

IGW/400-CAN ***WLAN Device Server***

Firmware Update User Manual



SSV Embedded Systems

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1 INTRODUCTION

This document describes how to upgrade the firmware of the IGW/400-CAN. For further information about the individual components of this product you may read the IGW/400-CAN hardware reference and follow the links from our website at <http://www.ssv-comm.de>.

Our website contains a lot of technical information, which will be updated in regular periods.

1.1 Hardware Requirements

The following hardware is needed to upgrade the IGW/400-CAN:

- One PC with Windows 98 or higher
- One IGW/400-CAN
- One power supply cable
- One plug-in power supply (6 .. 30 V)
- One null modem cable
- One RS232 adapter cable
- One screw driver
- Two jumpers

1.2 Software Requirements

To upgrade the IGW/400-CAN firmware the **Philips LPC2000 Flash Utility** must be installed on your Windows PC. You find this utility on your Starter Kit CD-ROM (rev. 1.2) in the directory CD-ROM:\isp-win32.

You can also search on the Philips website for a newer version of the flash utility. Enter the URL <http://www.semiconductors.philips.com> in your browser and search for “LPC2000 Flash Utility”.

2 PREPARATIONS

2.1 Installing Philips LPC2000 Flash Utility

Copy the flash utility from the Starter Kit CD-ROM resp. download it from the Philips website to your Windows PC (see chapter 1.2). Unzip the file and execute **setup.exe**.

Just follow the instructions during the installation. If the system asks to keep a newer version of a certain file say YES.

2.2 Preparing IGW/400-CAN

Connect the power supply cable as well as the RS232 adapter cable with the 14-pin Environment Interface of the IGW/400-CAN like shown in the following figure. Use the screw driver to fix the cables.

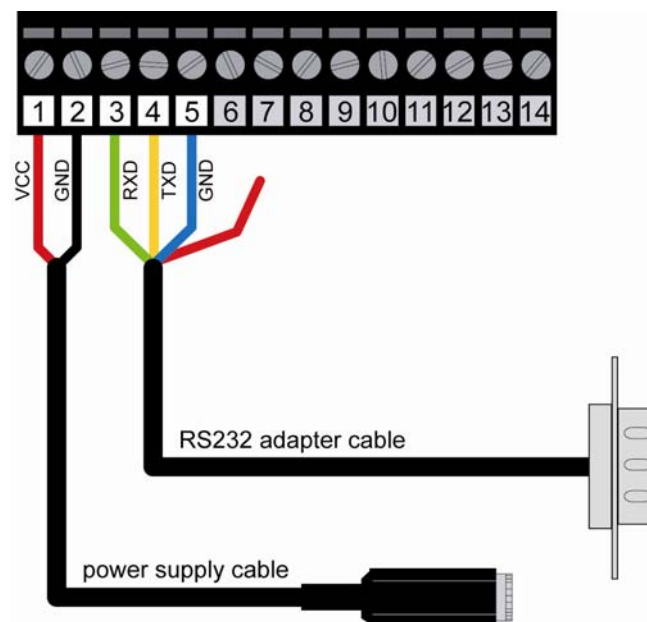


Figure 1: Pin assignment of plug-in connector

Pin	Wire color	Signal
1	red	VCC
2	black	GND

Table 1: Pin assignment of power supply cable

Pin	Wire color	Signal
4	green	RXD
5	yellow	TXD
7	red	RTS (must not be connected)
9	blue	GND

Table 2: Pin assignment of RS232 adapter cable

Now connect the null modem cable with a free COM port of your Windows PC and the RS232 adapter cable of the IGW/400-CAN like shown in the figure below.

