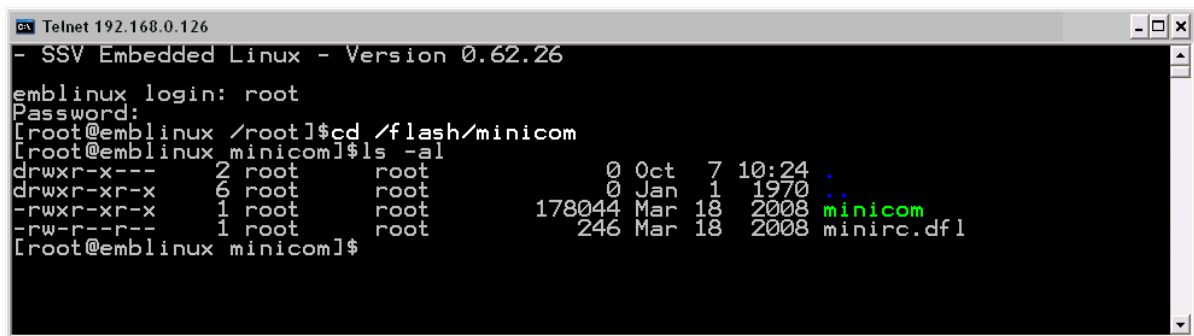


How to use the MB/920-E2M ZigBee interface

The MB/920-E2M smart metering IP gateway base board is also available with a preinstalled Mod/Zbee1 ZigBee mesh networking modem. The DIL/NetPC DNP/9200 software configuration for the MB/920-E2M allows the ZigBee modem usages with AT commands.

- **1. Step:** Setup a Telnet session to the DNP/9200. Use the login name **root**. A password is not necessary for this login name. Then change the directory with

```
cd /flash/minicom
```



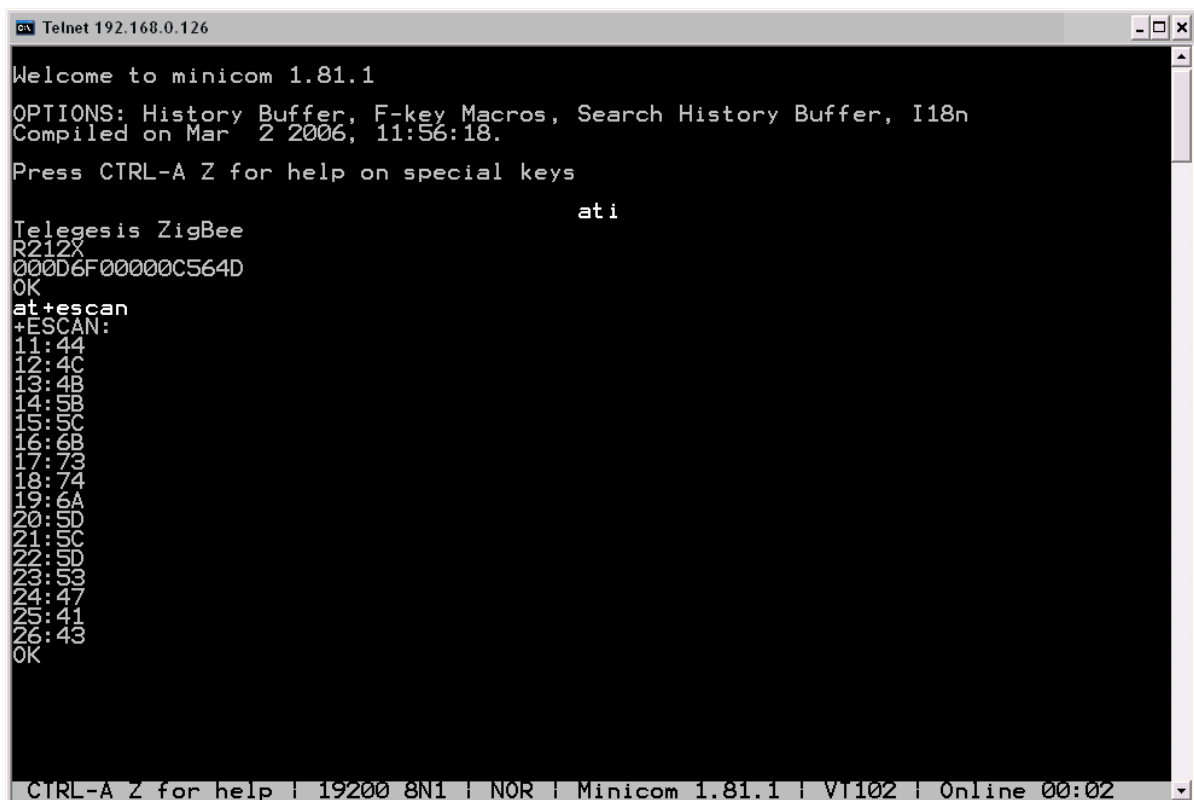
```

Telnet 192.168.0.126
- SSV Embedded Linux - Version 0.62.26
emblinux login: root
Password:
[root@emblinux /root]$cd /flash/minicom
[root@emblinux minicom]$ls -al
drwxr-x---  2 root    root          0 Oct  7 10:24 .
drwxr-xr-x  6 root    root          0 Jan  1  1970 ..
-rwxr-xr-x  1 root    root    178044 Mar 18  2008 minicom
-rw-r--r--  1 root    root       246 Mar 18  2008 minirc.dfl
[root@emblinux minicom]$

