CLAIMS

~~**What is claimed is:**~~

1. A method for wireless communication at a user equipment (UE), comprising:

receiving, from a base station, a plurality of downlink control information (DCI) messages that include a plurality of transmit power control (TPC) commands for an uplink transmission;

determining a power adjustment value for the uplink transmission based at least in part on a combination of the plurality of TPC commands~~;~~, the combination of the plurality of TPC commands including at least a first TPC command of a first DCI message and a second TPC command of a second DCI message; adjusting a transmit power level based at least in part on the determined power adjustment value; and

transmitting the uplink transmission to the base station at the adjusted transmit power level.

2. The method of claim 1, wherein determining the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands comprises:

identifying a plurality of TPC values from the plurality of TPC commands; and

summing the plurality of TPC values to determine the power adjustment value.

3. The method of claim 2, further comprising:

scaling the plurality of TPC values based at least in part on a number of the plurality of TPC commands, wherein summing the plurality of TPC values includes summing the scaled plurality of TPC values.

4. The method of claim 1, wherein determining the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands comprises:

identifying a most recently-received TPC command of the plurality of TPC commands; and

determining the power adjustment value for the uplink transmission based at least in part on the most recently-received TPC command.

5.———— The method of claim 1, further comprising:

identifying a change in at least one attribute of the uplink transmission; and

determining the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands based at least in part on the identified change.

6.———— The method of claim 5, further comprising:

receiving a value for at least one attribute in one or more of the plurality of DCI messages, wherein the change in at least one attribute of the uplink transmission is identified based at least in part on the received value for the at least one attribute.

7.———— The method of claim 5, wherein the at least one attribute of the uplink transmission comprises a UCI payload size, or a physical uplink control channel (PUCCH) resource assignment, or a PUCCH format, or a PUCCH resource pool, or a combination thereof.

8.———— The method of claim 5, wherein the uplink transmission is an uplink control information (UCI), the method further comprising:

determining, prior to identifying the change in the at least one attribute, the power adjustment value for the UCI based at least in part on a second plurality of TPC commands for the UCI, the plurality of TPC commands restricted to have a common TPC value for TPC commands associated with a single UCI.

9.———— The method of claim 1, wherein the uplink transmission is an uplink control information (UCI), and receiving the plurality of DCI messages for the UCI further comprises:

receiving at least one DCI message that includes a TPC command for an uplink data channel, the power adjustment value for the UCI determined based at least in part on the TPC command for the uplink data channel.

10.———— The method of claim 1, further comprising:

receiving a DCI message that includes a first TPC command for an uplink data channel and a second TPC command for uplink control information (UCI) on a control channel, wherein the uplink transmission comprises the UCI.

11.———— The method of claim 1, further comprising:

receiving a DCI message that includes a TPC command for an uplink data channel; and

ignoring, based at least in part on the TPC command for the uplink data channel, one or more TPC commands of the plurality of TPC commands for uplink control information (UCI), wherein the one or more TPC commands are for an uplink control channel, wherein the uplink transmission comprises the UCI.

12.———— The method of claim 1, wherein the uplink transmission comprises an acknowledgement on an uplink control channel, or an acknowledgement on an uplink data channel, or an uplink data transmission.

13.———— A method for wireless communication at a base station, comprising:

identifying, by the base station, a power adjustment value to adjust a transmit power level of an uplink transmission to be transmitted by a user equipment (UE);

determining, based at least in part on the identified power adjustment value, a plurality of transmit power control (TPC) commands for the uplink transmission, a combination of the plurality of TPC commands to indicate the power adjustment value to adjust the transmit power for the uplink transmission; and

transmitting, to the UE, a plurality of downlink control information (DCI) messages that include the determined plurality of TPC commands~~.~~, the combination of the plurality of TPC commands including at least a first TPC command of a first DCI message and a second TPC command of a second DCI message.

14.———— The method of claim 13, wherein the power adjustment value is a sum of a plurality of TPC values for the plurality of TPC commands.

15.———— The method of claim 13, wherein determining the plurality of TPC commands further comprises:

identifying that the UE is to use a first TPC command of the plurality of TPC commands as the power adjustment value; and

assigning the power adjustment value to be the TPC value for the identified first TPC command based at least in part on the identification.

16. The method of claim 13, wherein the plurality of DCI messages indicate a change in a value of at least one attribute for an uplink control information (UCI), wherein determining the plurality of TPC commands is based at least in part on the change in the value of the at least one attribute.

17. The method of claim 16, wherein the at least one attribute of the uplink transmission comprises a UCI payload size, or a physical uplink control channel (PUCCH) resource assignment, or a PUCCH format, or a PUCCH resource pool, or a combination thereof.

18. The method of claim 13, wherein transmitting the determined plurality of DCI messages to the UE further comprises:

transmitting at least one uplink DCI message that includes a TPC command for an uplink data channel, the plurality of TPC commands for the uplink transmission determined based at least in part on the TPC command for the uplink data channel.

19. The method of claim 13, further comprising:

receiving, from the UE, the uplink transmission transmitted according to the transmit power.

20. The method of claim 19, wherein the UCI comprises an acknowledgement on an uplink control channel, or an acknowledgement on an uplink data channel, or an uplink data transmission.

