

# Low Level RF Workshop 2022



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## Status of the LLRF system for ESS related in-kind project by PEG

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The single cavity field regulation systems, with active cavity resonance control, systematically complete the ESS project linac infrastructure. This LLRF system has a modular design provided by the MTCA.4 electronic standard choice. Thanks to this feature, the PEG (Polish Electronic Group) consortia members could develop and deliver individual components of the system. The work realized in the frame of the in-kind project includes hardware and low-level software development of the chosen sub-modules and overall LLRF system integration and installation in the dedicated part of the ESS linac.

This work summarizes the PEG efforts towards various hardware components development and production (eq. RTM-Carrier, LO-RTM, PiezoDriver RTM, Pin-diode, Electron pick-up, etc). It also summarizes endeavours involving the delivered HW units firmware preparation and work on the systems integration and installation. Finally, it discusses the challenges encountered by PEG during the project realization and implementation.

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