Utilizing Carrier Aggregation for Even Beam Distribution in 3D Beamforming

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***Abstract*—3D beamforming is a highly attractive issue in 5G telecommunication. Equipped with 2D antenna arrays, it allows vertical sectorization within a cell as well as horizontal one, by making a beamforming zone for the corresponding sector. However, there is considerable inequality among the areas of beamforming zone. The farther from the base station, the bigger the beamforming zone area is. In this paper, we propose to utilize carrier aggregation (CA) for relieving the uneven beamforming zone area problem and prove this method is more efficient in improving cell throughput especially in mmWave environment.**

***Keyword*—3D Beamforming, Carrier Aggregation, 5G Telecommunication**

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