



802.11n /10/100Mbps Ethernet with 1port USB Print Server

Project Name : PS2101W-B

Rev. 1.0

2016/01/14

Modification History

Revision	Date	Author	Description
V1.0	2016/01/14	Junny Lu	1 st draft based on product specification

1 HARDWARE SPECIFICATION

Hardware Spec.	PS2101W-B
General	
CPU	MT7688AN : Embedded MIPS24KEc (575/580 MHz) with 64 KB ICache and 32 KB D-Cache
Reset / Load Factory default button	Yes, 1 Button
System Memory	16-bit DDR2 16 Mbytes
SPI FLASH Memory	2 Mbytes
USB Port	A type USB2.0(USB 2.0 (High speed) standard compliant host controller)
LAN Port(10/100Mbps)	10/100Mbps Compliant with IEEE 802.3/802.3u standard, 10/100Mbps auto-sensing, RJ-45 (UTP) connector
Wireless Port	802.11n with internal 3dBi antenna (iPex to FPWB)
WPS Button	Yes, 1 Button
Status/Power LED indicator	Orange On : Power on Off : Power off Networking Link : Blinking
Wireless Network indicator	Orange On : Linking Blinking : Data transmitting Off : Turn off
USB LED	On : Connected to USB2.0 Printer Off : Disconnect
Power	
Power supply covering all major regions	DC 5V / 1A (switching, mini-sized)
Wireless	
Wireless Encryption	MTK 7688AN IEEE 802.11b/g/n, WEP(64/128bit), WPA/WPA2-PSK(TKIP, AES)
Wireless certifications -	same as PS2101W-A with *ETSI EN 300 328 V1.9.1

Regions required	
Internal / External antenna	internal 3dBi antenna (iPex to FPWB)

2 LED DEFINITION

LED Name	Color	Function
Status / Power	Orange	<ul style="list-style-type: none"> - On : The unit has internal power supply is operating normally. - Off : The unit has no power connected. - Blinking : The networking link-up.
USB	Green	<ul style="list-style-type: none"> - On : Connected to USB2.0 Printer. - Off : Disconnect
Wireless Port	Orange	<ul style="list-style-type: none"> - On : Wireless is link-up. - Blinking : The data transmitting. - Off : Wireless is turn off

