

CLAIMS

1. A method for wireless communication at a user equipment (UE), comprising: receiving, during a slot, for each beamformed channel of a plurality of beamformed channels, a reference signal and a data transmission; performing, for each beamformed channel of the plurality of beamformed channels, a channel state measurement procedure using the reference signal and the data transmission received over that beamformed channel; and transmitting, to a base station, and in an acknowledgement message for the data transmission, a bit value indicating a beamformed channel of the plurality of beamformed channels having a highest channel measurement value of the plurality of beamformed channels, the channel measurement value based at least in part on performing the channel state measurement procedure, wherein the acknowledgement message is transmitted in the slot, and wherein the acknowledgement message is transmitted in a transmit beam corresponding to a receive beam in the slot having the highest channel measurement value.
2. The method of claim 1, further comprising: determining that a control transmission received during the slot is transmitted using an antenna configuration that is quasi-co-located (QCL) with respect to an antenna configuration used for the data transmission; and performing, for each of the plurality of beamformed channels, the channel state measurement procedure during the slot using the control transmission.
3. The method of claim 1, further comprising: identifying, for each of the plurality of beamformed channels, a receive beam used to receive the data transmission; and selecting, based at least in part on the receive beam, a transmit beam to use for transmitting a feedback report, wherein the feedback report is based at least in part on the channel state measurement procedure.
4. The method of claim 3, further comprising: transmitting the feedback report over a plurality of transmit beams, each transmit beam associated with a corresponding receive beam used to receive the data transmission.
5. The method of claim 1, further comprising: transmitting a feedback report based at least in part on the channel state measurement procedure, wherein the feedback report indicates at least one of a signal-to-noise ratio (SNR), a reference signal received power (RSRP), a channel quality indicator (CQI), a reference signal received quality (RSRQ), or a combination thereof.
6. The method of claim 5, wherein the feedback report indicates at least one of an indication of an absolute channel performance metric value for each of one or more of the plurality of beamformed channels, a relative channel performance metric value for the one or more of the plurality of beamformed channels, an identifier for each of the one or more beamformed channels having a channel performance metric value satisfying a threshold, an identifier of at least one beamformed channel having a highest channel performance metric value, or a combination thereof.
7. The method of claim 1, wherein each of the plurality of beamformed channels corresponds to a channel using a corresponding transmission control indicator (TCI) state beam.

8. The method of claim 1, wherein the reference signal comprises a demodulation reference signal (DMRS).

9. A method for wireless communication at a base station, comprising: transmitting, during a slot, for each beamformed channel of a plurality of beamformed channels a reference signal and a data transmission; receiving, from a user equipment (UE), in an acknowledgement message for the data transmission, a bit value indicating a beamformed channel of the plurality of beamformed channels having a highest channel measurement value of the plurality of beamformed channels, wherein the channel measurement value is based at least in part on a channel state measurement procedure, wherein the acknowledgement message is received in the slot, and wherein the acknowledgement message is received in a receive beam corresponding to a transmit beam in the slot having the highest channel measurement value; and performing, based at least in part on the bit value, subsequent transmissions to the UE over the beamformed channel of the plurality of beamformed channels having the highest channel measurement value.

10. The method of claim 9, further comprising: transmitting a control transmission during the slot using an antenna configuration that is quasi-co-located (QCL) with respect to an antenna configuration used for the data transmission, wherein the channel state measurement procedure is performed using the control transmission.

11. The method of claim 9, further comprising: receiving a feedback report over the receive beam that is based at least in part on a beam used by the UE to receive the data transmission, the feedback report based at least in part on the channel state measurement procedure.

12. The method of claim 11, further comprising: identifying, based at least in part on the feedback report, a result of the channel state measurement procedure for the receive beam.

13. The method of claim 11, further comprising: receiving the feedback report over a plurality of transmit beams, each transmit beam associated with a corresponding receive beam used by the UE to receive the data transmission.

14. The method of claim 11, wherein the feedback report indicates at least one of a signal-to-noise ratio (SNR), a reference signal received power (RSRP), a channel quality indicator (CQI), a reference signal received quality (RSRQ), or a combination thereof.

15. The method of claim 11, wherein the feedback report indicates at least one of an indication of an absolute channel performance metric value for each of one or more of the plurality of beamformed channels, a relative channel performance metric value for the one or more of the plurality of beamformed channels, an identifier for each of the one or more beamformed channels having a channel performance metric value satisfying a threshold, an identifier of at least one beamformed channel having a highest channel performance metric value, or a combination thereof.

16. The method of claim 9, wherein each of the plurality of beamformed channels corresponds to a channel using a corresponding transmission configuration indicator (TCI) state beam.

17. The method of claim 9, wherein the reference signal comprises a demodulation reference signal (DMRS).

18. An apparatus for wireless communication at a user equipment (UE), comprising: 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, during a slot, for each beamformed channel of a plurality of beamformed channels, a reference signal and a data transmission; perform, for each beamformed channel of the plurality of beamformed channels, a channel state measurement procedure using the reference signal and the data transmission received over that beamformed channel; and transmit, to a base station, and in an acknowledgement message for the data transmission, a bit value indicating a beamformed channel of the plurality of beamformed channels having a highest channel measurement value of the plurality of beamformed channels, the channel measurement value based at least in part on performing the channel state measurement procedure, wherein the acknowledgement message is transmitted in the slot, and wherein the acknowledgement message is transmitted in a transmit beam corresponding to a receive beam in the slot having the highest channel measurement value.

19. The apparatus of claim 18, wherein the instructions are further executable by the processor to cause the apparatus to: determine that a control transmission received during the slot is transmitted using an antenna configuration that is quasi-co-located (QCL) with respect to an antenna configuration used for the data transmission; and perform, for each of the plurality of beamformed channels, the channel state measurement procedure during the slot using the control transmission.

20. The apparatus of claim 18, wherein the instructions are further executable by the processor to cause the apparatus to: identify, for each of the plurality of beamformed channels, a receive beam used to receive the data transmission; and select, based at least in part on the receive beam, a transmit beam to use for transmitting a feedback report, wherein the feedback report is based at least in part on the channel state measurement procedure.

21. An apparatus for wireless communication at a base station, comprising: 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: transmit, during a slot, for each beamformed channel of a plurality of beamformed channels, a reference signal and a data transmission; receive, from a user equipment (UE), in an acknowledgement message for the data transmission, a bit value indicating a beamformed channel of the plurality of beamformed channels having a highest channel measurement value of the plurality of beamformed channels, wherein the channel measurement value is based at least in part on a channel state measurement procedure, wherein the acknowledgement message is received in the slot, and wherein the acknowledgement message is received in a receive beam corresponding to a transmit beam in the slot having the highest channel measurement value; and perform, based at least in part on the bit value, subsequent transmissions to the UE over the beamformed channel of the plurality of beamformed channels having the highest channel measurement value.

22. The apparatus of claim 21, wherein the instructions are further executable by the processor to cause the apparatus to: transmit a control transmission during the slot using an antenna configuration that is quasi-co-located (QCL) with respect to an antenna configuration

used for the data transmission, wherein the channel state measurement procedure is performed using the control transmission.

23. The apparatus of claim 21, wherein the instructions are further executable by the processor to cause the apparatus to: receive a feedback report over the receive beam that is based at least in part on a beam used by the UE to receive the data transmission, the feedback report based at least in part on the channel state measurement procedure; identify, based at least in part on the feedback report, a result of the channel state measurement procedure for the receive beam.