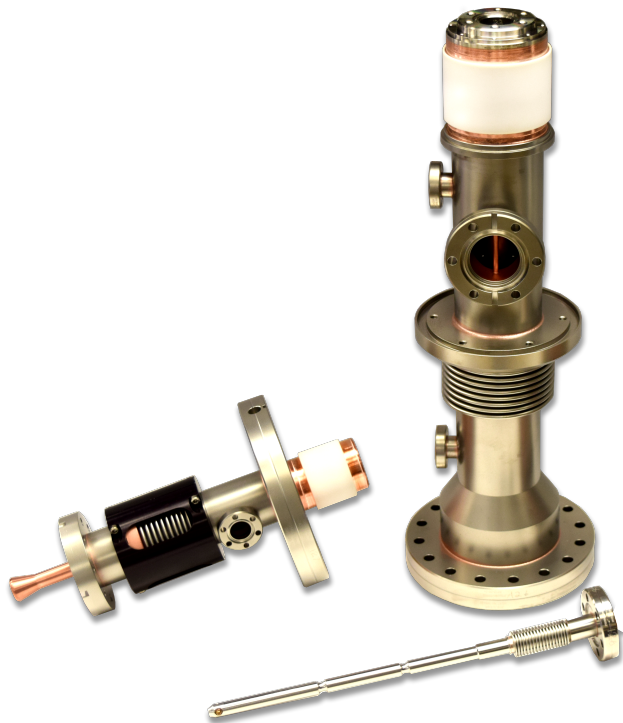


CPI Electron Device Business - Power Coupler



The VWP3135 Fundamental Power Coupler is also known as the LCLS-II Power Coupler. The VWP3135 Power Coupler is based on the XFEL Power Coupler, with the coupler modified to operate CW. The VWP3135 utilizes two ceramic cylinders to provide the vacuum interface. The ceramics are coated with titanium nitride to suppress multipactor. RF-conducting surfaces are electroplated with high-RRR copper. CW operation is enabled by a thicker copper plating on the inner conductor of the “warm” section of the coupler. The VWP3135 is primarily a brazed and electron-beam welded assembly. The VWP3135 is cleaned and assembled in CPI EDB’s class 10 (ISO 4) clean room to LCLS-II standards and baked out at CPI EDB before being assembled onto cryomodules at Jefferson Lab and Fermi Lab for incorporation into the LCLS-II accelerator at SLAC.

FEATURES:

- Frequency: 1300 MHz
- Peak power: 7 kW
- Average power: 7 kW
- Cooling: Air

BENEFITS:

- Can handle 7 kW full reflected power
- Design is based on the proven XFEL power coupler
- Full class 10 (ISO-4) cleaning assembly and bake out at CPI

APPLICATIONS:

- LCLS-II superconducting linear accelerator