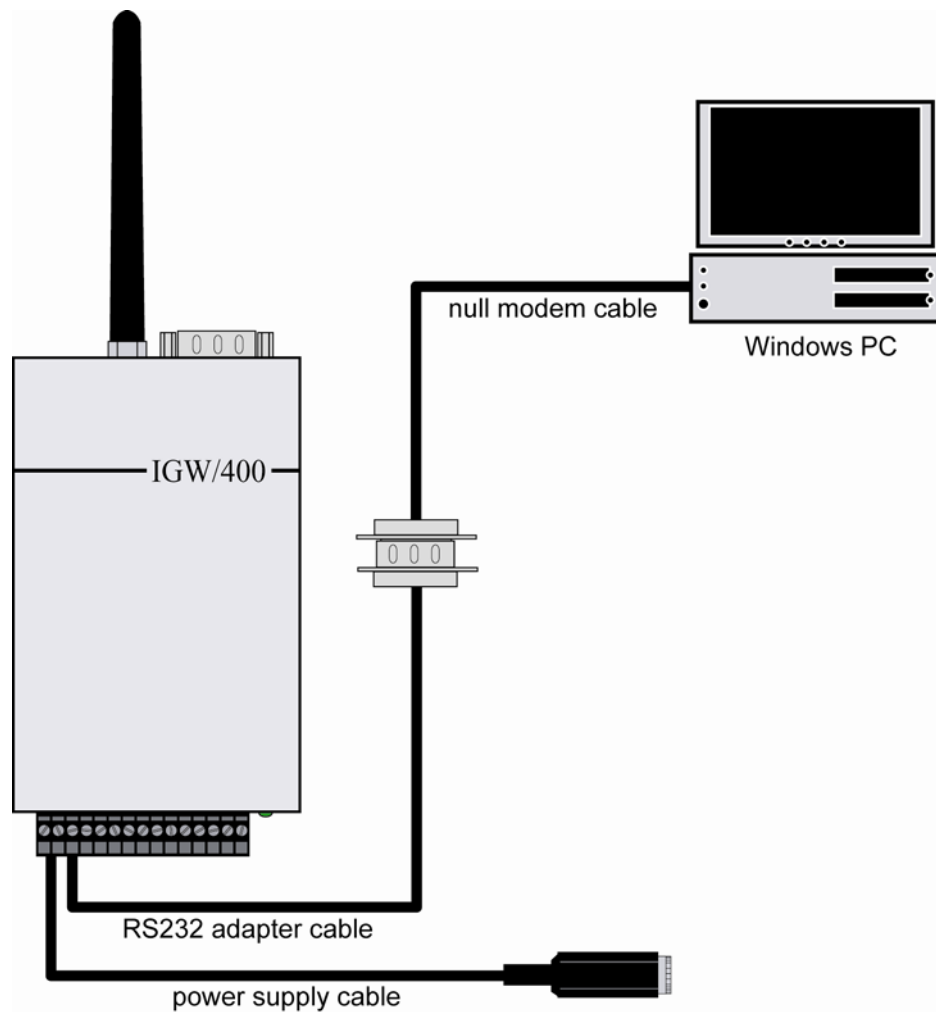


Figure 2: Connecting Windows PC and IGW/400-CAN



Caution: DO NOT connect the plug-in power supply with the power supply cable yet!

Open the case of the IGW/400-CAN carefully.

Set the ISP mode jumper (JP2) and the Watchdog disable jumper (Pins 9 and 10 on J2) like shown in the following figure:

