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(54) **BEAM FAILURE DETECTION FOR SINGLE-DCI BASED MULTI-TRP SCHEMES**

(71) Applicant: **Telefonaktiebolaget LM Ericsson (publ)**, Stockholm (SE)

(72) Inventors: **Siva MURUGANATHAN**, Stittsville (CA); **Shiwei GAO**, Nepean (CA)

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(57) **ABSTRACT**

A method, network node and wireless device (WD) for beam failure detection for single downlink control information (DCI) based multi-transmission reception point (TRP) schemes. In one embodiment, a network node is configured to configure the WD with at least one control resource set (CORESET). The network node is also configured to activate at least two transmission configuration indicator (TCI) states. Further, the network node is configured to determine at least one beam failure resource set, each beam failure resource set including a beam failure detection reference signal (BFD-RS), where a BFD-RS is a quasi-colocation (QCL) Type D source in at least one of the at least two activated TCI states for at least one CORESET