Title: Units in $FD_{2p}$

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In this paper, we present the structure of the group of $*$-unitary units in the group algebra $FD_{2p}$, where $F$ is a finite field of characteristic $p > 2$, $D_{2p}$ is the dihedral group of order $2p$, and $*$ is the canonical involution of the group algebra $FD_{2p}$. We also provide the structure of the maximal $p$-subgroup of the unit group $U(FD_{2p})$ and compute a basis of its center.

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