

CLAIMS

1. A method of wireless communication at a user equipment (UE), comprising:
receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;
transmitting a random access request to the base station;
receiving an MCS index in a random access response (RAR) from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and
transmitting a connection request message to the base station using a number of resource units based on the MCS index and the TBS value indicated in the SIB.
2. The method of claim 1, further comprising:
processing the RAR from the base station based on the indication received in the SIB.
3. A method of wireless communication at a user equipment (UE), comprising:
receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;
transmitting a random access request to the base station;
receiving a MCS index in a random access response (RAR) from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and
transmitting a connection request message to the base station based on the MCS index and the RAR parameters received in the SIB.
4. The method of claim 1, wherein the at least one parameter comprises different parameters for different supported coverage levels.
5. The method of claim 1, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a

second TBS, the method further comprising:

selecting a PRACH resource, from one of the first set of PRACH resources or the second set of PRACH resources, based on a payload size at the UE, wherein the random access request is transmitted using the selected PRACH resource; and

interpreting the RAR from the base station based on the PRACH resource used to transmit the random access request.

6. A method of wireless communication at a user equipment (UE), comprising:

receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

transmitting a random access request to the base station;

receiving a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

transmitting a connection request message to the base station based on the MCS index and a number of resource units corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

7. A method of wireless communication at a user equipment (UE), comprising:

receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

transmitting a random access request to the base station;

receiving a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

transmitting a connection request message to the base station based on the MCS index and a transport block size corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

8. A user equipment (UE), comprising:

means for receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

means for transmitting a random access request to the base station;

means for receiving an MCS index in a random access response (RAR) from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and

means for transmitting a connection request message to the base station using a number of resource units based on the MCS index and the TBS value indicated in the SIB.

9. The UE of claim 8, further comprising:

means for processing the RAR from the base station based on the indication received in the SIB.

10. A user equipment (UE), comprising:

means for receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

means for transmitting a random access request to the base station;

means for receiving a MCS index in a RAR from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and

means for transmitting a connection request message to the base station based on the MCS index and the RAR parameters received in the SIB.

11. The UE of claim 8, wherein the at least one parameter comprises different parameters for different supported coverage levels.

12. The UE of claim 8, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a second TBS, and

wherein the UE further comprises:

means for selecting a PRACH resource, from one of the first set of PRACH

resources or the second set of PRACH resources, based on a payload size at the UE, wherein the means for transmitting the random access request is further configured to transmit the random access request using the selected PRACH resource; and

means for interpreting the RAR from the base station based on the PRACH resource used to transmit the random access request.

13. A user equipment (UE), comprising:

means for receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

means for transmitting a random access request to the base station;

means for receiving a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

means for transmitting a connection request message to the base station based on the MCS index and a number of resource units corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

14. A user equipment (UE), comprising:

means for receiving an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

means for transmitting a random access request to the base station;

means for receiving a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

means for transmitting a connection request message to the base station based on the MCS index and a transport block size corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

15. A user equipment (UE), comprising:

a memory; and

at least one processor coupled to the memory and configured to:

receive an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a transport block size (TBS)

value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

transmit a random access request to the base station;

receive an MCS index in a random access response (RAR) from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and

transmit a connection request message to the base station using a number of resource units based on the MCS index and the TBS value indicated in the SIB.

16. The UE of claim 15, wherein the at least one processor is further configured to process the RAR from the base station based on the indication received in the SIB.

17. A user equipment (UE), comprising:

a memory; and

at least one processor coupled to the memory and configured to:

receive an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

transmit a random access request to the base station;

receive a MCS index in a RAR from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and

transmit a connection request message to the base station based on the MCS index and the RAR parameters received in the SIB.

18. The UE of claim 15, wherein the at least one parameter comprises different parameters for different supported coverage levels.

19. The UE of claim 15, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a second TBS, and

wherein the at least one processor is further configured to:

select a PRACH resource, from one of the first set of PRACH resources or the second set of PRACH resources, based on a payload size at the UE and transmit the random access request using the selected PRACH resource; and

interpret the RAR from the base station based on the PRACH resource used to transmit the random access request.