3 MECHANICAL SPECIFICATION :

PS2101W-B

72 (Length) x 58 (Width) x 25 (Height) mm

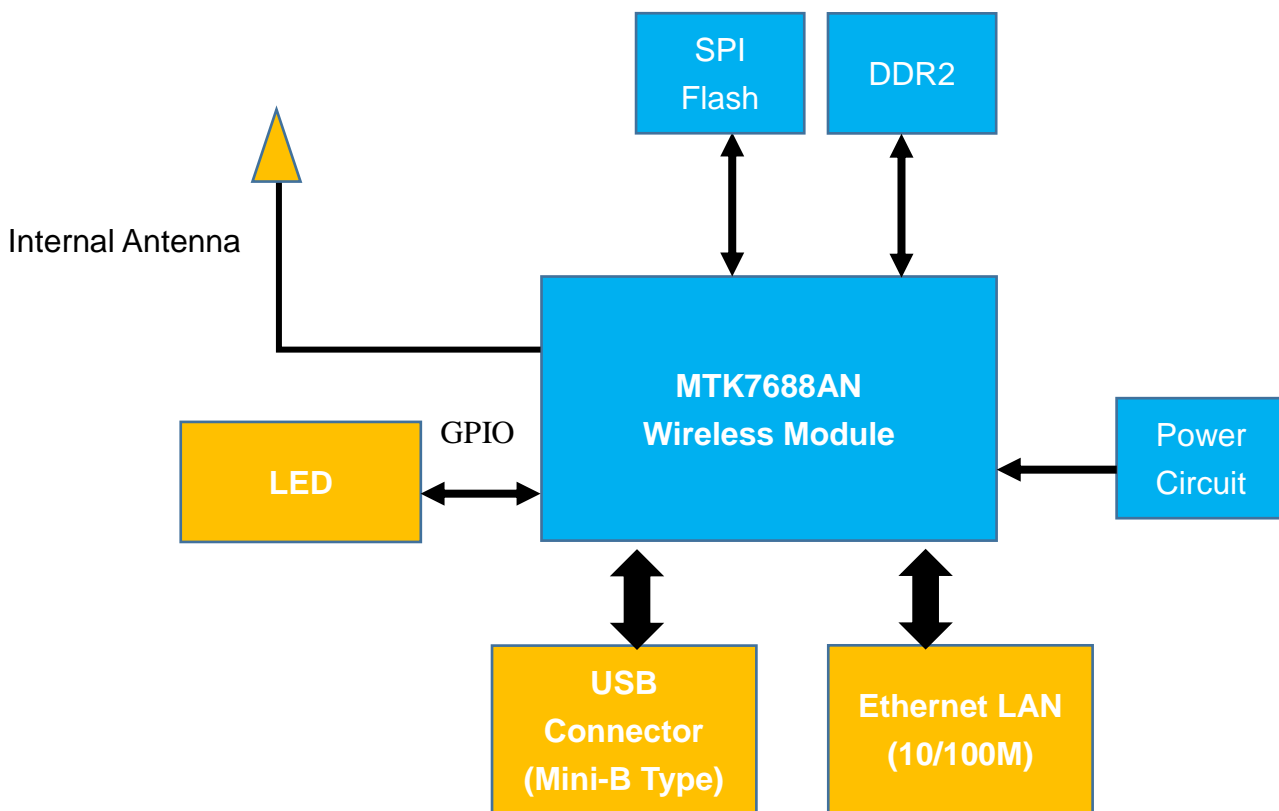
Assembly Drawing





4 HARDWARE SYSTEM

4.1 Hardware System Block Diagram



4.2 Port Assignment

N/A



4.3 Print Server Internal Design

Feature	Specification
Network Operating System Support	Windows 9X/Me/NT/2000, XP-32/64, Vista-32/64 Windows 7-32/64, Windows 8/10 Unix/Linux, Mac OS(8.1 以上) Netware(Bindery/NDS)
Printing Protocol Support	TCP/IP, IPX, NetBEUI, AppleTalk, LPR,SMB Over IP
Internet Printing Protocol (IPP) Support	Yes
DHCP (client) Support	Yes
Management	1. Web Interface 2. Windows-Based setup program 3. Wireless PS Wizard
Software Upgradeable	1. Web interface 2. Windows-based Setup Program
Windows Print Monitor Technology	Yes
SNMP & HP Web JetAdmin Support	Yes
Wireless Security	WEP(64/128bit), WPA/WPA2-PSK(TKIP, AES)
WPS	Yes
Print Job Log	Yes

4.4 GPIO Definition:

(1) MTK7688AN GPIO Definition

Pin Number	GPIO Pin Number	I/O	Pin Definition	Active level
#137	GPIO_38	WDT_RST_N	Wireless WPS_SW botton, input pin	Active Low
#139	GPIO_39	LINK4	SW_RESET botton,input pin.	Active Low
#140	GPIO_40	LINK3	USB LED Bit,Outputpin	
#141	GPIO_41	LINK2	Status LED Bit,output pin. Orange On : Power on Off : Power off Networking Link : Blinking	
#142	GPIO_42	LINK1		
#143	GPIO_43	LINK0		
#144	GPIO_44	WLED_N	WLAN LED Bit,output pin Orange On : Linking Blinking : Data transmitting Off : Turn off	



4.5 Circuit

1. Reset

2. Clock

3. Power

5V / 1A input

4.6 Design Notes:

Risk point

1. Wireless RF testing and control.
2. Wireless RF Layout.

5 ENVIRONMENTAL SPEC

Operating Temperature	0°C to 45°C
Storage Temperature	-5°C to 65°C
Operating Humidity	0% to 70% relative humidity, non-condensing
Storage Humidity	0% to 80% relative humidity, non-condensing