SIM800L-EVB_User Guide_V1.00

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Version History

| Data	Version	Description of change	Author
2013-07-22	1.00	Origin	Lee

# 1. SIM800L EVB
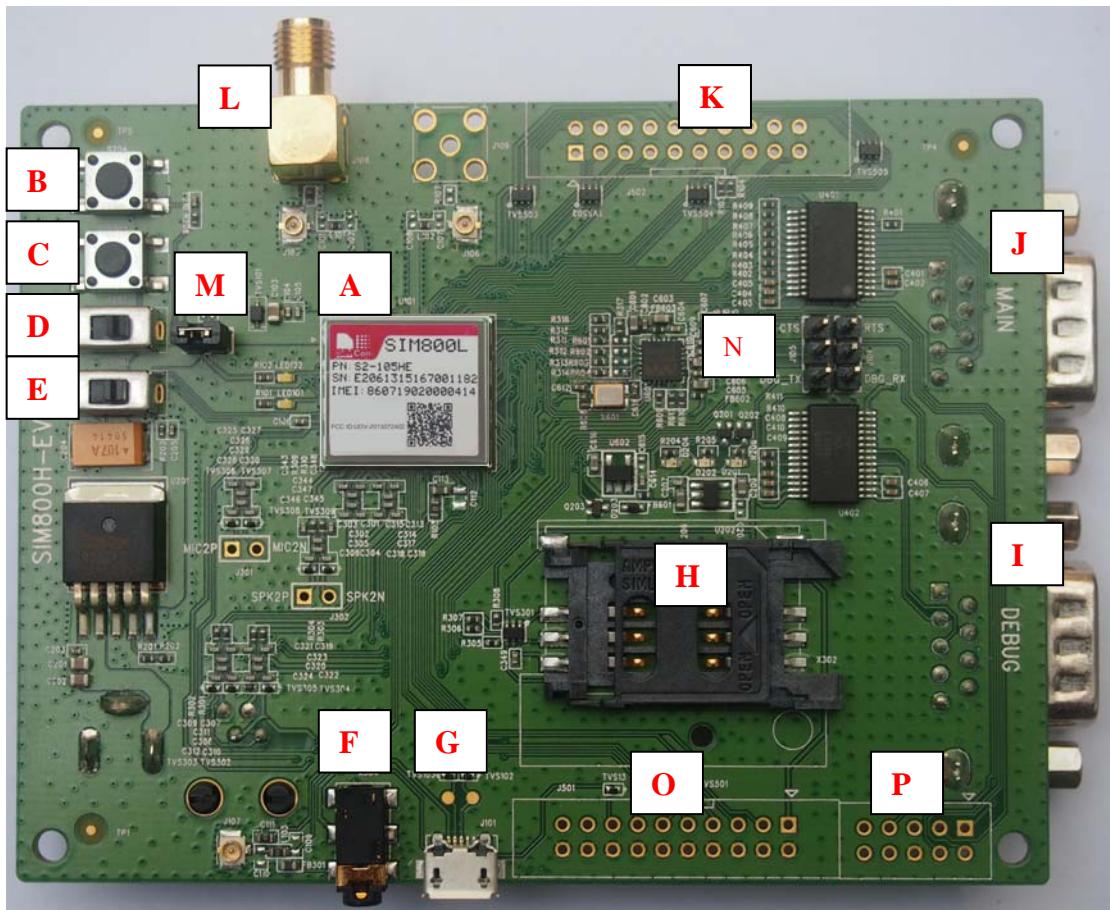
Figure 1: EVB TOP view
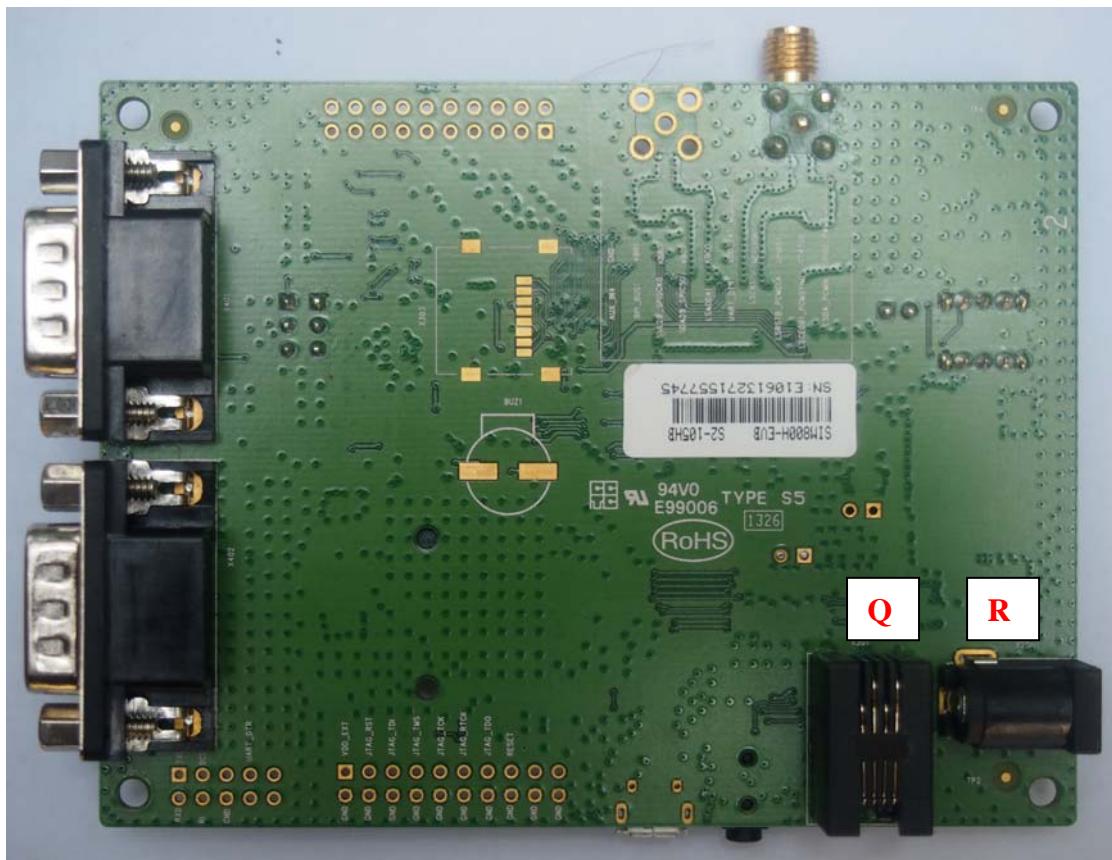
Figure 2: EVB BOTTOM view

