



高霖通訊科技有限公司
Go-Link Technology Co., Ltd.

產品規格/承認書
PRODUCT SPECIFICATION / APPROVAL SHEET

產品

Product : 2.4GHz WiFi Module

型號

Model No : MWF2412501

客戶

Customer :

客戶型號

Customer Model No. :

| | | | |
|--------------|------------|--|--|
| | | 本承認書內容若貴公司確認無誤， 請於下方承認欄內簽章。 Please confirm your acceptance of this approval sheet by authorized signatures. | |
| | | 承認欄 Approved Signature | |
| 版本 (Version) | V2.1 | | |
| 日期 (Date) | 2017/06/21 | | |

◆ Features

- Compliant with IEEE802.11b/g/n 、 IEEE802.3 、 IEEE802.3u
- Support CSMA/CA 、 CSMA/CD 、 TCP/IP 、 PPPoE 、 DHCP 、 ICMP 、 NAT protocol
- 150Mbps PHY data rate
- 20MHz / 40MHz (option) channel band width

◆ Environmental Specification

| No. | Items | Min. | Typ. | Max. | Unit. |
|-----|-----------------------|------|------|------|-------|
| 1 | Operating Temperature | -10 | - | +60 | °C |
| 2 | Storage Temperature | -20 | - | +70 | °C |

◆ Specifications

Testing Condition @ 25°C

| | |
|---------------------|---|
| Standard | IEEE 802.11 b/g/n 、 IEEE802.3 、 IEEE802.3u 、 CSMA/CA 、 CSMA/CD 、 TCP/IP 、 PPPoE 、 DHCP 、 ICMP 、 NAT 、 PPPoE |
| Ethernet | One 10/100M port |
| Frequency | 2.400 ~ 2.483GHz |
| Data Rate | 11n : 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5 Mbps 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5 Mbps 11g : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 11b : 11 / 5.5 / 2 / 1 Mbps |
| Channel | 14 (see channel setting) |
| Spread spectrum | DSSS |
| Modulation type | DBPSK 、 DQPSK 、 CCK and OFDM (BPSK/QPSK/16-QAM/64-QAM) |
| Security Encryption | WPA2 |
| Sensitivity | -62 dBm @ 135Mbps / 10% PER -69 dBm @ 54Mbps / 10% PER -83 dBm @ 11Mbps / 8% PER |
| Transmit Power | FCC : 22 dBm CE : 14 dBm |
| Power Dissipation | 5V, 550mA (Max.) |

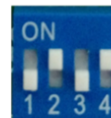
◆ Channel Setting

| CH Setting - Normal Mode | | | | | |
|--------------------------|-----|-----|----|----|-----------|
| 4 BIT SW. | | | | CH | Frequency |
| 1 | 2 | 3 | 4 | | |
| OFF | OFF | OFF | ON | 3 | 2.422 GHz |
| OFF | OFF | ON | ON | 4 | 2.427 GHz |
| OFF | ON | OFF | ON | 5 | 2.432 GHz |
| OFF | ON | ON | ON | 6 | 2.437 GHz |
| ON | OFF | OFF | ON | 7 | 2.442 GHz |
| ON | OFF | ON | ON | 8 | 2.447 GHz |
| ON | ON | OFF | ON | 9 | 2.452 GHz |
| ON | ON | ON | ON | 10 | 2.457 GHz |



Example :

