

Wi-SUN module for FAN

BP35C5-T01 Evaluation Board

Version 1.0.0

Overview

This document describes the specifications of the Wi-SUN module Evaluation board BP35C5-T01.



Index

1. Absolute Max. Rating 3

2. Recommend Operating Conditions 4

3. Main Performance..... 5

4. Terminal Table 6

5. Circuit Diagram 8

6. External Dimensions 9

7. Precautions of Use..... 10

8. Revision History11

1. Absolute Max. Rating

No.	Item	Symbol	Rating	Unit	Remarks
1	Power supply Voltage	VDD	-0.3 to +3.9	V	DC
2	Digital input voltage	V _{DIN}	-0.3 to VDD+0.3	V	
3	Digital output voltage	V _{DO}	-0.3 to VDD+0.3	V	
4	Digital output current	I _{DO}	-8 to +8	mA	
5	RF input power	PIN	0	dBm	
6	Operating temperature range	Topr	-30 to +85	°C	
7	Storage temperature range	Tstg	-30 to +85	°C	

(Note) The absolute maximum ratings represent values that shall not be exceeded for even an instant on all operating or testing conditions. Design systems with a margin for the ratings listed above.

2. Recommend Operating Conditions

No.	Item	Symbol	Specifications			Unit	Remarks
			MIN.	TYP.	MAX.		
1	Power supply Voltage	VDD	2.6	3.3	3.6	V	
2	Operating Temperature	Ta	-30	+25	+85	°C	

3. Main Performance

Item	Contents
Radio standards	ARIB STD-T108, FCC Part15 Compliant
Radio frequency	• ARIB STD-T108 : 920.6MHz~928MHz • FCC Part15 : 902.2MHz~927.8MHz
Modulation scheme	Binary GFSK
Data rate	• ARIB STD-T108 : 50kbps, 100kbps, 150kbps, 300kbps • FCC Part15 : 50kbps, 150kbps, 300kbps
Transmission Power	20mW
Reception sensitivity	-95dBm (Typ.) (150 kbps, BER<0.1 %) BP35C5 Antenna terminal end
Frequency deviation	Below ± 20 ppm
HOST interface	UART(115,200 bps) , GPIO

