User Manual

LS6-N22S-M

SPECIFICATIONS

1.power up for MT7620A with 5V&1A

2.connect with the PC to get IP address automaticlly.

3.run the CMD on PC ,type the word "wifi" and return,then input the IP address:10.10.10.254 and return again.

4.run the MT7620A's QA tools which given by the supplier.

5.choose the " network card" option on the UI,knock OK,then enter operation steps for work environment.

6. The MT7620 router module with two antenna ports，which pattern is MOMI,the two antenna are the same one

The antenna manufacturer：Dongguan City Senling Industry Co.,Ltd

Model Name：SLA-100020108-C10

Antenna gain：2dBi

FCC Statement：

This device complies with part 15 of the 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

The modular can be installed or integrated in mobile or fix devices only. This modular cannot be installed in any portable device, for example, USB dongle like transmitters is forbidden.

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: Contains Transmitter Module FCC ID: 2ADBMLS6-7620A or Contains FCC ID: 2ADBMLS6-7620A

when the module is installed inside another device, the user manual of this device must contain below warning statements;

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

3.Applications:

4.General Specification

Product Name	WLAN 11b/g/n
Major Chipset	MT7620A
Standard	IEEE802.11n 、IEEE 802.11g、IEEE 802.11b
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120 and maximum of 300Mbps
Frequency Band	2.4GHz
Power Consumption	3.3 V ±10% I/O supply voltage
Dimension	40.0 x 26.0 x 3.25mm (LxWxH) +-0.2MM
Hardware Support	Flash:8M (25Q64) DDR:64M (W9751G6KB)
Ambient Temperature Range	-20 ~ 55 °C

Storage Conditions

The calculated shelf life in a sealed bag is 12 months if stored between 0 °C and 40 °C at less than 90% relative humidity (RH). After the bag is opened, devices that are subjected to solder reflow or other high temperature processes must be handled in the following manner:
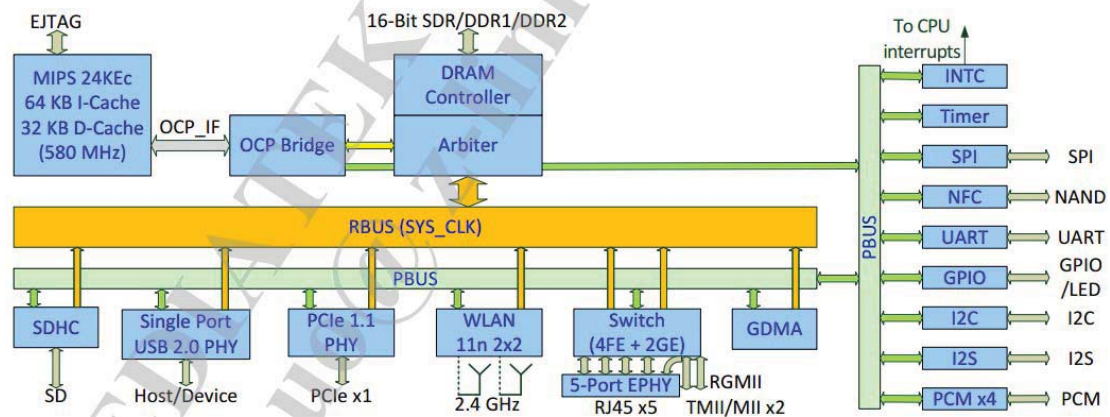
Mounted within 168 hours of factory conditions, i.e. < 30 °C at 60% RH.

Storage humidity needs to maintained at < 10% RH.

Baking is necessary if the customer exposes the component to air for over 168 hrs, baking conditions: 125℃ for 8 hrs.

5.Block Diagram

6. Electrical Specifications

1.DC Characteristics

Voltage	Current Consumption (linking)
3.3V	220MA

2) RF Characteristics for IEEE802.11b (11Mbps mode unless otherwise specified)

Items	Contents
Specification	IEEE802.11b
Mode	DSSS/CCK 11 Mbps

RX (per)	-85 dBm			
FREQ ERR LIMIT	±13PPM			
TX Characteristics	Min.	Typ.	Max.	Unit

EVM （<-18）		-18		dB

3) RF Characteristics for IEEE802.11g (54Mbps mode unless otherwise specified)

Items	Contents
Specification	IEEE802.11g
Mode	OFDM 54 Mbps

RX (per)	-70 dBm			
FREQ ERR LIMIT	±13PPM			
TX Characteristics	Min.	Typ.	Max.	Unit

