

# **TA3200R1D-UFL User Manual v1.0**

**BEIJING JIA AN ELECTRONIC TECHNOLOGY CO.,LTD.**

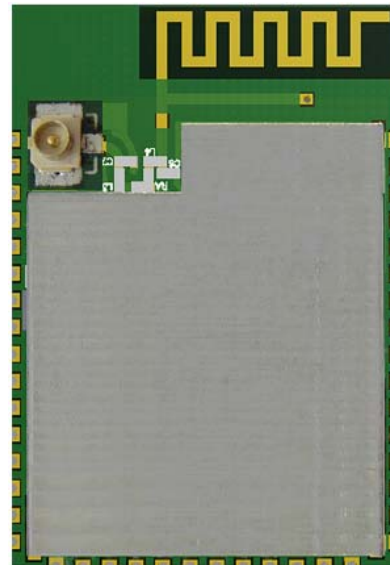
| <b>Date</b>          | <b>Revision</b> | <b>Description</b> |
|----------------------|-----------------|--------------------|
| <b>Apr.13th 2015</b> | <b>V1.0</b>     |                    |

## Description

**TA3200R1D-UFL** Module is a low-power module includes an **802.11 b/g/n** radio, baseband, and MAC, which is designed for the application of wireless network communication with embedded technology. Using this module user can connect physical device to Wi-Fi Network, and then realize the control and management of the Internet of Things. The core of the module is CC3200 launched by TI. CC3200 device is a wireless MCU that integrates a high-performance ARM Cortex-M4 core running at 80MHz, includes embedded TCP/IP and TLS/SSL stacks, HTTP Server, and multiple Internet protocols, allowing customers to develop an entire application with a single IC.

~+75°C

- Package: 18.22mm\*26.65mm\*2.8mm



## Features

- ARM Cortex -M4 Core at 80 MHz ARM Core
- includes a wide variety of peripherals
- Wi-Fi and Internet Protocols in ROM
- 802.11 b/g/n Radio, Baseband, Medium Access Control (MAC), Wi-Fi Driver, and Supplicant
- Station, AP, and Wi-Fi Direct Modes
- TX Power:
  - 18.0 dBm @ 1 DSSS
  - 14.5 dBm @ 54 OFDM
- RX Sensitivity:
  - 95.7 dBm @ 1 DSSS
  - 74.0 dBm @ 54 OFDM
- Power-Management Subsystem:
  - V<sub>BAT</sub>Wide-Voltage Mode: 2.2 to 3.6 V
  - Preregulated 1.85-V Mode
- Advanced Low-Power Modes:
  - Hibernate: 4 μA
  - Low-Power Deep Sleep (LPDS):120 μA
  - RX Traffic:59 mA@ 54OFDM
  - TX Traffic:229 mA @54 OFDM @18dBm
- Ambient Temperature Range: -25

## Applications

- Cloud Connectivity
- Home Automation
- Home Appliances
- Access Control
- Security Systems
- Smart Energy
- Internet Gateway
- Industrial Control
- Smart Plug and Metering
- Wireless Audio
- IP Network Sensor Nodes

