Product datasheet

GSM/GPRS MODEM

V3.20

USAGE NOTICE

A GSM/GPRS modem comes as a handy solution for data monitoring and non real-time control applications. Today mobile networks are widely available and this has enabled use of modems across multiple applications.This GSM/GPRS modemcan be used in various applications such as elevator monitoring, production monitoring etc. It can be easily integrated with existing embedded applications over serial port and with very easy serial AT command set.

➢ **Description**

Name: GSM/GPRS Modem
Interface: RS 232 serial, up to 115Kbaud speed
          RS485 half duplex
          USB (using virtual comm port)

Based on Quectel M95quad band module
Frequencyband:850/900/1800/1900MHz
Data connectivity: Class 12 multi slot GPRS

➢ **Product Features**
   o Based on quad band GSM/GPRS module
   o GPRS Multi-slot class 12
   o Supports TCP/IP, SMTP Protocols
   o Quadband 850/900/1800/1900 MHz
   o 3V SIM card slot
   o Standard RS232 interface for sending AT commands
   o Send and receive Data, SMS,MMS, e-mail
   o Maximum communication speed 115kb/s
   o Works with off-the-shelf available 50E antenna
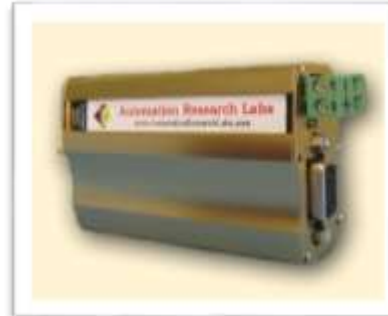   o Aluminum casing with powder coating

Factory option available for custom interface through DSUB9 connector. Refer table below.

➢ **DSUB9 female connector**

Pin No.	Standard Product	Customization options		
		Option 1	Option 2	RS485
1	NC	Modem ON/OFF control signal (TTL or LVTTL input)	NC	NC
2	RS232 TXD			T/R- (B)
3	RS232 RXD			T/R+ (A)
4	NC		MIC+	NC
5	GND			
6	NC	TTL RXD	SPEAKER+	NC
7	NC	TTL TXD	SPEAKER-	NC
8	NC	Supply positive		NC
9	NC	Modem power on status signal (LVTTL output)	MIC-	NC
Case	Connected to GROUND			

Table terminology
        NC: No internal connection
        TTL: Transistor-Transistor logic signal levels (5V typical)
        LVTTL: Low voltage Transistor-Transistor Logic signal levels (3.3V typical)

Note: In case of 2wire RS485 interface modem
1. command echo is always disabled. This is because, 2 wire interface cannot allow bidirectional data transfer at same time. User must not try to enable it using AT command.
2. Auto baud feature of modem is not available. User need to specify the desired communication baud rate while placing order.

➢ **Power supply**
2pin detachable phoenix connector screw terminal.
Option 1: 5VDC to 14VDC supply range.
Option 2: 7.5VDC to 24VDC supply range.
Internal regulated modem specific power supply. Required supply current reduces with increase in supply voltage. At 24VDC input supply voltage, required peak current is 500mA.
NOTE: Make sure to connect a stable external power supply to the modem with specified polarity. Modem draws considerable current while transmitting or receiving signals. The external power supply should not drop supply voltage below 7V during such periods.
Modem has very limited protection against reverse polarity. Wrong power supply connections for longer duration may damage the modem permanently.

➢ **Antenna connector**
Standard SMA type connector with internal impedance matching circuit. This helps to provide better signal strength even in remote areas.

➢ **SIM card Holder**
Tray type SIM card holder enables removing and insertion of SIM without opening the product case.

➢ **Accessories**

- Antenna

3dbi, 50E impedance,
Spring type antenna
3mtr cable

➢ **Application areas**
o Construction equipment usage monitoring
o Elevators / Gensets status reporting and maintenance
o Water pumps controller
o Remote area production statistics data collection
o Vehicle tracking systems
o Attendance system terminal unit interface using internet over GPRS
o Many more…

WARRANTY STATEMENT

All the GSM/GPRS data monitoring products are covered under warranty for a period of 12 months against manufacturing defects, workmanship and malfunction under normal operating conditions. The warranty is subject to the terms and conditions mentioned below.

1. The warranty commences from the date of sale for a period of 12 months irrespective of the actual installation date.
2. The warranty is against manufacturing defects and any subsequent malfunction of the instrument during the normal operation. The warranty shall not be applicable in case of accidental damage, damage due to wrong operation, connection or conditions that are out of normal operating specifications.
3. KARL PL, at its discretion may repair or replace the product depending on the condition of instrument, availability of spare parts and type of failure.
4. In case of warranty claim, the warranty period will not be extended and remains same as stated earlier from the date of sale.
5. Maximum liability of KARL PL remains up to repair or replacement of the product only. Any damages or losses raised out of use of the instrument are not covered by this warranty. In any case, cost of the product will not be refunded.
6. In case of warranty claim, the product should be sent over to KARL PL immediately after noticing the defect or failure. A detailed note of operating conditions in which fault occurred will be helpful in rectifying the defect.
7. Do not try to open or repair the instrument on your own. Warranty will stand null and void in such case. Products with tampered warranty seal will not be considered for warranty claims and regular service charges will be applicable.
8. In all claims, the company's decision will be final and legally binding.
9. Any and all disputes are subject to pune jurisdiction only.

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