

# Low Level RF Workshop 2022



9-13 Oct 2022, Brugg-Windisch, Switzerland



Contribution ID: 14

Type: **Poster**

## DLLRF for ALBA 3rd Harmonic System

*Wednesday, October 12, 2022 2:31 PM (1 minute)*

ALBA is a 3rd generation synchrotron light source located in Cerdanyola del Vallès (Barcelona, Spain). The facility comprises a 3 GeV electron storage ring (SR), injected from a 110 MeV Linac through a full energy booster synchrotron. The RF system consists of six normal conducting cavities in the storage ring, fed with IOT based transmitters that are able to provide up to 3 MV to the beam.

In the framework of the 3rd harmonic cavity project for the ALBA-II upgrade, a Digital LLRF for the 1.5 GHz RF system based in the commercially available MTCA.4 digitizer and downconverter boards provided by Struck Innovative Systeme has been developed. The main hardware components, the basic firmware functionalities and real measurements of the DLLRF system for the 3rd harmonic cavities will be presented.

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**Session Classification:** Poster Session

**Track Classification:** Low Level RF Workshop 2022