21. An apparatus for wireless communication at a user equipment (UE), comprising:

~~means for receiving~~ a processor; memory in electronic communication with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to: receive, from a base station, a plurality of downlink control information

(DCI) messages that include a plurality of transmit power control (TPC) commands for an uplink transmission;

~~means for determining~~ determine a power adjustment value for the uplink transmission based at least in part on a combination of the plurality of TPC commands~~;~~

~~means for adjusting~~, the combination of the plurality of TPC commands including at least a first TPC command of a first DCI message and a second TPC command of a second DCI message; adjust a transmit power level based at least in part on the determined power adjustment value; and

~~means for transmitting~~ transmit an uplink transmission to the base station at the adjusted transmit power level.

22.~~————~~ The apparatus of claim 21, wherein the ~~means for determining~~instructions to determine the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands ~~comprises:~~

~~means for identifying~~are executable by the processor to cause the apparatus to: identify a plurality of TPC values from the plurality of TPC commands; and

~~means for summing~~ sum the plurality of TPC values to determine the power adjustment value.

23.~~————~~ The apparatus of claim 22, wherein the instructions are further ~~comprising:~~

~~means for scaling~~executable by the processor to cause the apparatus to: scale the plurality of TPC values based at least in part on a number of the plurality of TPC commands, wherein summing the plurality of TPC values includes summing the scaled plurality of TPC values.

24.~~————~~ The apparatus of claim 21, wherein the ~~means for determining~~instructions to determine the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands ~~comprises:~~

~~means for identifying~~are executable by the processor to cause the apparatus to: identify a most recently-received TPC command of the plurality of TPC commands; and

~~means for determining~~ determine the power adjustment value for the uplink transmission based at least in part on the most recently-received TPC command.

25.~~———— The apparatus of claim 21, further comprising:~~

~~means for identifying a change in at least one attribute of an uplink control information (UCI); and~~

~~means for determining the power adjustment value for the UCI based at least in part on the combination of the plurality of TPC commands based at least in part on the identified change~~

~~26. The apparatus of claim 21, wherein the means for receiving the plurality of DCI messages for the uplink transmission further comprises:~~

~~means for receiving at least one DCI message that includes a TPC command for an uplink data channel, the power adjustment value for the uplink transmission determined based at least in part on the TPC command for the uplink data channel.~~

~~27.~~ An apparatus for wireless communication at a base station, comprising:

~~means for identifying~~ a processor; memory in electronic communication with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to: identify, by the base station, a power adjustment value to adjust a transmit power level of an uplink transmission to be transmitted by a user equipment (UE);

~~means for determining~~ determine, based at least in part on the identified power adjustment value, a plurality of transmit power control (TPC) commands for the uplink transmission, a combination of the plurality of TPC commands to indicate the power adjustment value to adjust the transmit power for the uplink transmission; and

~~means for transmitting~~ transmit, to the UE, a plurality of downlink control information (DCI) messages that include the determined plurality of TPC commands~~.~~

~~28. The apparatus of claim 27, wherein the means for determining the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands comprise:~~

~~means for identifying a plurality of TPC values from the plurality of TPC commands; and~~

~~means for summing the plurality of TPC values to determine the power adjustment value.~~

~~29. The apparatus of claim 28, further comprising:~~

~~means for scaling the plurality of TPC values based at least in part on a number of the plurality of TPC commands, wherein summing the plurality of TPC values includes summing the scaled plurality of TPC values.~~

~~30. The apparatus of claim 27, wherein the means for determining the power adjustment value for the uplink transmission based at least in part on the combination of the plurality of TPC commands comprise:~~

~~means for identifying a most recently-received TPC command of the plurality of TPC commands; and~~

~~means for determining the power adjustment value for the uplink transmission based at least in part on the most recently-received TPC command.~~, the combination of the plurality of TPC commands including at least a first TPC command of a first DCI message and a second TPC command of a second DCI message.

26. The apparatus of claim 25, wherein the power adjustment value is a sum of a plurality of TPC values for the plurality of TPC commands.

27. The apparatus of claim 25, wherein the instructions to determine, based at least in part on the identified power adjustment value, the plurality of TPC commands for the uplink transmission further comprises: identifying that the UE is to use a first TPC command of the plurality of TPC commands as the power adjustment value; and assigning the power adjustment value to be the TPC value for the identified first TPC command based at least in part on the identification.

28. The apparatus of claim 25, wherein the plurality of DCI messages indicate a change in a value of at least one attribute for an uplink control information (UCI), wherein determining the plurality of TPC commands is based at least in part on the change in the value of the at least one attribute.

29. The apparatus of claim 28, wherein the at least one attribute of the uplink transmission comprises a UCI payload size, or a physical uplink control channel (PUCCH) resource assignment, or a PUCCH format, or a PUCCH resource pool, or a combination thereof.

30. The apparatus of claim 25, wherein the instructions to transmit the determined plurality of DCI messages to the UE are further executable by the processor to cause the apparatus to: transmit at least one uplink DCI message that includes a TPC command for an uplink data channel, the plurality of TPC commands for the uplink transmission determined based at least in part on the TPC command for the uplink data channel.