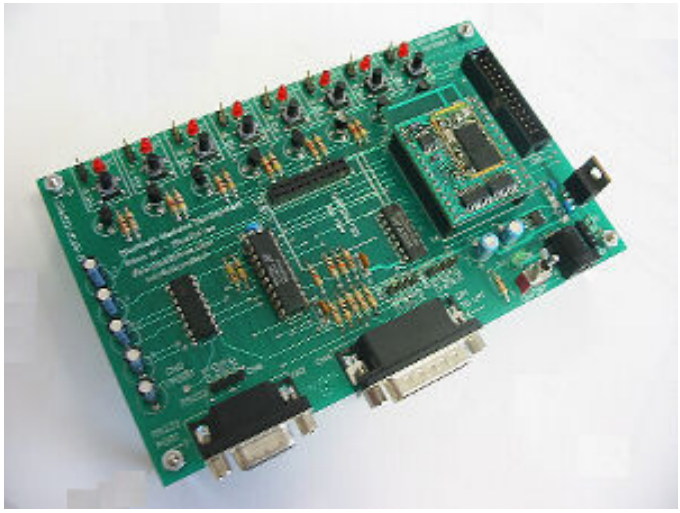
wireless
made easy

DEVBOARD



Bluetooth modules development tool

RS232 interface

Parallel SPI interface

Software for firmware upgrade and serial setting:
EikonFlash
EikonSett

8 I/O pin connected to push button, led , jumpers

Description

DEVBOARD is a complete development tool for upgrading our OEM bluetooth modules.

It make easy prototyping new bluetooth product features, reducing costs and time to market

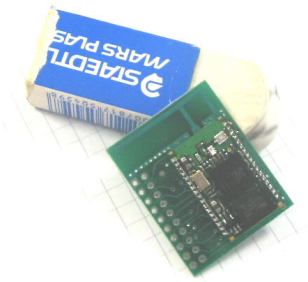
Very suitable for Low/Middle Production volumes

Applications

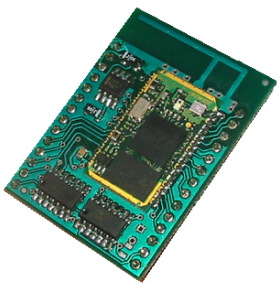
DEVBOARD allows you to develop and test new firmware on our OEM bluetooth modules

It's suitable for test integration in OEM systems like

- Industrial CNC
- Medical devices
- Fitness Machines
- Professional GPS systems
- Telemetry systems
- Sensors
- Your application



UARDNG105



UARTDNG101

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

Mechanical

Dimensions:	160 X 100 X 20 mm
Connectors:	28 pin, pitch 2.54m, female pinstrip for UARTDNG101 module
	20 pin, pitch 2.54m, female pinstrip for UARTDNG105 module
	RS232 DSUB9 female connector
	15 PIN SPI female parallel connector

Electrical

Dimensions:	160 X 100 X 20 mm
Connectors:	28 pin, pitch 2.54m, female pinstrip for UARTDNG101 module
	20 pin, pitch 2.54m, female pinstrip for UARTDNG105 module
	CN9 for future upgrading to new external modules
	RS232 DSUB9 female connector
	15 PIN SPI female parallel connector
Cables:	Serial RS232 cable provided
	Parallel LPT cable provided
Power:	+ 12 V Extern Power supply provided

Signals available on board jumpers:

GND
+ 9 V (DC)
+ 5 V (DC)
+ 3.3 V (DC)

UART 3.3 V TxD, RxD, CTS, RTS on CN6
UART 5 V TxD, RxD, CTS, RTS on CN7

RS232: TxD, RxD, RTS, CTS on CN8

LEDS

GREEN LED: Power on
8 RED LEDS: connected to 8 I/O PIN, to the 8 pushbuttons and to the jumpers

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

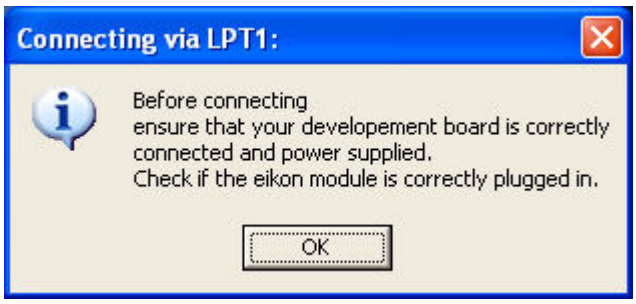
Software Eikon Firmware and Setting Tool is our software included.

