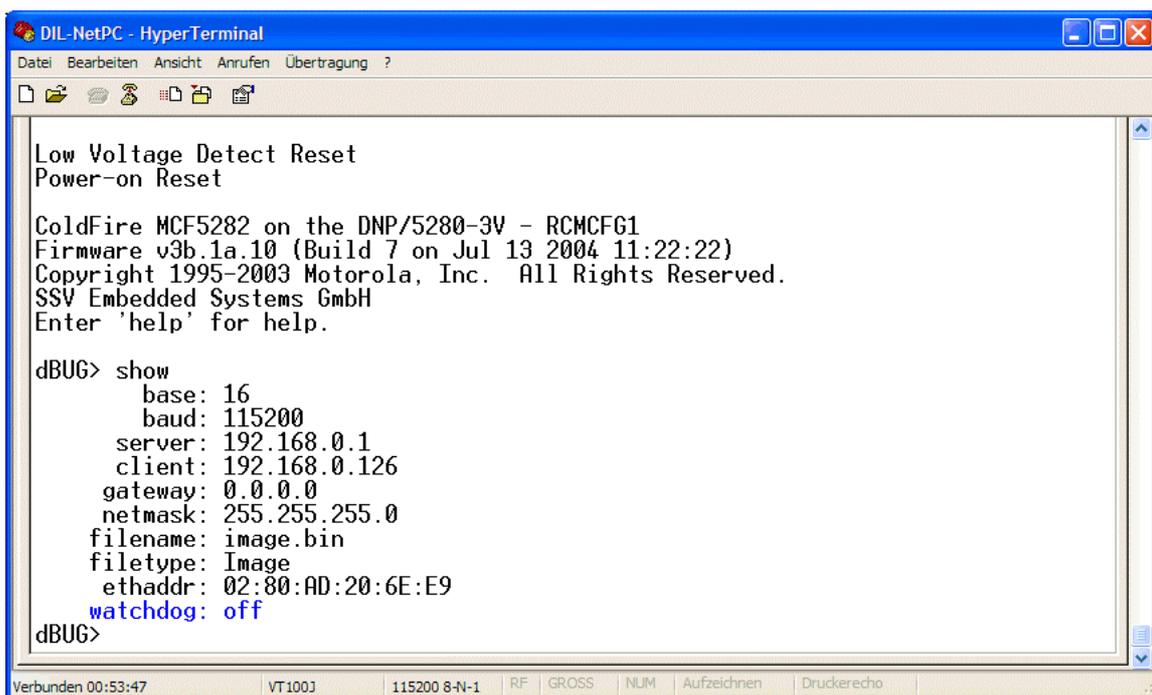


## How to prepare the DNP/5280 for Watchdog usage

The DIL/NetPC DNP/5280 offers a hardware watchdog. This watchdog timer generates a reset after a master enable and without a valid trigger sequence within a specific time period.

- **1. Step:** Setup a serial link (**RS232 Serial Link**) between the DIL/NetPC DNP/5280 COM1 serial port and a serial port of your PC system. Use a null-modem cable and the RS232 interface cable for the physical connection between the COM1 port of the DIL/NetPC DNP/5280 and the PC COM port. For more details about this connection please use the DIL/NetPC DNP/5280 Starter Kit documentation.
- **2. Step:** Set the RCM jumper bridge of your DIL/NetPC DNP/5280 to boot the Motorola dBUG ROM Monitor program directly from the DIL/NetPC DNP/5280 on-board flash memory. For more details about this jumper bridge use the DIL/NetPC DNP/5280 Starter Kit documentation.
- **3. Step:** Run your terminal emulation program. Microsoft Windows-based PC systems offers *HyperTerminal* for this task. Linux-based systems come with *Minicom*. Then provide the DIL/NetPC DNP/5280 with power.
- **4. Step:** Check the dBUG ROM Monitor program version. We need Motorola **dBUG ROM Monitor Firmware Version 3b.1a.10 (Build 7 on Jul 13 2004)** or newer for watchdog usage. For more details about the dBUG program version information and the dBUG exchange process please see the documents *mHT5280-26.pdf: How to identify the dBUG ROM Monitor Program Version* and *mHT5280-27.pdf: How to exchange the dBUG ROM Monitor Program*.
- **5. Step:** Use the dBUG *show* command. The last information line shows the current state of the DIL/NetPC DNP/5280 watchdog timer (master enable or master disable).



```
DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
Low Voltage Detect Reset
Power-on Reset

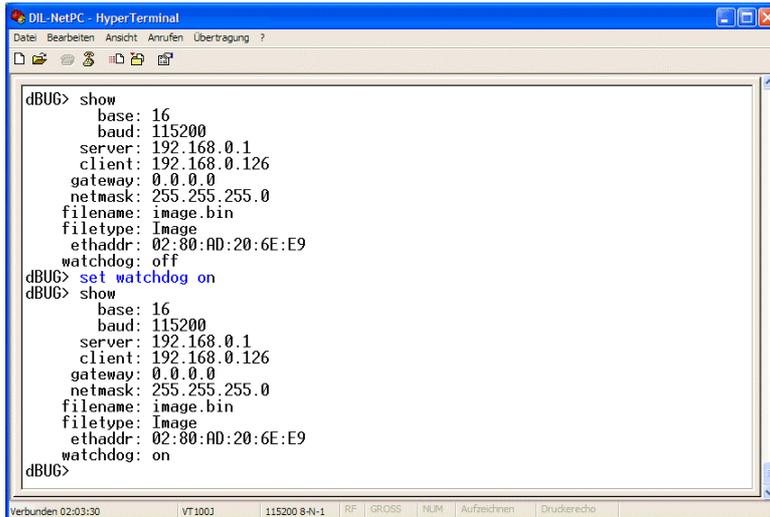
ColdFire MCF5282 on the DNP/5280-3V - RCMCFG1
Firmware v3b.1a.10 (Build 7 on Jul 13 2004 11:22:22)
Copyright 1995-2003 Motorola, Inc. All Rights Reserved.
SSV Embedded Systems GmbH
Enter 'help' for help.

dBUG> show
    base: 16
    baud: 115200
    server: 192.168.0.1
    client: 192.168.0.126
    gateway: 0.0.0.0
    netmask: 255.255.255.0
    filename: image.bin
    filetype: Image
    ethaddr: 02:80:AD:20:6E:E9
    watchdog: off
dBUG>
```

