CLAIMS

1. A method for wireless communications by a user equipment (UE), comprising: generating information bits of uplink control information (UCI); encoding the information bits using a code to generate coded bits; assigning different groups of the coded bits to different segments of at least two segments to ensure an integer number of the coded bits are allocated to each of the at least two segments, the assigning comprising: excluding one or more of the coded bits from the at least two segments as filler bits; allocating the coded bits other than the excluded one or more of the coded bits equally to the at least two segments; and setting the excluded one or more of the coded bits to predetermined values; and transmitting the UCI according to the assignment.

2. The method of claim 1, wherein a number of resource elements (REs) or the coded bits other than the excluded one or more of the coded bits is divisible by a least a common multiple of a possible number of the at least two segments.

3. The method of claim 1, wherein the predetermined values are zero.

4. The method of claim 1, wherein one or more of the excluded one or more of the coded bits are repeated copies of at least one of the coded bits.

5. The method of claim 1, wherein no segments of the at least two segments share a resource element (RE).

6. The method of claim 1, further comprising: receiving signaling, from a network entity, scheduling a number of resource elements (REs) so that a number of the coded bits other than the excluded one or more of the coded bits is divisible by a number of the at least two segments.

7. The method of claim 1, further comprising: receiving signaling, from a network entity, scheduling a number of resource elements (REs) such that that the number of REs is divisible by a number of the at least two segments.

8. The method of claim 1, wherein the assigning further comprises: excluding one or more resource elements (REs) from the at least two segments; setting the excluded one or more REs to the predetermined values; and allocating REs other than the excluded one or more REs equally to the at least two segments.

9. The method of claim 8, wherein one or more of the excluded one or more REs are repeated copies of at least one of the REs.

10. A method for wireless communications by a network entity, comprising: taking actions to ensure an integer number of coded bits, the coded bits generated by encoding information bits of uplink control information (UCI), from a user equipment (UE) are assigned to at least two segments, the taking actions comprising: excluding one or more of the coded bits from the at least two segments as filler bits; allocating the coded bits other than the excluded one or more of the coded bits equally to the at least two segments; and setting the excluded one or more of the coded bits to predetermined values; and receiving the UCI according to the assignment.

11. The method of claim 10, wherein the predetermined values are zero.

12. The method of claim 10, wherein a number of resource elements (REs) or the coded bits other than the excluded one or more of the coded bits is divisible by a least a common multiple of a possible number of the at least two segments.

13. The method of claim 10, wherein no segments of the at least two segments share a resource element (RE).

14. The method of claim 10, further comprising: scheduling the UE with a number of resource elements (REs) so that a number of the coded bits other than the excluded one or more of the coded bits is divisible by a number of the at least two segments.

15. The method of claim 10, further comprising: scheduling the UE with a number of resource elements (REs) such that that the number of REs is divisible by a number of

the at least two segments.

16. An apparatus for wireless communications by a user equipment (UE), comprising: means for generating information bits of uplink control information (UCI); means for encoding the information bits using a code to generate coded bits; means for assigning different groups of the coded bits to different segments of at least two segments to ensure an integer number of the coded bits are allocated to each of the at least two segments, the assigning comprising: excluding one or more of the coded bits from the at least two segments as filler bits; allocating the coded bits other than the excluded one or more of the coded bits equally to the at least two segments; and setting the excluded one or more of the coded bits to predetermined values; and means for transmitting the UCI according to the assignment.

17. The apparatus of claim 16, wherein a number of resource elements (REs) or the coded bits other than the excluded one or more of the coded bits is divisible by a least a common multiple of a possible number of the at least two segments.

18. The apparatus of claim 16, further comprising: means for receiving signaling, from a network entity, scheduling a number of resource elements (REs) so that a number of the coded bits other than the excluded one or more of the coded bits is divisible by a number of the at least two segments.

19. The apparatus of claim 16, further comprising: means for receiving signaling, from a network entity, scheduling a number of resource elements (REs) such that that the number of REs is divisible by a number of the at least two segments.

20. The apparatus of claim 16, wherein the assigning further comprises: excluding one or more resource elements (REs) from the at least two segments; setting the excluded one or more REs to the predetermined values; and allocating REs other than the excluded one or more REs equally to the at least two segments.

21. An apparatus for wireless communications by a network entity, comprising: means for taking actions to ensure an integer number of coded bits, the coded bits generated by

encoding information bits of uplink control information (UCI), from a user equipment (UE) are assigned to at least two segments, the taking actions comprising: excluding one or more of the coded bits from the at least two segments as filler bits; allocating the coded bits other than the excluded one or more of the coded bits equally to the at least two segments; and setting the excluded one or more of the coded bits to predetermined values; and means for receiving the UCI according to the assignment.

22. The apparatus of claim 21, wherein a number of resource elements (REs) or the coded bits other than the excluded one or more of the coded bits is divisible by a least a common multiple of a possible number of the at least two segments.

23. The apparatus of claim 21, further comprising: means for ensuring that no segments of the at least two segments share a resource element (RE), means for scheduling the UE with a number of REs so that a number of the coded bits other than the excluded one or more of the coded bits is divisible by a number of the at least two segments, or means for scheduling the UE with the number of REs such that that the number of REs is divisible by the number of the at least two segments.