EikonFirm Tool is the application to use for firmware upgrade
EikonSett Tool is designed for adjust bluetooth parameters like Device Name, Pincode, BT address and for serial settings like baudrates, stop bits, parity and hardware flow control

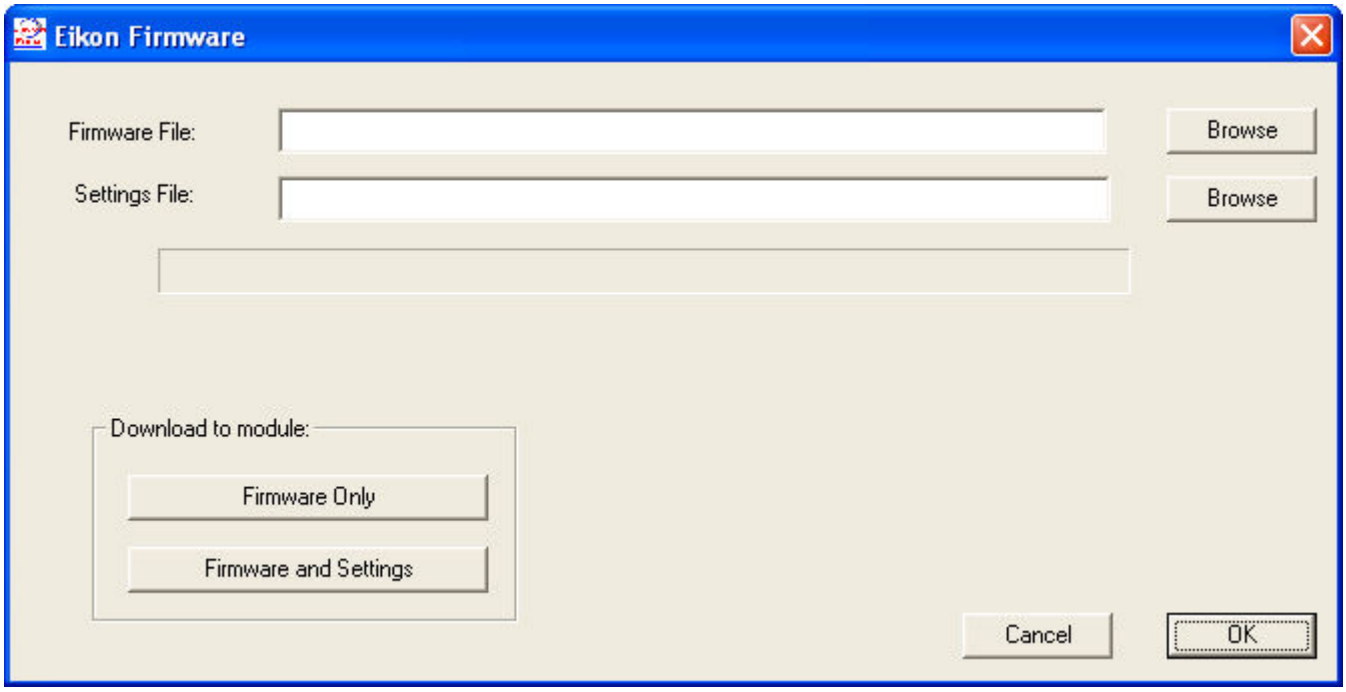
Install our software, Eikon Firmware and Setting Tool, on a Windows Xp PC used to program our modules.

Eikon Firmware Tool

1. Connect power supply to our DevBoard. Connect our DevBoard to PC LPT1 (parallel) port. Plug our module on the devboard (follow the apposite label on devboard for UARTDNG101 or UAR-TDNG105 modules) matching the inverted F white lines on the PCB with the inverted F tracks on the module. Switch on the devboard (green led on).
2. Select "EikonFirm" link in the Start Menu. This is the start message:



