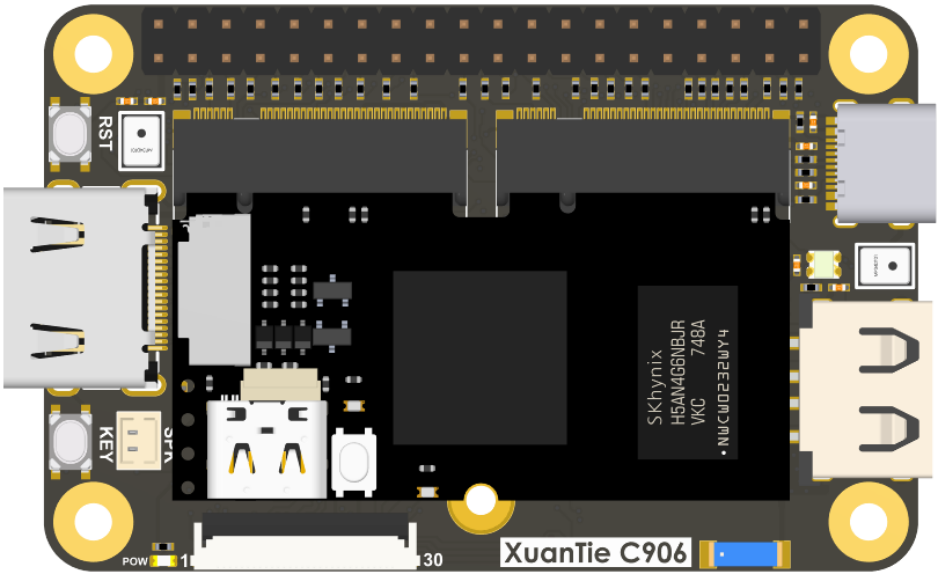
D1 Dock Pro Datasheet v1.0



Feature:

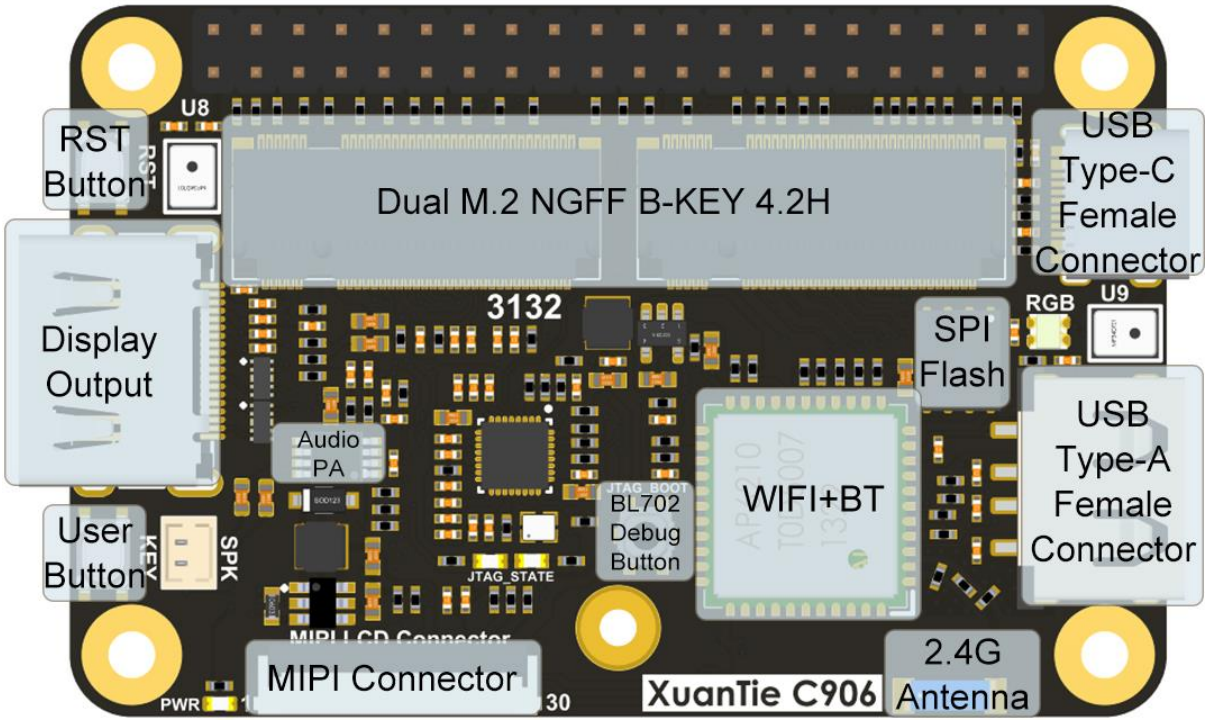
- Adapted for Lichee RV Compute Module
- Support HDMI Output, Both Video & Audio
- 2.4G Wi-Fi & BT Module with Antenna on Board
- One USB-A High-Speed for Host-mode
- USB-UART & USB-JTAG provided by BL702
- Two MEMS Microphone
- MIPI LCD Connector, RGB LCD Connector
- Ext. Touch Panel Connector

