

# UP-3GHAT01

## Quick Installation Guide

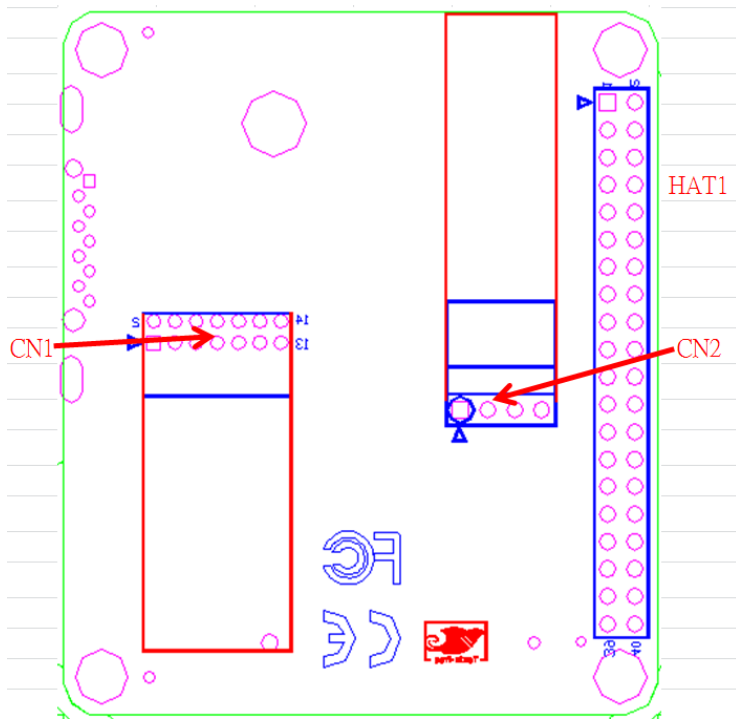
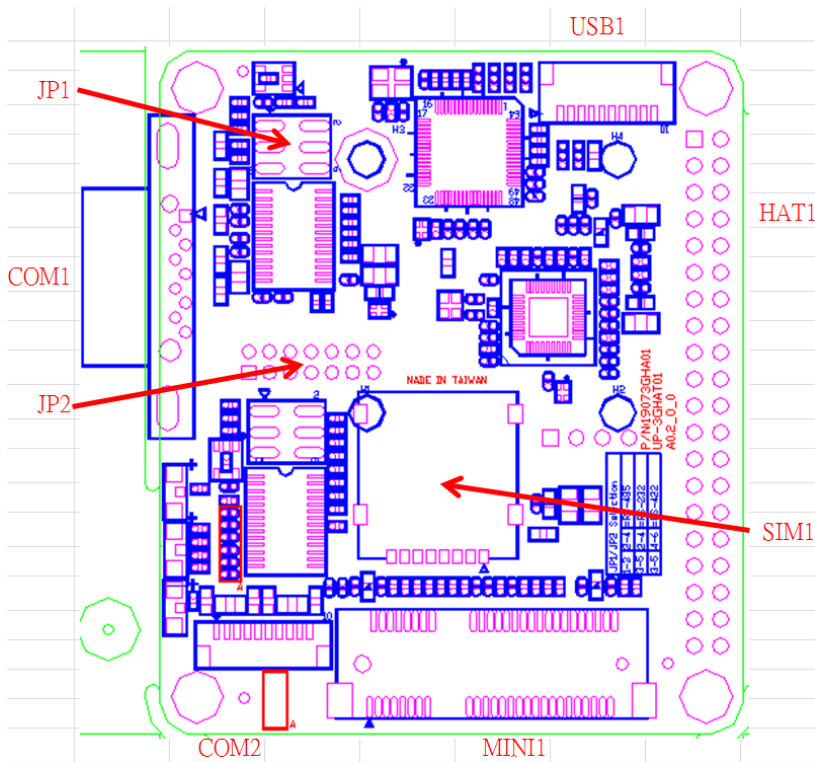
## REVISION HISTORY

Revision	Date	Comments
R.0.1	2016/11/22	Initial version
R.0.2	2016/11/30	Change P1/JP2: RS-485 TX · RX Select Add COM2 RS-422/485 Pin define
R.0.3	2016/12/23	Change P1/JP2: RS-485 Select and Change UP-3GHAT01 Layout

