7 UE procedures for transmitting and receiving on a carrier with intra-cell guard bands

For operation with shared spectrum channel access, when the UE is configured with any of *intraCellGuardBandUL-r16* for UL carrier and *intraCellGuardBandDL-r16* for DL carrier, the UE is provided with intra-cell guard bands on a carrier, each defined by start CRB and size in number of CRBs, and , provided by higher layer parameters *startCRB-r16* and *nrofCRBs-r16*, respectively. The UE does not expect that *nrofCRBs-r16* is configured with non-zero value smaller than the default intra-cell GB pattern from [8, TS 38.101-1] corresponding to and carrier size . The subscript *x* is set to DL and UL for the downlink and uplink, respectively. Where there is no risk of confusion, the subscript *x* can be dropped. The intra-cell guard bands separate RB sets, each defined by start and end CRB, and , respectively. UE determines , , and the remaining start and end CRBs as and . The RB set *s* consists of resource blocks where . When the UE is not configured with *intraCellGuardBandUL-r16 or intraCellGuardBandDL-r16,* the UE determines the CRB indices for the nominal intra-cell guard band(s), if any, and corresponding sizes (transmission bandwidth configuration) of RB set(s) separately according to the nominal guard bands specified in Table 5.3F.3.1-1 and Table 5.3F.3.1-2 of ~~according to the nominal intra-cell GB and RB set from~~ [8, TS 38.101-1] corresponding to and carrier size for the downlink or uplink. ~~When the UE is not configured with~~ *~~intraCellGuardBandDL-r16,~~* ~~the UE determines the CRB indices for the intra-cell guard band(s), if any, and corresponding RB set(s) according to the default intra-cell GB and RB set pattern from [8, TS 38.101-1] corresponding to and carrier size .~~ For either or both DL and UL, if there are no intra-cell GB~~the default pattern~~ as specified in~~from~~ [8, TS 38.101-1] ~~contains~~  for the 20 MHz carrier bandwidth, the number of RB sets for the carrier is

For a carrier, the UE expects , and where for a BWP *i* configured by *BWP-Downlink* or *BWP-Uplink*. Within the BWP *i*, RB sets are numbered in increasing order from 0 to where is the number of RB sets contained in the BWP *i* and RB set 0 within the BWP *i* corresponds to RB set in the carrier and RB set within the BWP *i* corresponds to RB set in the carrier.

When a UE is provided with *nrofCRBs-r16=*0 for all intra-cell guard band(s) on a carrier, the UE is indicated that no intra-cell guard-bands are configured for the carrier. For a carrier where zero intra-cell guard-bands are configured, the UE expects . For , the UE expects that the number of RBs within an RB set is between 100 and 110. For , the UE expects that the number of RBs within an RB set is between 50 and 55 except for at most one RB set which may contain 56 RBs.