A.   SIM800L module

B.   Power key (module ON/OFF control)

C.   Reset key (reset the module)

D.   Power switch (download control)

E.   Charge switch (charge ON/OFF control)

F.   Headset interface

G.   USB

H.   SIM card interface

I.   Debug serial port

J.   MAIN serial port

K.   Test point interface

L.   GSM antenna interface

M.   Switch 1

N.   Switch 2

O.   Test point interface

P.   Test point interface

Q.   Headphones interface

R.   Source adapter interface

2. EVB Accessory
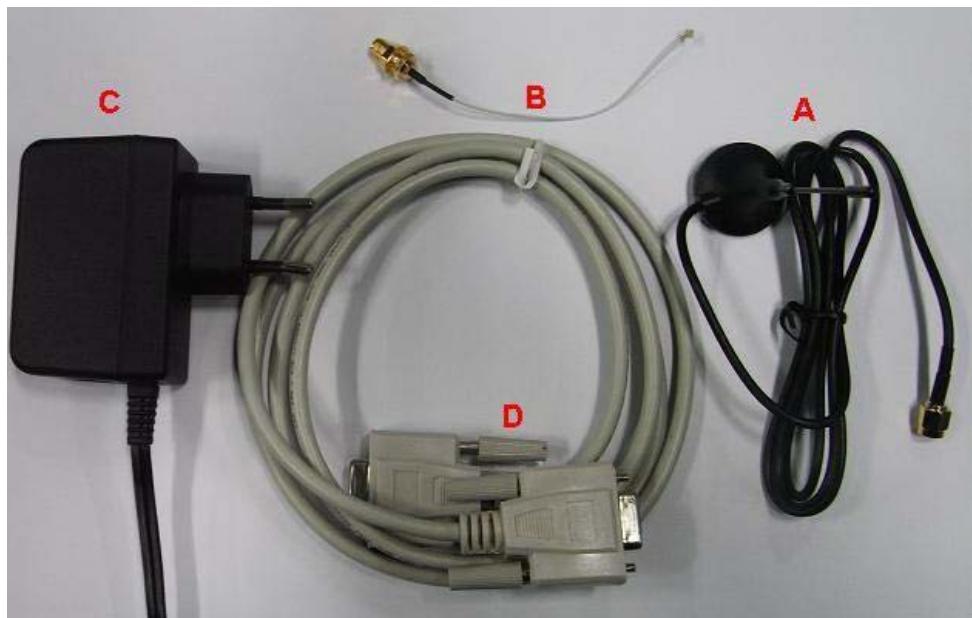
Figure 3: EVB accessory

A: GSM antenna

Model GSM antenna: WT-C&G-28-90

Frequency Range (MHz) 824 ~ 960 1710 ~ 1990

VSWR ≤1.5 (900MHz) ≤2 (1800MHz)

Gain: 3dBi

Input Impedance (Ω): 50

Polarization Type: Vertical

Connector Type: SMA

B: Antenna transmit line

C: 5V DC source adapter

D: Serial port line

NOTE: The maximum gain of the GSM antenna gain should not exceed 3dBi for end-users.

