

What is Claimed:

1. A method to control a wireless transmit receive unit (WTRU), the method comprising:
receiving a special E-RNTI, wherein the special E-RNTI is associated with a channel and the channel is associated with a rank indication;
receiving the channel;
determining that the channel is associated with the special E-RNTI; and
determining, wherein the rank indicates a maximum allowable number of MIMO layers.
2. The method of claim 1, wherein the channel is an E-AGCH-like channel.
3. The method of claim 2, wherein the E-AGCH-like channel is an E-ROCH.
4. The method of claim 2, wherein encoding of the E-AGCH-like channel is related to E-AGCH encoding.
5. The method of claim 4, wherein the E-AGCH-like channel has the same encoding chain as an E-AGCH.
6. The method of claim 1, wherein determining that the channel is associated with the special E-RNTI comprises decoding the channel.
7. The method of claim 1, wherein determining that the channel is associated with the special E-RNTI comprises: decoding the channel, performing a cyclic redundancy check (CRC) on the decoded channel utilizing the special E-RNTI, and determining that the channel is associated with the special E-RNTI.
8. (Canceled)
9. The method of claim 1, further comprising:
determining an offset; and
determining a transport block size of a secondary stream of a dual-stream transmission using the offset.
10. The method of claim 1, further comprising configuring the WTRU with the determined rank.

11. The method of claim 1, further comprising receiving an inter-stream interference (ISI) offset.
12. The method of claim 11, wherein the ISI offset is received via RRC signaling.
13. The method of claim 11, further comprising applying the ISI offset to an uplink transmission of a primary stream of a dual-stream transmission.
14. A WTRU comprising:
 - a processor configured to:
 - receive a special E-RNTI, wherein the special E-RNTI is associated with a channel and the channel is associated with a rank indication;
 - receive the channel;
 - determine that the channel is associated with the special E-RNTI; and
 - determine, wherein the rank indicates a maximum allowable number of MIMO layers.
15. The WTRU of claim 14, wherein the channel is an E-AGCH-like channel.
16. The WTRU of claim 15, wherein the E-AGCH-like channel is an E-ROCH.
17. The WTRU of claim 15, wherein encoding of the E-AGCH-like channel is related to E-AGCH encoding.
18. The WTRU of claim 17, wherein the E-AGCH-like channel has the same encoding chain as an E-AGCH.
19. The WTRU of claim 14, wherein the processor is configured to decode the channel to determine that the channel is associated with the special E-RNTI.
20. The WTRU of claim 14, wherein to determine that the channel is associated with the special E-RNTI, the processor is configured to: decode the channel, perform a cyclic redundancy check (CRC) on the decoded channel utilizing the special E-RNTI, and determine that the channel is associated with the special E-RNTI.
21. (Canceled)

22. The WTRU of claim 14, wherein the processor is further configured to determine an offset, and determine a transport block size of a secondary stream of a dual-stream transmission using the offset.

23. The WTRU of claim 14, wherein the processor is further configured to configure the WTRU with the determined rank.

24. The WTRU of claim 14, wherein the processor is further configured to receive an inter-stream interference (ISI) offset.

25. The WTRU of claim 24, wherein the ISI offset is received via RRC signaling.

26. The WTRU of claim 24, wherein the processor is further configured to apply the ISI offset to an uplink transmission of a primary stream of a dual-stream transmission.

REPLACEMENT SHEET 49

AMENDED SHEET - IPEA/US

CLAIMS

What is claimed is:

1. A method to control a wireless transmit receive unit (WTRU), the method comprising:
 - receiving a special E-RNTI, wherein the special E-RNTI is associated with a channel and the channel is associated with a rank indication;
 - receiving the channel;
 - determining that the channel is associated with the special E-RNTI; and
 - determining a rank, wherein the rank indicates a maximum allowable number of MIMO layers.
2. The method of claim 1, wherein the channel is an E-AGCH-like channel.
3. The method of claim 2, wherein the E-AGCH-like channel is an E-ROCH.
4. The method of claim 2, wherein the E-AGCH-like channel has a same encoding chain as an E-AGCH.
5. The method of claim 1, wherein determining that the channel is associated with the special E-RNTI comprises decoding the channel.
6. The method of claim 1, wherein determining that the channel is associated with the special E-RNTI comprises: decoding the channel, performing a cyclic redundancy check (CRC) on the decoded channel utilizing the special E-RNTI, and determining that the channel is associated with the special E-RNTI.
7. The method of claim 1, further comprising:
 - determining an offset; and
 - determining a transport block size of a secondary stream of a dual-stream transmission using the offset.
8. The method of claim 1, further comprising configuring the WTRU with the determined rank.

9. The method of claim 1, further comprising receiving an inter-stream interference (ISI) offset, and wherein the ISI offset is received via RRC signaling.
10. The method of claim 9, further comprising applying the ISI offset to an uplink transmission of a primary stream of a dual-stream transmission.
11. A WTRU comprising:
 - a processor configured to:
 - receive a special E-RNTI, wherein the special E-RNTI is associated with a channel and the channel is associated with a rank indication;
 - receive the channel;
 - determine that the channel is associated with the special E-RNTI; and
 - determine a rank, wherein the rank indicates a maximum allowable number of MIMO layers.
12. The WTRU of claim 11, wherein the channel is an E-AGCH-like channel.
13. The WTRU of claim 12, wherein the E-AGCH-like channel is an E-ROCH.
14. The WTRU of claim 12, wherein the E-AGCH-like channel has a same encoding chain as an E-AGCH.
15. The WTRU of claim 11, wherein the processor is configured to decode the channel to determine that the channel is associated with the special E-RNTI.
16. The WTRU of claim 11, wherein to determine that the channel is associated with the special E-RNTI, the processor is configured to: decode the channel, perform a cyclic redundancy check (CRC) on the decoded channel utilizing the special E-RNTI, and determine that the channel is associated with the special E-RNTI.
17. The WTRU of claim 11, wherein the processor is further configured to determine an offset, and determine a transport block size of a secondary stream of a dual-stream transmission using the offset.

18. The WTRU of claim 11, wherein the processor is further configured to configure the WTRU with the determined rank.
19. The WTRU of claim 11, wherein the processor is further configured to receive an inter-stream interference (ISI) offset, and wherein the ISI offset is received via RRC signaling.
20. The WTRU of claim 19, wherein the processor is further configured to apply the ISI offset to an uplink transmission of a primary stream of a dual-stream transmission.