

# LTX-NetSelect

## Manual/automatic selection of mobile network operator

### Problem description

Among other things, a list of possible/recommended network operators is stored on the SIM card of LTX loggers (by the SIM card provider).

Based on these default settings, the SIM card then attempts to find a suitable network during a transmission: Normally, several different network operators can usually be reached via a single mobile phone mast.

In practice, however, it appears that this does not always work reliably, e.g. due to internal protocol problems over which the logger has no influence.

One possible solution is to specify an explicit network operator for the SIM card.

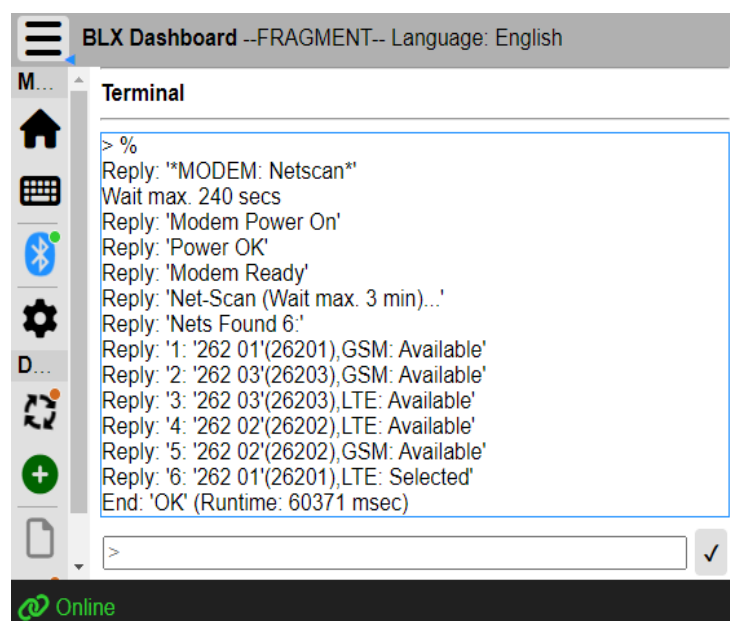
This has been taken into account in the update from version V3.1 of the firmware.

### Procedure and commands

Note: depending on the modem used, the text output may vary slightly.

#### **Scanning the existing network operators**

The command `%` (or `%1` for more text) returns a list of the locally available network operators. Each network has a plain text name and a numerical identifier:



*Kommando '%' liefert hier 6 Netzbetreiber*

The command can take up to 3 minutes. Here 6 networks were found.

Depending on the modem used in the device, the list may look like this (compact text format):

```
1: '262 01'(26201),GSM: Available
2: '262 03'(26203),GSM: Available
3: '262 03'(26203),LTE: Available
4: '262 02'(26202),LTE: Available
5: '262 02'(26202),GSM: Available
6: '262 01'(26201),LTE: Selected
```

or e.g. like this (detailed plain text format):

```
1: 'Telekom.de'(26201),GSM: Available
2: '02 - de'(26203),GSM: Available
3: '02 - de'(26203),LTE: Available
4: 'Vodafone DE'(26202),LTE: Available
5: 'Vodafone DE'(26202),GSM: Available
6: 'Telekom.de'(26201),LTE: Selected
```

Explanation: The texts for the network operator can be different, but the numerical value in brackets is always unique and consists of the country (3 digits, the so-called 'mcc'<sup>1</sup>, here `262` for Germany, followed by another 2-3 digits for the network operator (the so-called 'mnc'<sup>2</sup> here `01`: `Telekom.de`, `02 - de`: `Vodafone DE` or `03` für `O2`).

In the above case, the network operator 'Telekom.de' was used and the device (or at least the mobile phone mast) is located in Germany.

## Selection of an explicit network operator

If, for example, a specific network operator is to be preferred, an entry from the above list can be selected with the command `\$x` (with `x` as the number). The SIM card will then attempt to preferentially select this network operator.

Example: with `\$2` the network operator `02 - de` will be preferred in future.

## Deleting the manual default

The command `\$0` deletes the manual default. All network operators are then treated equally again.

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1 For 'mcc' see: [https://en.wikipedia.org/wiki/Mobile\\_country\\_code](https://en.wikipedia.org/wiki/Mobile_country_code)

2 For 'mnc' see: [https://en.wikipedia.org/wiki/Mobile\\_network\\_codes\\_in\\_ITU\\_region\\_2xx\\_\(Europe\)#Germany\\_%E2%80%93\\_DE](https://en.wikipedia.org/wiki/Mobile_network_codes_in_ITU_region_2xx_(Europe)#Germany_%E2%80%93_DE)