Eighth CW and High Average Power RF Workshop



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Status and Operation of the ALBA RF System

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Status and Operation of the ALBA RF System

J.Ocampo, B.Bravo, A.Salom, F.Perez

Abstract

ALBA is a 3 GeV, 400 mA, 3rd generation Synchrotron Light Source in operation for users since May 2012, in Barcelona, Spain. The RF System has to provide 3.6 MV of accelerating voltage and restore up to 540 kW of power to the electron beam. For that six RF plants, working at 500 MHz, are in operation. A RF plant includes a Dampy cavity (HOM damped) which is feed by two 80 kW IOT amplifiers combined via CaCo; a cavity combiner; and a Digital LLRF fully designed at ALBA using commercial components. Operation with a single IOT is also made possible thanks to the CoStub, a Coaxial Short to isolate the non-operational IOT from the CaCo. This presentation shortly describes the actual status of these systems and reports their performance since the start of the ALBA operation. It also covers the commissioning status of the new RF test laboratory, which is powered by a 80kW IOT amplifier and will be capable of testing either the Dampy cavity or the 5 cell cavity of the Booster.

Primary author: Mr OCAMPO PÉREZ, Jesús Ramón (CELLS-ALBA)

Co-authors: SALOM SARASQUETA, Angela (Synchrotron ALBA); BRAVO, Beatriz (CELLS); PEREZ, Francis

(CELLS-ALBA)

Presenter: Mr OCAMPO PÉREZ, Jesús Ramón (CELLS-ALBA)

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