

CLI Commands for Barracuda 3G USB Modems

<https://campus.barracuda.com/doc/41116406/>

You can manually interact with the Barracuda 3G USB modems on the command line with the AT commands. To connect to the modem, use the `ttyUSB0` USB serial port. This serial port is accessible via `minicom`, a terminal program.

In this article:

Configure Minicom

Before connecting to the Barracuda 3G USB modem, configure `minicom`.

1. Start the configuration mode of `minicom`. At the command line, enter:
`minicom -s`
2. Enter the **Serial port setup** menu and specify the following settings:
A - Serial Device : `/dev/ttyUSB0` B - Lockfile Location : `/var/lock` C -
Callin Program : D - Callout Program : E - Bps/Par/Bits : `9600 8N1` F -
Hardware Flow Control : No G - Software Flow Control : No
3. Save your changes.

Connect to the Barracuda 3G USB Modem

After configuring `minicom`, you can use it to connect to the Barracuda 3G USB modem. To start `minicom`, enter:

```
minicom
```

List of AT Commands

The following list displays all available AT commands that you can use to gather information about the Barracuda 3G USB modem.

Not every command is supported by the modem.

PIN Commands

Command	Response	Description
AT+CPIN?	+CPIN:	Check the PIN status. The most common codes include the following: <ul style="list-style-type: none"> • <i>READY</i> — Not waiting for PIN (no PIN or PIN already entered). • <i>SIM PIN</i> — Waiting for SIM PIN code. • <i>SIM PUK</i> — Waiting for SIM PUK code.
AT+CPIN=<pin>[,<newpin>]	OK +CME ERROR:	Enter or change the PIN.

Example

>AT+CPIN? +CPIN: SIM PIN OK >AT+CPIN=1234? OK >AT+CPIN? +CPIN: READY OK

Network Registration Commands

Command	Response	Description
AT+CREG?, AT+CREG=? , AT+CREG=	+CREG: ,,[[,]] +CME ERROR	Get the network registration status and control unsolicited status callback, which when turned on will send a +CREG message with the new network status when something changes. <ul style="list-style-type: none"> • 0 — Disable unsolicited status callback. • 1 — Enable unsolicited status callback, +CREG: • 2 — Enable unsolicited status callback, +CREG: ,,[[,]] • 0 — Not registered, not searching. • 1 — Registered to home network. • 2 — Not registered, searching for network. • 3 — Registration denied. • 4 • 5 — Registered, roaming. Location area code UTRAN/GERAN cell ID Network access type <ul style="list-style-type: none"> • 0 — GSM • 1 — Compact GSM • 2 — UTRAN • 3 — GSM with EGPRS • 4 — UTRAN with HSDPA • 5 — UTRAN with HSUPA • 6 — UTRAN with HSDPA and HSUPA UTRAN is short for UMTS Terrestrial Radio Access Network.

Example

The following example shows the following:

- Full unsolicited status callback is enabled.
- The device is registered to its home network.
- The location area code is 048A.
- The UTRAN cell ID is 58B2.

Unfortunately, this device does not show access type with this command.

>AT+CREG=2 OK >AT+CREG? +CREG: 2,1,048A,58B2

Command	Response	Description
AT+COPS?,	+COPS: ([, [,]),, ([, [,])	-
AT+COPS=?	+COPS: , long , short , numeric ,	-
	+CME ERROR:	-

<p>AT+COPS=<mode>, [<format>, <oper>[, <AcT>]]</p>	<p>OK +CME ERROR</p>	<p>Get and set the current GSM/UMTS network operator. List available operators. For example, this command can be used to change access type and switch network.</p> <ul style="list-style-type: none"> • 0 — Automatic network selection (ignored). • 1 — Manual network selection, must be present, is optional. • 2 — Deregister from network. • 3 — Set only, no registration or deregistration. • 4 — Manual selection with automatic fallback (enters automatic mode if manual selection fails). • 0 — Long alphanumeric string • 1 — Short alphanumeric string • 2 — Numeric ID String (based on) that identifies the operator. • 0 — Unknown • 1 — Available • 2 — Current • 3 — Forbidden <p>Network access type</p> <ul style="list-style-type: none"> • 0 — GSM • 1 — Compact GSM • 2 — UTRAN • 3 — GSM with EGPRS • 4 — UTRAN with HSDPA • 5 — UTRAN with HSUPA • 6 — UTRAN with HSDPA and HSUPA
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Example

The following example shows that the device is connected to the operator called 3? using UTRAN (which is UMTS, also called 3G). Listing available networks shows the current network, an additional UTMS network called Sweden3G that is forbidden, and a GSM network called 3? that is available.

```
>AT+COPS? +COPS: 0,0,3?,2 AT+COPS=? +COPS:
```

(2,3?,3?,24004?,2), (1,3?,3?,24008?,0), (3,Sweden 3G,Sweden3G,2)

Command	Response	Description
AT+COPN	+COPN: ,, , +COPN: ,	Read operator names stored in device memory.

Example

+COPN: 20408?,NL KPN +COPN: 20412?,NL Telfort +COPN: 20416?,T-Mobile NL
+COPN: 20420?,Orange NL +COPN: 24002?,3 SE +COPN: 24004?,SWEDEN +COPN:
24005?,Sweden 3G +COPN: 24008?,Telenor SE +COPN: 24010?,S COMVIQ

Define Packet Data Protocol (PDP) Context