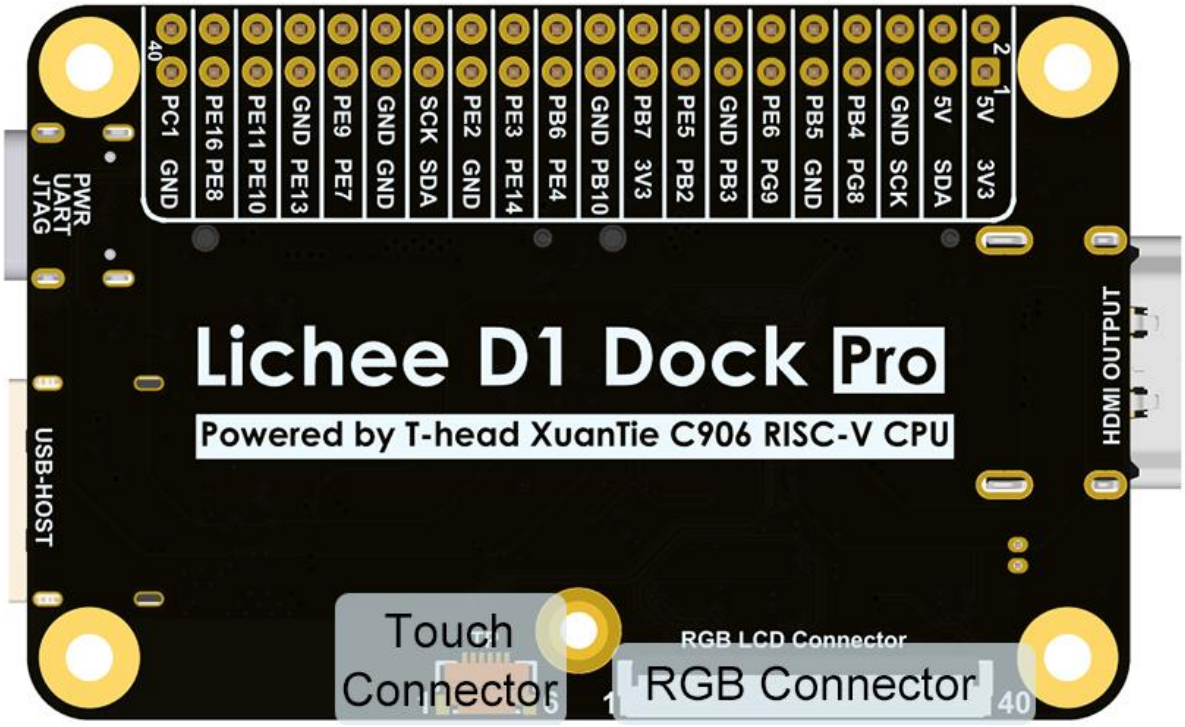
Update Notes	
V1.0	06/07/2022; Original release.

Hardware Overview	
Adapted CM	Lichee RV Compute Module
Display Output	HDMI Type-A Conn. With Audio Support, up to 1080P@30 FPS RGB LCD Connector (40P FPC, 0.5mm Pitch) MIPI LCD Connector (30P FPC, 0.5mm Pitch)
Wireless	RTL8723ds for 2.4G Wi-Fi &Bluetooth
USB	USB type-A Socket (For USB-Host of D1) USB type-C Socket (Connected to BL702 for USB-JATG/UART)
Audio	DAC & PA with speaker connector (Up to 4Ω3W) Two MEMS Microphones
Storage	128Mbit SPI FLASH(MX25L12835FZNI-10G)
Ext. Connector	6P FPC, 0.5mm Pitch (For Capacitive Touch Panel)
GPIO	Fanout GPIO via 2x20P 2.54mm Pitch Headers.
LED	One WS2182 RGB LED One LED for Power Indication Two LEDs for BL702 Status Indication
Button	One Reset Button One GPADC Button One Boot Button (For BL702 reburn firmware)

