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Ali et al.(10) **Pub. No.: US 2023/0231683 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **DEMODULATION REFERENCE SIGNAL
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Vijay Nangia, Woodridge, IL (US)(21) Appl. No.: **18/008,428**(22) PCT Filed: **Jun. 5, 2021**(86) PCT No.: **PCT/IB2021/054941**

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(2) Date: **Dec. 5, 2022****Related U.S. Application Data**(60) Provisional application No. 63/035,566, filed on Jun.
5, 2020.(57) **ABSTRACT**

Apparatuses, methods, and systems are disclosed for enhanced DM-RS configuration. One apparatus in a mobile communication network includes a processor and a transceiver that receives a first indication of a configuration for Demodulation Reference Signal ("DM-RS"), where the DM-RS configuration includes a plurality of DM-RS configuration types. The transceiver also receives a second indication to autonomously switch among the plurality of DM-RS configuration types based on a configured subcarrier spacing value for a channel. The processor performs single channel estimation from multiple indicated antenna ports using the DM-RS configuration.

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