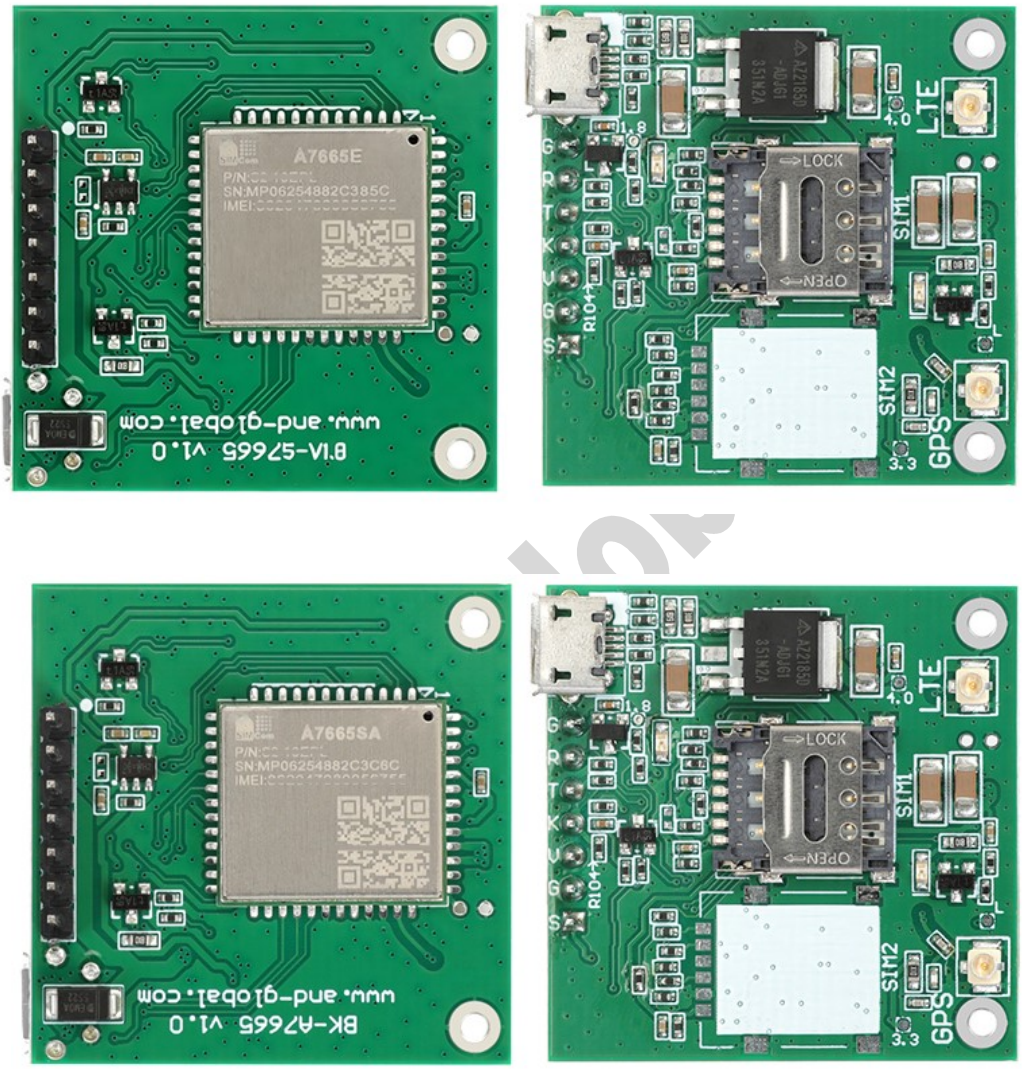
Breakout A7665 User Manual



This user manual is applicable to below part number: BK-A7665E-MNXV BK-A7665E-LNXV BK-A7665SA-MNXV BK-A7665SA-LNXV