4 BIT SW Setting : ON , ON , ON , ON
Channel = 10

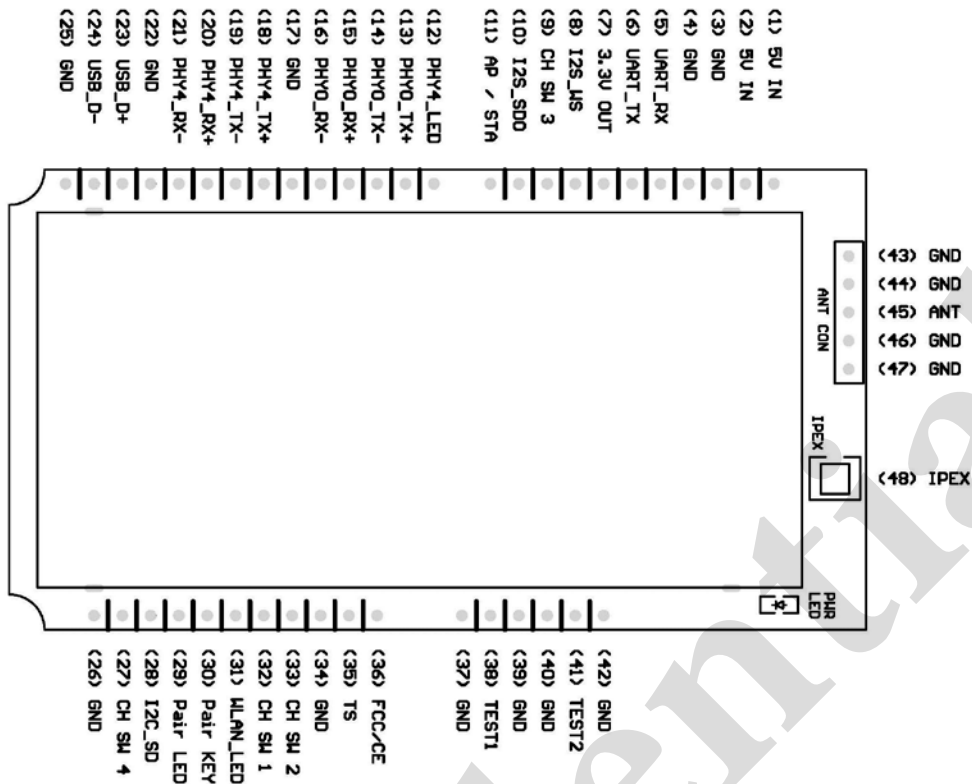


4 BIT SW Setting : OFF , ON , OFF , ON
Channel = 5

| CH Setting - Test Mode (For Factory Test Only) | | | | | |
|--|-----|-----|-----|----|-----------|
| 4 BIT SW. | | | | CH | Frequency |
| 1 | 2 | 3 | 4 | | |
| OFF | OFF | OFF | OFF | 14 | 2.484 GHz |
| OFF | OFF | ON | OFF | 1 | 2.412 GHz |
| OFF | ON | OFF | OFF | 2 | 2.417 GHz |
| OFF | ON | ON | OFF | 13 | 2.472 GHz |
| ON | OFF | OFF | OFF | 11 | 2.462 GHz |
| ON | OFF | ON | OFF | 12 | 2.467 GHz |
| ON | ON | OFF | OFF | 13 | 2.472 GHz |
| ON | ON | ON | OFF | 14 | 2.484 GHz |

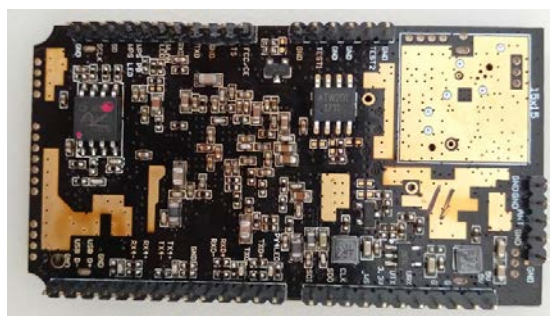
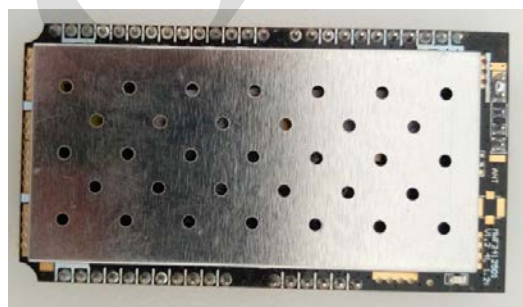
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◆ Pin Assignment