4. Terminal Table

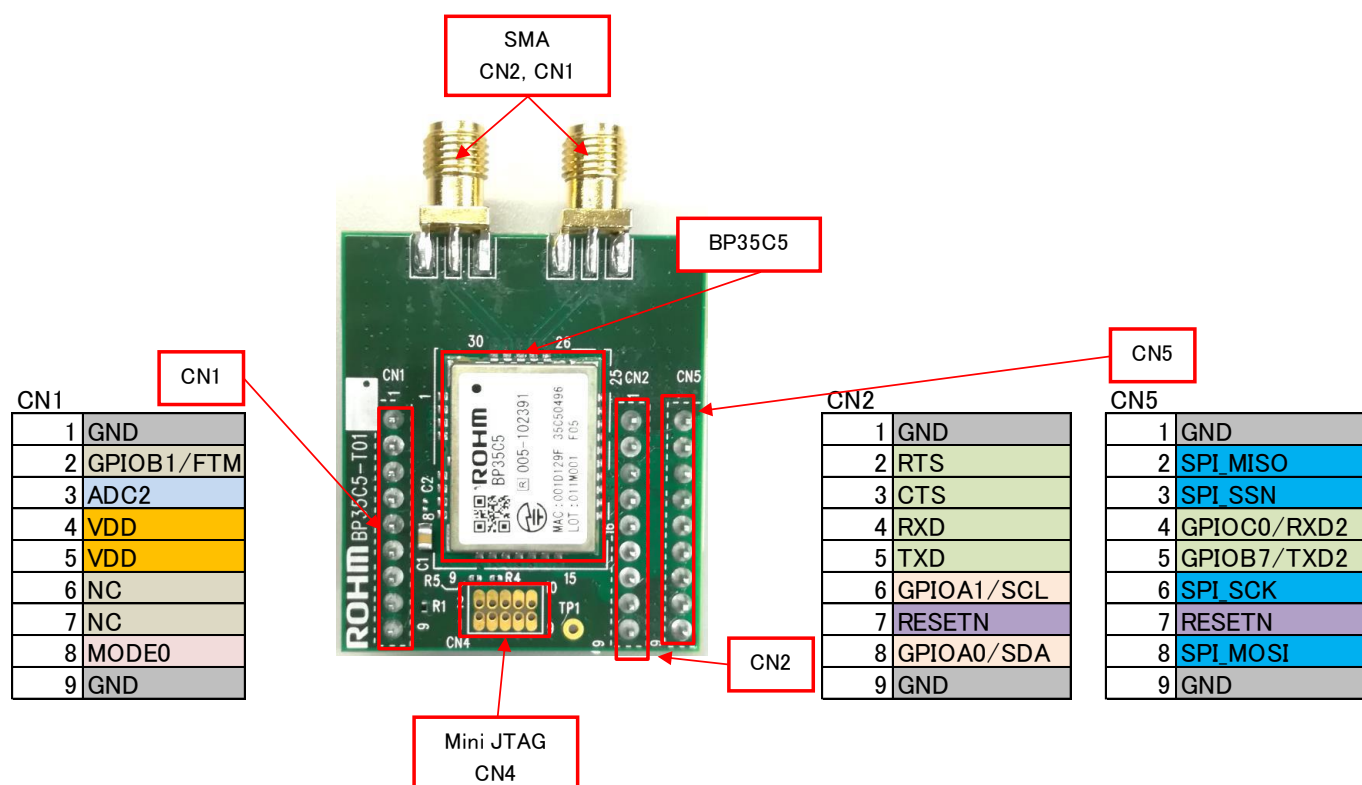


Figure 1 BP35C5-T01 Terminal position

* Antenna connector is SMA Female type.

Table 1. Module Terminal instruction table (CN1)

No.	Pin	I/O	Features	Remarks
1	GND	-	GND	-
2	GPIOB1/FTM	I	Reserve	OPEN
3	ADC2	I	Reserve	OPEN
4	VDD	-	Power supply terminal	-
5				
6	NC	-	Non connect	OPEN
7	NC	-	Non connect	OPEN
8	MODE0	I	Mode	Pull down on BP35C5-T01 PCB
9	GND	-	GND	-

* I/O definition I: Digital input terminal, O: Digital output terminal

Table 2. Module Terminal Description Table (CN2)

No.	Pin	I/O	Features	Remarks
1	GND	-	GND	-
2	RTS	O	Reserve (*1)	OPEN
			UART_RTS (*2)	-
3	CTS	I	Reserve (*1)	OPEN
			UART_CTS (*2)	-
4	RXD	I	UART_RXD	-
5	TXD	O	UART_TXD	-
6	GPIOA1/SCL	O	Status indicator (*3)	OPEN or LED etc.
7	RESETN	I	Power-ON Reset/Reset	RESET: L, Normal: H
8	GPIOA0/SDA	I/O	Reserve	OPEN
9	GND	-	GND	-

*I/O definition I: Digital input terminal, O: Digital output terminal

(*1) When HW flow control is disabled (Default)

(*2) When HW flow control is enabled

(*3) When status indicator is enabled (Default) : Broad cast transmitting : High output

Table 3. Module Terminal instruction table (CN5)

No.	Pin	I/O	Features	Remarks
1	GND	-	GND	-
2	SPI_MISO	I/O	Reserve	OPEN
3	SPI_SSN	I/O	Reserve	OPEN
4	GPIOC0/RXD2	I/O	Reserve	OPEN
5	GPIOB7/TXD2	I/O	Reserve	OPEN
6	SPI_SCK	I/O	Reserve	OPEN
7	RESETN	I	Power-ON Reset/Reset	RESET: L, Normal: H
8	SPI_MOSI	I/O	Reserve	OPEN
9	GND	-	GND	-