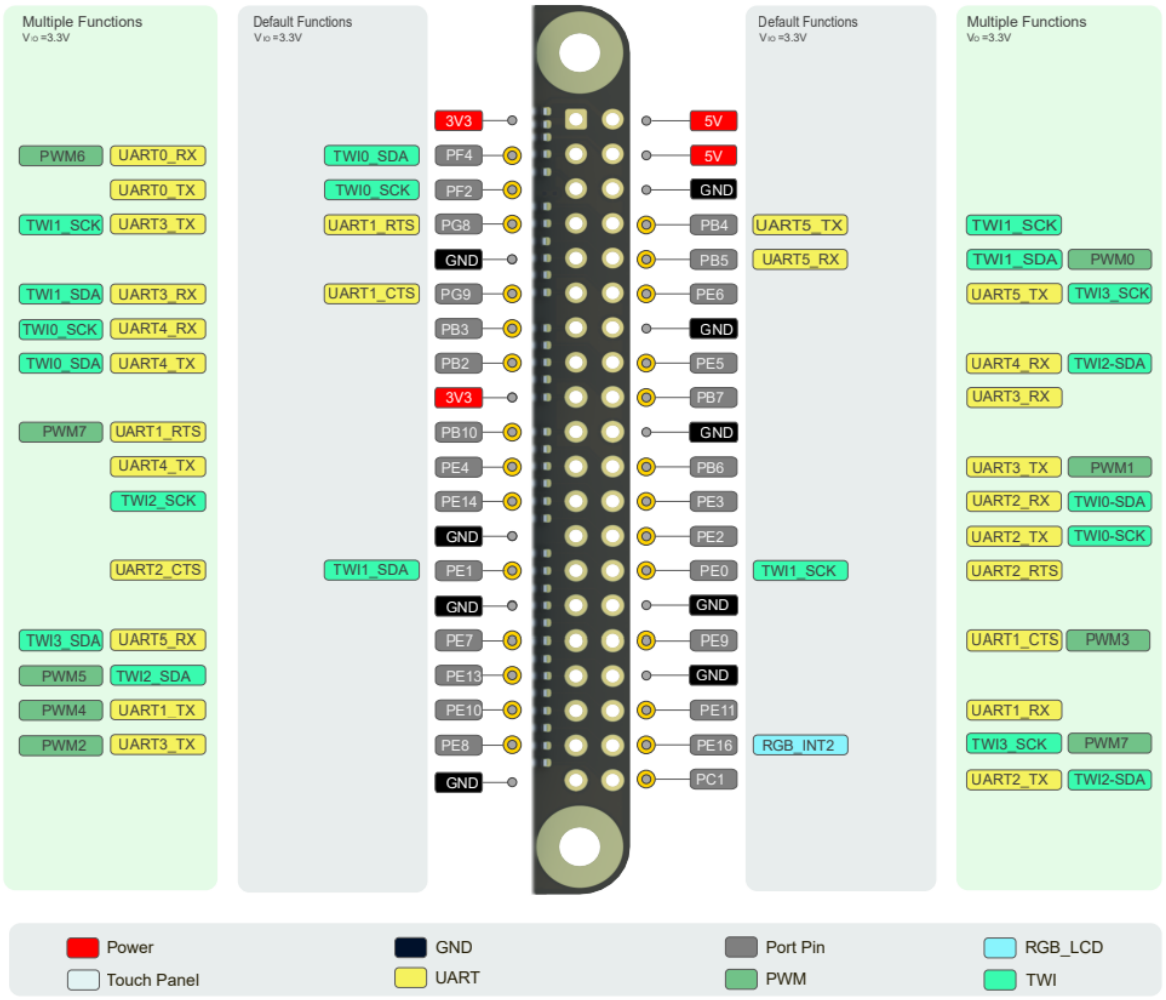
Working Conditions	
Power Supply	Via USB Type-C: DC 5V±10% @0.5A
Temperature Rise	<30K
Temperature Range	-10°C ~ 65°C