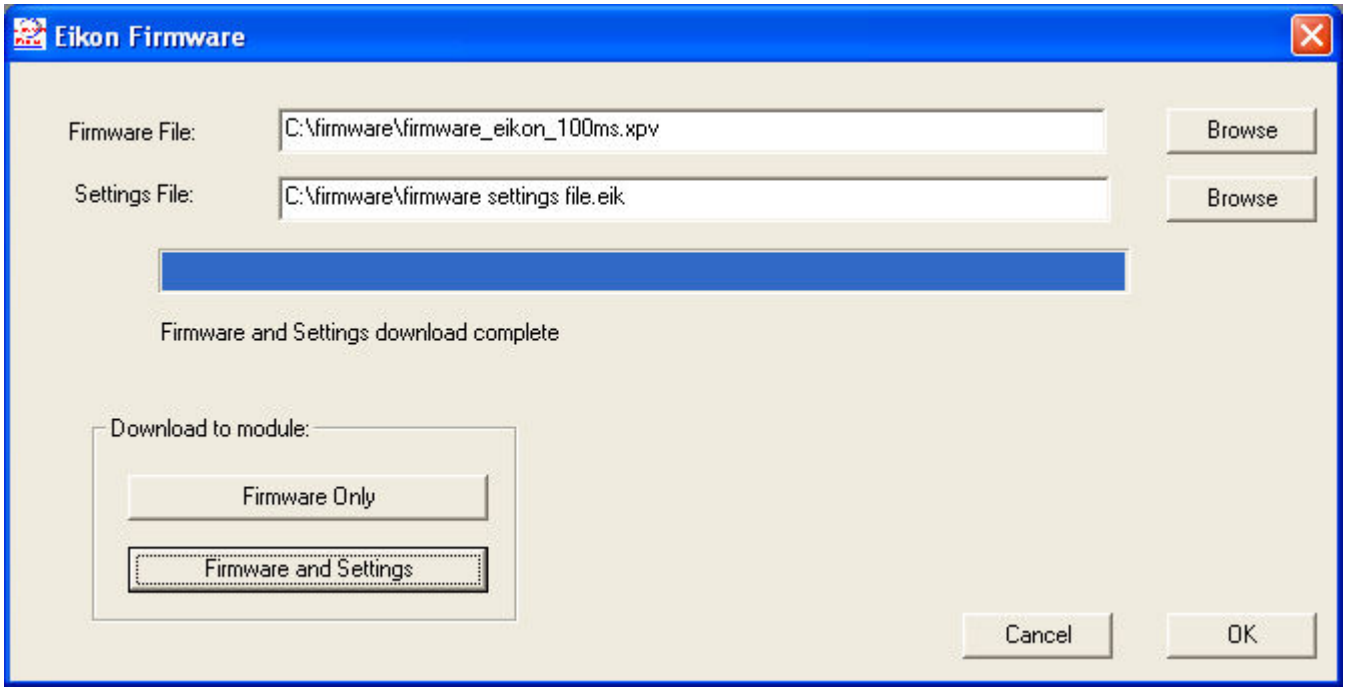
3. Click Ok. This is the main window:



.

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

4. Select firmware file using the Browse button. Firmware file extension are .xdv but it's absolutely necessary an other file with the same name in the same folder with .xpv extension. It's not possible to dowload correctly a firmware without this second file. It's also possible to select a .eik settings file previously created by Eikon Setting Tool "EikonSett". This is a text file whith serial communication parameters and device name, pincode, bluetooth address previously saved.
5. Click on "Firmware Only" if you want to upgrade only the firmware, otherwise click on "Firmware and Settings" if you have previously chosen a .eik setting file to download both to the module.
Download progress is made evident by a blue progress bar . At the end of the process this confirmation message is prompted:



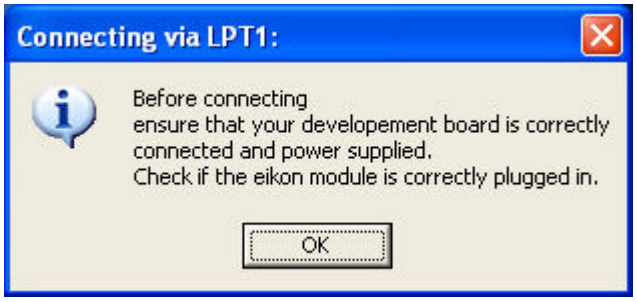
The new firmware will be executed immediately. You can close the application.
If the DevBoard is not correctly power supplied or not correctly connected to LPT1 port after step 2 this is the prompted message:

