Contribution ID: 1 Type: not specified

## Precision Timing & Advanced RF Solutions for Particle Accelerators

Wednesday 3 December 2025 11:30 (15 minutes)

KVG Quartz Crystal Technology GmbH is a professional frequency control products manufacturer, focusing on research, development, production and sales. High-end crystal oscillators are our specialty. We cooperate with DESY for the production and test of the Master Oscillator (MO) module, the Local Oscillator Generation (DeRTM-LOG) module and X-Band middleware. The MO provides 1.3 GHz reference for modern accelerators with excellent phase noise, sub-fs jitter and high-power output. The DeRTM-LOG module is a critical component in LLRF systems generating local oscillator, RF reference and clock signals for the MicroTCA.4 standard. Currently the DeRTM-LOG 1.3GHz and 1.5GHz are available. X-Band middleware, including X-band Local Oscillator Generation Module (XLOGM) and X-band Downconverter Module and Upconverter (XDWCM\_UPC), are employed to convert between the S-band 3 GHz and X-band 12 GHz frequencies.

Author: BAI, Jiaoni (KVG Quartz Crystal Technology GmbH)

Presenter: BAI, Jiaoni (KVG Quartz Crystal Technology GmbH)

Session Classification: Session 4