EVM (<-27)		-27		dB

4) RF Characteristics for IEEE802.11n (HT20_MCS7)

Items	Contents			
Specification	IEEE802.11n (HT20_MCS7)			
Mode	HT20_MCS7 65 Mbps			

RX (per)	-65 dBm			
FREQ ERR LIMIT	±13PPM			
TX Characteristics	Min.	Typ.	Max.	Unit

EVM		-28		dB

5) RF Characteristics for IEEE802.11n (HT40_MCS7)

Items	Contents			
Specification	IEEE802.11n (HT40_MCS7)			
Mode	HT40_MCS7 135 Mbps			

RX (per)	-65 dBm			
FREQ ERR LIMIT	±13PPM			
TX Characteristics	Min.	Typ.	Max.	Unit

EVM (<-28)		-28		dB

7.Mechanical

Dimensions (mm)	Length	Width	Height
	40.0 (Tolerance:±0.2mm)	26.0 (Tolerance:±0.2mm)	3.25 (Tolerance:±0.2mm)
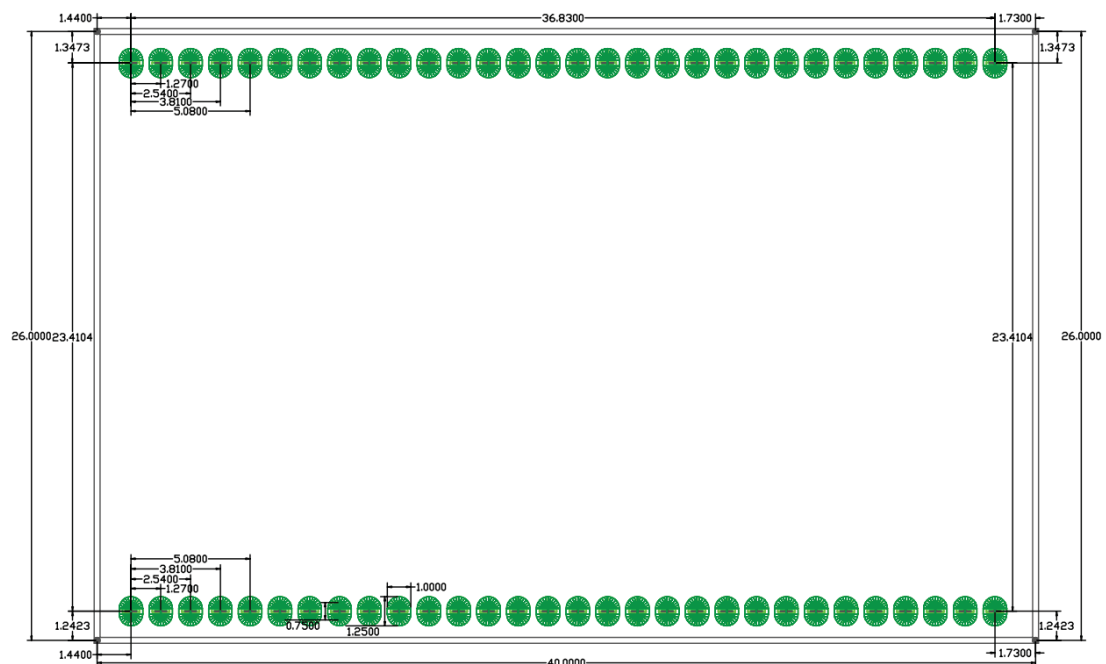
8.Module Pin Assignment
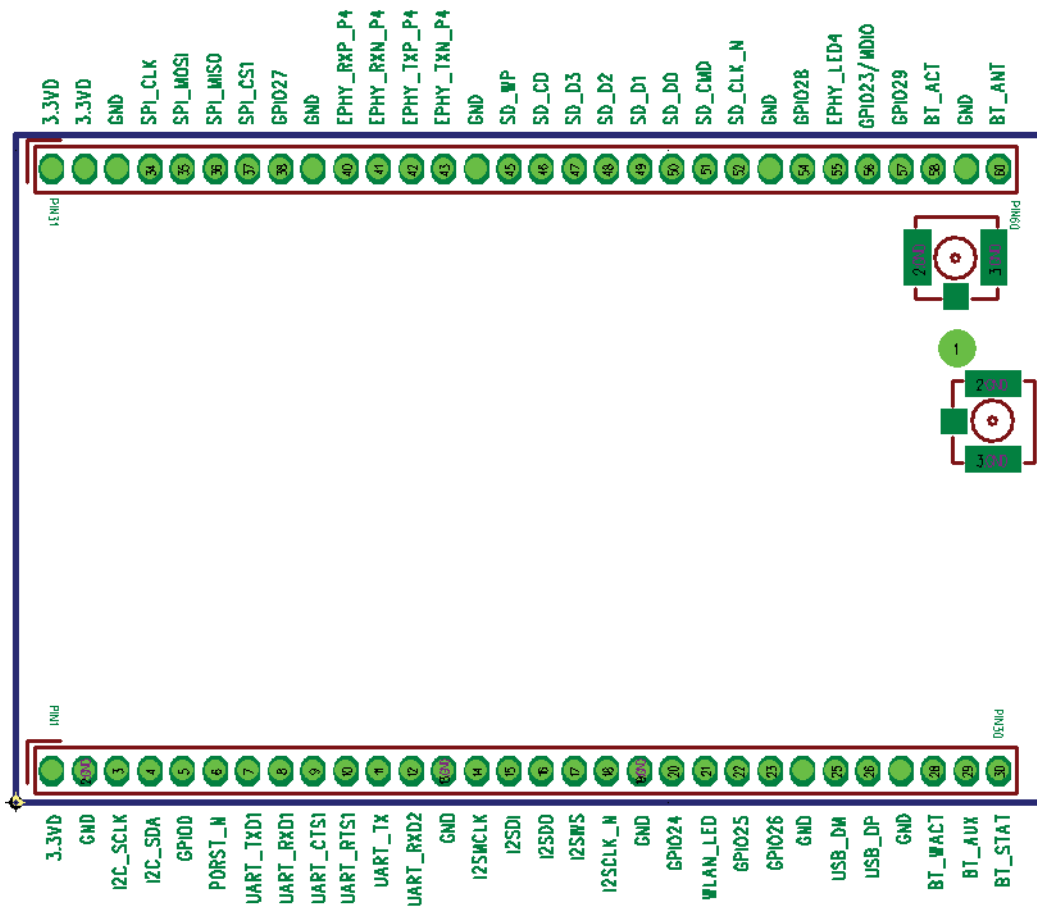
Pin	Function	Description
1	3.3VD	3.3VD
2	GND	Ground
3	I2C_SCLK	I2C_SCLK
4	I2C_SDA	I2C_SDA
5	GPIO0	GPIO0
6	PORST_N	PORST_N
7	UART_TXD1	UART_TXD1
8	UART_RXD1	UART_RXD1
9	UART_CTS1	UART_CTS1
10	UART_RTS1	UART_RTS1
11	UART_TX	UART_TX
12	UART_RXD2	UART_RXD2
13	GND	Ground
14	I2SMCLK	I2SMCLK
15	I2SDI	I2SDI
16	I2SDO	I2SDO
17	I2SWS	I2SWS
18	I2SCLK_N	I2SCLK_N

