

3000Mbps WiFi6 Router

Model: WL3000K



Simple Introduction

This document describes the electrical characteristics,

RF performance, dimensions and application environment of the WL3000K. Under the introduction of this document, end users or developers can quickly understand the hardware functions of WL3000K.

WL3000K is a Gigabit Dual Band WiFi6 mesh Router. It accesses the Internet through 1000 Mbps WAN port, then shares the Internet network through wireless WiFi 6 and 1000 Mbps wired LAN.

Product Feature

- Using MT7981 AMIPS dual-core CPU, main frequency is up to 1.3GHz
- Using independent WiFi6 chip, MT7976 and MT7531, wireless rate is up to 3000Mbps
- Using 1G Flash + 256MB DDR3 RAM
 - 1 Gigabit WAN Port + 3 Gigabit LAN Ports, support Auto MDI/MDIX
- Support 12V/1A power
- External high-gain WiFi antenna, wireless signal 360 degrees without dead angle



Product Datasheet

Introduction to the hardware interface

Ports	1*10/ 100/1000Mbps WAN Port (AutoMDI/MDIX) IEEE 802.3/802.3u/802.ab
	3*10/ 100/1000Mbps LAN Port (AutoMDI/MDIX) IEEE 802.3/802.3u/802.ab
Power	12V1ADC5.0*2.1MM power adapter
Button	1*Reset button
Antennas	4*Omni-directional External 5dbi Wifi antennas

Introduction to the hardware platform

Processor	MT7981 AMIPS Dual Core CPU, 1.3GHz main frequency
WiFi chipset	MT7976+MT7531, IEEE 802.11n/g/b/a/ac/ax, max speed up to 3000Mbps
RAM	DDR3 256MB
Flash	1G

Power supply and power consumption description

Item	Testing Condition	Minimum	Rating	Maximum
Working voltage (V)	TA = 25°C	9	12	35
Absolute operating voltage (V)	TA = 25°C	8		36
Working Current (A)	VIN=12V TA = 25°C	0.3	0.9	1.5

Please use the standard power adapter to supply power to this product. If you do not use the standard power supply, please supply power to this product in strict accordance with the above power specifications and parameters, otherwise the product will be damaged. If the battery or vehicle power supply is used for power supply, please make anti-static and anti-surge countermeasures.

Introduction to WiFi wireless parameters

WiFi EVM standard

	Mode description	Index parameter
EVM Standard (dBm)	802.11B 11Mbps	≤ -15 dB
	802.11G 54 Mbps	≤ -25 dB
	802.11N HT20@ MCS7	≤ -28 dB
	802.11N HT40@ MCS7	≤ -28 dB
	802.11ACVHT20@ MCS8	≤ -30 dB
	802.11ACVHT40@ MCS9	≤ -32 dB
	802.11ACVHT80@ MCS9	≤ -32 dB
	802.11AX HE20@ MCS11	≤ -35 dB
	802.11AX HE40@ MCS11	≤ -35 dB
	802.11AX HE80@ MCS11	≤ -35 dB

WiFi 2.4G

Compatible with IEEE 802.11 b/g/n/ac/ax, supports 20MHz, 40MHz, modulation method 1024-QAM / OFDMA, adopts 2T2R MU-MIMO antenna technology, and the highest connection rate is up to 573.5 Mbps. The following is an explanation of 2.4G WiFi's power frequency, receiving sensitivity, and transmitting power.

Item	Instruction	Maximum Value	Rating	Minimum Value
Working Frequency (MHz)		2484		2412
Receiving sensitivity (dBm)	802.11B 11Mbps	-86	-87	-88
	802.11G 54 Mbps	-69	-71	-73
	802.11N HT20@ MCS7	-67	-69	-71
	802.11N HT40@ MCS7	-65	-67	-69
	802.11ACVHT20@ MCS8	-63	-65	-67
	802.11ACVHT40@ MCS9	-61	-63	-65
	802.11AX HE20@ MCS11	-62	-64	-66
	802.11AX HE40@ MCS11	-60	-62	-64
Transmit power (dBm)	802.11B 11Mbps	22	21	20
	802.11G 54 Mbps	20	19	18
	802.11N HT20@ MCS7	19	18	17
	802.11N HT40@ MCS7	19	18	17
	802.11ACVHT20@ MCS8	18	17	16
	802.11ACVHT40@ MCS9	18	17	16
	802.11AX HE20@ MCS11	17	16	15



	802. 1 1AX HE40@MCS11	17	16	15
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WIFI 5.8G

Compatible with IEEE 802. 1 1 a/ac/ax, supports 20MHz, 40MHz, 80MHz, modulation method 1024-QAM / OFDMA, adopts 2T2R MU-MIMO antenna technology, and the highest connection rate is up to 1201Mbps. The following is an explanation of the power frequency, receiving sensitivity, and transmitting power of 5.8G WIFI.

Item	Instruction	Maximum Value	Rating	Minimum Value
Working Frequency(MHz)		5825		5180
Receiving sensitivity(dBm)	802.1 1G 54 Mbps	-69	-71	-73
	802. 1 1N HT20@ MCS7	-67	-69	-71
	802. 1 1N HT40@ MCS7	-65	-67	-69
	802. 11ACVHT20@ MCS8	-63	-65	-67
	802. 11ACVHT40@ MCS9	-61	-63	-65
	802. 11ACVHT80@ MCS9	-59	-61	-63
	802. 11AXHE20@MCS 1 1	-57	-59	-61
	802. 11AXHE40@MCS 1 1	-55	-57	-59
	802. 11AXHE80@MCS 1 1	-53	-55	-57
Transmit power(dBm)	802 1 1G 54 Mbps	20	19	18
	802. 1 1N HT20@ MCS7	19	18	17
	802. 1 1N HT40@ MCS7	18	17	16
	802. 11ACVHT20@ MCS8	18	17	16
	802. 11ACVHT40@ MCS9	17	16	15
	802. 11ACVHT80@ MCS9	16	15	14
	802. 11AXHE20@MCS 1 1	18	17	16
	802. 11AXHE40@MCS 1 1	17	16	15
	802. 11AXHE80@MCS 1 1	17	15	14

Introduction to structural parameters and accessories

Color	White
Packing List	WL3000K 1PCS
	12V1A power adapter 1PCS
	Cat 5 Patch cable 1PCS
	Mounting Brackets 1SET

Product working environment requirements



Workingtemperature	-20C - 60C
Storagetemperature	-40C - 70C
Workinghumidity	10% - 90%RH, Noncondensing
Storagehumidity	5% - 90%RH, Noncondensing

The above is the general default configuration information of the product. Please refer to the product description for other detailed software functions.