



深圳市海天雄电子有限公司
Shenzhen Haitianxiong Electronic Co., Ltd.

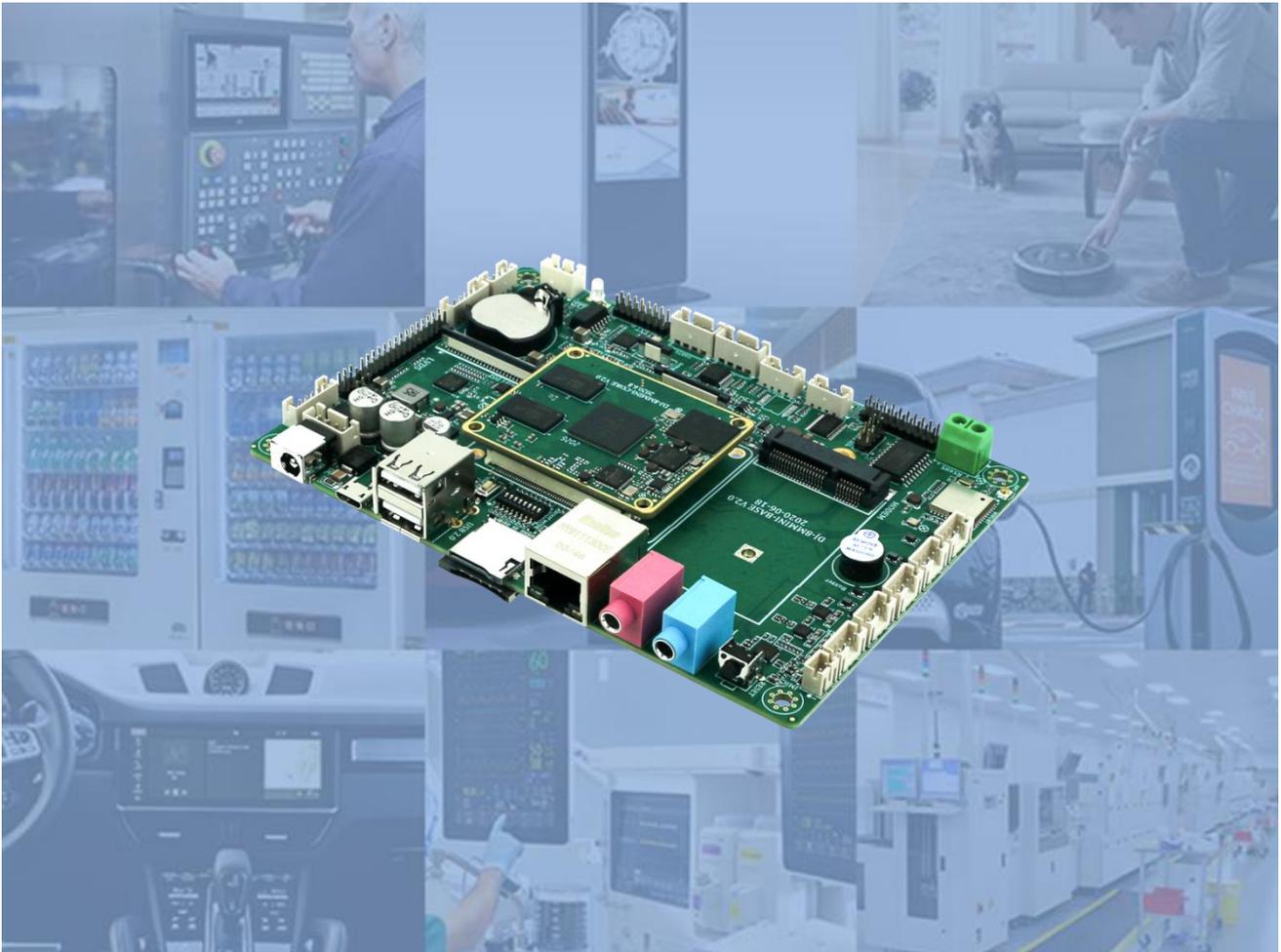
DJ-8MMINI-KIT

Product Specification

NXP Development Platform

Rev. V2.0

Date : 2021-04-26



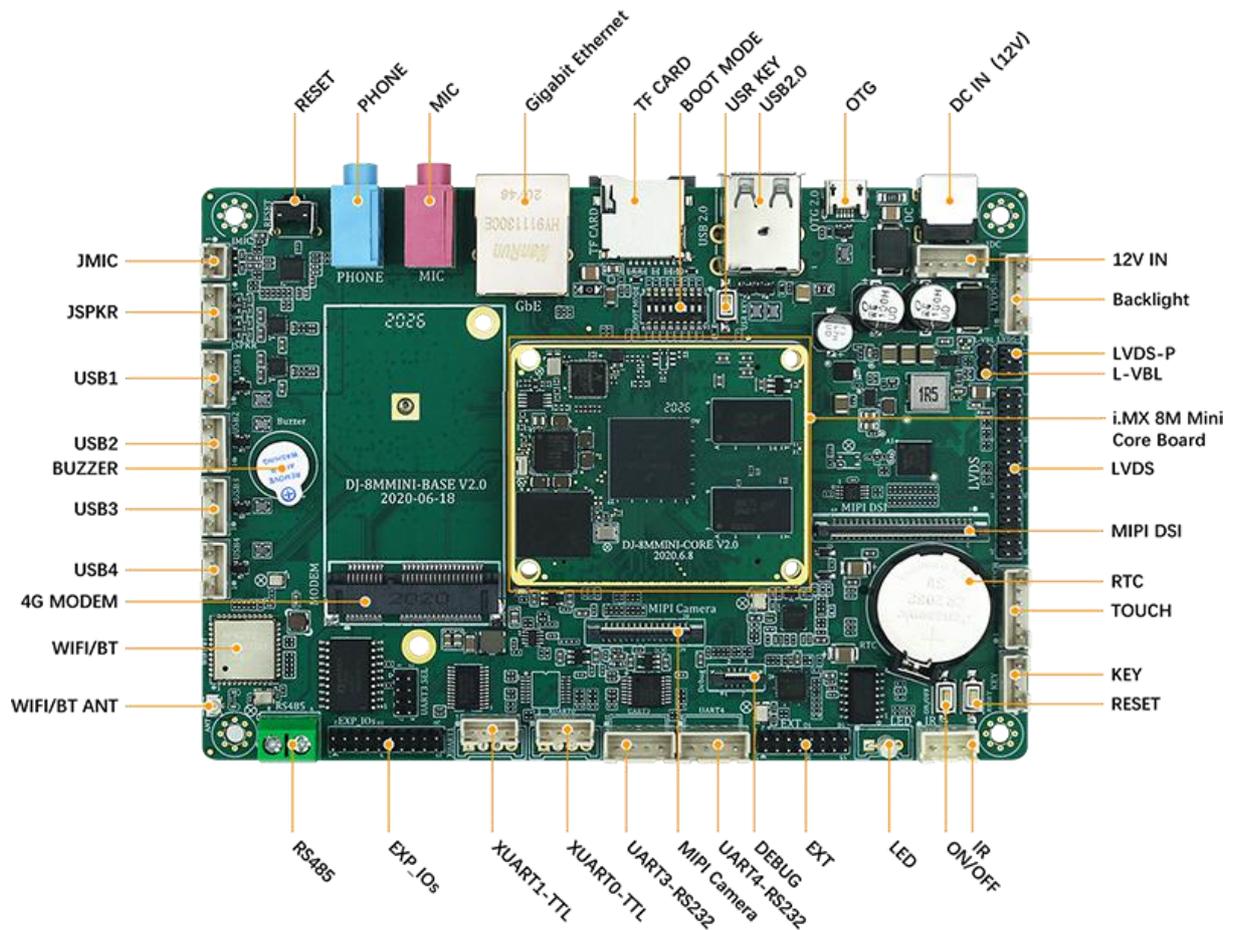
Introduction

DJ-8MMINI-KIT is used for rapid evaluation and development of DJ-8MMINI-CORE core board. Based on powerful NXP Embedded i.8M Mini multi-core processor, it is designed with many application function interfaces and perfect drivers, which can effectively reduce the development difficulty of target products, simplify the development cycle and greatly shorten the time to market.

