User Manual

(Manual BlueNiceCom 2 V.1.5)

OPC1600 (BlueNiceCom 2)

AMBER WIRELESS

Manual

BlueNiceCom 2
V1.5

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AMBER wireless GmbH

Albin-Köbis-Straße 18
51147 Köln
Tel. 02203-6991950
Fax 02203-459883
eMail info@amber-wireless.de
Internet www.amber-wireless.de

Table of contents

BlueNiceCom 2
Bluetooth-module with UART-interface

- Bluetooth Class 2 module
- Serial Port Profile (SPP)
- UART interface
- GAP & SDP support

AMBER wireless provides with the BlueNiceCom 2 a Bluetooth-module, based on LMX9820A from National Semiconductor. This compact and inexpensive Bluetooth-version is qualified for a serial data transmission.

BlueNiceCom 2 comes with a SPP profile (Serial Port Profile) and works with other Bluetooth modules which support the same profile. Through the serial UART interface the BlueNiceCom will be connected to a processor or a direct to a system, according to the application.

Via an external processor or host (PC) all further available application profiles could be set on the SPP-profile, for example: Dial up Networking Profile, Fax Profile.

The controlling and setting is raised by a host processor. The module can be integrated easily in a system. According to the application and the settings the BlueNiceCom 2 can be work as a stand-alone-slave-module.

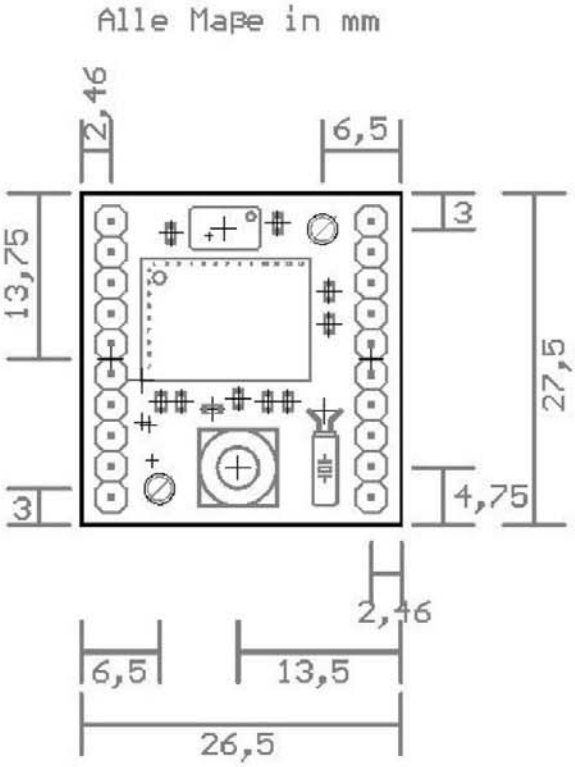
For a cable replacement or a point-to-multipoint (piconet) application a controlling through a processor is necessary. Up to 3 slaves could be managed by a master module.

BNC 2 can be assembled with an SMA-antenna connector to use external antennas. FCC and IC requires the use of a SMA Reverse Polaritiy connector

1. Technical Data:

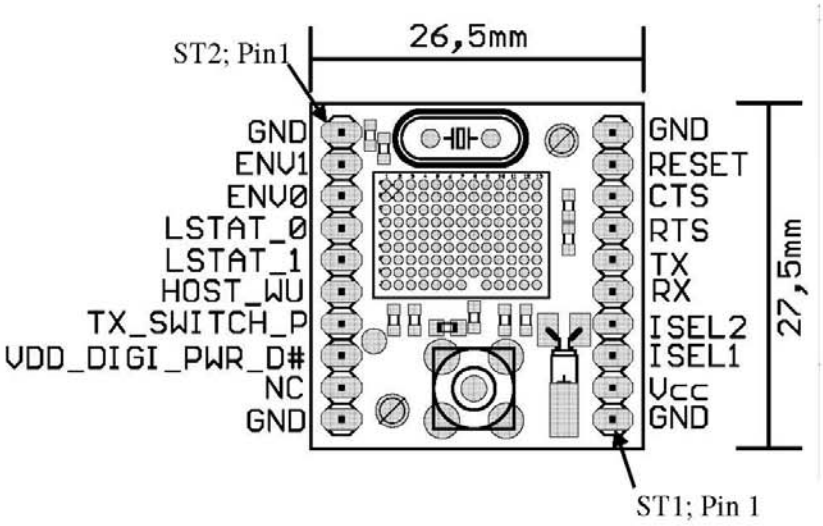
Voltage supply	2,85V to 3,6V
Current consumption	typ. 65 mA
RF output	typ. 0 dBm
Rx Sensitivity	typ. –82dBm
Datarate UART:	9,6 kbps to 115kbps
Interface	according to LMX9820A
Operating temperature	-25° to +85°
Antenna connector	SMA footprint
Dimension	27,5 x 26,5 mm
Miscellaneous	All further technical data according to the LMX9820A module of National Semiconductor

2. Dimension:



All measures in mm. The headers are in 2,54mm pitch.

3. Pin assignment:



ST1		
Pin Nr.	**Signal of BlueNiceCom 2**	**Signal of LMX 9820**
1	GND	Ground
2	VCC	Voltage supply(2,85V bis 3,6V)
3	ISEL1	Input Isel1 of LMX9820A
4	ISEL2	Input Isel2 of LMX9820A
5	RX	Input Uart_rx of LMX9820A
6	TX	Output Uart_tx of LMX9820A
7	RTS	Output Uart_rts of LMX9820A
8	CTS	Input Uart_cts of LMX9820A
9	RESET	Input Reset_b and Reset_5100 of LMX9820A
10	GND	Ground

ST2		
Pin Nr.	**Signal of BlueNiceCom 2**	**Signal of LMX 9820**
1	GND	Ground
2	ENV1	Input Env1 of LMX9820A
3	ENV0	Input Env0 of LMX9820A
4	LSTAT_0	Output Lstat_0 of LMX9820A
5	LSTAT_1	Output Lstat_1 of LMX9820A
6	HOST_WU	Output Host_wu of LMX9820A
7	TX_SWITCH_P	Output TX_Switch_P of LMX9820A
8	VDD_DIGI_PWR_D#	Input VDD_DIGI_PWR_D# of LMX9820A
9	N.C.	
10	GND	Masse

The signal level correspond to the power supply (2,85V to 3,6V) of BlueNiceCom 2 and must be aligned if the host system has a different signal level.

Further range of products around BlueNiceCom 2:

Bluetoothmodules: BlueNiceCom 1, 2 and 3

Evaluation-Kit: 1 BlueNiceCom 2 module; 1 2,4GHz antenna;
1 RS232 board with Sub-D-9 connector and LED´s;
batteries for power supply; 1 USB-Bluetoothmodule for a second station – to build up a Bluetooth radio link immediately, documentation and software.

Software-Tools: C-Tools for controlling the LMX9820A.

4. IMPORTANT NOTICE!

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USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
Usually this is followed by the following FCC caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canada

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Usually this is followed by the following RSS caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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AMBER wireless GmbH

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Internet http://www.amber-wireless.de