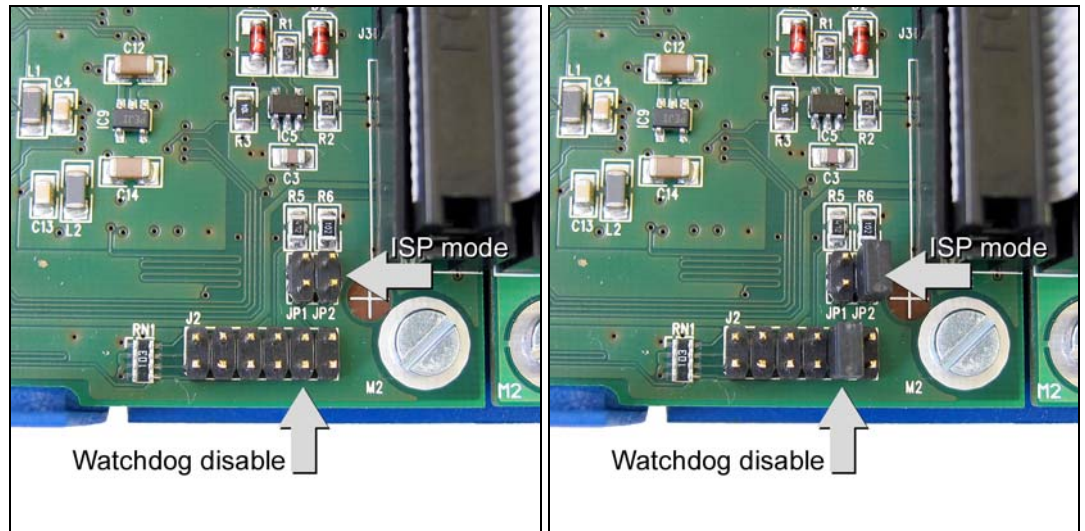


Figure 3: Setting the ISP mode jumper and the Watchdog disable jumper

3 UPGRADING THE IGW/400-CAN FIRMWARE

3.1 Configure the Philips LPC2000 Flash Utility

Start the Philips LPC2000 Flash Utility. You will see this window:

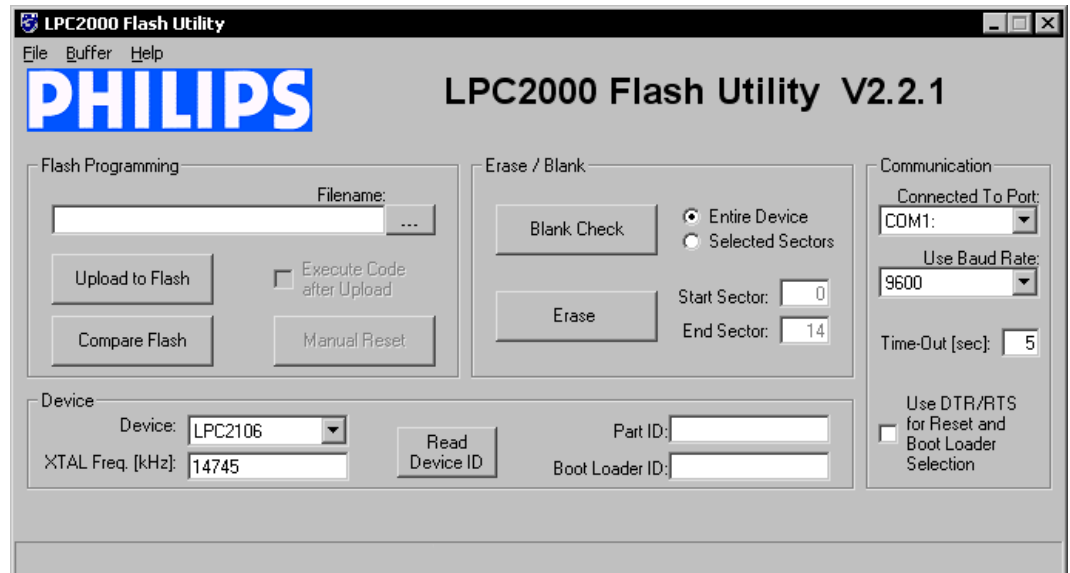


Figure 4: Start window of LPC2000 Flash Utility

Set the following parameters:

- Choose the COM port of your Windows PC
- Set the Baud Rate to 38400
- Choose the LPC2129 as device
- Set the XTAL frequency to 12000

3.2 Power up the IGW/400-CAN

Now connect the power supply cable with the plug-in power supply to start the IGW/400-CAN.