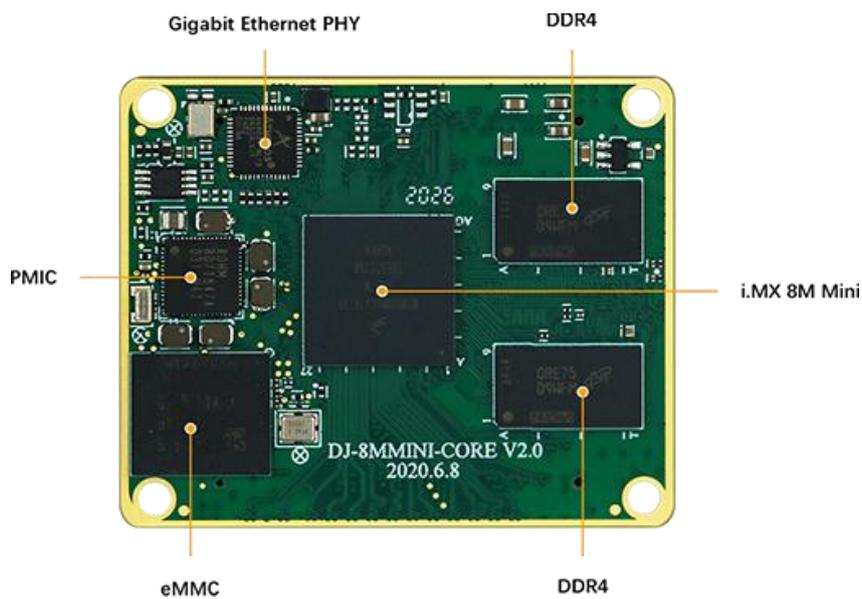
This evaluation kit consists of core board, base board and development aids. The core board is designed with high TG HDI, compatible with NXP's i.MX8M Mini full series processor. It integrates CPU, DDR4, eMMC, PMU, Ethernet and QSPI, B2B connection with base board through two high precision industrial grade connector, easy to install the product. The base board adopts 3.5 inch industrial design, which can adapt to the company's i.MX8M Mini and i.MX8M Nano core boards, combined with the design of a comprehensive application interface, such as LVDS (or MIPI), Audio, Gigabit Ethernet, M.2 2280 SSD interface, TF card, USB, Multiple serial port, RS485, GPIO, RTC, WIFI/BT, 4G/3G etc.

DJ-8MMINI-KIT has a variety of development resources and mature system software, supporting Linux and Android 9.0. It can be widely used in industrial equipment, instrumentation, smart terminals, smart manufacturing equipment, and smart control equipment.

Function Interface



ARM SOC Module



Hardware Parameter

Hardware Parameter [CORE]	
Processor	
CPU	<ul style="list-style-type: none"> ● NXP i.MX8M Mini Processor ● 4x Cortex-A53 @ 1.8 GHz ● 1x Cortex-M4 @ 400 MHz
GPU	<ul style="list-style-type: none"> ● 3D GPU (1x shader, OpenGL[®] ES 2.0) , 2D GPU
Storage	
Memory	<ul style="list-style-type: none"> ● 2GB 32-bit DDR4
eMMC	<ul style="list-style-type: none"> ● 16GB eMMC 5.1 (optional 8GB/32GB/64GB...)
QSPI FLASH	<ul style="list-style-type: none"> ● 32MB QSPI Flash
Network	
Ethernet	1x Gigabit Ethernet , Support 10M/100M/1000M
B2B Fixing hole	
Fixing hole	Two 2x 50PIN connectors Industrial socket
Number of pins	Total 200PIN
B2B Fixing hole	
Fixing hole	Four
Environment	
Working environment	Temperature : -40°C ~ 85°C humidity : 10%~90%RH@31°C no condensation
Storage environment	Temperature : -40°C ~ 125°C humidity : 5%~95%RH@39°C no condensation
Hardware Parameter [BASE]	
Storage expansion interface	
TF Card slot	1x TF Card slot
M.2 interface	1x M.2 2280 SSD interface
Network	
Ethernet	1x Gigabit Network port, RJ45
4G/3G interface	1x MINI PCIe card slot, with SIM card slot
WIFI/BT	1x WIFI/BT two-in-one module
Display	

LVDS interface	<ul style="list-style-type: none"> ● 1x dual channel LVDS interface ● Support double eight/double six, single eight/single six LVDS LCD screen ● Resolution can support up to 1920x1080P 60Hz 24bpp
MIPI interface	<ul style="list-style-type: none"> ● 1x Dual 4 Lane MIPI DSI
Backlight control interface	<ul style="list-style-type: none"> ● 1x LVDS backlight power supply control interface
Touch screen interface	<ul style="list-style-type: none"> ● 1xI²C touch screen signal ● supporting various capacitive touch screens with USB interface
Audio	
Headphone jack	<ul style="list-style-type: none"> ● 2x 3.5mm headphone socket/MIC socket ● 1x 2pin MIC socket
speaker interface	<ul style="list-style-type: none"> ● 1x 4pin speaker socket ● Built-in 8Ω/2W power amplifier
USB	
USB HOST	<ul style="list-style-type: none"> ● 2x USB 2.0 HOST Type-A ● 4x USB 2.0 HOST socket
USB OTG	<ul style="list-style-type: none"> ● 1x USB 2.0 OTG Micro USB
UART serial port	
Debug serial port	<ul style="list-style-type: none"> ● 2 x TTL interface
User serial port	<ul style="list-style-type: none"> ● 2x RS232/TTL socket(default RS232) ● 2x TTL/ RS232 socket(default TTL)
RS485	
RS485 interface	<ul style="list-style-type: none"> ● 1x 2pin RS485
Camera	
CMOS camera	<ul style="list-style-type: none"> ● 1x MIPI CSI
USB camera	<ul style="list-style-type: none"> ● Supports various USB UVC cameras
Application peripheral interface	
GPIO	<ul style="list-style-type: none"> ● 1x 15 GPIOs
Key	<ul style="list-style-type: none"> ● Power、 Reset、 CPU Power keys
LED	<ul style="list-style-type: none"> ● Red, blue status light
Infrared interface	<ul style="list-style-type: none"> ● 1x IR circuit
RTC	Support

