

Source: 3GPP TSG RAN Working Group 4

Title: Liaison statement on Signalling of frequencies for RF channels for UTRA

To: TSG RAN WG2

Copy: TSG RAN, TSG RAN WG1, ERC TG1, ETSI/ERM/RM, ARIB

TSG RAN WG4 has agreed preliminary definitions of the frequency bands, transmit to receive frequency separation, and channel raster for UTRA.

WG4 requests WG2 to consider these requirements when defining protocols for definition and selection of radio frequency channels.

The requirement that deployments in “transmit to receive frequency separations in other frequency bands shall not be precluded” means that the signalling should, in principle, not constrain the frequencies used. However, WG 4 believes that the following ranges should be sufficient for all applications which can be currently envisaged:

Frequency range:

Range equivalent to 16 bits (corresponds to a frequency range of 13.1GHz with a raster of 200kHz)

Transmit to receive frequency separations:

Range equivalent to 12 bits (corresponds to a range of 819.2MHz with a raster of 200kHz)

WG4 envisages that the signalling can be made more efficient for ranges of these two parameters which have been specifically identified.

The signalling should distinguish between FDD and TDD channels.

Draft Text from S4.01A:

5.2 Frequency bands

UTRA/FDD is designed to operate in either of the following paired bands:

- a) 1920 - 1980MHz Uplink (mobile transmit, base receive)
2110 - 2170MHz Downlink (base transmit, mobile receive)
- b) [ffs; for deployment in ITU Region 2]

Deployment in other frequency bands shall not be precluded.

5.3 TX-RX frequency separation

- a) The minimum transmit to receive frequency separation is [134.8MHz] and the maximum value is [245.2MHz] when operating in the paired band defined in subclause 5.2a. A possible value is 190MHz.
- b) UTRA/FDD can support both fixed and variable transmit to receive frequency separation. [the specific limits are yet to be determined]
- c) The use of other transmit to receive frequency separations in other frequency bands shall not be precluded.

5.4 Channel arrangement

5.4.1 Channel spacing

The nominal channel spacing is 5 MHz, but this can be adjusted to optimize performance in a particular deployment scenario.

5.4.2 Channel raster

The channel raster is 200 kHz, which means that the carrier frequency must be a multiple of 200 kHz.