<b>watchdog: off</b>	Watchdog Master Disable. Watchdog timer off.
<b>watchdog: on</b>	Watchdog Master Enable. Watchdog timer on after Linux boot.

- **6. Step:** Use the dBUG watchdog master enable command if necessary. Enter the following command line for watchdog master enable:

```
set watchdog on
```



```

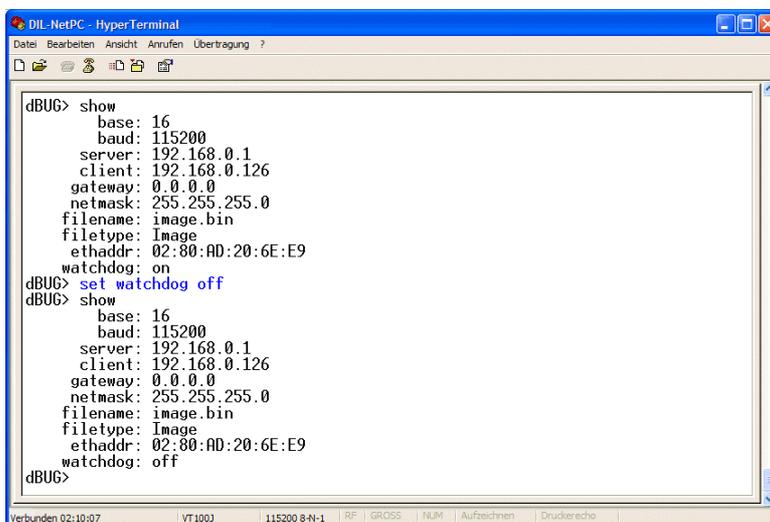
dBUG> show
  base: 16
  baud: 115200
  server: 192.168.0.1
  client: 192.168.0.126
  gateway: 0.0.0.0
  netmask: 255.255.255.0
  filename: image.bin
  filetype: Image
  ethaddr: 02:80:AD:20:6E:E9
  watchdog: off
dBUG> set watchdog on
dBUG> show
  base: 16
  baud: 115200
  server: 192.168.0.1
  client: 192.168.0.126
  gateway: 0.0.0.0
  netmask: 255.255.255.0
  filename: image.bin
  filetype: Image
  ethaddr: 02:80:AD:20:6E:E9
  watchdog: on
dBUG>

```

**After a watchdog master enable the watchdog timer needs a valid trigger sequence within a specific time period if Linux is running.**

- **7. Step:** Use the dBUG watchdog master disable command if necessary. Enter the following command line for watchdog master disable:

```
set watchdog off
```



```

dBUG> show
  base: 16
  baud: 115200
  server: 192.168.0.1
  client: 192.168.0.126
  gateway: 0.0.0.0
  netmask: 255.255.255.0
  filename: image.bin
  filetype: Image
  ethaddr: 02:80:AD:20:6E:E9
  watchdog: on
dBUG> set watchdog off
dBUG> show
  base: 16
  baud: 115200
  server: 192.168.0.1
  client: 192.168.0.126
  gateway: 0.0.0.0
  netmask: 255.255.255.0
  filename: image.bin
  filetype: Image
  ethaddr: 02:80:AD:20:6E:E9
  watchdog: off
dBUG>

```

That is all.