For more details about the CC3200 please visit CC3200 at

<http://www.ti.com/product/CC3200>

## Contact details

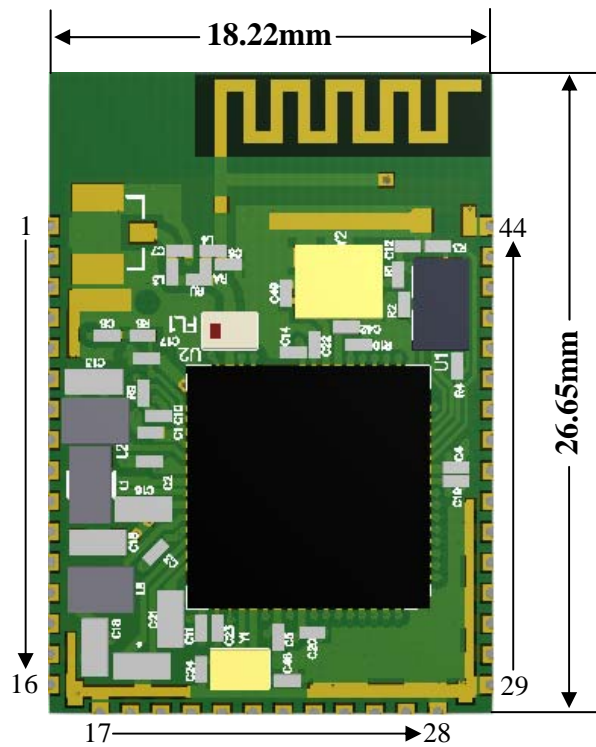
For more information, please send email to us.

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## Pin Description



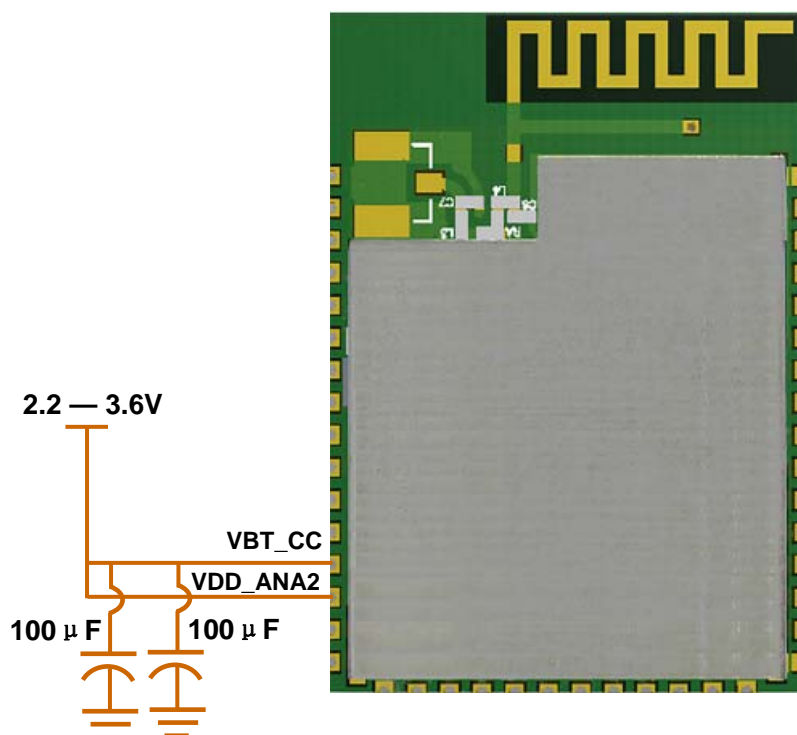
| Pad Number | Pin Name | Description                   | CC3200 Pkg pin number |
|------------|----------|-------------------------------|-----------------------|
| 1          | GND      | Ground                        | 65                    |
| 2          | ANTSEL1  | Antenna Selection Control     | 29                    |
| 3          | ANTSEL2  | Antenna Selection Control     | 30                    |
| 4          | nRESET   | Master chip reset. Active low | 32                    |
| 5          | SOP2     | Sense On Power 2              | 21                    |
| 6          | SOP1     | Sense On Power 1              | 34                    |
| 7          | SOP0     | Sense On Power 0              | 35                    |
| 8          | NC       |                               |                       |
| 9          | NC       |                               |                       |
| 10         | NC       |                               |                       |
| 11         | GND      | Ground                        | 65                    |
| 12         | GND      | Ground                        | 65                    |
| 13         | VBT_CC   | Chip Supply Voltage (VBAT)    | 10,37,39,44,54        |
| 14         | VDD_ANA2 | ANA2 DCDC O                   | 47                    |
| 15         | GPIO_30  | General-Purpose I/O           | 53                    |