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19	GND	Ground
20	GPIO24	GPIO24
21	WLAN_LED	WLAN Activity LED
22	GPIO25	GPIO25
23	GPIO26	GPIO26
24	GND	Ground
25	USB_DM	USB_D-
26	USB_DP	USB_D+
27	GND	Ground
28	BT_WACT	GPIO
29	BT_AUX	GPIO
30	BT_STAT	GPIO
31	3.3VD	3.3VD
32	3.3VD	3.3VD
33	GND	Ground
34	SPI_CLK	SPI_CLK
35	SPI_MOSI	SPI_MOSI
36	SPI_MISO	SPI_MISO
37	SPI_CS1	SPI_CS1
38	GPIO27	GPIO
39	GND	Ground
40	EPHY_RXP_P4	Port4 RX+
41	EPHY_RXN_P4	Port4 RX-
42	EPHY_TXP_P4	Port4 TX+
43	EPHY_TXN_P4	Port4 TX-
44	GND	Ground
45	SD_WP	SD_WP
46	SD_CD	SD_CD
47	SD_D3	SD_D3
48	SD_D2	SD_D2
49	SD_D1	SD_D1
50	SD_D0	SD_D0
51	SD_CMD	SD_CMD
52	SD_CLK_N	SD_CLK_N
53	GND	Ground
54	GPIO28	GPIO
55	EPHY_LED4	Port4_LED
56	GPIO23/MDIO	GPIO
57	GPIO29	GPIO
58	BT_ACT	GPIO
59	GND	Ground
60	BT_ANT	BT_ANT

