

ABSTRACT

Let $M(k)$ be the Mitchell-Priddy summand, which is constructed by Mitchell and Priddy [1]. Mitchell and Priddy [1] also showed that $M(k) \cong L(k) \vee L(k-1)$. We show that $\tilde{H}^*(L(k))$ is a free E -module for $k = 2, 3$, where E is the exterior algebra generated by Q_0 and Q_1 . Then the connective K -theory of $L(k)$ splits into copies of $H\mathbb{Z}/2$, the $\mathbb{Z}/2$ Eilenberg-Mac Lane spectrum, for $k = 2, 3$. Hence $M(3)$ splits into copies of $H\mathbb{Z}/2$.

