962-20-695 **Jon F Carlson*** (jfc@sloth.math.uga.edu), Department of Mathematics, University of Georgia, Athens, GA 30602, and **Jacques Thévenaz** (Jacques.Thevenaz@@ima.unil.ch), Institut de Mathématiques, Université de Lausanne Lausanne, Switzerland. *Torsion Endotrivial Modules.* Preliminary report.

Let G be a finite group and k a field of characteristic $p > 0$. A kG-module M is an endotrivial module if $Hom_k(M, M)$ is the direct sum of a trivial kG-module and a projective kG-module. Equivalence classes of endotrivial modules modulo projective direct summands form a group under tensor product. The torsion free part of the group is detected on restriction to elementary abelian subgroups of rank two. In earlier work we showed that for G a p-group the torsion endotrivial modules are detected on extraspecial and almost extraspecial subgroups. In addition we were able to eliminate some cases when the prime p is odd. For the case that $p = 2$, we can show that many of the low rank extraspecial and almostextra special groups have no nontrivial torsion endotrivial modules. It seems likely that the techniques can be generalized to give a compete answer in even charactersitic case. (Received September 21, 2000)