20. A user equipment (UE), comprising:

a memory; and

at least one processor coupled to the memory and configured to:

receive an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

transmit a random access request to the base station;

receive a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

transmit a connection request message to the base station based on the MCS index and a number of resource units corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

21. A user equipment (UE), comprising:

a memory; and

at least one processor coupled to the memory and configured to:

receive an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication comprises a scaling value;

transmit a random access request to the base station;

receive a Modulation and Coding Scheme (MCS) index in a random access response (RAR) from the base station; and

transmit a connection request message to the base station based on the MCS index and a transport block size corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

22. A non-transitory computer-readable medium storing computer executable code for wireless communication at a user equipment, comprising code to:

- receive an indication of at least one parameter in a System Information Block (SIB) from a base station, wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

- transmit a random access request to the base station;

- receive an MCS index in a random access response from the base station, wherein the MCS index received in the RAR corresponds to the unassigned MCS index; and

- transmit a connection request message to the base station using a number of resource units based on the MCS index and the TBS value indicated in the SIB.

23. A method of wireless communication at a base station, comprising:

- transmitting an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

- receiving a random access request from a user equipment (UE);

- transmitting an MCS index in a random access response (RAR) to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

- receiving, from the UE, a connection request message using a number of resource units based on the MCS index and the TBS value indicated in the SIB.

24. A method of wireless communication at a base station, comprising:

- transmitting an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

- receiving a random access request from a user equipment (UE);

- transmitting a MCS index in a RAR to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

- receiving, from the UE, a connection request message based on the MCS index and the

RAR parameters in the SIB.

25. The method of claim 23, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a second TBS, the method further comprising:

interpreting the random access request from the UE based on a PRACH resource on which the random access request is received.

26. The method of claim 23, wherein the indication comprises a scaling value, and wherein the connection request message is received based on a number of resource units corresponding to the MCS index that has been scaled by the scaling value indicated in the SIB.

27. The method of claim 23, wherein the at least one parameter comprises different parameters for different supported coverage levels.

28. A base station comprising:

a memory; and

at least one processor coupled to the memory and configured to:

transmit an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

receive a random access request from a user equipment (UE);

transmit an MCS index in a random access response (RAR) to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

receive, from the UE, a connection request message based on the MCS index and the TBS value indicated in the SIB.

29. A base station comprising:

a memory; and

at least one processor coupled to the memory and configured to:

- transmit an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

- receive a random access request from a user equipment (UE);

- transmit a MCS index in a RAR to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

- receive, from the UE, a connection request message based on the MCS index and the RAR parameters in the SIB.

30. The base station of claim 28, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a second TBS; and

wherein the at least one processor is further configured to interpret the random access request from the UE based on a PRACH resource on which the random access request is received.

31. A base station comprising:

- a memory; and

- at least one processor coupled to the memory and configured to:

- transmit an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication comprises a scaling value;

- receive a random access request from a user equipment (UE);

- transmit a Modulation and Coding Scheme (MCS) index in a random access response (RAR) to the UE; and

- receive, from the UE, a connection request message based on the MCS index and a number of resource units corresponding to the MCS index that has been scaled by the scaling value received in the SIB.

32. The base station of claim 28, wherein the at least one parameter comprises different parameters for different supported coverage levels.

33. A base station comprising:

means for transmitting an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

means for receiving a random access request from a user equipment (UE);

means for transmitting an MCS index in a random access response (RAR) to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

means for receiving, from the UE, a connection request message based on the MCS index and the TBS value indicated in the SIB.

34. A base station comprising:

means for transmitting an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a random access response (RAR) parameters corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

means for receiving a random access request from a user equipment (UE);

means for transmitting a MCS index in a RAR to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

means for receiving, from the UE, a connection request message based on the MCS index and the RAR parameters in the SIB.

35. The base station of claim 33, wherein the indication comprises a first indication of a first set of Physical Random Access Channel (PRACH) resources associated with a first Transport Block Size (TBS) and a second indication of a second set of PRACH resources associated with a second TBS; and

wherein the base station further comprises means for interpreting the random access

request from the UE based on a PRACH resource on which the random access request is received.

36. A base station comprising:

- means for transmitting an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication comprises a scaling value;

- means for receiving a random access request from a user equipment (UE);

- means for transmitting a Modulation and Coding Scheme (MCS) index in a random access response (RAR) to the UE; and

- means for receiving, from the UE, a connection request message based on the MCS index and a number of resource units corresponding to the MCS index that has been scaled by the scaling value indicated in the SIB.

37. A non-transitory computer-readable medium storing computer executable code for wireless communication at a base station, comprising code to:

- transmit an indication of at least one parameter associated with a random access response grant in a System Information Block (SIB), wherein the indication indicates a transport block size (TBS) value corresponding to an unassigned Modulation and Coding Scheme (MCS) index;

- receive a random access request from a user equipment (UE);

- transmit an MCS index in a random access response (RAR) to the UE, wherein the MCS index transmitted in the RAR corresponds to the unassigned MCS index; and

- receive, from the UE, a connection request message based on the MCS index and the TBS value indicated in the SIB.