

RTM Module based on DRS-4 waveform digitizing chip.

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Many experiments require a digitization of short signals. The DRS-4 chip provides 9 capacitive pipelines of 1000 cells each for sampling analog signals with a frequency of up to 5 GHz. Upon a trigger the pipelines are digitized at lower frequency. We are currently designing a 16-channels waveform digitizing module based on four DRS-4 chips. Two pipelines are reserved per input channel to minimize the dead time. Sampled signals are digitized with 12-bit multichannel ADCs at 40MHz. Every channel is equipped with a comparator for self-triggering and external trigger is possible as well. The module is built as RTM module according to MTCA.4 specifications.

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