

ET-BASE GSM SIM900

(P-ET-A-00488)



Specifications of Module SIM900

- Support Frequency in the ranges of GSM/GPRS 850/900/1800/1900 MHz
- Support GPRS MULTI-SLOT CLASS10 and GPRS MOBILE STATION CLASS B
- Support AT Command (GSM 07.07/07.05 and additional commands from SIMCOM)
- Support Signal in the format of VOICE, SMS, FAX, PROTOCOL, TCP/IP
- Support SIM APPLICATION TOOLKIT
- Run in the range of 3.2V-4.8V
- Be compatible with SIM CARD 1.8V and 3V

ET-BASE GSM SIM900 is a board from ETT that is suitable to learn and develop the Communication System through mobile phone by using Module from SIMCOM Company; it supports the Communication System of GSM/GPRS under the Frequency of 850/900/1800/1900 MHz. It uses AT COMMAND to command operation through RS232 Serial PORT.

Specifications of Board ET-BASE GSM SIM900

- Has Circuit to convert LOGIC TTL 3V to 5V; it can directly connect with Microcontroller LOGIC 5V to receive command if it does not be connected through Circuit LINE DRIVER RS232
- Has Circuit LINE DRIVER RS232 to receive command through other PORT RS232 directly (1200 – 115200 BPS)
- Has SW.ON/OFF to enable/disable operation of Module internal board
- Has SOCKET SIM (FULL SIZE SIM); it supports SIM CARD with Circuit ESD to protect SIM from damaged
- Has 2 Circuits REGULATE; board is compatible with POWER DC in the range of 5V-12VDC
- Use Circuit IC 4.2V/3A to supply to Module SIM900, it has much enough for GSM 2 WATT
- Has Circuit REGULATE 2.8V/150mA to supply to circuit that converts Signal Level of LOGIC
- Has LED to display operating status on board; LED VBAT, LED NET, LED STATUS
- Has Connector RJ11 for interfacing HEAD SET of home phone
- Has 4 PIN ETT for PORT RS232
- Has 10 PIN IDE of ETT for PORT RS232 in the format of TTL
- Has 2 types of Power Supply 5V-12VDC that are Connector DC JACK 2.5 mm. (Anode-OUT, Cathode-IN) and 2 PIN (in case of using general mobile phone that is not 2 WATT). It suggests to use DC ADAPTER ET-SWITCHING ADAPTER 5V 2A TYPE J or TYPE B

• Board size: 8.1 x 6.1 cm.
• **ET-BASE GSM SIM900** Kit consists of...

1. Board with Module SIM900
2. Antenna L-TYPE
3. Cable 4 PIN RS232
4. Cable Pair 10 PIN
5. Cable ET-RS232 DB9 PIN
6. CD-ROM; Manual and Example Programs



ET-MINI MT8870 (P-ET-A-00440)



It is addition board that is designed to support the operation of ET-GSM SIM300, ET-GSM SIM900B or other GSM Boards that have socket for HANDSET. It can be modified to receive data from pressing key of incoming telephone call.

It checks Signal DTMF by using IC No.MT8870 that decodes the signal as 4BIT BCD to control applications.

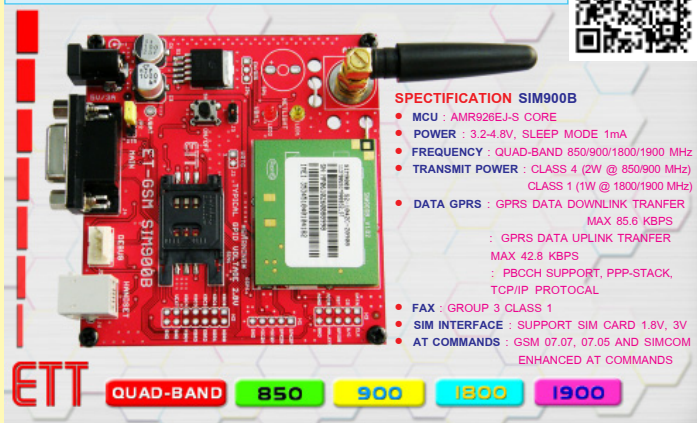
- Use IC DTMF No.MT8870
- RJ11 to interface with Module GSM
- LED to display operating status of PWM, STD, Q4, Q3, Q2, Q1
- Connector 10PIN HEADER MALE and FEMALE
- Cable RJ11 Header with 14cm. length
- CD-ROM manual