Sleep / Wake up	Support
System upgrade	Support local USB, TF upgrade
Electrical characteristics	DC 12V
Operating system	Linux、 Android 9.0
Size	Standard 3.5 inch, 102*146mm

Software Parameter——Linux4.14.98

OS BIOS	U-boot 2018.03
Solarnumen Comdebug	Minicom terminal
Cross compilation tool	Yocto gcc 7.3.0
File system format	Ext4
QT version	QT5.10
Video player	MPlayer
M.2 hard drive	Adopt PCIE-NVME protocol, support the read-write function of SSD hard disk
TF card driver	Support TF card reading and writing
LAN driver	10/100/1000M adaptive network
WiFi/BT function	Support 802.11b/g/n protocol, with WiFi connection, WiFi hotspot, Bluetooth communication function
Mini PCIe driver	Support Quectel EC20 4G module Support Unicom, China Mobile, Telecom SIM card
USB Host driver	Support USB mouse/keyboard Support U disk read and write function
USB Otg driver	Support USB OTG debugging

	Support OTG data transmission
UART serial port driver	Support serial port debugging Support serial data communication
RS485 bus driver	Support
SPI bus driver	Support
LCD display driver	Support various LVDS interface LCD screens Typical resolution supports 1920x1080/1280x1024/1280x800/1024x768/1024x600
Touch touch driver	Support
Audio	Support headphone audio output Support microphone input Support speaker output
MIPI CSI driver	Support DJ-OV5640 camera module
USB camera driver	Support USB interface, UVC type camera
GPIO driver	upport 15 user-defined GPIO
Temperature sensor function	Support temperature monitoring
RTC driver	Support
Buzzer driver	Support control of Buzzer
LED driver	Support
IR driver	Support infrared remote control function

Software Parameter——Android 9.0

Android version	9.0
kernel	Linux4.14.98
U-boot	2018.03
M.2 hard drive	Adopt PCIE-NVME protocol, support the read-write function of SSD hard disk
TF card driver	Support TF card reading and writing
LAN driver	10/100/1000M adaptive network
WiFi/BT function	Support 802.11b/g/n protocol, with WiFi connection, WiFi hotspot, Bluetooth communication function
Mini PCIe driver	Support Quectel EC20 4G module Support Unicom, China Mobile, Telecom SIM card
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LCD display driver	Support various LVDS interface LCD screens Typical resolution supports 1920x1080/1280x1024/1280x800/1024x768/1024x600
Touch touch driver	Support
Audio	Support headphone audio output Support microphone input Support speaker output

MIPI CSI driver	Support DJ-OV5640 camera module
USB camera driver	Support USB interface, UVC type camera
GPIO driver	upport 15 user-defined GPIO
Key button	Key button has Power, Reset, USER button functions
Temperature sensor function	Support temperature monitoring
RTC driver	Support
Buzzer driver	Support control of Buzzer
LED driver	Support
IR driver	Support infrared remote control function

Package List

Serial number	Accessories content	Quantity
1	DJ-8MMINI-CORE	1
2	DJ-8MMININ-BASE	1
3	Development board user information (electronic version)	1
4	Serial cable for debugging	1
5	USB data cable	1
6	Power Adapter	1
7	WFI/BT antenna (shared)	1
8	Debug board (optional)	
9	4G module (optional)	
10	7 inch LCD touch screen (optional)	

	DJ-8MMINI-CORE		Power Adapter
	DJ-8MMININ-BASE		WiFi/BT antenna (Share)
	Development board user information (electronic version)		DEBUG board (optional)
	Serial cable for debugging		4G module(optional)
	USB data cable		7 inch LCD touch screen (optional)

Service Support

Technician contact information:

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E-mail: ces_support@ces-tech.com

Working Time:

Monday-Friday: 9: 00~12: 00, 13: 30~18: 00

Statement

This introduction Information is only for users' reference, without prior notice for the necessary amendment.

More product information, please visit www.nrisc.com

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