

SAR-Statement

The SAM3Gplus is a UMTS based modem. It provides EDGE, GSM, GPRS and WCDMA (R99 and R5 HSDPA) connectivity. This modem is based on the Qualcomm MSM6290 baseband processor, and designed for Machine-to-Machine applications. This modem does not have an integral antenna.

Depending on customers' requests, the SAM3G modem may/may not be supplied with an antenna. In the case of customers wanting to acquire the antennas themselves, the antenna specification is included in the User Guide.

A typical application will require the SAM3G to be connected to an external five-band 850/900/1800/1900/2100MHz antenna, as described in the User Guide.

Based on the standards EN50385 and EN50383, a minimum safety operating distance has been calculated and stated in the User Guide

Safety distance requirement:

The SAM3Gplus modem should NOT be operated when a person is within 203mm (8 inches) of the modem.

Approvals

- A-Tick
- CE-0682



SAM3Gplus : GSM/GPRS/EDGE UMTS WCDMA/HSDPA Modem

General features

- QuadBand GSM/GPRS/EDGE 850/900/1800/1900MHz
- TriBand UMTS (HSDPA) 850/1900/2100MHz
- Standard 3GPP AT commands TS 27.007
- Max Tx power : 32dBm@850/900MHz
29dBm@1800/1900MHz
23dBm@2100MHz
- Input voltage : 5V to 30V
- Current consumption :
 - Standby : 31mA @ 12V
 - Max. InUse for CSD 9600bps: 87mA @ 12V
 - Max. InUse for PSD 115.2Kbps: 110mA @ 12V
 - Max InUse for PSD 2M up/7.2M down: 250mA@12V
- U-SIM card
- Dimension : 74mm x 45mm x 24mm/19mm
- Weight: 60g (approx.)
- Operating temperature : -20C° to + 60C°
- RoHS compliant

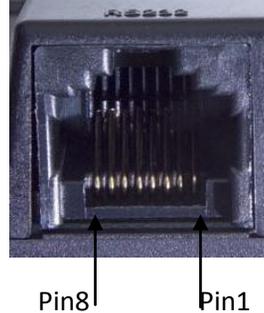
Data features

- GSM Circuit-switched data (CSD)
- Quad-mode packet data UMTS/HSDPA/EDGE/GPRS
- EDGE/GPRS classB/10, support all coding schemes CS1 to CS4, MSC1 to MCS9
- UMTS R99 384kbps downlink,384kbps uplink
- HSDPA Cat 12/6/8 downlink 1.6/3.36/6.6Mbps
- HSUPA Cat 3/5/6 uplink 1.34/1.8/2Mbps
- SMS mobile Terminate/Originate

The serial RS232 port (RJ45 socket) 300bps-230400kbps

Pin Signals Description

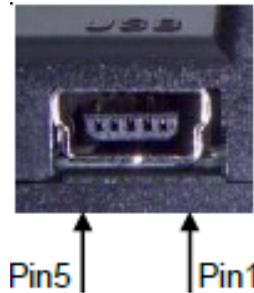
- | | | |
|---|-----|----------------------------|
| 1 | VIN | Input voltage 5Vdc - 30Vdc |
| 2 | DCD | Data Carrier Detect |
| 3 | DTR | Data Term Ready |
| 4 | GND | Common Ground |
| 5 | RXD | Serial Data out of SAM3G |
| 6 | TXD | Serial Data into SAM3G |
| 7 | RTS | Ready to Send |
| 8 | CTS | Clear to Send |



The USB 2.0 port (USB MiniB socket)

Pin Signal

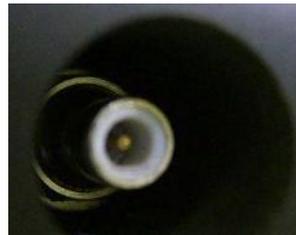
- | | |
|---|-----|
| 1 | VIN |
| 2 | D- |
| 3 | D+ |
| 4 | N/C |
| 5 | GND |



Important Note: The RS232 and the USB ports cannot be operated simultaneously, only one port at a time.

The Antenna Port

SMB-Jack 50Ω



SAFETY

The following safety precautions must be observed whenever the SAM3Gplus modem is in operation or in service. Failure to comply with these precautions violates the safety standards of the design, manufacture and intended use of the product.

- **Switch off the SAM3Gplus modem**
 - In hospitals or places where medical equipments used
 - In an aircraft
 - Refuelling points
 - Explosive areas

- **Restricted use of the SAM3Gplus modem**
 - Near any chemical plant
 - Near any Fuel depot
 - Areas with mobile phone warning sign
 - Respect national regulations on the use of cellular devices in vehicles. Road safety always comes first

The SAM3Gplus modem receives and transmit radio frequency energy while switched on, therefore interference can occur if the SAM3Gplus is near TVs, radios, PCs or any inadequately shielded equipments.



This symbol on the product indicates that this product shall not be treated as household waste . It must be placed at an appropriate collection point for the recycling of electrical and electronic equipments.

By ensuring the correct disposal of this equipment, it will help the environment and human's health. The recycling will help to conserve the natural resources.