1. Preparation:

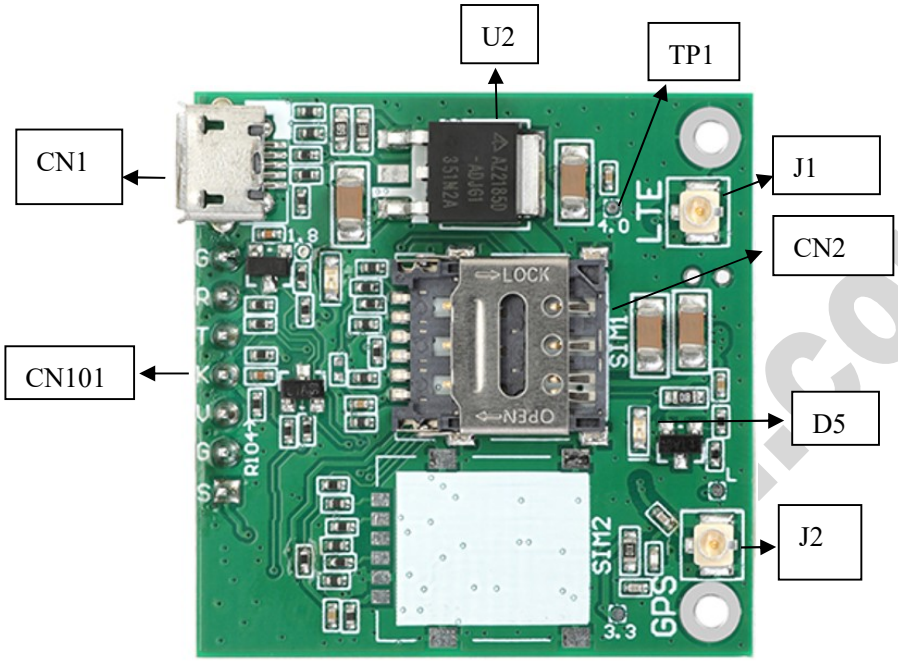
Board	BK-A7665
Serial tool	sscom32E.exe

2. Overview

2.1 Module feature

- Based on ASR1605 platform,the A7665 series is the LTE Cat 1bis module which supports wireless communication modes of LTE-TDD/LTE-FDD. It supports maximum 10Mbps downlink rate and 5Mbps uplink rate.
- Control Via AT Command, Rich interfaces including UART,USB2.0
- Extended Operation temperature:-40℃ to +85 ℃
- GNSS optional
- USB driver for Windows, Linux and Android
- The 2nd sim card slot optional
- ***Custom-design board supported, please drop an email to David@and-global.com***

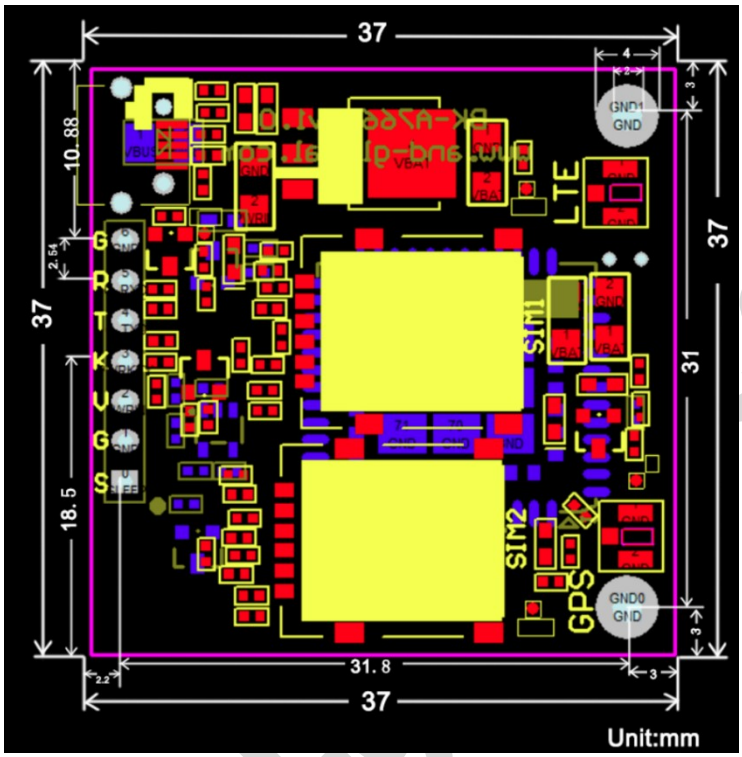
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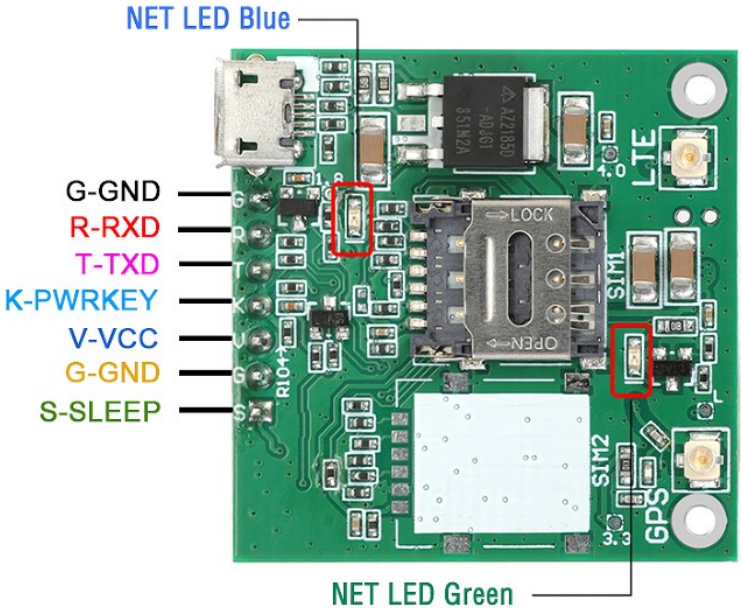
CN2	Nano SIM card socket 1
CN101	7pin 2.54mm header interface
CN1	USB interface
D5	NET LIGHT indicator(Green)
U2	The power conversion chip
J1	LTE ANT
J2	GPS ANT(Optional)
TP1	4.0V

