

CLAIMS

1. A method for wireless communications by a user equipment (UE), comprising:
generating coded bits of uplink control information (UCI) to be segmented into at least two segments;
assigning different groups of the coded bits to different segments, wherein one or more rules are applied to ensure an integer number of bits are allocated to each of the segments; and
transmitting the UCI in the segments according to the assignment.
2. The method of claim 1, wherein the one or more rules are designed to ensure a number of resource elements (REs) or bits is divisible by a least common multiple of a possible number of segments.
3. The method of claim 1, wherein the one or more rules involve:
excluding one or more bits from segmentation;
setting the excluded bits to predetermined values; and
allocating remaining coded bits equally to the segments.
4. The method of claim 3, wherein the predetermined values are zero.
5. The method of claim 3, wherein one or more of the excluded bits are repeated copies of coded bits.
6. The method of claim 1, wherein the one or more rules involve:
allowing different segments to have different numbers of coded bits.
7. The method of claim 6, wherein the one or more rules further involve ensuring that segments do not share a resource element (RE).
8. The method of claim 1, wherein the one or more rules involve:

receiving signaling, from a network entity, scheduling a number of resource elements (REs) so that a number of available coded bits is divisible by the number of segments.

9. The method of claim 1, wherein the one or more rules involve:
receiving signaling, from a network entity, scheduling a number of resource elements (REs) such that the number of REs is divisible by the number of segments.
10. The method of claim 1, wherein the one or more rules involve:
excluding one or more resource elements (REs) from segmentation;
setting the excluded REs to predetermined values; and
allocating remaining REs equally to the segments.
11. The method of claim 10, wherein one or more of the excluded REs are repeated copies of other REs.
12. A method for wireless communications by a network entity, comprising:
taking one or more actions to ensure an integer number of coded bits of uplink control information (UCI) from a user equipment (UE) are assigned to one or more segments; and
receiving the UCI in the segments according to the assignment.
13. The method of claim 12, wherein the one or more actions include:
excluding one or more bits from segmentation;
setting the excluded bits to predetermined values; and
allocating remaining coded bits, which correspond to the integer number of coded bits of UCI, equally to the segments.
14. The method of claim 13, wherein the predetermined values are zero.
15. The method of claim 12, wherein the one or more actions are designed to ensure a number of resource elements (REs) or bits is divisible by a least common multiple of a possible number of segments.

16. The method of claim 12, wherein the one or more actions involve:
allowing different segments to have different numbers of coded bits.
17. The method of claim 16, wherein the one or more actions further involve
ensuring that segments do not share a resource element (RE).
18. The method of claim 17, wherein the one or more actions involve:
scheduling the UE with a number of resource elements (REs) so that a number
of available coded bits is divisible by the number of segments.
19. The method of claim 12, wherein the one or more rules involve:
scheduling the UE with a number of resource elements (REs) such that that the
number of REs is divisible by the number of segments.
20. An apparatus for wireless communications by a user equipment (UE),
comprising:
means for generating coded bits of uplink control information (UCI) to be
segmented into at least two segments;
means for assigning different groups of the coded bits to different segments,
wherein one or more rules are applied to ensure an integer number of bits are allocated
to each of the segments; and
means for transmitting the UCI in the segments according to the assignment.
21. The apparatus of claim 20, wherein the one or more rules are designed to ensure
a number of resource elements (REs) or bits is divisible by a least common multiple of a
possible number of segments.
22. The apparatus of claim 20, further comprising:
means for excluding one or more bits from segmentation;
means for setting the excluded bits to zero; or
means for allocating remaining coded bits equally to the segments,
wherein one or more of the excluded bits are repeated copies of coded bits.

23. The apparatus of claim 20, further comprising:
means for allowing different segments to have different numbers of coded bits,
means for ensuring that segments do not share a resource element (RE), or
means for receiving signaling, from a network entity, scheduling a number of resource elements (REs) so that a number of available coded bits is divisible by the number of segments.
25. The apparatus of claim 20, further comprising:
means for receiving signaling, from a network entity, or means for scheduling a number of resource elements (REs) such that that the number of REs is divisible by the number of segments.
26. The apparatus of claim 20, further comprising:
means for excluding one or more resource elements (REs) from segmentation;
means for setting the excluded REs to predetermined values; or
means for allocating remaining REs equally to the segments,
wherein one or more of the excluded REs are repeated copies of other REs.
27. A apparatus for wireless communications by a network entity, comprising:
means for taking one or more actions to ensure an integer number of coded bits of uplink control information (UCI) from a user equipment (UE) are assigned to one or more segments; or
means for receiving the UCI in the segments according to the assignment.
28. The apparatus of claim 27, further comprising:
means for excluding one or more bits from segmentation;
means for setting the excluded bits to zero; or
means for allocating remaining coded bits, which correspond to the integer number of coded bits of UCI, equally to the segments.

29. The apparatus of claim 27, wherein the one or more actions are designed to ensure a number of resource elements (REs) or bits is divisible by a least common multiple of a possible number of segments.

30. The apparatus of claim 27, further comprising:
means for allowing different segments to have different numbers of coded bits,
means for ensuring that segments do not share a resource element (RE),
means for scheduling the UE with a number of resource elements (REs) so that a number of available coded bits is divisible by the number of segments, or
means for scheduling the UE with a number of resource elements (REs) such that that the number of REs is divisible by the number of segments.