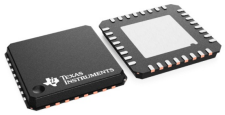

JANNATEC Technologies CC1020 Module User Guide

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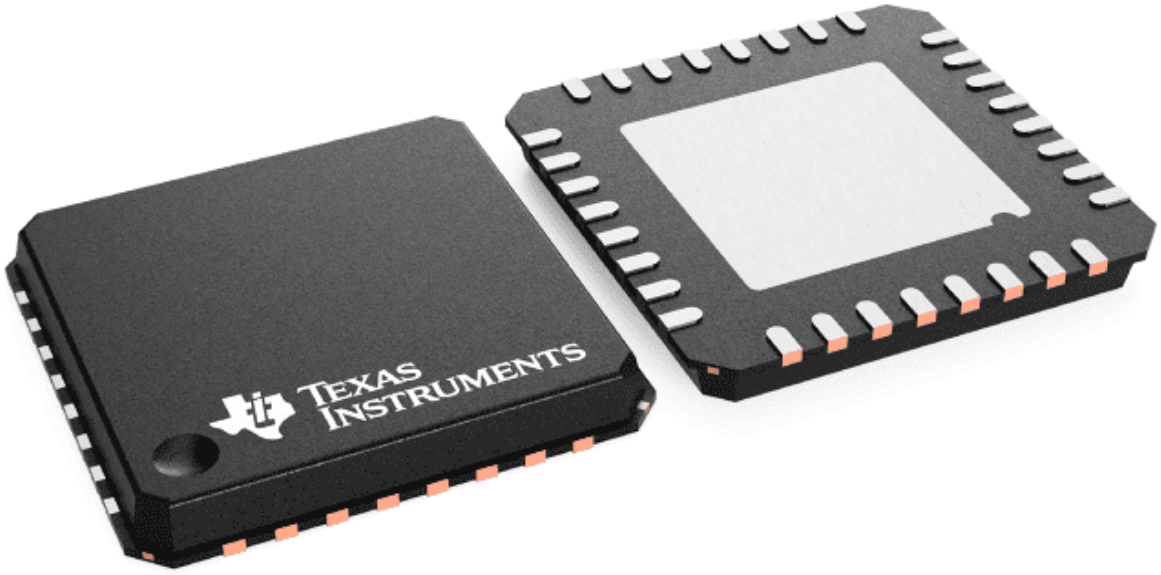
JANNATEC Technologies CC1020 Module



Revision History

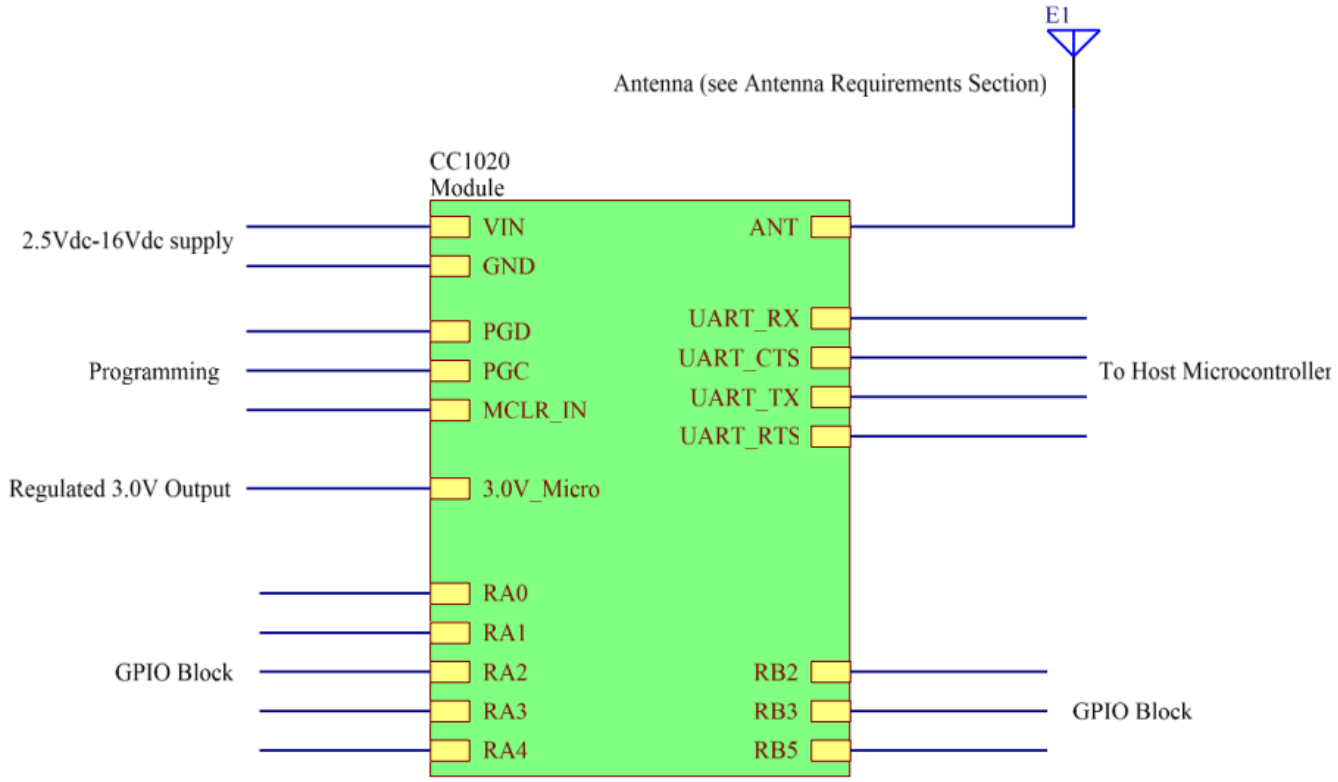
REV	DESCRIPTION	ORIGINATOR	DATE
1.0	Initial Release	J. Buie	October 6, 2022

Release Approval

	NAME	SIGNATURE
Prepared by	Jason Buie	
Approved by		
Approved by		

Background
This guide has been developed to aid in the integration of the CC1020 module from mechanical, RF and electrical perspectives.

