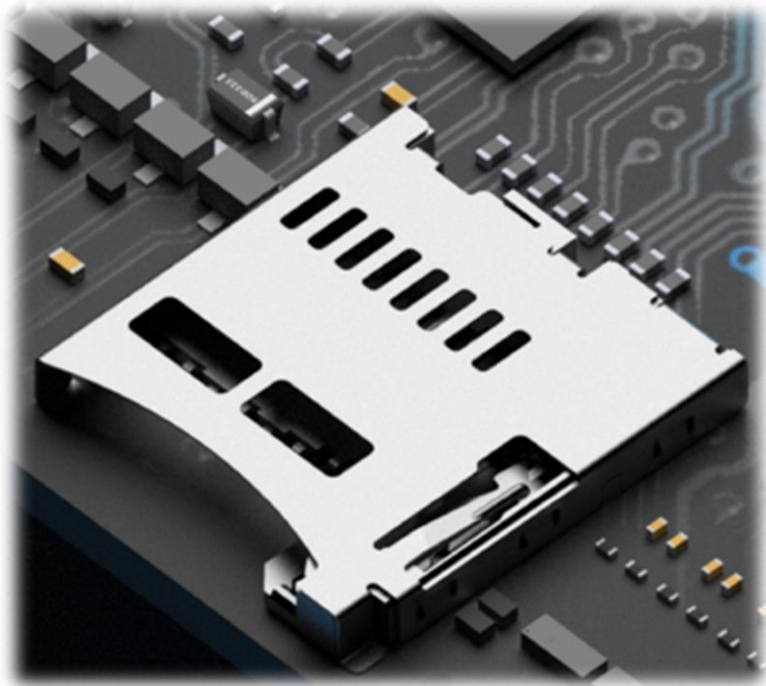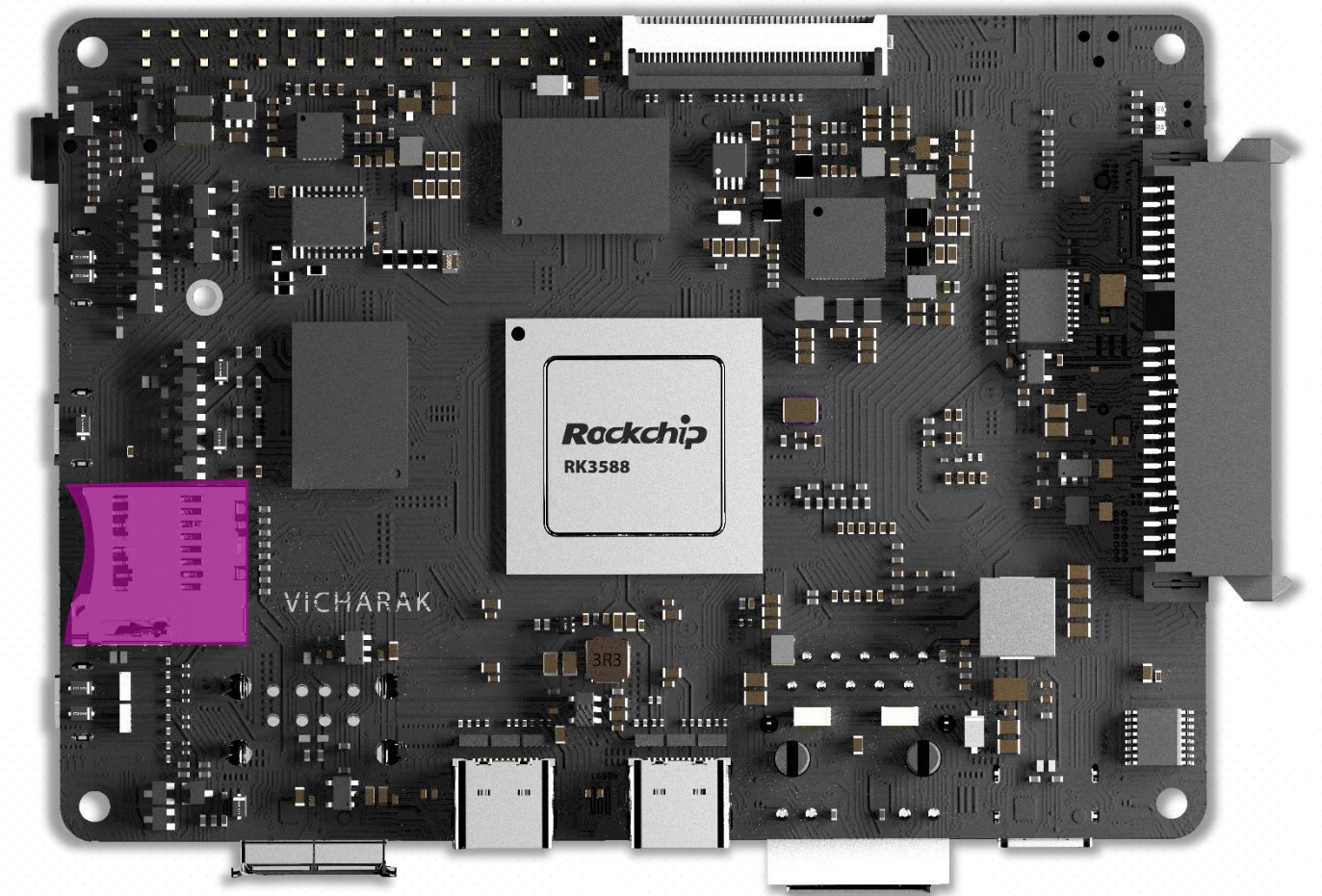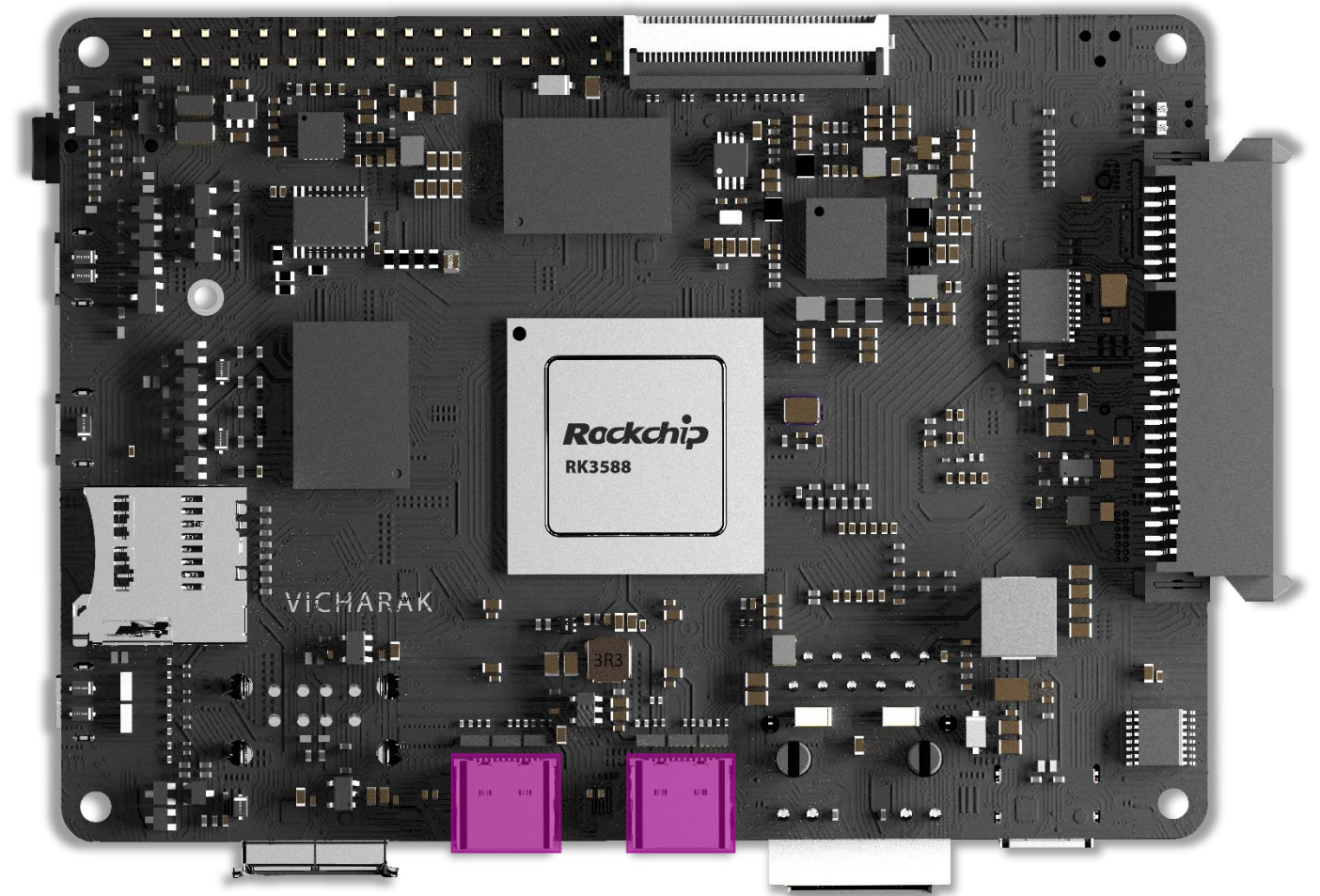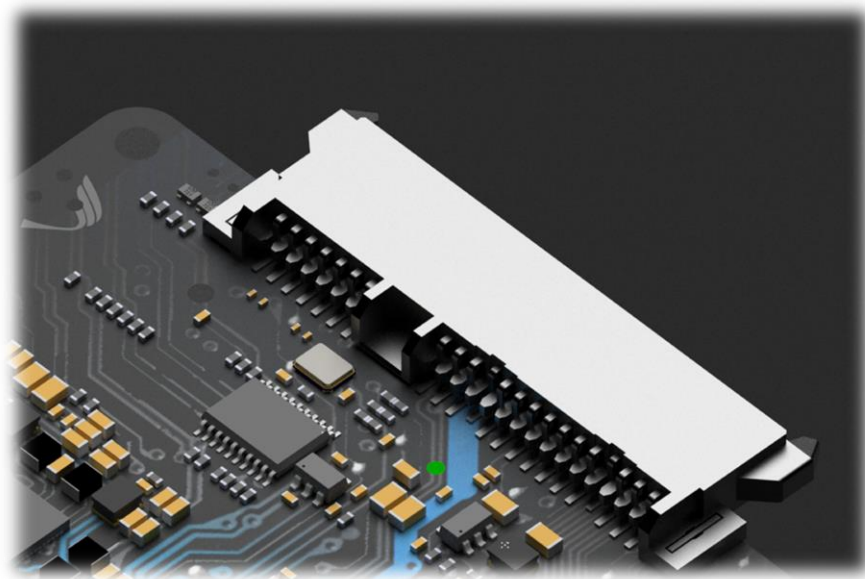MPN : FPC-05FB-40PH20

FPC Cable
40 Pin
0.5mm Pitch
Impedance 85 Ohm

Push-Push Type MicroSD Card Slot

TYPE-C Alt Display Port

22 Pin SATA Connector
SATA 3.0