

Pushing the ELBE CW RF-System to high Average Beam Current

ACCELERATOR R&D WORKSHOP DRESDEN March 14/15 2013

With the expansion of the radiation source ELBE a center for high power radiation sources is being built at the HZDR. Within this framework the available CW RF-power (1.3 GHz) per 9-cell TESLA cavity at ELBE had been increased from 8.5 kW to 20 kW (CW) using solid state amplifiers.

During the 1 ½ day workshop we would like to share information and experiences in high beam current CW operation among designers, industrial partners and users of superconducting CW-LINACs.

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Kuntzsch, Michael	HZDR
Igor Rutkowski	DESY
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AGENDA: Pushing The ELBE CW RF-System To High Average Beam Current Accelerator R&D Workshop at Helmholtz Zentrum Dresden – Rossendorf (HZDR)

Thursday, March-14: Location: InterCity Hotel, Wiener Platz 8, 01069 Dresden

SESSION A: Projects based on ELBE Technology Chair: Hartmut Büttig

Time	Presenter	Title
09:25	Peter Michel / HZDR	Welcome
09:30	Peter Michel / HZDR	ELBE Upgrade
10:00	Avni Aksoy / TARLA	TARLA project
10:30	Coffee	
10:50	Wolfgang Anders / HZB	BERLinPRO
11:20	Robert Nietubic / NCNR	PolFEL
11:50	Alan Wheelhouse /STFC/ASTeC	ALICE RF and Future Develop. Testing
12:20	Lunch	

SESSION B: Solid State Amplifier RF-Sources Chair: Jochen Teichert

Time	Presenter	Title
13:30	Helmut Piel / Cryoelectra	New concept for high eff. 1.3GHz SSHPA
14:00	Olivier Gonella / BRUKER	Last evolution on RF-SSPA
14:30	Wolfgang Anders / HZB	TX at BERLinPRO and new TX for BESSY2
15:00	Hartmut Büttig / HZDR	Substitution of Klystrons by SSPA at ELBE
15:30	Coffee	

SESSION C: Making It Work Chair: Wolfgang Anders

Time	Presenter	Title
15:45	Hartmut Büttig / HZDR	Matching the 20kW SSPA system to ELBE

16:15	Rico Schurig / HZDR	Thermal Problems during high current CW OP
16:45	Andree Büchner / HZDR	Upgrade / Performance of the Analog LLRF at ELBE
17:15	Gerald Staats / HZDR	Higher Gradients at ELBE
17:45	Peter Michel / HZDR	Discussion and Summary
18:15	To close the session	

- 18:45 Bus-Shuttle to Restaurant Luisenhof
- 19:30 Dinner at Restaurant Luisenhof
- 22:15 Bustransfer to InterCity Hotel

Friday, March-15: Location: HZDR-Rossendorf, Bldg. 620, Lecture Hall

- 08:45 Bus-Shuttle to HZDR (Rossendorf)

SESSION D: Special Topics and ELBE Chair: Avni Aksoy

Time	Presenter	Title
09:30	Nico Pupeter / Cryoelectra	ATCA based Digital LLRF System
10:00	Matthias Hoffmann / DESY	Single cavity RF controls based on MTCA.4
10:30	Gerald Staats / HZDR	RF-Component Conditioning with Resonant Ring
11:00	Peter Michel / HZDR	To close the Workshop
11:05	Coffee	
11:20	Visit ELBE and Resonant Ring	
12:30	Lunch at HZDR	

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