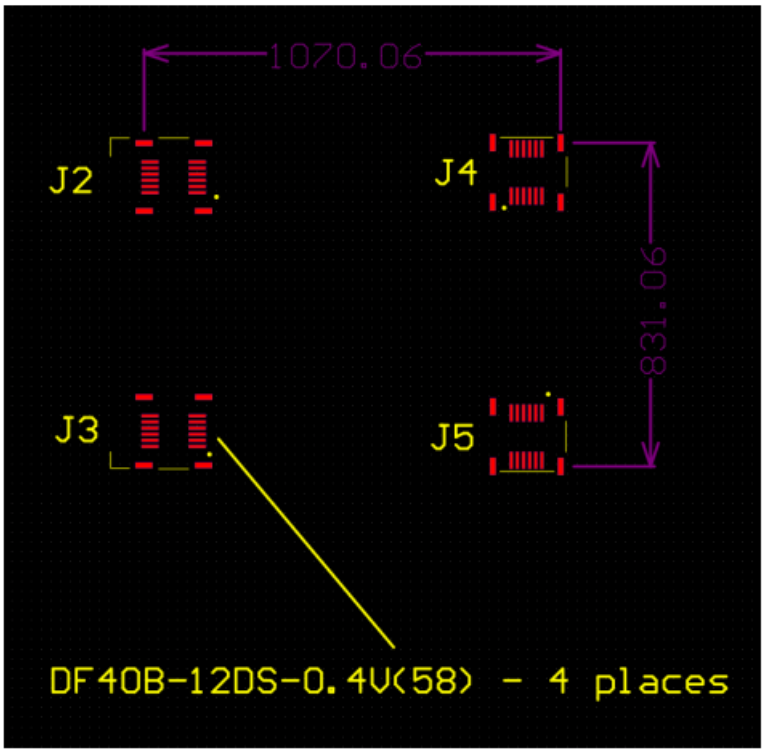
Interface Diagram



Connectivity

Power, Programming, Host UART and GPIO

Connections for power, programming, host UART and GPIOs are made through 4 low profile connectors populated on the bottom of the CC1020 module. The mating connectors required are Molex DF40B-12DS-0.4V(58).



Pinout – J2

PIN	SIGNAL
1	VIN
2	MCLR_IN
3	VCC
4	RA0
5	VCC
6	RA1
7	GND
8	PGD
9	GND
10	PGC
11	GND
12	3.0V_Micro

Pinout – J3

PIN	SIGNAL
1	RB3
2	UART_RX
3	RA2
4	UART_CTS
5	RA3
6	UART_TX
7	RA4
8	UART_RTS
9	RB5
10	RB2
11	N/C
12	N/C

Pinout – J4

PIN	SIGNAL *
1	J4 COMMON
2	J4 COMMON
3	J4 COMMON
4	J4 COMMON
5	J4 COMMON
6	J4 COMMON
7	J4 COMMON
8	J4 COMMON
9	J4 COMMON
10	J4 COMMON
11	J4 COMMON
12	J4 COMMON

No signals on J4 pins. Connect together for mechanical support.

Pinout – J5

PIN	SIGNAL *
1	J5 COMMON
2	J5 COMMON
3	J5 COMMON
4	J5 COMMON
5	J5 COMMON
6	J5 COMMON
7	J5 COMMON
8	J5 COMMON
9	J5 COMMON
10	J5 COMMON
11	J5 COMMON
12	J5 COMMON

No signals on J5 pins. Connect together for mechanical support

RF Connection
RF connection to the CC1020 module is done through an onboard U.FL connector. This module must only be used with a 1” U.FL coaxial jumper to the host board and an approved antenna.

Antenna Requirements

The CC1020 module has been given modular IC and FCC certifications with two antenna configurations. Use of antenna configurations other than is described below must not be used.

Ceramic Antenna on Host Board
A 1” U.FL coaxial jumper is used to make the RF connection between the CC1020 module and the host board. The host board is populated with a Pulse W3014 (-0.5dBi) ceramic antenna or equivalent.

Low Profile Mobile Antenna
A 1” U.FL coaxial jumper is used to make the RF connection between the CC1020 module and the host board. A minimum of 17’ of RG58 makes the connection between the host board and an NMO magnetic mount with a PCTEL MLPV800 (3dBi) or equivalent.

Specifications

- **Input Voltage:** 3.5-16Vdc
- **Input Current:** 25mA max
- **Max EIRP with certified antenna configurations:** -1.5dBm
- **Length:** 30mm (1.18”)
- **Width:** 21.6mm (0.85”)
- **Height:** 4.95mm (0.185”)

RF Certification

Host Product Labelling:
The host product must be labeled with the following:

- **“Contains FCC ID:** 2AZ9PCC1020”
- **“Contains IC:** 7085A-CC1020”

Host Product Manual Statements:

The host product user’s manual must contain the following statements when the JAWS transceiver Module is installed.
FCC –
“Changes or modifications not expressly approved by Jannatec Technologies could void the user’s authority to operate the device.” “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.” “To comply with RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operated in conjunction with any other antenna or transmitter.

Caution: Exposure to Radio Frequency Radiation.
To comply with RSS 102 RF exposure compliance requirements, for mobile configurations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Documents / Resources

	JANNATEC Technologies CC1020 Module [pdf] User Guide CC1020, 2AZ9PCC1020, CC1020 Module, Module