3. Accessory Interface

3.1 Power Interface

Figure 4: Power Interface

Pin	Signal	I/O	Description
1	Adapter input	I	5V/2.5A DC source input

3.2 Audio Interface
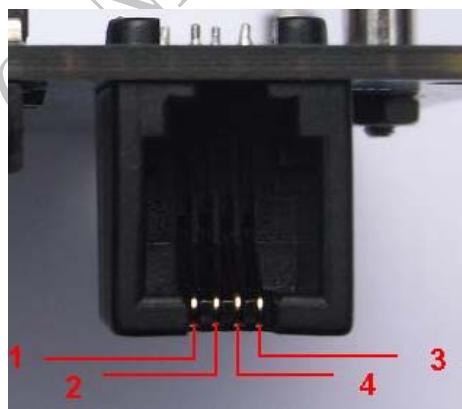
Figure 5: Audio Interface

Headset interface:

Pin	Signal	I/O	Description
1	MIC1P	I	Positive microphone input
2	SPK1P	O	Positive receiver output
3	MIC1N	I	Negative microphone input

| 4 | SPK1N | O | Negative receiver output |

3.3 SIM card interface

Figure 6: SIM card interface

3.4 RS232 Interface
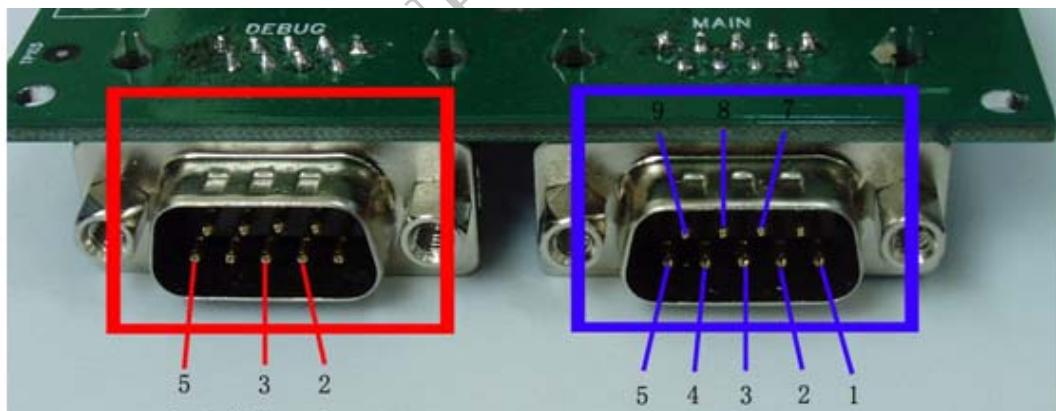
**Figure 7: Serial Ports**

Serial Port 1——MAIN Interface
Serial Port 2——DEGUG Interface

Main Interface:

Pin	Signal	I/O	Description
1	DCD	O	Data carrier detection

2	TXD	O	Transmit data
3	RXD	I	Receive data
4	DTR	I	Data Terminal Ready
5	GND		GND
7	RTS	I	Request to Send
8	CTS	O	Clear to Send
9	RI	O	Ring Indicator

Debug Interface:

Pin	Signal	I/O	Description
2	DEBUG_TX	O	Transmit data
3	DEBUG_RX	I	Receive data
5	GND		GND

4. Illustration:

4.1 Running:

(1) Inserting 5V direct current source adapter, switching the S101,S102 switch on **off** state, S105 switch on **ON** state;
(2) Press the PWRKEY for about 1 second, and then SIM800L module begins running.

You can see the light Q3 on the EVB flashing at a certain frequency. By the state, you can judge whether the EVB and SIM800L can run or not.　No function and test can be executed when we have not connected necessary accessories.

4.2 Connecting Net and calling

(1) connect the serial port line to the MAIN serial port, open the HyperTerminal(AT command windows) on your Personal computer, the location of the HyperTerminal in windows2000 is START→accessory→communication→HyperTerminal. Set correct Baud Rate and COM number. The Baud Rate of SIM800L is 115200, and the COM number based on which USB port your serial port line insert in, you should select such as COM3 or COM4 etc.
(2) Connect the antenna to the SIM800L-TE with SIM800L module using an antenna transmit line, insert SIM card into the SIM card interface, insert headphones or headset into its interface.

(3) Act on the step of running which mentioned above, power on the system, typing the AT command in the HyperTerminal, and then the SIM800L module will execute its corresponding function.

4.3 Downloading

Connect the serial port line to the **MAIN** serial port, connect the direct current source adapter, run the download program and press the **START** key, then switch the S105 switch on **ON** state, S102 switch on **ON** state, then EVB provide the function of downloading.

4.4 Turns off

Turn off SIM800L module: press the PWRKEY for about 2 second, SIM800L module will be turned off.

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