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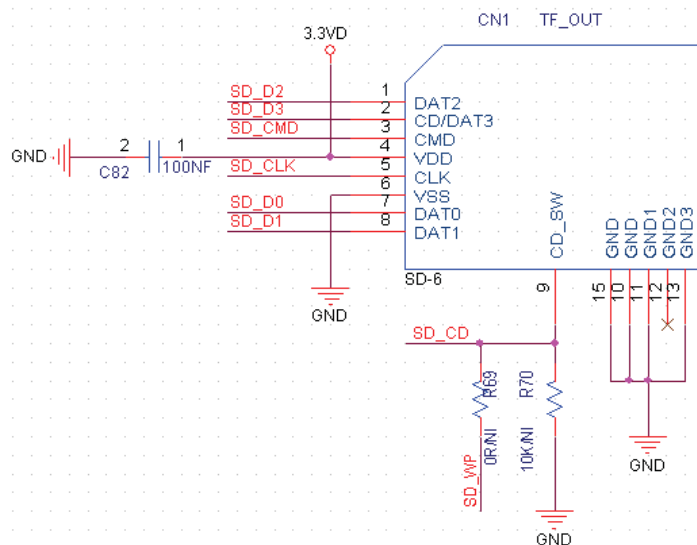
The picture of top
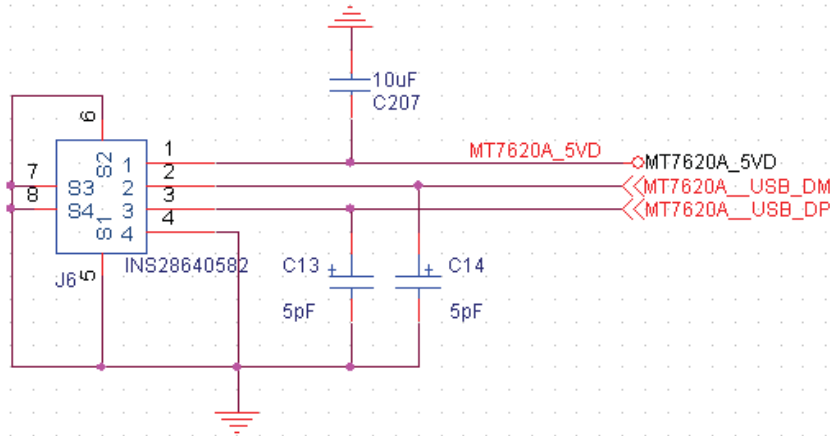

The picture of bottom

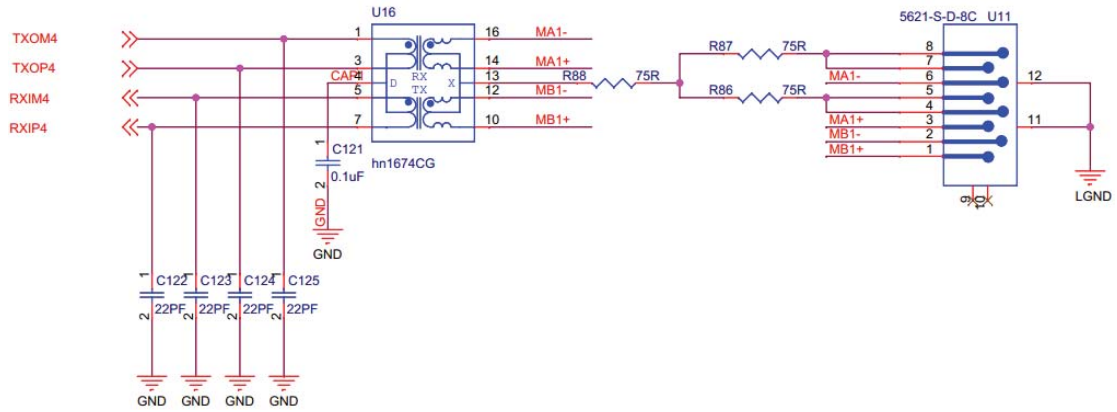

9.Circuit reference pictures

1.SD part reference.

2.USB part reference circuit.

3.

10. Pin Header