Caution: DO NOT touch the boards or any other parts inside the IGW/400-CAN while it is connected to the power supply!

3.3 Test the Connection

To test the connection between the IGW/400-CAN and your Windows PC click the button “Read Device ID” of the Philips LPC2000 Flash Utility.

If you receive an error message, try to read the device ID a second time. If you still receive an error message, please check the cable connections and the settings of the Philips LPC2000 Flash Utility.

You will see the part ID and the boot loader ID in the corresponding fields as well as a message in the status bar at the bottom of the window, if the readout was successful:

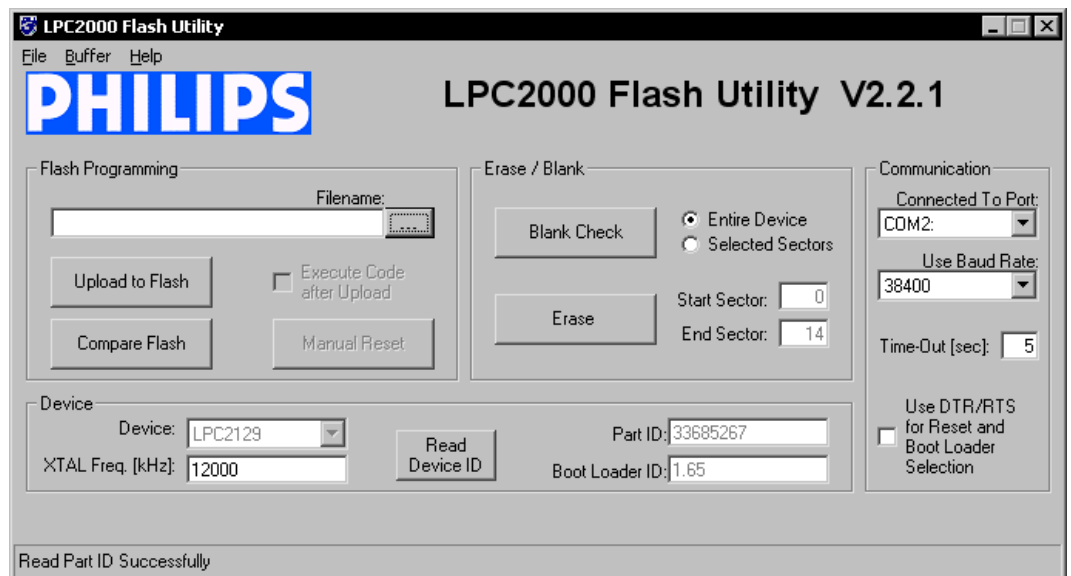


Figure 5: “Read Device ID” was successful

3.4 Upload the new Firmware

Click the button “...” (Filename) to choose the new firmware. The firmware file is called **igw400_scli_upgrade.hex** and is located in the directory CD-ROM: \isp-win32 on the Starter Kit CD-ROM.

Now click the button “Upload to Flash”. You will see the upload progress like shown in the next figure:

