



## U7986-18 Brief Specification



### Highlight Features

- Embedded Quad-core ARM® Cortex-A53 MPCore operating at 2.0GHz
- Optional 5G /LTE application
- WiFi6 AX6000 platform
- Optional SPI NAND for low cost and EMMC for big storage application
- Industry iron case with different color support

### Specifications

<b>Chipset</b>	CPU: MTK MT7986A Quad-core ARM® Cortex-A53 WiFi6: MTK MT7975N+MT7975PN 5 Giga-PORT Switch: MTK MT7531AE
<b>System Memory</b>	Default DDR4 2Gbyte (Optional 512Mbyte/1Gbyte)
<b>EMMC</b>	Default 16Gbyte EMMC (Optional 8Gbyte EMMC)
<b>Nor Flash</b>	Default 16Mbyte Nor Flash for MCU
<b>NAND Flash</b>	Optional 128/256Mbyte NAND Flash
<b>Expansion</b>	1x 5G/4G Module 1x FPC Connect to Screen 1x RS485 connector
<b>Screen</b>	3.95 inch, 84x84mm
<b>Wireless</b>	MU-MIMO 802.11a/b/g/n/ac/ax WiFi 6 2.4GHz 4T4R 1148Mbps, B mode@22dBm(Max) 5.8GHz 4T4R 4800Mbps, A mode@23dBm(Max)
<b>Bluetooth Module</b>	Support version 5.2
<b>Wired Interface</b>	1x 2.5G WAN+4x Giga LAN
<b>Reset Button</b>	1x Factory Restore Button (GPIO)
<b>DC Power</b>	1x DC Jack Connector (Default 12V@2A)
<b>Power Consumption</b>	24W(Max),12V@2A without Expansion 36W(Max),12V@3A in full range
<b>Software</b>	MTK OpenWrt which includes Uboot, Kernel, Driver and Tool Chain
<b>Environmental</b>	<b>Temperature:</b> Operating: 0°C to 50°C, Storage: -40°C to 90°C <b>Humidity (non-condensing):</b> Operating: 5% to 95%, Storage: Max. 95%
<b>Case</b>	<b>Material:</b> Iron, <b>Dimensions:</b> 180x127x30mm

