

IR100 Gigabit wifi Router module 2.4G/5G WIFI,Gigabit Ethernet,OPENWRT

The IR100-802.11ac Dual-band Wi-Fi Gigabit Router Module, using MediaTek MT7621A SoC contains a powerful 880MHz MIPS @ 1004KEc™ dual-core CPU, a various interfaces, and the embedded high performance included:

1. Embedded high performance CPU : the SoC CPU supports for internal hardware NAT accelerator that enhance the number of NAT routing up to 100, hardware VPN, QoS, SAMBA accelerator provide the stable VPN connection and accurate QoS control, and these meet the needs of industry applications.
2. Dual-Band Performance : it compatible with existing 802.11 wireless devices, compliance to IEEE 802.11ac, IEEE 802.11a/b/g/n standards, supports 2.4G / 5G dual-band of 2T2R, and theoretically speeds up to 1200Mbps for less interference and maximum throughput.
3. Various Interfaces : it supports 5 Gigabit Ethernet interfaces, 1 USB 3.0 interface, 2 USB 2.0 interfaces, 1 PCIe x1 interface, 1 Micro SD interface, 2 TTL UARTs interfaces, 1 I2C interface, multiple GPIO signals, Ethernet ports and dual-band Wi-Fi indicator signals.
4. Flexible Configuration : IR100 module supports large memory capacity, from 128MB, 256MB to 512MB of RAM, and from 16MB, 32MB to 64MB of SPI Flash.
5. Easy to Install : IR100 module through the standard 204 PIN DDR3 so-dimm goldfinger interface with customize base , available for customer system equipment integration.
6. Industrial Design : based on the passive cooling design for industrial use, standard with large size radiator fin, and there are 5 limit screws to fix the radiator fin, so that the radiator fin to maintain good contact with the key chip, and also will not make excessive stress on the PCBA, greatly improve the reliability and stability of the module.
7. High Expansion: it supports PoE, 4G LTE network backup driver.

IR100 module can be used to run the official embedded Linux system of MTK or the OpenWrt system (kernel_3.10.14) compiled based on the OpenWrt SDK released by MTK. Both systems contain various software functions and hardware interfaces of routers. OpenWrt system has strong software extension ability, rich development resources, flexible system architecture, suitable for the industry embedded development engineer secondary development.

Features

- 880MHz MIPS® 1004KEc™ dual-core four-thread processor;
- 5 10/100/1000m adaptive Ethernet interfaces (WAN and LAN can be freely configured);
- One USB 3.0 interface (5Gbps);
- 2 USB 2.0 interface(480Mbps);
- One Micro SD interface;
- One PCIe x1 interface;
- 2 I-PEX 2.4g wi-Fi interfaces (2T2R up to 300Mbps);
- Two I-PEX 5G wi-Fi interfaces (2T2R up to 866Mbps);
- One Key interface (support WPS and restore factory Settings);
- One I2C interface (Master terminal);
- 2 UART interfaces (TTL level);
- 5 Ethernet status indicators and 2 wireless network indicators (2.4g WIFI and 5G WIFI);
- Super and WIFI standard 2.4g and 5G WIFI signals, excellent wireless reception and transmission performance and wall penetration capability;
- Standard with complete and professional cooling solutions;
- Complete functional test, electrical parameter test, compatibility test, reliability test;
- Set of router, switch, dual-frequency wireless access point, firewall functions in one, with a variety of standard interface for functional expansion.

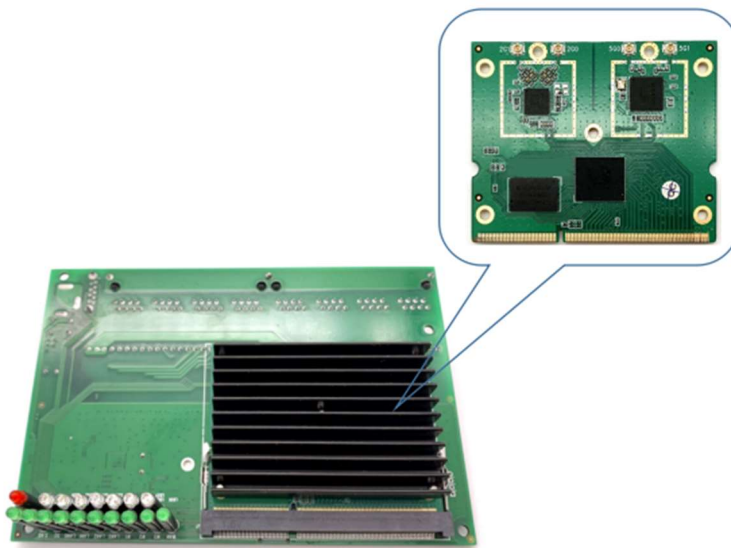
Electrical Specifications

Item	Detail
CPU/SoC	MediaTekMT7621A
2.4G WIFI	MediaTekMT7603EN
5G WIFI	MediaTekMT7612EN
Memory(RAM)	DDR3-SDRAMPC-160016-bit,128MB/256MB/512MB storage (optional)
storage(FLASH)	SPINORFLASH,16MB/32MB/64MB storage (optional)
WIFI standard	IEEE802.11b,802.11g,802.11n; IEEE802.11a,802.11ac
Cable network standard	IEEE802.3,IEEE802.3u,Auto MDI/MDIX
WIFI rate	2.4G WIFI up to 300Mbps,5G WIFI up to 866Mbps
WIFI frequency	2.4GHz,5GHz

WIFI interface type	I-PEX(2.0mm)
2.4G WIFI transmitting power	802.11b18±2dBm,802.11g18dBm±2dBm,802.11n17dBm±2dBm
5G WIFI transmitting power	802.11a16±2dBm,802.11n16±2dBm,802.11ac15dBm±2dBm
2.4G WIFI receive sensitivity	802.11b≤-76dBm,802.11g≤-65dBm,802.11n≤-61dBm
5G WIFI receive sensitivity	802.11a≤-65dBm,802.11n≤-61dBm,802.11ac≤-59dBm
Module interface	DDR3SO-DIMM(baseboard with DDR3SO-DIMMSocket)
Input voltage	5V-15V DC voltage input(DC5V-15V)
Input power	≤12W
POE power(PSU)	Available(Relevant circuits are required on the baseplate)
Operating temperature	-40°C-70°C
Storage temperature	-50°C-85°C
Identification	FCC,CE,UL,3C



Test-board



Order Information

Product Description
Gigabit wifi Router module
Test-board

Order Code
IR100
MT-IR100