After this message ensure that all the connection are made correctly

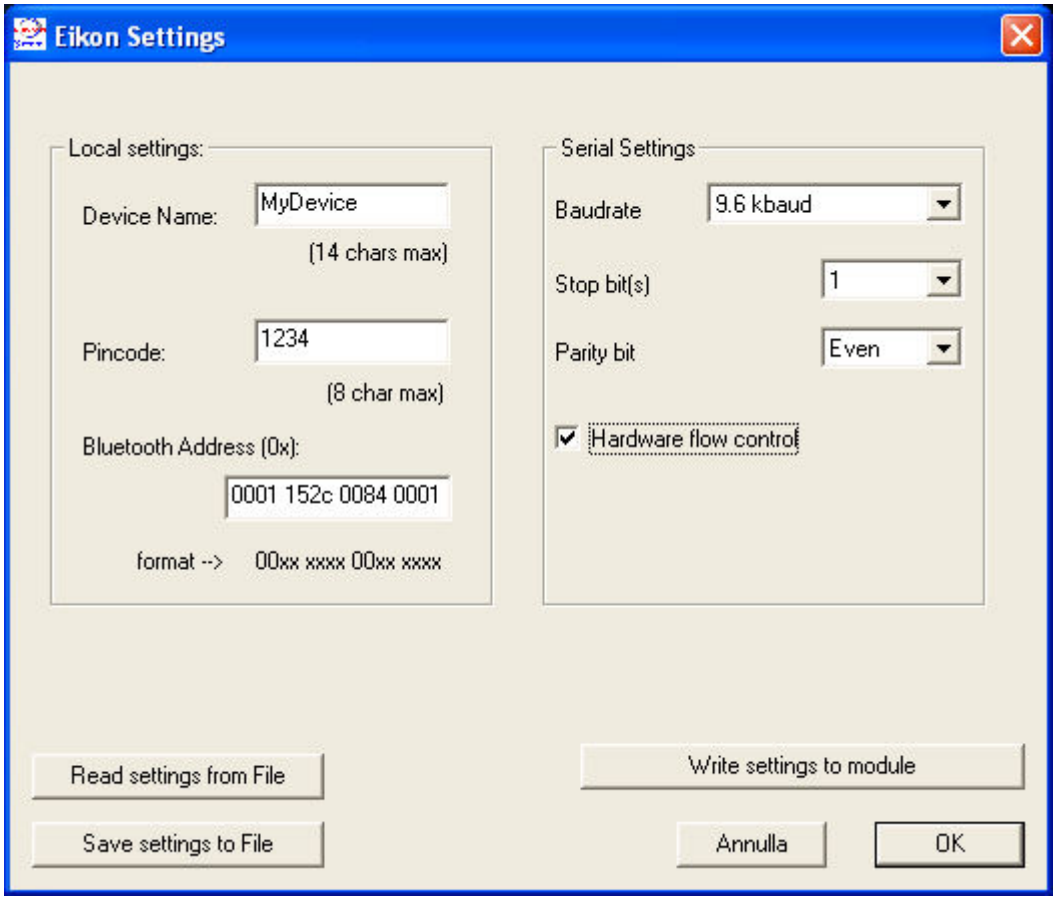
Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

Eikon Setting Tool

1. Connect power supply to our DevBoard. Connect our DevBoard to PC LPT1 (parallel) port. Plug our module on the devboard (follow the apposite label on devboard for UARTDNG101 or UARTDNG105 modules) matching the inverted F white lines on the PCB with the inverted F tracks on the module). Switch on the DevBoard (green led on).
2. Select "EikonSett" link in the Start Menu. This is the start message:



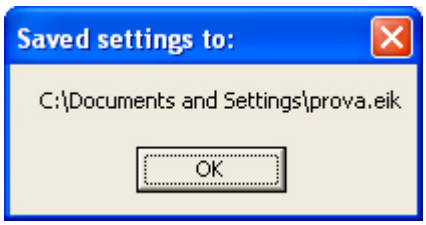
3. Click Ok. This is the main window:



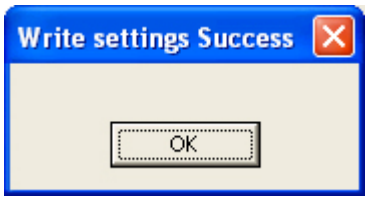
These are values actually setted into the module.
Now it's possible to change these communication parameters.

