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The minimum distance of new generalisations of the punctured binary Reed-Muller codes.
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Summary: In 2018, *C. Ding* et al. [*Finite Fields Appl.* 53, 144–174 (2018; [Zbl 1393.94928](#))] introduced a new generalization of the punctured binary Reed-Muller codes to construct LCD codes and 2-designs. They studied the minimum distance of the codes and proposed an open problem about the minimum distance. In this paper, several new results on the minimum distance of the generalized punctured binary Reed-Muller are presented. Particularly, some of the results are a generalization or improvement of previous results in the paper cited above.

MSC:

[94B15](#) Cyclic codes
[94B05](#) Linear codes (general theory)
[94B65](#) Bounds on codes

Keywords:

[Reed-Muller code](#); [generalized Reed-Muller code](#); [cyclic code](#)

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