

3.

300-W CW TWT Amplifier

A two-octave TWT radio-frequency (rf) amplifier is utilized as an rf power source for rf component testing. The amplifier has a nominal maximum rf power output of 300-W CW over a frequency range of 2 to 8 GHz. The amplifier system also includes a broadband output circulator that can be configured to provide reflected power protection for the amplifier when driving over-coupled superconducting rf cavity structures. In this protected configuration, the amplifier has a maximum rf power output of 250 W over a frequency range of 2.7 to 3.1 GHz.

Examples of use:

- Test and characterization of Short-Pulse X-ray superconducting rf deflecting cavities



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