2. CSI-RS energy is summed across all ports of a CSI-RS resource mapped to the same RE.

SUMMARY

[0014] Various aspects of examples of the disclosure are set out in the claims.

[0015] According to a first aspect of the present disclosure, an apparatus comprising:at least one processor; and at least one memory including computer program code the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus at least to: select an integer number N of channel state information reference signal (CSI-RS) resources out of an integer number of N_{TRP} network configured CSI-RS resources to a resource set associated with a CSI report configuration, wherein $N < N_{TRP}$; determine a scaling factor for the resource set, wherein when $N0 < N_{TRP}$, the scaling factor unequal to one; determine at least one CSI component comprising one or more of PMI, RI or CQI, based at least in part on an assumption that a ratio of a transmitted energy per resource element (EPRE) of a PDSCH signal and a transmitted EPRE of the nth CSI-RS resource is equal to the scaling factor times a power control offset configured for the nth CSI-RS resource of the resource set, wherein $n \in [1, N]$; and transmit a CSI report to a network comprising the determined at least one CSI component.

[0016] According to a second aspect of the present disclosure, a method comprising: selecting an integer number N of channel state information reference signal (CSI-RS) resources out of an integer number of N_{TRP} network configured CSI-RS resources to a resource set associated with a CSI report configuration, wherein $N < N_{TRP}$; determining a scaling factor for the resource set, wherein when $N0 < N_{TRP}$, the scaling factor unequal to one; determining at least one CSI component comprising one or more of PMI, RI or CQI, based at least in part on an assumption that a ratio of a transmitted energy per resource element (EPRE) of a PDSCH signal and a transmitted EPRE of the nth CSI-RS resource is equal to the scaling factor times a power control offset configured for the nth CSI-RS resource of the resource set, wherein $n \in [1, N]$; and transmitting a CSI report to a network comprising the determined at least one CSI component.

[0017] According to a third aspect of the present disclosure, a non-transitory computer-readable medium encoded with instructions, or a computer program, that, when executed by a processor cause an apparatus to at least to: select an integer number N of channel state information reference signal (CSI-RS) resources out of an integer number of N_{TRP} network configured CSI-RS resources to a resource set associated with a CSI report configuration, wherein $N < N_{TRP}$; determine a scaling factor for the resource set, wherein when $N0 < N_{TRP}$, the scaling factor unequal to one; determine at least one CSI component comprising one or more of PMI, RI or CQI, based at least in part on an assumption that a ratio of a transmitted energy per resource element (EPRE) of a PDSCH signal and a transmitted EPRE of the nth CSI-RS resource is equal to the scaling factor times a power control offset configured for the nth CSI-RS resource of the resource set, wherein $n \in [1, N]$; and transmit a CSI report to a network comprising the determined at least one CSI component.

[0018] According to a fourth aspect of the present disclosure, an apparatus comprising means for: selecting an integer number N of channel state information reference signal (CSI-RS) resources out of an integer number of N_{TRP} network configured CSI-RS resources to a resource set associated with a CSI report configuration, wherein $N < N_{TRP}$; determining a scaling factor for the resource set, wherein when $N0 < N_{TRP}$, the scaling factor unequal to one; determining at least one CSI component comprising one or more of PMI, RI or CQI, based at least in part on an assumption that a ratio of a transmitted energy per resource element (EPRE) of a PDSCH signal and a transmitted EPRE of the nth CSI-RS resource is equal to the scaling factor times a power control offset configured for the nth CSI-RS resource of the resource set, wherein $n \in [1, N]$; and transmitting a CSI report to a network comprising the determined at least one CSI component.

[0018a] According to an aspect, the present disclosure refers to a computer program comprising instructions which, when the program is executed by a computer, cause the computer to perform: selecting an integer number N of channel state information reference signal (CSI-RS) resources out of an integer number of N_{TRP} network configured CSI-RS resources to a resource set associated with a CSI report configuration, wherein $N < N_{TRP}$; determining a scaling factor for the resource set, wherein when $N0 < N_{TRP}$, the scaling factor unequal to one; determining at least one CSI component comprising one or more of PMI, RI or CQI, based at least in part on an assumption that a ratio of a transmitted energy per resource element (EPRE) of a PDSCH signal and a transmitted EPRE of the nth CSI-RS resource is equal to the scaling factor times a power control offset configured for the nth CSI-RS resource of the resource set, wherein $n \in [1, N]$; and transmitting a CSI report to a network comprising the determined at least one CSI component.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] For a more complete understanding of example embodiments of the present invention, reference is now made to the following descriptions taken in connection with the accompanying drawings in which:

[0020] FIGURE 1 illustrates an example of a multi-TRP system;

[0021] FIGURE 2 illustrates various embodiments of the present invention; and