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# 1. UP-3GHAT01 Layout



## 2. Connector, Switch References

### 2.1 Connector Index

Reference Designation	Functional Description	Connector Type
JP1	RS-232/422/485 Select Header	222-97-03GBE1
JP2	RS-232/422/485 Select Header	222-97-03GBE1
CN1	Wifi pin7 Header	22Y8242-14D10B-01G
CN2	BT pin4 Header	22N8561-04R10B-01G
HAT1	5V IN Header	22N8562-40SA2B-01G
USB1	USB 2.0 Header	1204-700-10RM
COM1	RS-232/422/485 DB9 Connector	3117-000-09P
COM2	RS-232/422/485 Connector	1204-700-10SMR
SIM1	SIM Card Connector	80440GIH-081T-12CL
MINI1	Mini PCIe Connector	ASOB226-S68Q-7H

### 3. Switch Settings

#### 3.1 JP1/JP2: RS-232/422/485 Select Header

Pin	Functional Description
3-5, 4-6	RS-422
3-5, 2-4	RS-232 (default)
1-3, 2-4	RS-485

## 4. Connector Pin Assignments

### 4.1 CN1: Wifi Header

Pin	Signal Description	Pin	Signal Description
1	USB2_WF_TX	2	USB2_WF_TX
3	WF_PWM	4	WF_PWM
5	USB2_WF_DN_L	6	USB2_WF_DN_L
7	USB2_WF_PN_L	8	USB2_WF_PN_L
9	GND	10	GND
11	USB2_WF_LED#	12	USB2_WF_LED#
13	NC	14	NC

### 4.2 CN2: BT Header

Pin	Signal Description
1	BT_PWM
2	USB2_BT_DN_L
3	USB2_BT_PN_L
4	GND

### 4.3 HAT1: 5V IN Header

Pin	Signal Description	Pin	Signal Description
1	+3.3V	2	+5V
3	NC	4	+5V
5	NC	6	GND
7	NC	8	HAT_TXD
9	GND	10	HAT_RXD
11	G_LED	12	NC
13	Y_LED	14	GND
15	NC	16	NC
17	+3.3V	18	NC
19	NC	20	GND
21	NC	22	NC
23	NC	24	NC
25	GND	26	NC
27	NC	28	NC
29	NC	30	GND
31	NC	32	NC
33	NC	34	GND
35	NC	36	NC
37	NC	38	NC
39	GND	40	NC



#### 4.4 USB1: USB 2.0 Header

Pin	Signal Description
1	USB_VCC
2	USB2_D-
3	USB2_D+
4	GND
5	USB_VCC
6	USB2_D-
7	USB2_D+
8	GND
9	UART0_RXD
10	UART0_TXD

#### 4.5 COM1: RS-232/422/485 DB9 Connector

Pin	Signal Description
1	DCDA / RS422TX- / RS485-
2	RXA / RS422TX+ / RS485+
3	TXA / RS422RX+
4	DTRA / RS422RX-
5	GND
6	DSRA
7	RTSA
8	CTSA
9	RIA

#### 4.6 COM2: RS-232/422/485 Connector

Pin	Signal Description
1	DCDB / RS422TX- / RS485-
2	RXB / RS422TX+ / RS485+
3	TXB / RS422RX+
4	DTRB / RS422RX-
5	GND
6	DSRB
7	RTSB
8	CTSB
9	RIB
10	NC

#### 4.7 SIM1: SIM Card Connector

Pin	Signal Description	Pin	Signal Description
C1	P_UIM_PWRF	C8	NC
C2	P_UIM_RSTC	C7	P_UIM_DATC
C3	P_UIM_CLKC	C6	P_UIM_VPPC
C4	NC	C5	GND_UIM

## 4.8 MINI1: Mini PCIe Connector

Pin	Signal Description	Pin	Signal Description
1	NC	2	P3V_3G
3	NC	4	GND
5	NC	6	NC
7	NC	8	P_UIM_PWR
9	GND	10	P_UIM_DAT
11	NC	12	P_UIM_CLK
13	NC	14	P_UIM_RST
15	GND	16	P_UIM_VPP
17	NC	18	GND
19	NC	20	3G_EN
21	GND	22	3G_RST
23	NC	24	P3V_3G
25	NC	26	GND
27	GND	28	NC
29	GND	30	NC
31	NC	32	NC
33	NC	34	GND
35	GND	36	USB2_HUB1_P1_DN
37	NC	38	USB2_HUB1_P1_DP
39	NC	40	GND
41	NC	42	WLAN_LED
43	NC	44	WLAN_LED
45	NC	46	WLAN_LED
47	NC	48	NC
49	NC	50	GND
51	NC	52	P3V_3G