

Claims

1. A method for use in a network node, the method comprising:

determining (1202, 1402) a plurality of parameters per carrier frequency, including a first parameter for performing a first type of signal measurements on a first carrier frequency and a second parameter for performing a second type of signal measurements on the first carrier frequency, wherein the plurality of parameters indicates a maximum number of beams to be used by a wireless device for signal measurements in a cell, and wherein the second type of signal measurements is different than the first type of signal measurements; and

communicating (1204, 1404A, 1404B, 1404C) the plurality of parameters to the wireless device.

2. A network node (20), comprising:

processing circuitry (24) operable to:

determine a plurality of parameters per carrier frequency, including a first parameter for performing a first type of signal measurements on a first carrier frequency and a second parameter for performing a second type of signal measurements on the first carrier frequency, wherein the plurality of parameters indicates a maximum number of beams to be used by a wireless device for signal measurements in a cell, and wherein the second type of signal measurements is different than the first type of signal measurements; and

a wireless interface (22) operable to communicate the plurality of parameters to the wireless device.

3. The network node of Claim 2, wherein the first type of signal measurements comprise at least one of the following types of signal measurements: measurements of cell specific reference signals, measurements of synchronization signals, or radio resource management, RRM, measurements and, optionally,

wherein the second type of signal measurements comprise another one of the following types of signal measurements: measurements of cell specific reference signals, measurements of synchronization signals, or radio resource management, RRM, measurements

4. The network node of any one of Claims 2-3, wherein the wireless interface is operable to communicate the at least one parameter per carrier frequency in system information common for all wireless devices and/or

wherein the wireless interface is operable to communicate the at least one parameter per carrier frequency in dedicated signaling to the wireless device.

5. The network node of any one of Claims 2-4, wherein:

the processing circuitry is further operable to determine one or more cell-specific offsets, each cell-specific offset associated with a specific cell such that the wireless device adjusts the value of the at least one parameter according to the cell-specific offset when performing the first type of signal measurements of the specific cell; and

the wireless interface is further operable to send the one or more cell-specific offsets to the wireless device and, optionally,

wherein the one or more cell-specific offsets are configured per carrier frequency.

6. The network node of any one of Claims 2-5, wherein:

the processing circuitry is further operable to determine a UE-specific offset based on the beamforming capabilities of the wireless device; and

the wireless interface is further operable to send the wireless device the UE-specific offset such that the wireless device adjusts the value of the at least one parameter according to the UE-specific offset and/or

wherein the at least one parameter is signaled from the network node to the wireless device in a measurement object, MeasObject, information element.

7. A method for use in a wireless device, the method comprising:

receiving (1302, 1404A, 1404B, 1404C), from a network node, a plurality of parameters per carrier frequency, including a first parameter for performing a first type of signal measurements on a first carrier frequency and a second parameter for performing a second type

of signal measurements on the first carrier frequency, wherein the plurality of parameters indicates a maximum number of beams to be used by the wireless device for signal measurements in a cell, and wherein the second type of signal measurements is different than the first type of signal measurements; and

using (1304, 1406) the plurality of parameters.

8. A wireless device (10), comprising:

an interface (12) operable to receive, from a network node, a plurality of parameters per carrier frequency, including a first parameter for performing a first type of signal measurements on a first carrier frequency and a second parameter for performing a second type of signal measurements on the first carrier frequency, wherein the plurality of parameters indicates a maximum number of beams to be used by the wireless device for signal measurements in a cell, and wherein the second type of signal measurements is different than the first type of signal measurements; and

processing circuitry (14) operable to use the plurality of parameters.

9. The wireless device of Claim 8, wherein the first type of signal measurements comprise at least one of the following types of signal measurements: measurements of cell specific reference signals, measurements of synchronization signals, or radio resource management, RRM, measurements and, optionally,

wherein the second type of signal measurements comprise another one of the following types of signal measurements: measurements of cell specific reference signals, measurements of synchronization signals, or radio resource management, RRM, measurements.

10. The wireless device of Claim 8 or 9, wherein the at least one parameter per carrier frequency is received in system information common for all wireless devices.

11. The wireless device of any one of Claims 8-10, wherein the at least one parameter per carrier frequency is received in dedicated signaling to the wireless device and/or

wherein the processing circuitry is further operable to:

configure the wireless device with one or more cell-specific offsets, each cell-specific offset associated with a specific cell such that the wireless device adjusts the value of the at least one parameter according to the cell-specific offset when performing the first type of signal measurements of the specific cell.

12. The wireless device of any one of Claims 8-11, wherein the one or more cell-specific offsets are configured per carrier frequency.

13. The wireless device of any one of Claims 8-12, wherein the processing circuitry is further operable to:

detect the cell-specific offset of a new cell; and
report the cell-specific offset of the new cell to the serving cell.

14. The wireless device of any one of Claims 8-13, wherein the processing circuitry is further operable to:

configure the wireless device with a UE-specific offset associated with the particular wireless device such that the wireless device adjusts the value of the at least one parameter according to the UE-specific offset.

15. The wireless device of any one of Claims 8-14, wherein the at least one parameter is received from the network node in a measurement object, MeasObject, information element.