WAFER-RK3576

Embedded board, 3.5” SBC supports Rockchip RK3576 Processor.

Quick Installation Guide

Version 1.00 June, 2026

Features

- 3.5 SBC supports Rockchip RK3576 Processors.
- On-board 8GB LPDDR5, up to 16GB.
- One M.2 B key 3042/3052/2280 (PCIe Gen2 x1 & USB 2.0)
- On-board SIM card socket (hinge type) for M.2 B key
- B to B Connector (Support iWB-RTL8822/iWB-BCM43752)

Packing List

- 1 x WAFER-RK3576 single board computer
- 1 x QIG

Jumpers & Connectors

J_OTG_HOST1: Choose OTG mode & HOST mode	
PIN NO.	DESCRIPTION
A-B	HOST mode
B-C	OTG mode(default)

TP_I2C1: TP_I2C1 is used for Tach & I2C			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	TP_RST
3	TP_INT	4	I2C_SDA_TP
5	I2C_SCL_TP	6	VCC3V3_TP
7	NA	8	GND

BAT1: RTC Connector	
PIN NO.	DESCRIPTION
1	V_BAT
2	GND

USB_TP1: TACH Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC5V0_USB_HUB1	2	HUB_USB_N_5
3	HUB_USB_P_5	4	GND

MIPI_LCD: EDP Screen Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	MIPI_VLED+	21	MIPI_TX_0_D3N
2	MIPI_VLED+	22	GND
3	NA	23	MIPI_TX_0_D2P
4	NA	24	MIPI_TX_0_D2N
5	NA	25	GND
6	NA	26	MIPI_TX_0_CLKP
7	NA	27	MIPI_TX_0_CLKN
8	NA	28	GND
9	MIPI_VLED-	29	MIPI_TX_0_D1P
10	MIPI_VLED-	30	MIPI_TX_0_D1N
11	GND	31	GND
12	MIPI_TE_M1	32	MIPI_TX_0_D0P
13	NA	33	MIPI_TX_0_D0N
14	MIPI_LCM_PWMOUT	34	GND
15	LCD_BL_PWM1_CH1_M0	35	NA
16	GND	36	MIPI_LCD_RST_3V3
17	NA	37	GND
18	NA	38	MIPI_LCD_3V3
19	GND	39	MIPI_LCD_3V3

20	MIPI_TX_0_D3P	40	NA

DC_IN1: Power1 DC in 12V	
PIN NO.	DESCRIPTION
1	PW_VIN
2	GND
3	GND

DC_IN3: DC_IN3 DC in 12V	
PIN NO.	DESCRIPTION
1	GND
2	GND
3	PW_VIN
4	PW_VIN

CNA1: CAN1 Connector	
PIN NO.	DESCRIPTION
1	CAN1L
2	CAN1H
3	GND
4	NA

CAN2: CAN2 Connector	
PIN NO.	DESCRIPTION
1	CAN2L
2	CAN2H
3	GND
4	NA

MIC1: MIC Connector	
PIN NO.	DESCRIPTION
1	MIC2P
2	MIC2N

AUDIO1: Audio Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	MIC_INP_PHONE	4	HP_DET_CN
2	HPOUT_L_C	5	GNDA
3	GND	6	HPOUT_R_C

SPL1: Speak Left Connector	
PIN NO.	DESCRIPTION
1	AUD_SPKLP
2	AUD_SPKLN

SPR1: Speak Right Connector	
PIN NO.	DESCRIPTION
1	AUD_SPKRP
2	AUD_SPKRN

WIFI1: WIFI Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	21	GND
2	GND	22	BT_WAKE_HOST_H
3	UART4_RTSN_M1	23	32KOUT_RTC2WIFI
4	SDIO_D0_M0_WIFI	24	HOST_WAKE_BT_H
5	UART4_TX_M1	25	GND
6	SDIO_D1_M0_WIFI	26	BT_REG_ON_H
7	UART4_RX_M1	27	GND
8	SDIO_D2_M0_WIFI	28	WLAN_PEN_3V3
9	UART4_CTSN_M1	29	NA
10	SDIO_D3_M0_WIFI	30	GND
11	GND	31	VCC_3V3_WIFI
12	SDIO_CMD_M0_WIFI	32	WF_GPIO_10
13	SAI2_LRCK_M0	33	VCC_3V3_WIFI
14	SDIO_CLK_M0_WIFI	34	WF_GPIO_11
15	SAI2_SDO_M0	35	VCC_3V3_WIFI
16	GND	36	GND
17	SAI2_SDI_M0	37	VCC_3V3_WIFI
18	WIFI_REG_ON_H	38	GND
19	SAI2_SCLK_M0	39	NA
20	WIFI_WAKE_HOST_H	40	GND

J_LCD1: LCD Power (3V3/5V) Connector	
PIN NO.	DESCRIPTION
1	VCC_3V3_Ext
2	VCC_LCD_R
3	VCC5V0_DEVICE_S0

J_PWM1: LCD Backlight Power Connector	
PIN NO.	DESCRIPTION
1	VCC_3V3_Ext
2	LCD0_BRIGHTNESS
3	VCC5V0_DEVICE_S0

