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Testing Omega P's 650 KW, 1.3 GHZ Low-Voltage Multi-Beam Klystron for the Project X Pulsed LINAC

Cooperative Research and Development Final Report

CRADA Number: FRA-2013-0002

FERMI Technical Contact: Ralph Pasquinelli

Summary Report
10 August 2014

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NOTICE

In accordance with Requirements set forth in Article XI.A(3) of the CRADA document, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of federally funded research.

CRADA number: FRA 2013-0002

CRADA Title: Testing Omega P's 650 KW, 1.3 GHZ Low-Voltage Multi-Beam Klystron for the Project X Pulsed LINAC

Parties to the Agreement: Omega-P Inc. and Fermi Research Alliance

Abstract of CRADA work:

Omega-P Inc. had developed a multi beam 1.3 GHz klystron (MBK) for the Project X pulsed linac application. Testing of the klystron require a special hardware such as a modulator, RF components, control system, power supplies, etc, as well as associated infrastructure(electricity, water, safety). This is an expensive part of klystron development for which Omega-P does not have the required equipment. Fermilab will test the MBK at Fermilab site providing contribution to the project all the necessary facilities, infrastructure and manpower for MBK test performance and analysis.

Summary of Research Results:

Originally Fermilab and Omega-P planned to test Omega-P's multi beam 13.GHz Klystron. However, the need for a multi beam 1.3 GHz klystron for the former Project X no longer existed mid fiscal year 2014. Omega-P realized the project as initially conceived was no longer viable, so they contacted DOE to ask for a change of scope and it was granted. This essentially cancelled Fermilab's involvement in the project.

Subject Inventions listing: None

Report Date: 7/31/14

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10 August 2014