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

It's possible:
- To set a new Device Name (18 chars max).
- To set a new pincode (8 chars max). (If the field is left blank the module firmware set it to default value 1234)
- To modify bluetooth address using hex expressions. (16 chars but only 12 effective, those corresponding to positions marked by a x: 00xxxxxx00xxxxxx)
- To set serial communication parameters: Baudrate (from 2400 bps to 1,3 Mbps), StopBit (1 or 2), Parity bit (1,2, or None), hardware flow control (present/not present).
- To save all these settings to a text file .eik extension named. ("Save settings to file" button). Success of this operation is guaranteed by this message:



The full path of the file is returned in the messagebox.
To load all the parameters from a .eik file saved before ("Read settings form file" button).
4. The programming command is executed by clicking on "Write settings to module" button.
This is the success confirmation message:

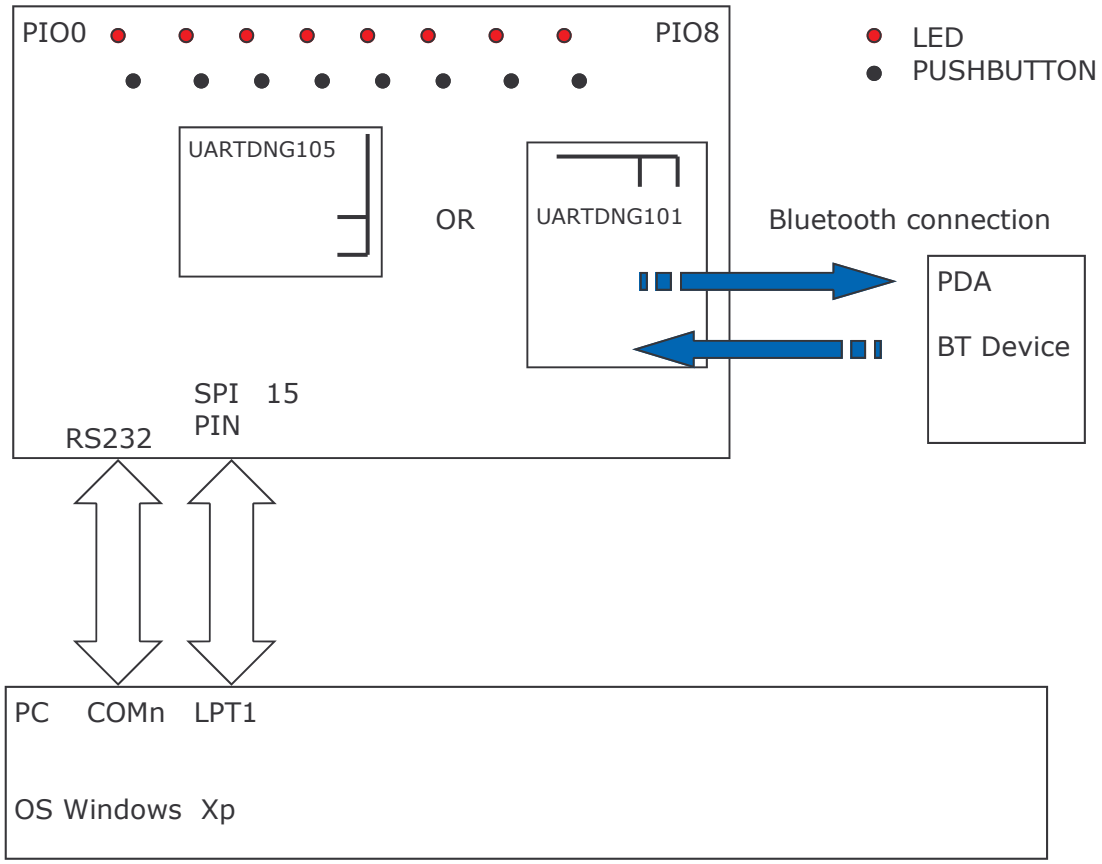


All the new parameters will take effect after the first reboot of the module. (Simply switch off and on the devboard to force reboot module). Close the application.
If the DevBoard is not correctly power supplied or not correctly connected to LPT1 port after step 2 this is the prompted message:

After this message ensure that all the connection are made correctly.

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it

Programming and Testing Firmware Schematics



Order informations

To order our DEVBOARD please send us a description of your application and we'll suggest you the best solution.

Contact us directly or contact our local reseller

Eikon srl	Address	Telephone and Fax	Internet
	Via Borgognina 5 61030 Lucrezia (PU) Italy	T +39 0721.877365 F +39 0721.897679 M +39 335.442030	email info@eikonsite.it Web www.eikonsite.it