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KARATE - A Setup for High Rate Tests of the CMS Outer Tracker 2S Module Readout Chain

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KARATE (KArlsruher high RATE TEst) is a new test system to stress the readout chain of 2S modules for the future CMS Outer Tracker. Standard test systems such as test beams or radioactive source measurements do not reach the occupancy and trigger rates expected on 2S modules. KARATE uses a combination of LEDs and photodiodes to inject variable hit patterns into the front-end of a CMS Binary Chip at 40 MHz. This gives the opportunity to compare injection patterns with readout patterns. The poster introduces the test system and summarizes high rate measurements of a CMS Binary Chip.

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