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2.3 PCBA dimension: 37*37mm.



3. Pin definition

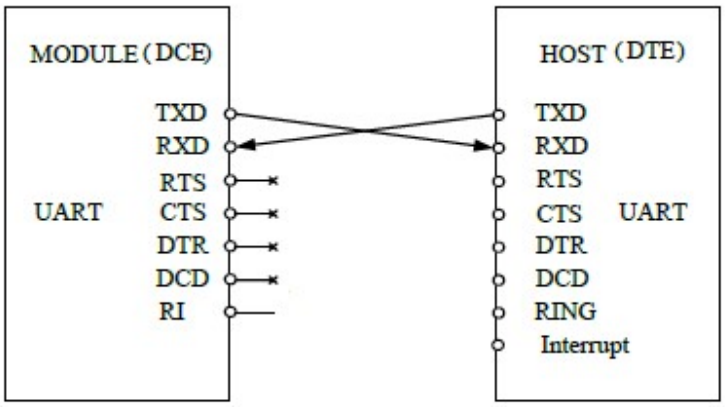


Note: VCC range is from 5.0V to 10V, 5.0V is recommended. Please ensure 1A current for the VCC pin. TXD /RXD are 3.3V TTL level which can be directly connected with 3.3V MCU.

3.1 Pin definition of 6pin connector

Pin name	Pin number	Mark on PCB	Description	Comment
SLEEP	0	S	Wake up module from sleep mode	Connect with DTR via Q4
GND	1,6	G	GND	
VCC	2	V	The power supply	5V-10V
PWRKEY	3	K	Power down	Shorted with GND via R104 by default
TXD	4	T	Transmit Data	TTL Series data Output from A7665
RXD	5	R	Receives Data	TTL Series data Input to A7665