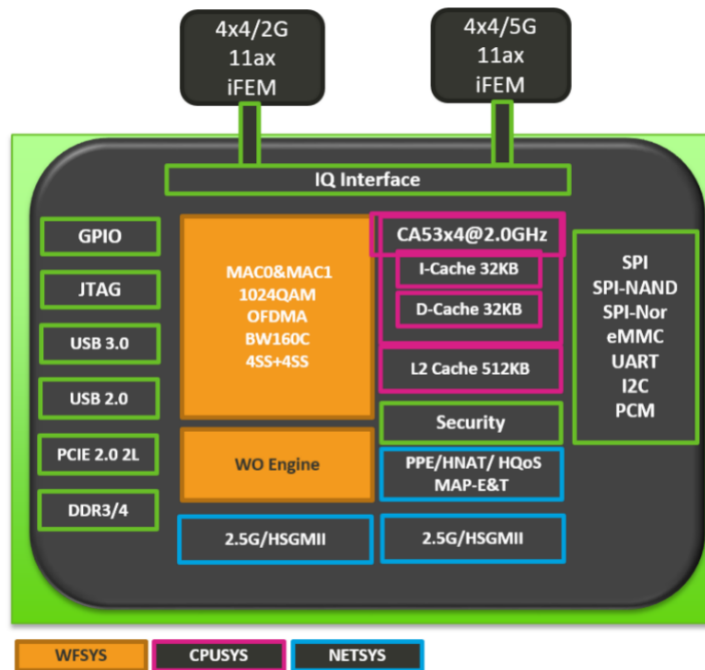


## MT7986A Block Diagram

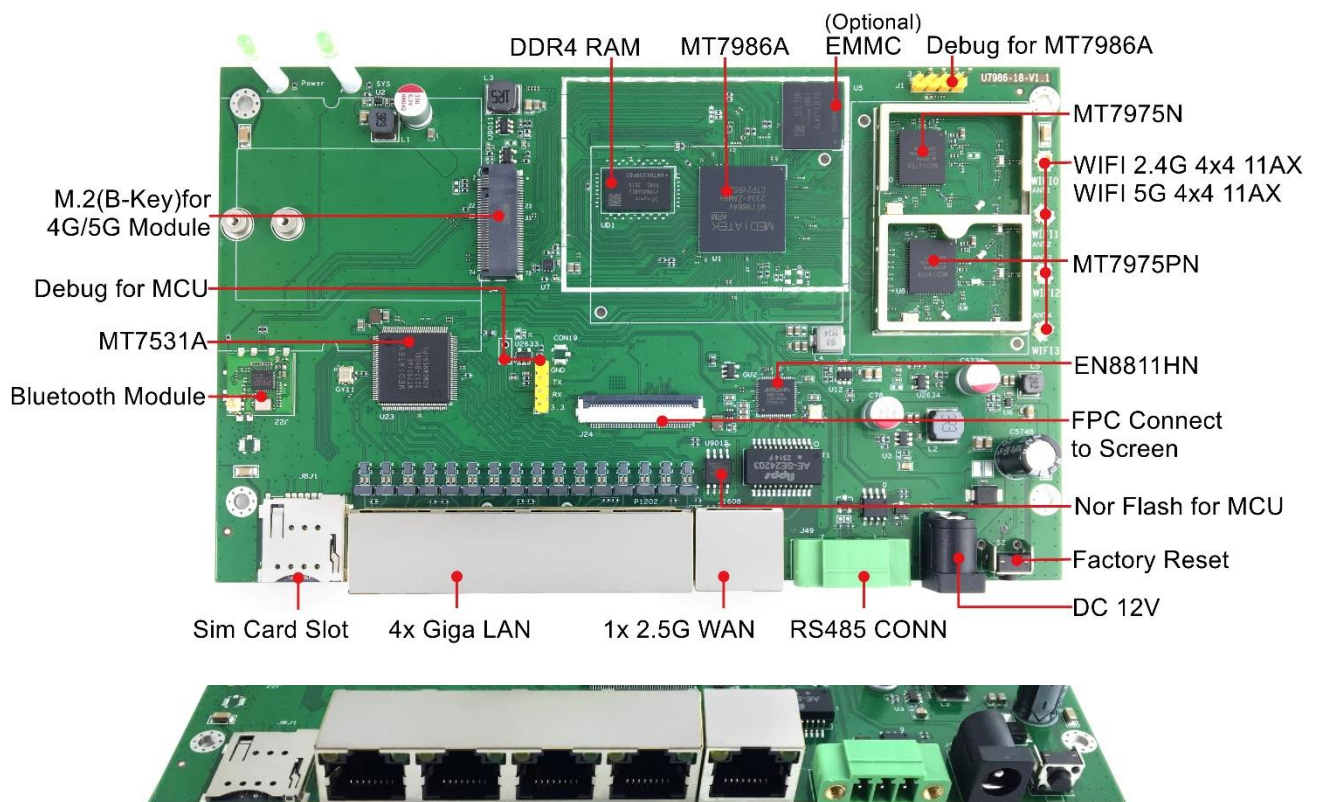
**MT7986A** is a highly integrated wireless network router system-on-chip used for high wireless performance, home entertainment, and home automation and so on.

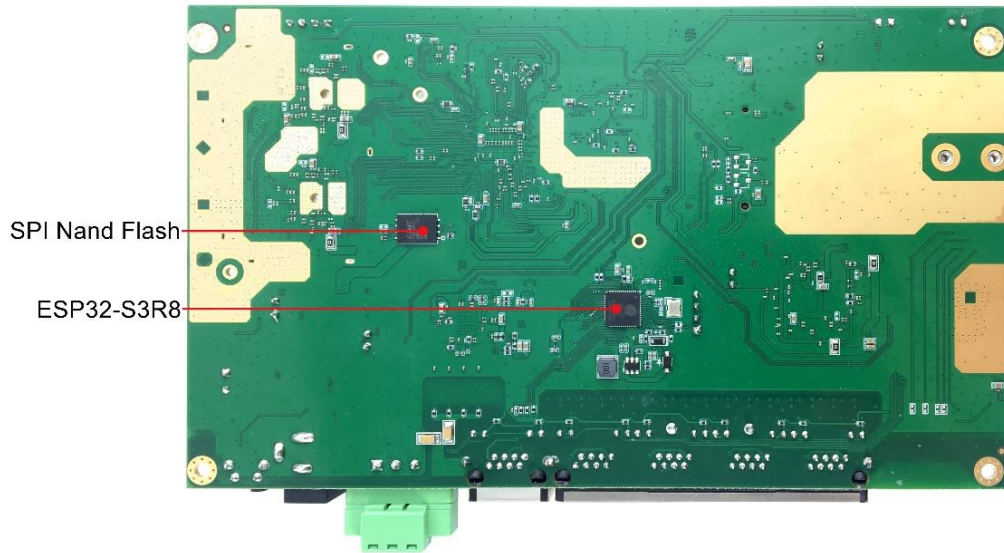
### Applications:

- Internet Service Router
- Home Security Gateway
- Wireless Router
- Home Automation
- Wireless Repeater
- NAS Devices



## Board Block Diagram





## Customization Options

UNITED AIOT have engaged in providing global customers with professional ODM/OEM service of customized stable and cost-effective electronic products. We can customize total production for the customer including Chassis, Hardware, Software and Package as below customization options for this product. Contact us at [sales@uiofin.com](mailto:sales@uiofin.com) for more detailed info.

Name	Customization Comments	UNITED AIOT Customization
Memory	Change to 512Mbyte/1Gbyte DDR4	Supported
NAND Flash	Change to 128/256Mbyte NAND Flash	Supported
EMMC	Change to 8Gbyte EMMC	Supported
5G/4G Module or Video compression Module	Select the right M2 5G/4G module or Video compression Module for your application	Supported
Case	Select the different case material for your application Select Industry Iron case with different color	Supported

## Ordering Information

Models	Comments
U7986-18	2GByte DDR4 RAM and 16Gbyte EMMC



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## UNITED AIOT Platform Catalog

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