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Odin klystron modulator for high power applications

Tuesday 12 August 2025 16:00 (2 hours)

Stangenes Industries is developing a novel klystron driver capable of peak modulator powers of 160MW and average powers of 320kW to drive a variety of high-powered electron-sources. The all-solid-state modulator consists of Marx-generators driving parallel primaries of a pulse transformer achieving output voltages of over 500kV. Over 3000 hours of internal lifetime testing on the primary pulsing components have proven the ruggedness of the design.

Pulse flat-tops of 0.1%/us are achievable with real-time klystron feedback, coupled with an optimization algorithm that automatically adjusts pulse parameters. Pulse RMS stabilities of less than 100ppm are necessary in many applications and require careful tuning of the charging elements.

For over 50 years Stangenes Industries has designed a built high quality electromagnetic components allowing for great advancements in science and industry. Stangenes is the logical choice for electron source drivers for pulsed electron guns, magnetrons, gyrotrons, and klystrons. All products manufactured by Stangenes Industries are made in the United States.

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No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: YECKEL, Christopher (Stangenes Industries)

Presenter: YECKEL, Christopher (Stangenes Industries)

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