CLAIMS

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

transmitting capability information wherein the capability information comprises, if the UE is a non-legacy UE, a parameter value that indicates that the UE is capable of receiving, from a base station on a downlink, a radio resource control parameter that identifies a first maximum number of layers that the base station will use to transmit to the UE on the downlink in at least one set of frequency resources of a radio frequency, RF, spectrum band (1205), and wherein the capability information does not comprise the indication that the UE is capable of receiving the radio resource control parameter that identifies a maximum number of layers if the UE is a legacy UE;

receiving, from the base station in response to the transmitted capability information comprising the parameter value, the radio resource control parameter that identifies the first maximum number of layers (1210) that the base station will use to transmit to the non-legacy UE, wherein the first maximum number of layers is an updated value of a second maximum number of layers previously configured for legacy UEs for downlink transmissions; and

receiving, according to the first or second maximum number of layers, signals from the base station using the at least one set of frequency resources.

2. The method of claim 1, further comprising:

configuring, based at least in part on the first or second maximum number of layers, a size of a soft buffer at the UE.

3. The method of claim 1, further comprising:

selecting, by the UE, a channel state information, CSI, report format based at least in part on the first or second maximum number of layers; and

transmitting a CSI report to the base station according to the selected CSI report format.

4. The method of claim 1, further comprising :

determining, based at least in part on the first or second maximum number of layers, a sounding reference signal port sounding configuration; and

transmitting sounding reference signals to the base station according to the determined sounding reference signal port sounding configuration.

5. The method according to claim 1, further comprising:

determining, by the UE, a downlink control information format based at least in part on the first or second maximum number of layers; and

receiving, from the base station, at least on downlink control information signal according to the determined downlink control information format.

6. The method of claim 1, wherein transmitting the capability information comprises:

transmitting, to the base station, a UE radio access capability parameter indicating whether the UE is capable of receiving the radio resource control parameter that identifies the maximum number of layers.

7. The method of claim 1, wherein:

i) the at least one set of frequency resources comprises a bandwidth part, or a subband, or a combination thereof, of the RF spectrum band; or

ii) receiving the signals from the base station according to the identified maximum number of layers comprises:

receiving the signals from the base station using a number of layers equal to or less than the indicated maximum number of layers.

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

receiving, from a user equipment, UE, capability information wherein the capability information comprises, if the UE is a non-legacy UE, a parameter value that indicates that the UE is capable of receiving, from the base station on a downlink, a radio resource control parameter that identifies a first maximum number

of layers that the base station will use to transmit to the UE on the downlink in at least one set of frequency resources of a radio frequency, RF, spectrum band (1405) and wherein the capability information does not comprise the indication that the UE is capable of receiving the radio resource control parameter that identifies a maximum number of layers if the UE is a legacy UE;

transmitting, to the UE in response to the received capability information, the radio resource control parameter that identifies the first maximum number of layers (1410) that the base station will use to transmit to the non-legacy UE, wherein the first maximum number of layers is an updated value of a second maximum number of layers previously configured for legacy UEs for downlink transmissions; and

transmitting, according to the first or second maximum number of layers, signals to the UE using the at least one set of frequency resources (1415).

9. The method of claim 8, further comprising:

determining a downlink control information format for the UE based at least in part on the first or second maximum number of layers; and

transmitting, to the UE, at least on downlink control information signal according to the determined downlink control information format.

10. The method of claim 8, wherein the at least one set of frequency resources comprises a bandwidth part, or a subband, or a combination thereof, of the RF spectrum band.

11. The method of claim 8, wherein transmitting the signals to the UE according to the first or second maximum number of layers comprises:

transmitting the signals to the UE using a number of layers equal to or less than the first or second maximum number of layers.

12. 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:

transmit capability information wherein the capability information comprises, if the UE is a non-legacy UE, a parameter value that indicates that the UE is capable of receiving, from a base station on a downlink, a radio resource control parameter that identifies a first maximum number of layers that the base station will use to transmit to the UE on the downlink in at least one set of frequency resources of a radio frequency, RF, spectrum band and wherein the capability information does not comprise the indication that the UE is capable of receiving the radio resource control parameter that identifies a maximum number of layers if the UE is a legacy UE;

receive, from the base station in response to the transmitted capability information comprising the parameter value, the radio resource control parameter that identifies the first maximum number of layers) that the base station will use to transmit to the non-legacy UE, wherein the first maximum number of layers is an updated value of a second maximum number of layers previously configured for legacy UEs for downlink transmissions; and

receive, according to the first or second maximum number of layers, signals from the base station using the at least one set of frequency resources.

13. The apparatus of claim 12, wherein the instructions are further executable by the processor to cause the apparatus to perform the method of any of claims 1 to 7.

14. 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:

receive, from a user equipment, UE, capability information wherein the capability information comprises, if the UE is a non-legacy UE, a parameter value that indicates that the UE is capable of receiving, from the base station on a downlink, a radio resource control parameter that identifies a maximum number of

layers that the base station will use to transmit to the UE on the downlink in at least one set of frequency resources of a radio frequency, RF, spectrum band and wherein the capability information does not comprise the indication that the UE is capable of receiving the radio resource control parameter that identifies a maximum number of layers if the UE is a legacy UE;

transmit, to the UE in response to the received capability information, the radio resource control parameter that identifies the maximum number of layers that the base station will use to transmit to the non-legacy UE, wherein the first maximum number of layers is an updated value of a second maximum number of layers previously configured for legacy UEs for downlink transmissions; and

transmit, according to the first or second maximum number of layers, signals to the UE using the at least one set of frequency resources.

15. The apparatus of claim 14, wherein the instructions to receive the capability information are executable by the processor to cause the apparatus to perm the method of any of claims 8 to 11.