ILC Workshop on Potential Experiments (ILCX2021)



Contribution ID: 300

Type: Oral presentation using Zoom

RF power system of ILC by all solid-state amplifiers.

Thursday, 28 October 2021 16:10 (20 minutes)

1300MHz Solid State Amplifier that can provide 200kW of 1.6m sec pulse width at 10pps max becomes available with reasonable cost. The latest LDMOS silicon semiconductor devices, NXP's 800W-CW and 1600W-Pk devices, have been implemented and tested successfully.

This amplifier can feed each cavity, which eliminates the complex RF distribution system required for high power Klystrons (MBKs). Though the LLRF system may become a little complex, the adjustments for cavities become independent, which will add a variety of flexibilities in the operation.

1st preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

2nd preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

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Session Classification: W-2: Green ILC

Track Classification: Parallel sessions: Sustainability: Session W: Green ILC