2N® SmartCOM *Quick Guide*

Read the User Manual carefully to get familiar with all system functions.

Security Precautions

- Do not switch on 2N® SmartCOM in the vicinity of medical apparatuses to avoid interference. The minimum distance of the antenna and pacemakers should be 0.5m.
- Do not switch 2N® SmartCOM aboard a plane.
- Do not switch 2N® SmartCOM near petrol stations, chemical facilities or sites where explosives are used.
- Any mobile telephone use prohibition based on RF energy radiation applies to 2N® SmartCOM too.
- 2N® SmartCOM may disturb the function of TV sets, radio sets and PCs.
- Warning! 2N® SmartCOM contains components that can be swallowed by small children (SIM card, antenna, etc.).
- When 2N® SmartCOM comes to the end of its operational life, dispose of it in accordance with applicable regulations.
- 2N® SmartCOM is equipped with an external antenna connector. The antenna has to be located indoors for safety reasons.

A SmartCOM delivery contains the following:

2N® SmartCOM	1 pc
Antenna	1 pc
Supply adapter	1 pc

- Do not place the unit near heat sources (such as space heaters, hot air heaters, etc.) unless absolutely necessary.
- 2N® SmartCOM only works reliably under the conditions specified in the operating instructions. Any unauthorised interventions and/or changes in use and operation may result in malfunction or destruction of the product.

Basic Functions

- 2N® SmartCOM is designed for bidirectional data transmission between serial ports and their opponents based on GPRS data transmission via the GSM network.

Installation Conditions

- Install the GSM antenna with respect to the signal quality in the location.
- Keep 2N® SmartCOM off sensitive devices and human bodies to avoid EM interference.

External Antenna Connection

Screw the enclosed antenna into the SMA antenna connector. Tighten the antenna connector gently with your hand, never use a tool!

SIM Card Installation

Insert the SIM card in the hole in the upper part of 2N® SmartCOM making sure that the bevelled edge of the SIM card faces the green connector (see the figure on the front side of the product). Remember to set the relevant provider's services (PIN request off, e.g.) on your mobile phone before inserting the SIM card in 2N® SmartCOM. Make sure that the provider's SIM card is intended for the GSM network supported by your 2N® SmartCOM version and that the GPRS data transmission is activated with an IP address enabling incoming connection (unless you use the SmartCOM server)

Power Supply

2N® SmartCOM is DC supplied from a 12V/0.5A power adapter included in the delivery. The use of any other adapter may damage 2N® SmartCOM. Do not connect the power supply until you have connected the antenna to avoid the GSM module damage!

Initialisation

Once you connect the power supply, the GSM module, inputs, outputs, serial interfaces and configuration module will get initialised. 2N® SmartCOM can be regarded as functional if the GSM connection and IP address assignment LED indicator keeps shining constantly. Refer to the LED Statuses table below for initialisation and operation details.

LED Statuses

No light	Device not supplied
3x fast flash	Start or restart
Slow blinking	Connecting to network, starting GPRS session
Very fast blinking	Error: wrong PIN or SIM not inserted
Continuous light	Connected, IP address assigned (flashes when transmitting data)

Basic Use without SmartCOM Server

- Insert the SIM card that supports data with a public IP address (fixed or dynamic) and PIN request disable or the same PIN as requested in the 2N® SmartCOM configuration.
- Connect the antenna and then the power supply.
- Get connected via serial port (115200 baud, 8N1, no flow control) to identify the IP address assigned to 2N® SmartCOM or configure basic settings if necessary.
- Upon power up, the port is in the data mode and retransmits everything from the GSM input. Use sequence +++ to switch into the command mode.
- Now you can configure 2N® SmartCOM using the AT commands listed below.
- Restart the port (at^scport1="restart") to return to the data mode (also possible with ATO command).
- Connect the device to one of the available serial ports (RS232 or RS485).
- Start a telnet application (e.g. Putty) and get connected to the public IP address of 2N® SmartCOM via TCP port 10000 to set parameters as via a serial port.
- Use TCP port 10001 for data retransmitting to RS232.
- Use TCP port 10002 for data retransmitting to RS485.

Use with SmartCOM Server

- The server receives registrations from terminals providing central administration.
- Refer to the User Manual for details on the 2N® SmartCOM server settings, management and use.

Input and Output Circuits

- 2N® SmartCOM is equipped with two serial interfaces, which are electrically interconnected with the GND reference point.
- The input may be current (0-20mA, 4-20mA, 100Ω input impedance), and voltage (0-10V DC, 100MΩ input impedance) controlled or S0. Use the jumpers inside 2N® SmartCOM to set the current and voltage modes.
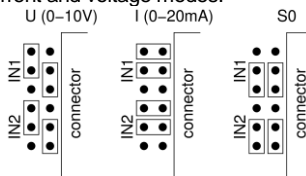
- 2N® SmartCOM is equipped with two relay outputs for switching ON/OFF electrical appliances. Refer to the Technical Parameters in the User Manual for the maximum switching values.

Basic AT Commands

Global
ati3 – fw versions
ati4 – serial number
at^scupg="http://../file.bin" – upgrade
ate0 – echo disable
ate1 – echo enable
at^scfres – factory reset
Module
at+cgsn – module IMEI
at+cimi – SIM card IMSI
at+csq – GSM module status
Configuration
at^sccfg? – current GSM settings
at^sccfg=? – GSM setting options
at^scport1? – RS232 setting

at^scport1=? – RS232 setting options
at^scport2? – RS485 setting
at^scport2=? – RS485 setting options
at^xxx="save" – module configuration saving
at^xxx="restart" – module restart (xxx=e.g. sccfg)
at^xxx="srestart" – save to module and restart
Inputs and Outputs
(#...number in range 1 - 2)
at^screl#? – relay # status
at^screl#=0 – relay # opening
at^screl#=1 – relay # closing
at^scadc#? – analogue input # status and limits
at^scadc#=? – analogue input # parameters
at^scdin#? – digital input # status and limits
at^scdin#=? – digital input # parameters

Examples

1) at^sccfg="gprs_apn","internet.open" //change APN
2) at^sccfg="srestart" //save and restart
3) at^sccfg? //read current setting (IP address)
4) at^scport1=" baudrate",57600 // RS232 baudrate
5) at^scport1="srestart" //save and restart
6) ato // switch to data mode on RS232

Declaration of Conformity