|    |         |                     |    |
|----|---------|---------------------|----|
| 16 | GPIO_31 | General-Purpose I/O | 45 |
| 17 | GND     | Ground              | 65 |
| 18 | GPIO_00 | General-Purpose I/O | 50 |
| 19 | GPIO_01 | General-Purpose I/O | 55 |

| Pad Number | Pin Name | Description                       | CC3200 Pkg pin number |
|------------|----------|-----------------------------------|-----------------------|
| 20         | GPIO_02  | General-Purpose I/O               | 57                    |
| 21         | GPIO_03  | General-Purpose I/O               | 58                    |
| 22         | GPIO_04  | General-Purpose I/O               | 59                    |
| 23         | GPIO_05  | General-Purpose I/O               | 60                    |
| 24         | GPIO_06  | General-Purpose I/O               | 61                    |
| 25         | GPIO_07  | General-Purpose I/O               | 62                    |
| 26         | GPIO_08  | General-Purpose I/O               | 63                    |
| 27         | GPIO_09  | General-Purpose I/O               | 64                    |
| 28         | GND      | Ground                            | 65                    |
| 29         | GND      | Ground                            | 65                    |
| 30         | GPIO_10  | General-Purpose I/O               | 1                     |
| 31         | GPIO_11  | General-Purpose I/O               | 2                     |
| 32         | GPIO_12  | General-Purpose I/O               | 3                     |
| 33         | GPIO_13  | General-Purpose I/O               | 4                     |
| 34         | GPIO_14  | General-Purpose I/O               | 5                     |
| 35         | GPIO_15  | General-Purpose I/O               | 6                     |
| 36         | GPIO_16  | General-Purpose I/O               | 7                     |
| 37         | GPIO_17  | General-Purpose I/O               | 8                     |
| 38         | GPIO_22  | General-Purpose I/O               | 15                    |
| 39         | JTAG_TDI | JTAG TDI. Reset Default Pinout.   | 16                    |
| 40         | JTAG_TDO | JTAG TDO. Reset Default Pinout    | 17                    |
| 41         | GPIO_28  | General-Purpose I/O               | 18                    |
| 42         | JTAG_TCK | JTAG/SWD TCK Reset Default Pinout | 19                    |
| 43         | JTAG_TMS | JTAG/SWD TMS Reset Default Pinout | 20                    |
| 44         | GND      | Ground                            | 65                    |

## Application Information

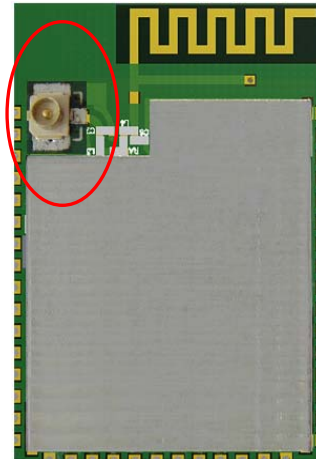
V<sub>BAT</sub> Wide-Voltage Mode 2.2 to 3.6 V



Noted: The device can draw up to 600mA for 25mS. Consider adding extra decoupling capacitors if the battery can not source the current. And please also make sure these two capacitors are closed to the port of VBT\_CC.

## Antenna Style

### TA3200R1D-UFL(UFL Connector)



Frequency: 2400 - 2483MHz  
Band width: 83MHz  
Gain: 5dBi  
Antenna impedance: 50Ω  
Operating Temperature: -40~+60℃  
Rated POWER: 50W  
Connector Type: SMA male



The TA3200R1D-UFL module is designed to comply with the FCC statement. FCC ID is VVJ-TA3200R1D-SA. The host system using TA3200R1D-UFL, should have label indicated FCC ID VVJ-TA3200R1D-SA.

## FCC STATEMENT

### § 15.21 Information to user.

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

### § 15.105 Information to the user.

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.

### \*RF warning for Mobile device:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### § 15.19 Labelling requirements.

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.