

STEP Prototype Accelerometer Development Status

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We report on recent progress in the manufacture and test of STEP (Satellite Test of the Equivalence Principle) prototype flight accelerometers. We have assembled for the first time a complete set of quartz housings (9 components) for an engineering model inner accelerometer. The accumulated dimensional errors have been calculated, checked by CMM, and used to validate the STEP baseline housing design. Requirements on housing alignment (for CMRR of 10^{-4}) and concentricity have been met. We have also completed the manufacture of “brass-board” inner accelerometers, currently under cryogenic test. We will discuss the impact of our recent test results on the baseline design of the inner accelerometer, status of the outer accelerometer design, and our plans for an accelerometer design review in October 2006.