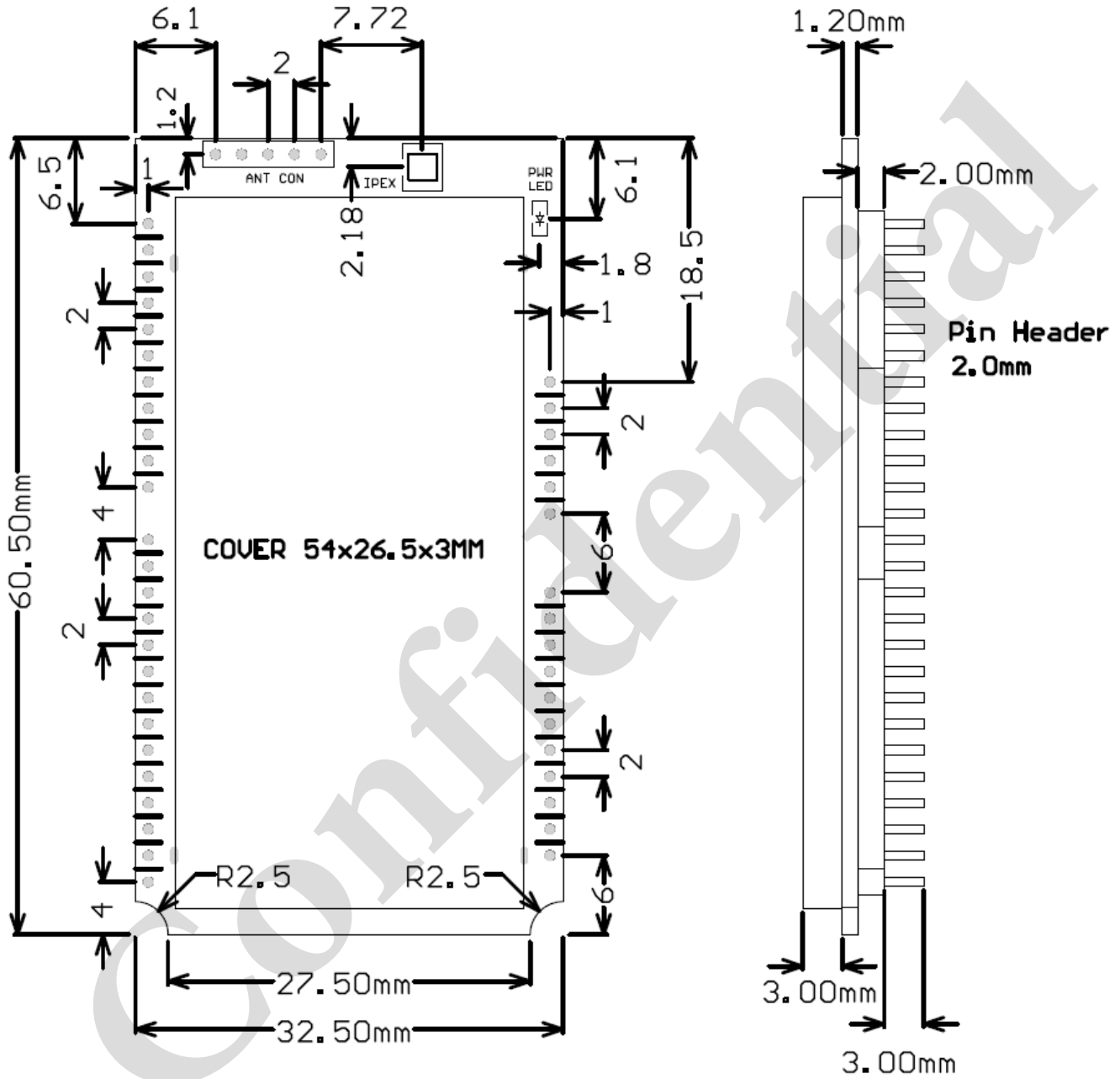
| Pin No. | Name | I/O | Function Description |
|---------|----------|-----|--|
| 1 | 5V IN | I | DC 5V IN |
| 2 | 5V IN | I | DC 5V IN |
| 3 | GND | - | Ground |
| 4 | GND | - | Ground |
| 5 | UART_RX | I | UART Receiver |
| 6 | UART_TX | O | UART Transmitter |
| 7 | 3.3V OUT | O | 3.3V DC Out |
| 8 | I2S_WS | I/O | I2S Word select |
| 9 | CH SW 3 | I/O | Channel Setting Switch 3 |
| 10 | I2S_SDO | O | I2S Data Output |
| 11 | AP / STA | I | AP or Station Mode Setting / I2S Data input. Mode Setting : Hi (open) : AP Mode Low (GND) : Station Mode |
| 12 | PHY4_LED | O | PHY Port #4 Link LED |
| 13 | PHY0_TX+ | O | 10/100 PHY Port #0 TX+ |
| 14 | PHY0_TX- | O | 10/100 PHY Port #0 TX- |
| 15 | PHY0_RX+ | I | 10/100 PHY Port #0 RX+ |
| 16 | PHY0_RX- | I | 10/100 PHY Port #0 RX- |
| 17 | GND | - | Ground |

| | | | |
|----|----------|-----|--|
| 18 | PHY4_TX+ | O | 10/100 PHY Port #4 TX+ |
| 19 | PHY4_TX- | O | 10/100 PHY Port #4 TX- |
| 20 | PHY4_RX+ | I | 10/100 PHY Port #4 RX+ |
| 21 | PHY4_RX- | I | 10/100 PHY Port #4 RX- |
| 22 | GND | - | Ground |
| 23 | USB_D+ | I/O | USB Data + |
| 24 | USB_D- | I/O | USB Data - |
| 25 | GND | - | Ground |
| 26 | GND | - | Ground |
| 27 | CH SW 4 | I/O | Channel setting switch 4 |
| 28 | I2C_SD | O | I2C Data |
| 29 | Pair LED | I | Pairing LED (Low Active) |
| 30 | Pair KEY | I/O | Pairing Key |
| 31 | WLAN_LED | O | WLAN Activity LED <input type="checkbox"/> |
| 32 | CH SW 1 | I | Channel setting switch 1 |
| 33 | CH SW 2 | O | Channel setting switch 2 |
| 34 | GND | - | Ground |
| 35 | TS | I | Test Setting |
| 36 | FCC /CE | I | Power Setting for CE/FCC High : FCC Low : CE |
| 37 | GND | - | Ground |
| 38 | TEST1 | - | Reserve |
| 39 | GND | - | Ground |
| 40 | GND | - | Ground |
| 41 | TEST2 | - | Reserve |
| 42 | GND | - | Ground |
| 43 | GND | - | Ground |
| 44 | GND | - | Ground |
| 45 | ANT | I/O | RF IN / OUT to Antenna |
| 46 | GND | - | Ground |
| 47 | GND | - | Ground |
| 48 | IPEX | I/O | RF IN / OUT to ANT with IPEX Connector (option) |



◆ Mechanical Specification

Dimension



Application CKT

