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\mathbb{Z}_2 -graded associative algebras arise both in physics and mathematics. We study here the 3|2-dimensional complex associative algebras, constructing the moduli space of isomorphism classes of such algebras using the notion of extensions of algebras of lower dimension, which means we can use our knowledge of lower dimensional algebras to construct the higher dimensional ones. We also study the deformations of these algebras, which we analyze by computing a special type of deformation called a versal deformation. This moduli space is stratified by some projective orbifolds of a very simple type, and we describe this stratification. (Received September 26, 2017)