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M274F

Smart Module Specification_V1.0

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

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About the Document

History

Version	Date	Author	Description
-	2023-5-16		Initial

M274F
Supports Wi-Fi & BT
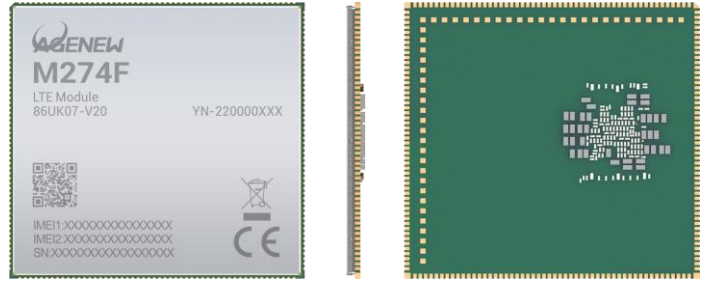
M274F is a smart module based on MediaTek Octa-core 2*ARM Cortex-A78 and 4*ARM Cortex-A55 processor launched by Sunning Smart Devices Co., Ltd, which is equipped with Android 13 operation system. It has powerful performance, neon engine processing, 2D/3D graphics acceleration processing capability, and fully meets customer's demands for high speed and multimedia functions in industrial and consumer applications.

M274F supports full coverage of all network systems, Wi-Fi 802.11a/b/g/n/ac/ax, and BT5.2 near-field wireless communication. In addition, M274F also has audio and video input and output interfaces and rich GPIO interfaces. It also supports a variety of audio and video codecs.

M274F is a patch module with a total of 285 pins, including 208 LCC pins and 77 LGA pins. The size is only 55.0mm× 55.0mm×3.7mm, which can be embedded in various M2M product applications through pads, making it widely used in smart cash registers, smart POS, tax control machines, security monitoring, vehicle equipment, and high-end information collection equipment, smart robots, smart homes, smart hardware, industrial smart handheld devices, drones, high-end police or law enforcement equipment, smart intercom devices, smart wearables, vending machines, logistics cabinets and other equipment are used in different industries.

Main Advantages

✔ Support Wi-Fi802.11a/b/g/n/ac/ax and BT5.2 LE short-range wireless communication;

✔ Support ethernet communication;

✔ Support multiple audio and video codecs;

✔ Possess audio and video input and output interfaces and rich GPIO interfaces

2*Arm Cortex-A78 +4*Arm Cortex-A55 64-bit processor

IEEE 802.11 a/b/g/n/ac/ax

Support Android 13

Multimedia process engine

BT 5.2

WIFI	M274F
Operating System	Android 13
Memory	eMMC 5.1 64GB + LPDDR4X 8GB
Module Size(mm)	55.0 × 55.0 × 3.7
Package	LCC + LGA
Temperature Range	
Operating Temperature	Operating temperature range: -20 °C ~ + 60 °C Storage temperature range: -30 °C ~ + 80 °C
WIFI & BT	
WLAN	2.4/5GHz, 802.11 a/b/g/n/ac/ax
Bluetooth	Bluetooth 5.2
Authentication	
Operator Certification	Undetermined
Compulsory Certification	Undetermined
Electrical Specification	
Operating Voltage	3.4~4.5 V, typical value: 4 V
Power Consumption	Undetermined
Interface	
Display	LCD1: MIPI DIS 4Lane or EDP 2 Lane, 2K@60fps LCD2: DP 4Lane or HDMI TX 2.0, 4K@60fps
Camera	2 4-laneMIPI_CSI，support 2 sets of cameras, up to 32MP
TP	Capacitive touch screen
Audio	Receiver, earphone and 2 sets of microphones
USB	USB3×1，USB2×2，support OTG
UART	3 sets of UART for debugging and applications
SD Card	Support SD card (SD3.0)
ADC	2 sets of general ADC interface
I2C	6 sets of I2C interfaces for TP, camera, sensor and other peripherals
I2S	2 sets of I2S interfaces, support I2S peripheral devices
SPI	3 sets of SPI interfaces
PWRKEY	Internally pull up to VSYS
PCIE	1 set of PCIE interface
DPI	1 set of DPI interface