



- **SAMBA75**

-

- Operational description

-

-



OPERATIONAL DESCRIPTION

This manual is focussed on the GSM/GPRS/EDGE data solutions of the enhanced performance SAMBA75 USB modem from FALCOM GmbH.

The SAMBA75 is a Plug-and-Play, compact, light-weight, wireless modem that provides EDGE, GPRS and GSM connectivity for portable, handheld computers and others. The SAMBA75 maintains the same form-factor of the well-known SAMBA75 GSM/GPRS modem. The major benefit over earlier SAMBA GSM/GPRS modem is that SAMBA75 supports EDGE and additionally offers a TCP/IP stack.

SAMBA75 allows subscribers to send and receive data, including digital images, web pages and photographs, with a transfer rate three times higher than possible with GSM/GPRS services. It supports voice, SMS, fax as well as it offers a choice of seven different ringing tones/melodies, which are easily selectable using AT command. It can be easily controlled by using AT command for all kinds of operations. The SAMBA75 is designed for use on any GSM network in the world, it is a Quad-Band EDGE and GSM/GPRS engine that works on the four frequencies GSM 850, GSM 900, DCS 1800 MHz and PCS 1900 MHz and it can be used in all existing GSM networks in Europe, the U.S.A. and Asia. This full type approved integrated modem constitutes a self contained, fully integrated implementation of the GSM/GPRS and EDGE functionalities. The SAMBA75 provides an integrated SIM card reader and an internal GSM antenna. The physical interface to the modem application is made through an embedded USB connector. It consists of 4 pins, required for controlling the unit, transferring data and providing power supply lines. The embedded USB interface allows it direct connection to a USB serial port of desktop or notebook computers. The SAMBA75 features GPRS multi-slot class 12 and supports the GPRS coding schemes CS-1, CS-2, CS-3 and CS-4. The SAMBA75 equipment supports GPRS Class-B. This means, that the Mobile Station can set up a GSM call (voice, CSD or fax) while GPRS attached.

The SAMBA75 features EDGE multi-slot class 10 and supports the modulation and coding schemes MCS-1 ... MCS-9.

About GPRS

GPRS is a high-speed, data-only service that is an add-on to the GSM (Global System for Mobile Communications) cellular network - a type of network used to provide cellular phone service.

The SAMBA75 Modem provides reliable data connections to GPRS 850 MHz (GSM), GPRS 850 (GSM), 1800 MHz (DCS) and 1900 MHz (PCS) networks. When in regions where GPRS is not available, user can still establish 14.4 kbps GSM data connections.

About EDGE

Enhanced Data rates for GSM Evolution (EDGE) is a third-generation (3G) high-speed mobile data and Internet access technology, with theoretical peak rates of 473 kbps and average throughput of 110-130 kbps. The average rates are fast enough to support a wide range of advanced data services, including streaming audio and video, fast Internet access and large file downloads.

RF EXPOSURES

This device contains 850/1800/1900 MHz GSM/GPRS functions that is operational in these frequencies.

The following statements according to the FCCs are only applied for the SAMBA75. However, the SAMBA75 unit contains 1800 MHz GSM functions that are not operational (must not be used) in U.S. Territories. This filing is only applicable for 850MHz GSM/1900 MHz PCS operations, whereby only these frequencies (850MHz GSM/1900 MHz PCS) are possible to be used in U.S. Territories.

The external antennas used for this mobile transmitter must provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Statement according to FCC part 15.19:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

this device may not cause harmful interference, and

this device must accept any interference received, including interference that may cause undesired operation.

Statement according to FCC part 15.21:

Modifications not expressly approved by this company could void the user's authority to operate the equipment.

Statement according to FCC part 15.105:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help