```

- **2. Step:** Please run the terminal emulation program **minicom** with the help of the following command line:

```
./minicom
```



```

Telnet 192.168.0.126
Welcome to minicom 1.81.1
OPTIONS: History Buffer, F-key Macros, Search History Buffer, I18n
Compiled on Mar  2 2006, 11:56:18.
Press CTRL-A Z for help on special keys

                                at i
Telegesis ZigBee
R212X
000D6F0000C564D
OK
at+escan
+ESCAN:
11:44
12:4C
13:4B
14:5B
15:5C
16:6B
17:73
18:74
19:6A
20:5D
21:5C
22:5D
23:53
24:47
25:41
26:43
OK
CTRL-A Z for help | 19200 8N1 | NOR | Minicom 1.81.1 | V1102 | Online 00:02

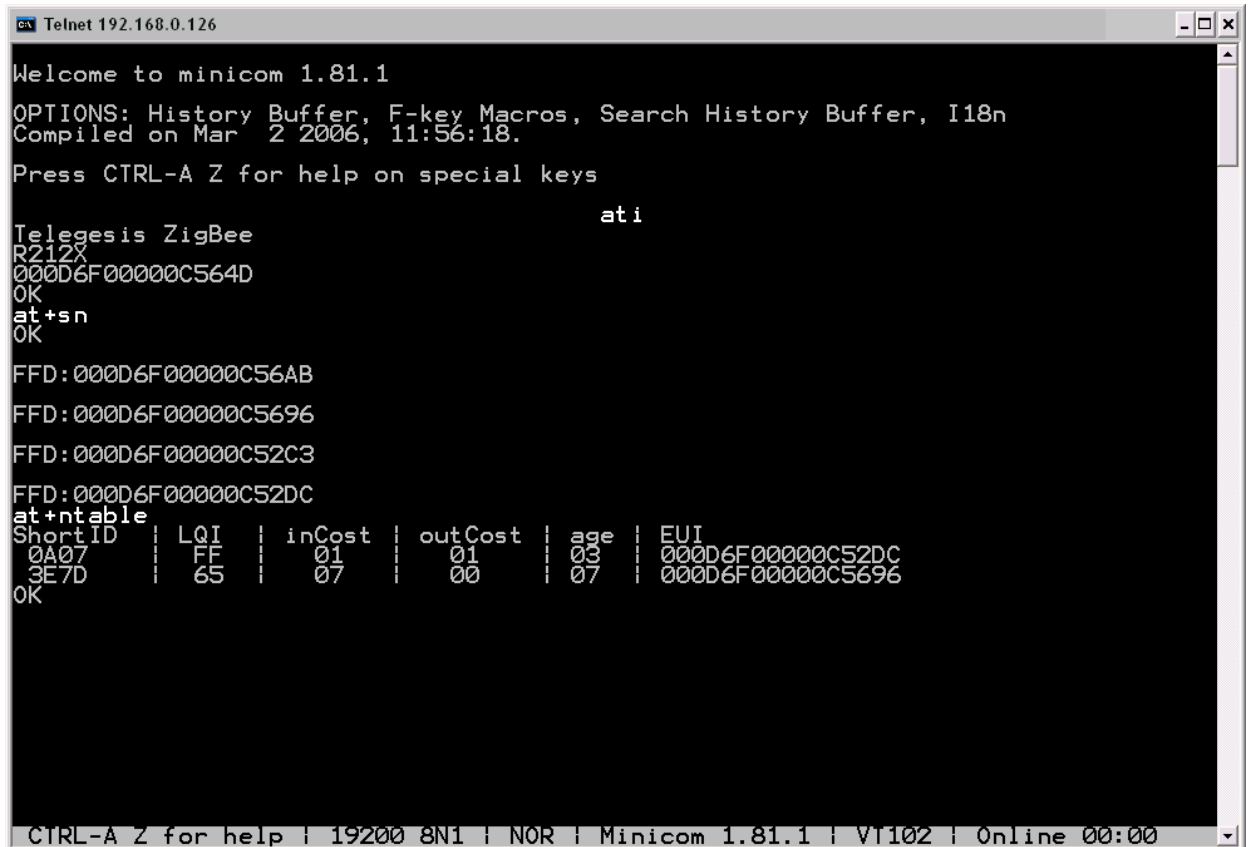
```

It is now possible to enter AT commandos for the Mod/Zbee1 ZigBee mesh networking modem. Please see the AT command reference manual for more details.

- **3. Step:** The Mod/Zbee1 ZigBee mesh networking modem scans the environment for available PANs (Personal Area Networks) and joins the PAN with the best RF signal quality as a ZigBee router (ZigBee FFD).

There are AT commands available to find out what other devices are currently members of a given PAN and who are the direct neighbours.

AT command	Function
ati	Display product identification information with 64-bit IEEE address
at+sn	Scan network for other devices (al devices or only direct neighbours)
at+ntable	Shows the items of the internal neighbour table (direct neighbours)



```

Telnet 192.168.0.126
Welcome to minicom 1.81.1
OPTIONS: History Buffer, F-key Macros, Search History Buffer, I18n
Compiled on Mar  2 2006, 11:56:18.
Press CTRL-A Z for help on special keys

                                ati
Telegesis ZigBee
R212X
000D6F00000C564D
OK
at+sn
OK
FFD:000D6F00000C56AB
FFD:000D6F00000C5696
FFD:000D6F00000C52C3
FFD:000D6F00000C52DC
at+ntable
ShortID | LQI | inCost | outCost | age | EUI
0A07   | FF  | 01    | 01    | 03  | 000D6F00000C52DC
3E7D   | 65  | 07    | 00    | 07  | 000D6F00000C5696
OK
CTRL-A Z for help | 19200 8N1 | NOR | Minicom 1.81.1 | VT102 | Online 00:00

```

That is all.