

DAMC-X3TIMER: Status Update on Hardware, Firmware, and Timing Infrastructure for PETRA IV

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The DAMC-X3TIMER, a dedicated MTCA.4 AMC module, serves as the central component of the Timing and RF-Distribution System for the PETRA IV accelerator. Initial hardware prototypes have been produced, with the next revision now in production.

This presentation outlines the planned timing system infrastructure, emphasizing the DAMC-X3TIMER's role in the PETRA IV accelerator complex. It also covers key insights from the hardware bring-up phase, including technical challenges and solutions, as well as the current firmware development status and its integration with the hardware.

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