J_EN1: LCD_EN Power Connector	
PIN NO.	DESCRIPTION
1	VCC_3V3_Ext

2	LCD0_ENABKL
3	VCC5V0_DEVICE_S0

INV1: LCD Backlight power in			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	LCD0_BRIGHTNESS	2	GND
3	BKL_PWR	4	GND
5	LCD0_ENABKL		

J_BKLVCC1: LCD Backlight power in (3V3/5V/12V)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC_3V3_Ext	2	J_BKL_PWR
3	VCC5V0_DEVICE_S0	4	J_BKL_PWR
5	VCC12V_DCIN	6	J_BKL_PWR

DIO1: GPIO Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	VCC5V0_DIO
3	DIO_O2	4	DIO_O1
5	DIO_IN2	6	DIO_IN1

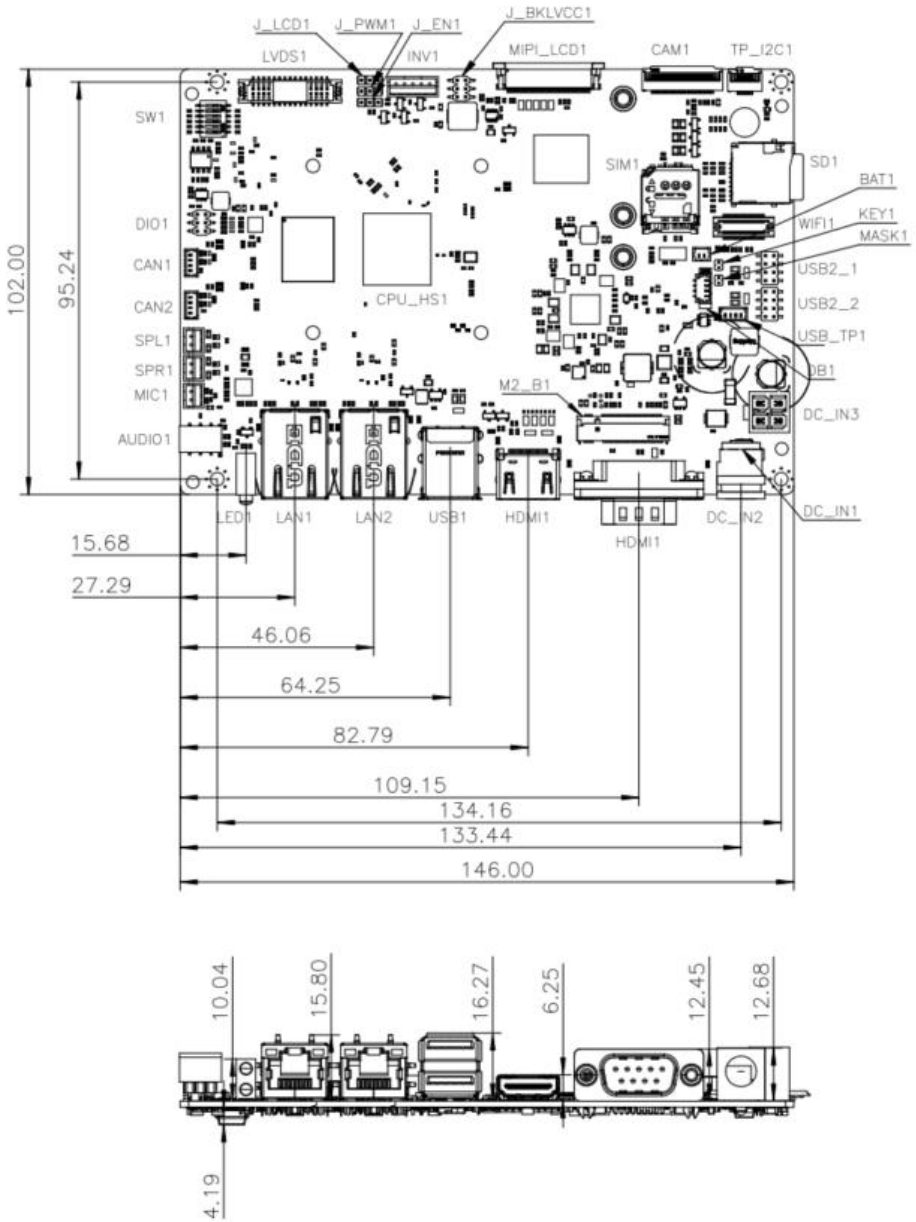
MASK1: MASKROM Connector	
PIN NO.	DESCRIPTION
1	SARADC_VIN0_BOOT
2	GND

Get more information:

WAFER-RK3576

IEI Resource Download Center

Dimensions (Unit: mm)



Safety Instructions

Warning! Read the user manual before connecting the system to the power source.

Warning! To prevent the system from overheating, do not operate it in an area that exceeds the maximum operating temperature described in the user manual.

Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

Support

IEI Support URL
http://new.ieiworld.com/tw/online_support_form

Compliance

This equipment has been tested and found to comply with specifications for CE marking. If the user modifies and/or installs other devices in the equipment, the CE conformity declaration may no longer apply.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

According to the requirement of the WEEE legislation, the following user information is provided to customers for all branded IEI Electronics products subject to the WEEE directive.
This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

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