* การต่อใช้งานกับ ET-GSMSIM

ET-GSM SIM900B

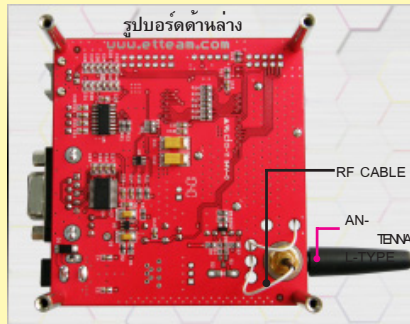
(P-ET-A-00435)



SPECIFICATION SIM900B

- MCU : AMR926EJ-S CORE
- POWER : 3.2-4.8V, SLEEP MODE 1mA
- FREQUENCY : QUAD-BAND 850/900/1800/1900 MHz
- TRANSMIT POWER : CLASS 4 (2W @ 850/900 MHz) CLASS 1 (1W @ 1800/1900 MHz)
- DATA GPRS : GPRS DATA DOWNLINK TRANSFER MAX 85.6 KBPS
: GPRS DATA UPLINK TRANSFER MAX 42.8 KBPS
: PBCH SUPPORT, PPP-STACK, TCP/IP PROTOCOL
- FAX : GROUP 3 CLASS 1
- SIM INTERFACE : SUPPORT SIM CARD 1.8V, 3V
- AT COMMANDS : GSM 07.07, 07.05 AND SIMCOM ENHANCED AT COMMANDS

ET - GSM SIM900B is a board of phone module that uses SIM900B from SIMCOM. It supports QUAD-BAND Frequencies; 850/ 900/ 1800/ 1900MHz and service systems of TRUE, DTAC, AIS. It communicates and commands the phone module through PORT RS232 in the format of AT COMMAND. There is Connector DATA, POWER SUPPLY, Connector RS232 as DB 9PIN for general use and 4PIN for DEBUG. It can be applied to many ways; for example, it sends SMS to notify driver to protect car from stolen, top up money for cell phone, send data from GPS System of car.



• **ET-GSM SIM900B** consists of...

1. Board Module SIM900B
2. Cable RS232 9PIN Header to connect with PC
3. CD-ROM User's Manual and Example Programs
4. ANTENNA L-TYPE
5. RF CABLE



Specifications of Board ET-GSM SIM900B

- Have SW to ON/OFF the operation of Module internal board
- Have SOCKET SIM to support SIM CARD and Circuit ESD to protect SIM from damaged
- Have 2 Circuit REGULATES to use with +5VDC DC ADAPTER
- Use Circuit 4.2V/3A IC REGULATE to supply enough energy to Module SIM900B to use with 2 WATT GSM900 without problem
- Have Circuit 2.8V/150mA REGULATE to supply energy to Circuit Logic Converter
- Have LINE DRIVER to convert signal from SIM900B to RS232, including cable for DEBUG
- Have LED to display operating status of module, NETWORK connection, status of POWER ON/POWER OFF
- Have Connector RJ11 HAND SET(microphone and headphones of telephone) to talk, call and receive
- Have other connecting points such as KEY BOARD, DISPLAY, GPIO, PWM, ADC
- Use 5V-12VDC POWER SUPPLY (current depends on distance of 2 stations to send-receive data and Service System), we recommend to use ET-SWITCHING ADAPTER 5V/2A TYPE J for general use.
- PCB size: 8.00 X 8.50 cm

<p>- SIM900B GSM MODULE (A-IC-M-00021)</p>	<p>- CC-CZD-SAJ-3M (ANTENNA 1.5 M CABLE 5MA) (A-IC-M-00013)</p>	<p>- CC-BW-G-SAJ (ANTENNA L-TYPE) (A-IC-M-00011)</p>
<p>- ET-SWITCHING ADAPTER 5V 2A TYPE J (A-AP-A-00094)</p> <p>INPUT : AC INPUT 220VAC 50/60Hz 0.5A OUTPUT : DC 5V/2.0A (10W)</p>		