*I/O definition I: Digital input terminal, O: Digital output terminal

5. Circuit Diagram

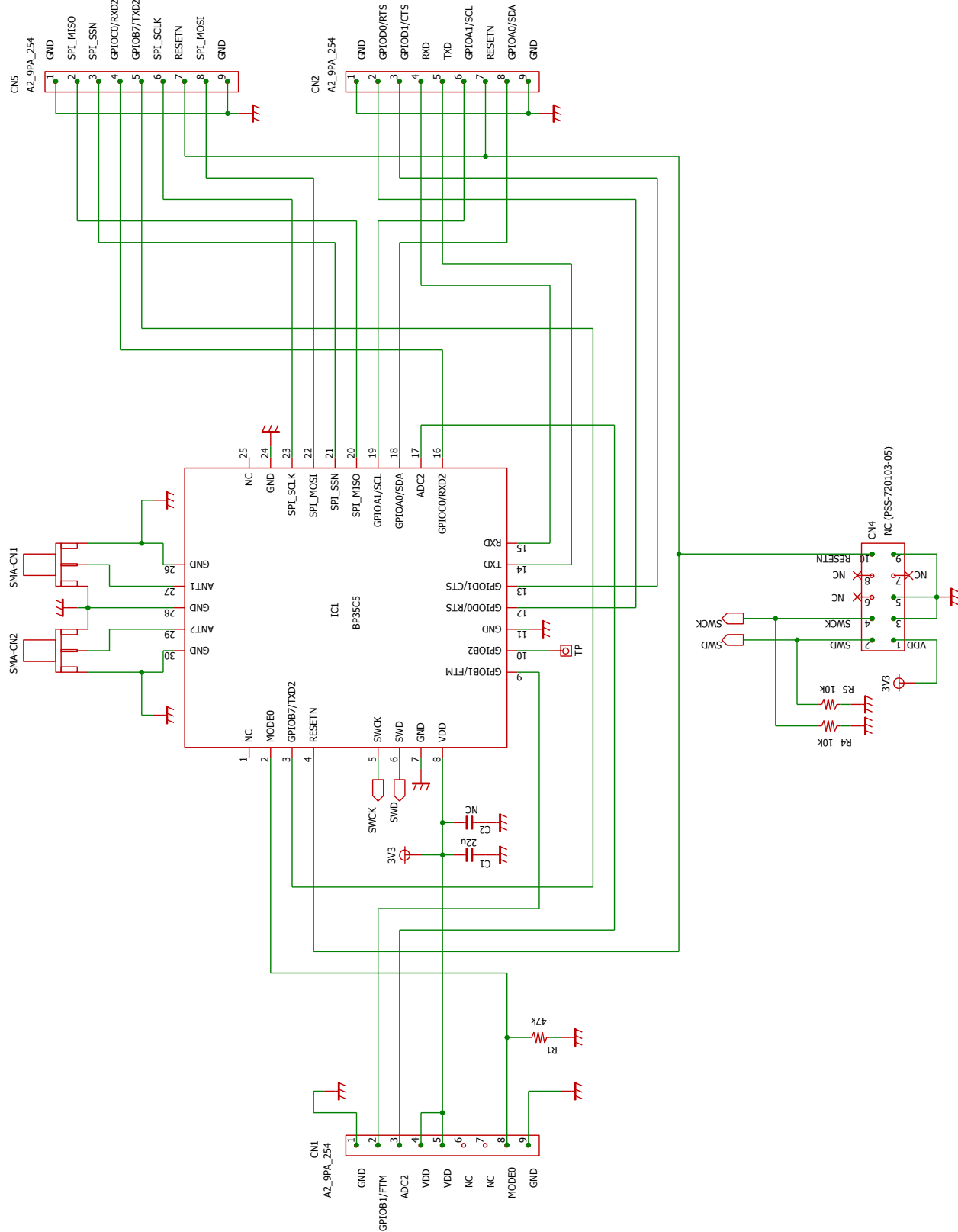


Figure 2 BP35C5-T01 Circuit configuration

6. External Dimensions

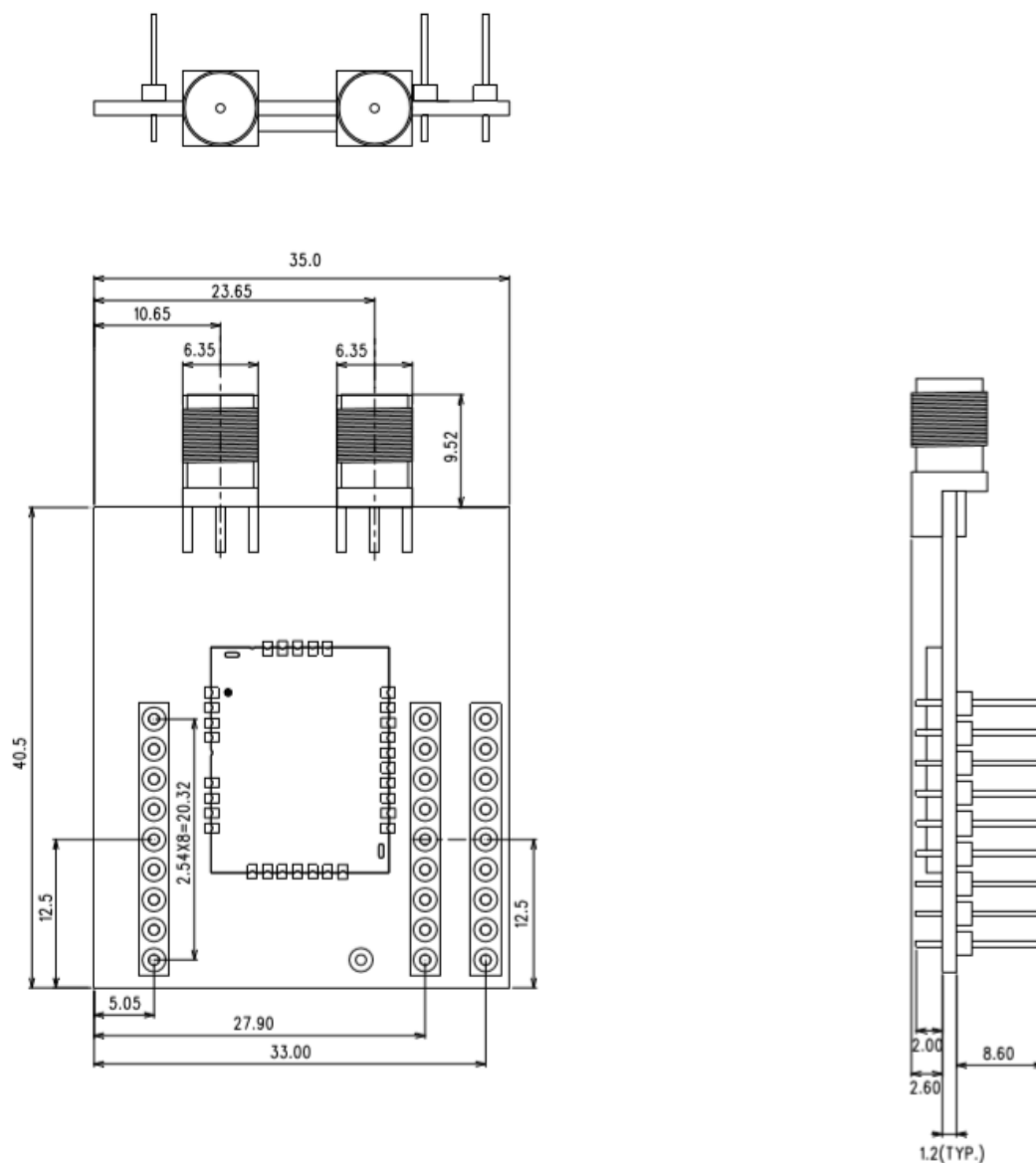


Figure 3 External dimensions

(*) Figures are all reference values.

(*) The board specifications and label specifications of this product may change due to manufacturing lots.

7. Precautions of Use

- (1) The soldering part of the module which is implemented in this product is assumed that there is no solder fillet.
- (2) This product is a technical evaluation board for wireless modules. Please note that the specifications are not intended to be incorporated into the product. If you use it in your product, please use a compatible wireless module.

8. Revision History

Ver.	Date	Contents
1.0.0	2020/6/11	Initial version

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