3.2 How to use TXD and RXD (Default baud rate is 115200bps)



4. How to test the BK-A7665 by AT command via UART

4.1 Installing LTE antenna, GPS antenna and NanoSIM card for BK-A7665 Board.

4.2 Feed power supply to VCC pin. (Note: VCC range is from 5.0V to 10V. 5.0V is recommended.)

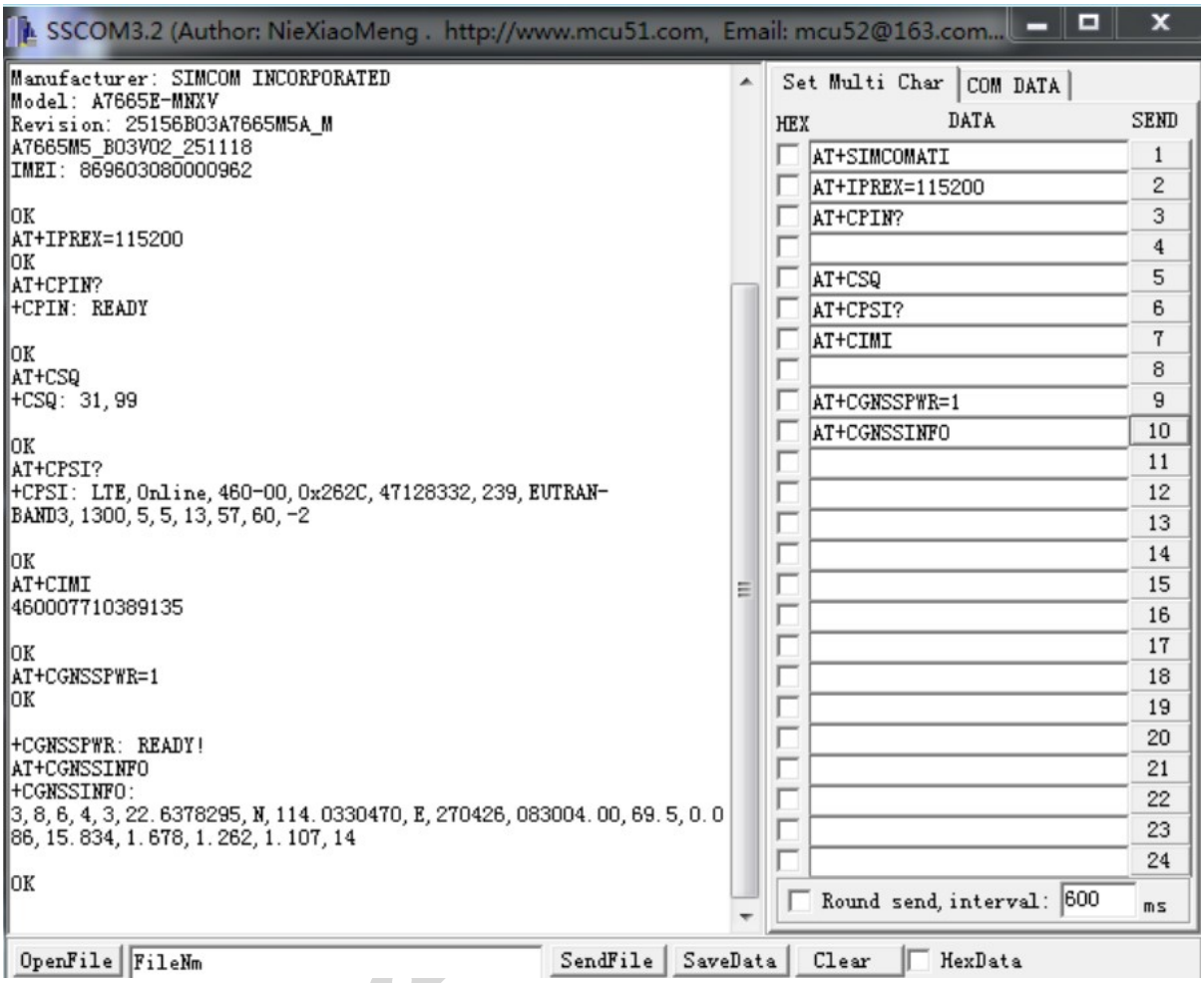
4.3 GREEN LED indicator, ON shows un-registration network， Blinking shows registration successful.

NETLIGHT pin status	Module status
Always On	Searching Network
200ms ON, 200ms OFF	Data Transmit/Registered
OFF	Power off / Sleep

4.4 Open serial software 

and choose right serial number, Baud rate as below, please keep “SendNew” selected:





5. How to test the BK-A7665 by AT command via USB

5.1 Remove all connection on CN101 7pin connector, Power up the A7665 Breakout board only via USB, Install SIMCom_USB_Drivers A7675.rar driver following the computer indication. The computer will show as belows, it means that the driver is installed correctly.



5.2 Select AT Port 9011, 115200bps and SendNew, you can repeat all command in Item4.4.

6.Package list：

Name	Qty	Unit
BK-A7665	1	Pcs

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