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Status and upgrade of the visible light diagnostics port for energy spread measurements at KARA

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At the visible light diagnostic (VLD) port at the Karlsruhe Research Accelerator (KARA), it is possible to measure the energy spread of electron bunches by measuring the horizontal bunch profile of the incoherent synchrotron radiation. KALYPSO, a MHz-rate line-array detector has been used to measure the bunch profile. Recently, the KALYPSO system has been upgraded to a version incorporating a microstrip sensor based on TILGAD. The performed measurements have shown that the overall sensitivity of the system was significantly improved, which enables measurements at low bunch charges. In this contribution, a brief overview of the upgraded setup and preliminary measurement results will be presented.

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Footnotes

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