Modification History

Date	Revision	Editor	Comment
0.1	2014/10/15		

Wi-Fi module Specification

Product Name		Wi-Fi module
Model Number		Home Extender Family
Host interface		Wifi, Fast Ethernet ,USB, I2c,SPI,UART
Wireless LAN	Band	2.4G ISM
	Channels	USA and Canada: ch1~ch11
	Standard	82.11 n 20HT
	TX power(high gain)	802.11n:17~19dbm
	RX sensitivity	802.11n:-61dbm
	Antenna gain	5dbi
Wire LAN		Fast Ethernet(10/100M) x2
Led indicator		Wireless x1, Ethernet x2, power x1
Input power		DC5V/2.1A
Power consumption		<15W
Temperature Range		Operating Temp:-10~60℃ Storage Temp:-10~65℃
Humidity		Operation Humidity: 10~90% Non-condensing
PCB Dimension		70x57.66mm
Regulatory compliance		FCC

Detail description

1 Description

802.11n 20HT Wi-Fi Board, High Power High Gain

2 System

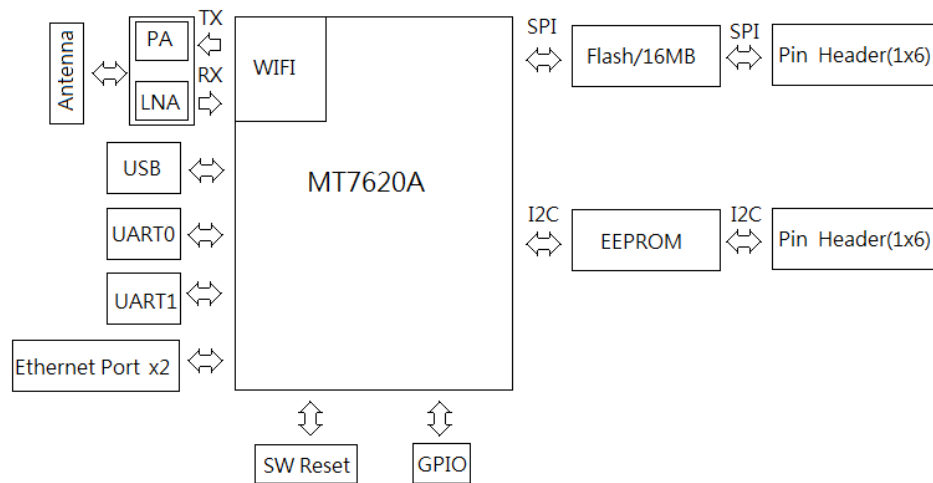CPU : 580 MHz MIPS® 24K™ CPU core / MT7620A

Flash : 16MB

DDR2 : 64MB

RTC : NO

RF : 1T1R,802.11n 20HT,High power

Ethernet : 10/100Mbps Fast ethernet

3 Function

3.0 Function Block

3.1 Wi-Fi spec

Compliance   IEEE802.11n 20HT

3.2 Ethernet

Compliance IEEE802.3u

3.4 USB

Support USB2.0 host

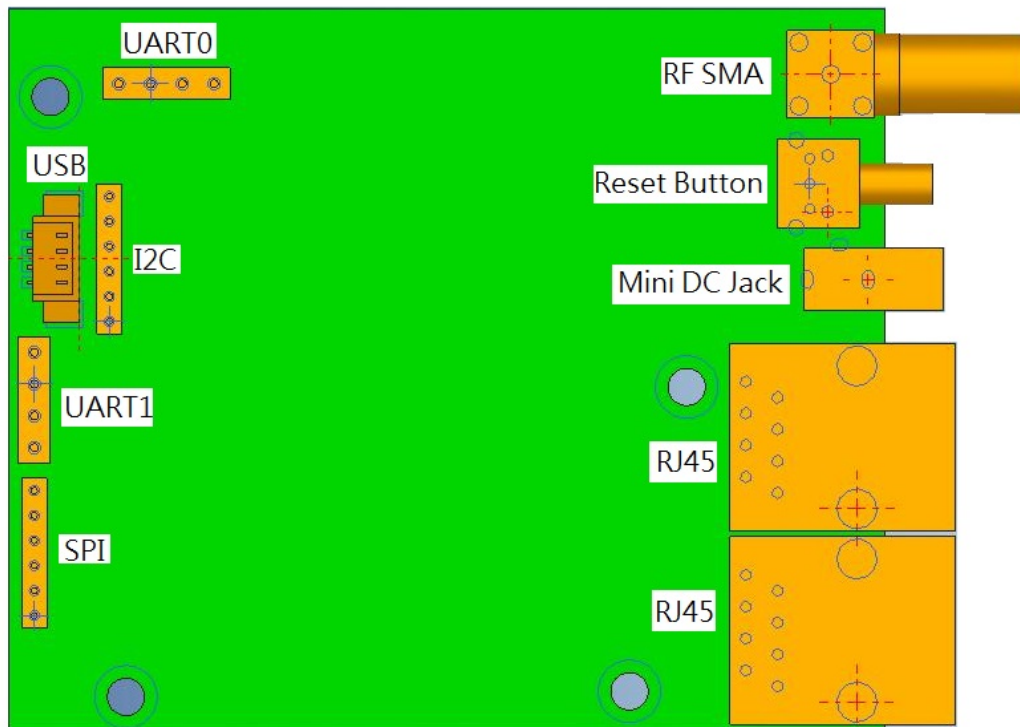### 3.5 I2c

Support standard speed (100kbps)

3.6 SPI

3.7 UART

Compatible with RS232

4   HW interface

Interface	Connector	MT7620A	
		Function	Pin
Wi-Fi	SMA	N/A	N/A
Ethernet port 0	RJ45	MDI_TN_P0	U17
		MDI_TP_P0	U16
		MDI_RN_P0	T15
		MDI_RP_P0	U15
Ethernet port 4	RJ45	MDI_RP_P0	M17
		MDI_TP_P4	M16
		MDI_RN_P4	N17
		MDI_RN_P4	N16
USB	Mini USB	UPHY0_PADM	C16
		UPHY0_PADP	C17
UART0	Pin header 1x4	TXD	R12
		RXD	P12
UART1	Pin header 1x4	TXD2	P13
		RXD2	P14
I2C	Pin header 1x6	I2C_SCLK	U14
		I2C_SD	T14
SPI	Pin header 1x6	SPI_CS0	C7
		SPI_CLK	D8
		SPI_MOSI	A8
		SPI_MISO	C8
		SPI_CS1	C9
Reset Button	Tack switch	ND_D0	P8
Power Jack	Mini DC Jack	N/A	N/A
GPIO	Test point	ND_D3	U10
		ND_D4	T9

5 PCB Placement

Warning:

This device must be professionally installed. The intended use is generally not for the general public. It is generally for industry/commercial use. Installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IMPORTANT NOTE:

This module is intended for OEM integrator. The OEM integrator is still responsible for

he FCC compliance requirement of the end product which integrates this module.

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to also be informed that any

changes or modifications not expressly approved by the manufacturer could void the

user's authority to operate this equipment. If the size of the end product is smaller

than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains TX FCC ID: TFJHE7620. If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.