# LTE band lock

## Frequency band lock

Frequency bands can be locked with the **AT+QCFG="band"** command. The syntax for the command looks like this:

```
gsmctl -A 'AT+QCFG="band"[,<bandval>,<ltebandval>,<tdsbandval>[,<effect>]]'
```

Where:Fuk

- **<bandval>** - a hexadecimal value that specifies the GSM and WCDMA frequency band. Possible values are:

```
00000000    No change
00000001    GSM900
00000002    GSM1800
00000004    GSM850
00000008    GSM1900
00000010    WCDMA 2100
00000020    WCDMA 1900
00000040    WCDMA 850
00000080    WCDMA 900
00000100    WCDMA 800
00000200    WCDMA 1700
0000FFFF    Any frequency band
```

- **<ltebandval>** - A hexadecimal value that specifies the LTE frequency band. Possible values are:

```
0                No change
0x1              (CM_BAND_PREF_LTE_EUTRAN_BAND1)     LTE BC1 (2100MHz)
0x4              (CM_BAND_PREF_LTE_EUTRAN_BAND3)     LTE BC3 (1800MHz)
0x10             (CM_BAND_PREF_LTE_EUTRAN_BAND5)     LTE BC5 (850MHz)
0x40             (CM_BAND_PREF_LTE_EUTRAN_BAND7)     LTE BC7 (2600MHz)
0x80             (CM_BAND_PREF_LTE_EUTRAN_BAND8)     LTE BC8 (900MHz)
0x800000         (CM_BAND_PREF_LTE_EUTRAN_BAND20)    LTE BC20 (800MHz)
0x40000000       No change
0x1a0000800d5    (CM_BAND_PREF_ANY)                  Any frequency band
```

- **<tdsbandval>** - a hexadecimal value that specifies the TDS-CDMA frequency band. Possible values are:

```
0             No change
0x1           (CM_BAND_PREF_TDS_BANDA)    TDS BCA
0x2           (CM_BAND_PREF_TDS_BANDB)    TDS BCB
0x4           (CM_BAND_PREF_TDS_BANDC)    TDS BCC
0x8           (CM_BAND_PREF_TDS_BANDD)    TDS BCD
0x10          (CM_BAND_PREF_TDS_BANDE)    TDS BCE
```

```
0x20          (CM_BAND_PREF_TDS_BANDF)    TDS BCF
0x40000000    No change
```

- **<effect>** - specifies when to take effect. Possible values are:

```
0    Take effect after reboot
1    Take effect immediately
```

## Examples

---

gsmctl -A 'AT+QCFG="band",0,40,0,1'

3. Start mobile data connection:

```
ifup ppp
```

Additionally:

To read used frequencies:

```
gsmctl -A 'AT+QCFG="band"'
+QCFG: "band",0xd3,0x40,0x0
```

To read used frequencies in words format:

```
gsmctl -A AT+QNWINFO
```

to set exact bands:

```
gsmctl -A 'AT+QCFG="band",0,40,0,1'
OK
```

Multiple frequencies at one time:

It's not force one band, when you use AT+QCFG="band" and set

any combinations of band you need to use, for <ltebandval> 1800 is band 3,

and it's config is 4, and 2600 is band 7, it's config is 40, so you sum this

two and it will be 44, so you need to set <ltebandval> as 44.