

Modifications

To change the following files: lte-uesoftmodem.c, lte-softmodem.h,
phy_procedures_lte_ue.c, defs_common.h.

- **lte-uesoftmodem.c**

In ~/openairinterface5g/targets/RT/USER/lte-uesoftmodem.c

To replace the following line:

uint32_t downlink_frequency[MAX_NUM_CCs][4]; (Line 142)

by

uint64_t downlink_frequency[MAX_NUM_CCs][4];

- **lte-softmodem.h**

In ~/openairinterface5g/targets/RT/USER/lte-softmodem.h

To change the following lines:

#define DEFAULT_DLF 2680000000 (Line 190)

by

#define DEFAULT_DLF **5900000000L**

extern uint32_t downlink_frequency[MAX_NUM_CCs][4]; (Line 293)

by

extern **uint64_t** downlink_frequency[MAX_NUM_CCs][4];

{"C", CONFIG_HLP_DLF, 0,
uptr:&(downlink_frequency[0][0]), defuintval:2680000000, TYPE_UINT, 0},\
(Line 215)

by

{"C", CONFIG_HLP_DLF, 0,
uptr:&(downlink_frequency[0][0]), **defint64val:2680000000L,TYPE_UINT64**, 0},\
(Line 215)

- **phy_procedures_lte_ue.c**

In ~/openairinterface5g/openair1/SCHED_UE/phy_procedures_lte_ue.c

```
extern uint32_t downlink_frequency[MAX_NUM_CCs][4]; (Line 90)
by
extern uint64_t downlink_frequency[MAX_NUM_CCs][4];
```

- **defs_common.h**

In ~/openairinterface5g/openair1/PHY

```
/// DL carrier frequency
uint32_t dl_CarrierFreq; (Line 607)
/// UL carrier frequency
uint32_t ul_CarrierFreq; (Line 609)
```

by

```
/// DL carrier frequency
uint64_t dl_CarrierFreq;
/// UL carrier frequency
uint64_t ul_CarrierFreq;
```

Compilation

In ~/openairinterface5g/cmake_targets/lte_build_oai/build

To execute:

```
make lte-uesoftmodem -j4
```

Running

```
sudo ./lte-uesoftmodem -C 5900000000 -r 50 --ue-synchref --ue-enable-sl --ue-sl-
only --ue-rxgain 100 --ue-txgain 10 --usrp-clksrc gpsdo (Pramheda)
```