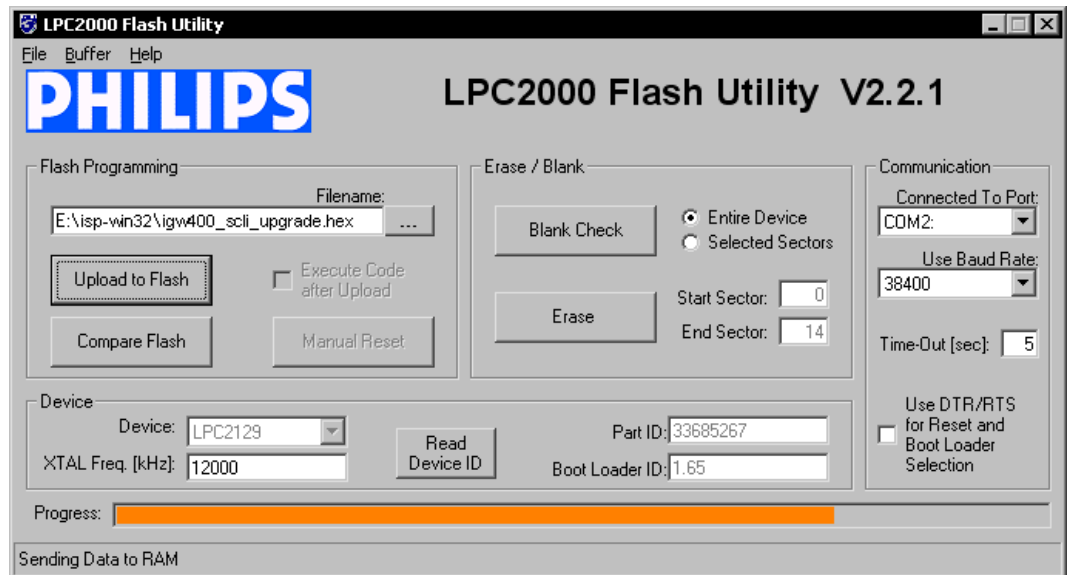


Figure 6: Uploading the new firmware

3.5 Complete the Firmware Upgrade

After the successfully completed firmware upgrade you will see this window:

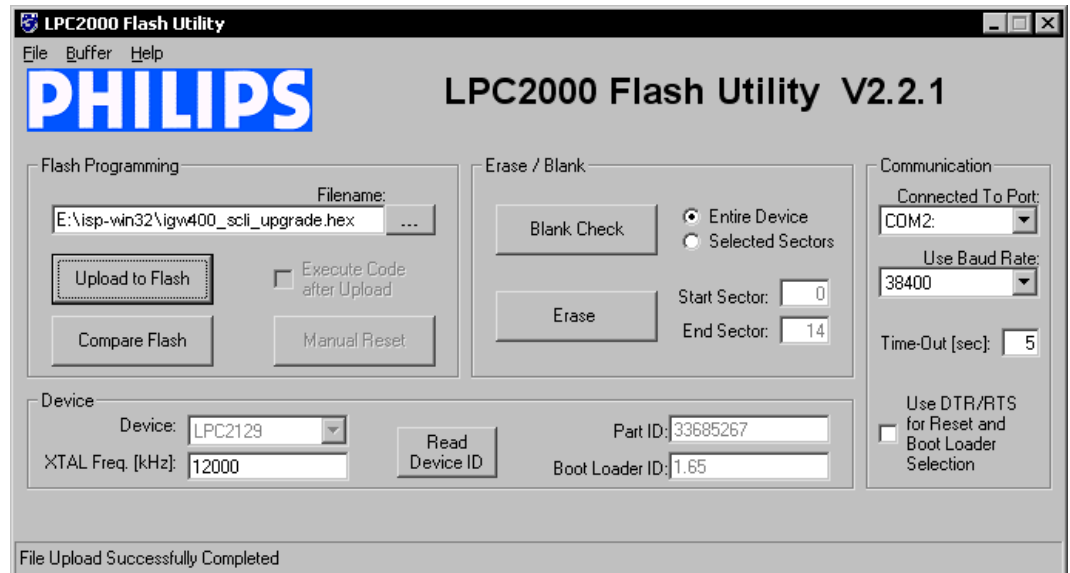


Figure 7: Firmware upgrade successfully completed

Please follow now these steps:

1. Exit the Philips LPC2000 Flash Utility.
2. Disconnect the power supply cable from the plug-in power supply.
3. Remove the jumpers on the IGW/400-CAN.
4. Close the case of the IGW/400-CAN.

That's it! Now you can start the IGW/400-CAN again and work with the new firmware.

CONTACT

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Revision	Date	Remarks	Name
1.0	2006-01-31	first version	WBU

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