Function Block

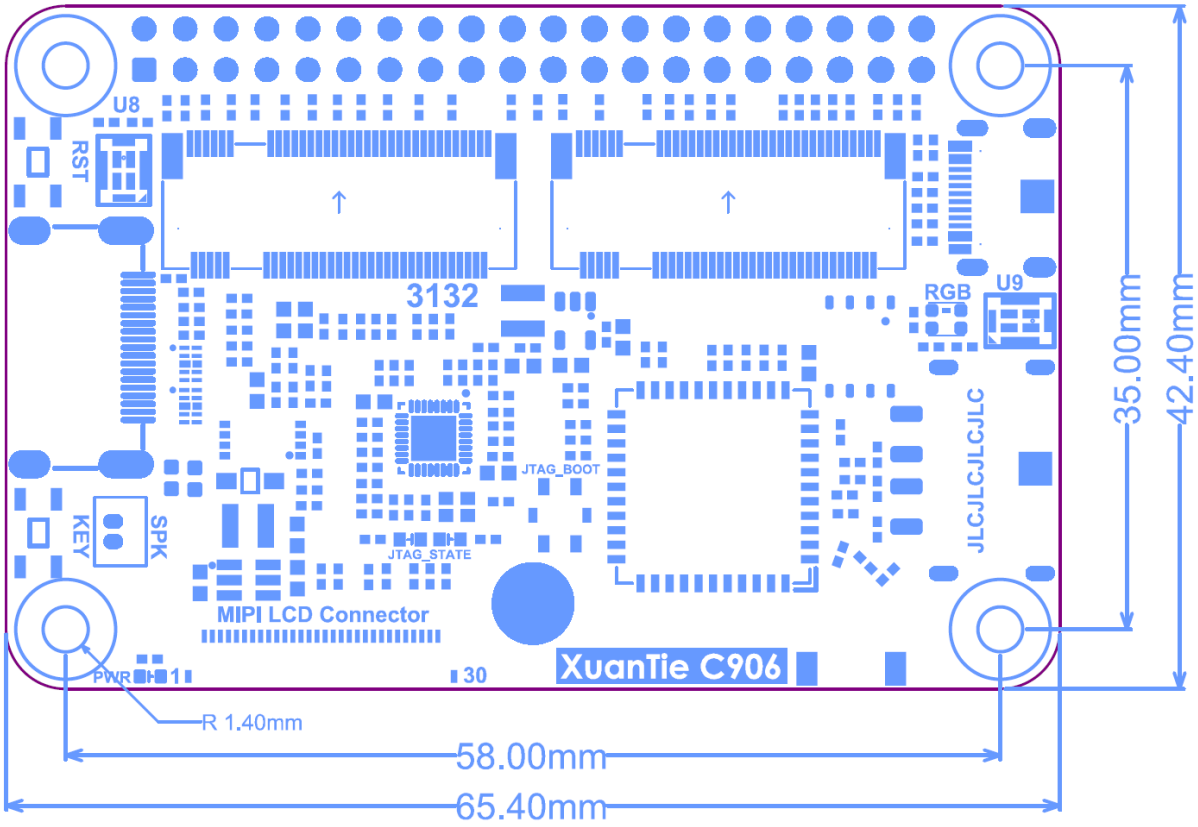




Pinout


Multiple Functions
VIO=3.3V
Default Functions
VIO=3.3V
Default Functions
VIO=3.3V
Multiple Functions
VIO=3.3V
3V3
5V
PWM6
UART0_RX
TWI0_SDA
PF4
5V
UART0_TX
TWI0_SCK
PF2
GND
TWI1_SCK
UART3_TX
UART1_RTS
PG8
PB4
UART5_TX
TWI1_SCK
GND
PB5
UART5_RX
TWI1_SDA
PWM0
TWI1_SDA
UART3_RX
UART1_CTS
PG9
PE6
UART5_TX
TWI3_SCK
TWI0_SCK
UART4_RX
PB3
GND
TWI0_SDA
UART4_TX
PB2
PE5
UART4_RX
TWI2-SDA
3V3
PB7
UART3_RX
PWM7
UART1_RTS
PB10
GND
UART4_TX
PE4
PB6
UART3_TX
PWM1
TWI2_SCK
PE14
PE3
UART2_RX
TWI0-SDA
GND
PE2
UART2_TX
TWI0-SCK
UART2_CTS
TWI1_SDA
PE1
PE0
TWI1_SCK
UART2_RTS
GND
GND
TWI3_SDA
UART5_RX
PE7
PE9
UART1_CTS
PWM3
PWM5
TWI2_SDA
PE13
GND
PWM4
UART1_TX
PE10
PE11
UART1_RX
PWM2
UART3_TX
PE8
PE16
RGB_INT2
TWI3_SCK
PWM7
GND
PC1
UART2_TX
TWI2-SDA
Power
Touch Panel
GND
UART
Port Pin
PWM
RGB_LCD
TWI

Dimensions	
Length	65.4mm
Width	42.4mm
Thickness	Please refer to the 3D CAD drawing



Precautions	
ESD Protection	Please pay attention to avoid ESD to the PCBA, release the static electricity of your body before touching the PCBA
Tolerant Voltage	Please do not connect a voltage exceed the tolerant voltage to any GPIO, otherwise it will cause permanent damage to the PCBA
FPC Connector	When connecting the FPC cable, please make sure that the cable is correctly inserted into the connector without ANY OFFSET
Teardown	Please cut off the power supply totally before teardown
Beware of Short Circuits	When the PCBA is working, please avoid any liquid and metal contact the components or pads on the PCBA, otherwise it may cause a short circuit and damage the PCBA

Resources	
Official Website	www.sipeed.com
Github	github.com/Sipeed
BBS	bbs.sipeed.com
Wiki	wiki.sipeed.com
Sipeed Model Platform	maixhub.com
SDK /HDK	dl.sipeed.com
E-mail (For business)	support@sipeed.com

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