

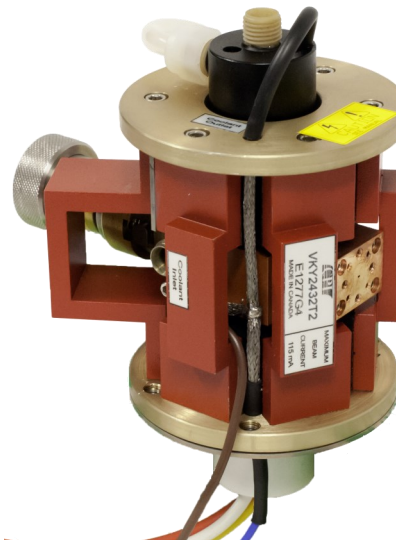
HIGH POWER mmW OSCILLATOR

263 GHz 5 Watt CW Oscillator

Model VKY2432 is a water-cooled continuous wave (CW) Extended Interaction Klystron Oscillator (EIO) designed for Dynamic Nuclear Polarization (DNP) but also used for instrumentation and other scientific applications.

Frequencies are available from 220 GHz to 270 GHz producing up to 10 Watts of CW power with a -3 dB electronic tuning range of 300 MHz. This high power vacuum electron device (VED) is remarkably compact, has long life and stable output.

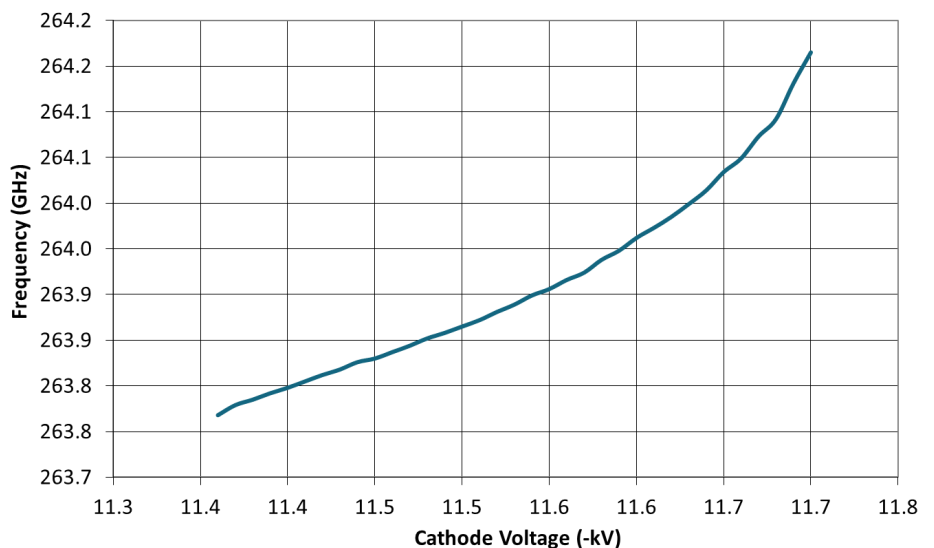
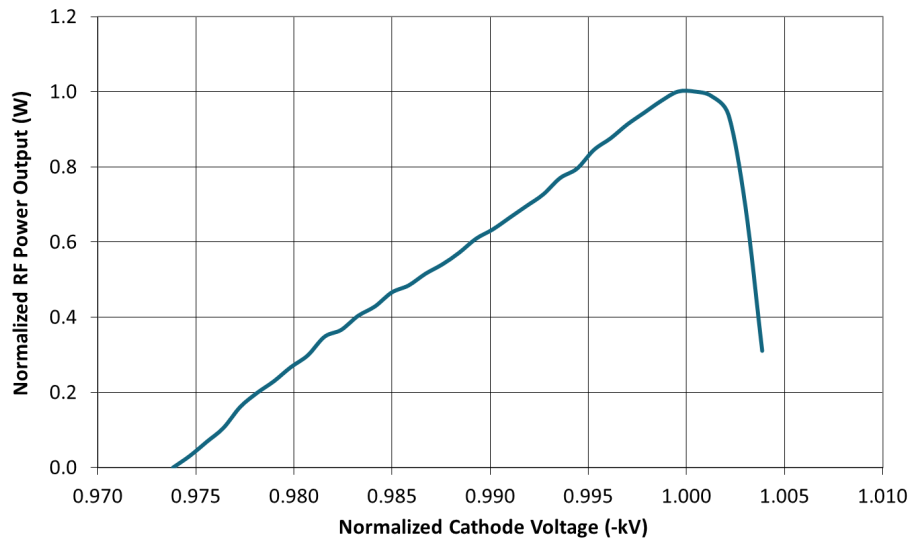
The VKY2432 series of EIOs may be integrated with the CPI VPW2827 series power supply and VJB2002 series heat exchanger resulting in a compact self-contained and highly reliable transmitter subsystem.

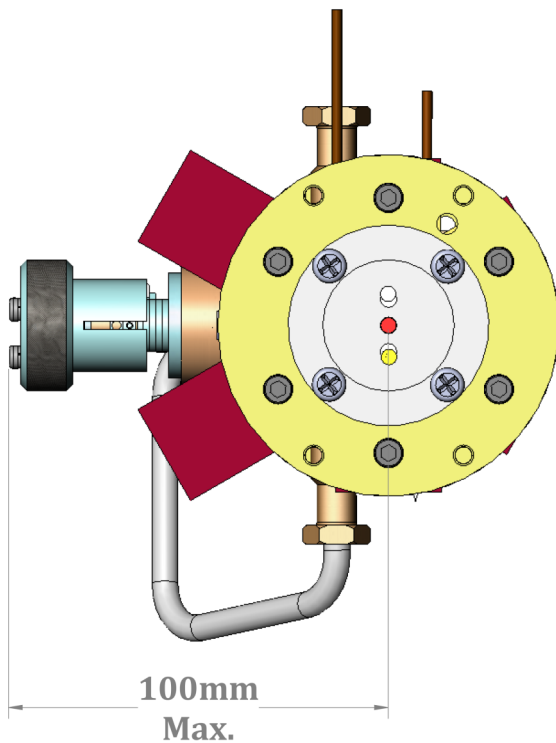
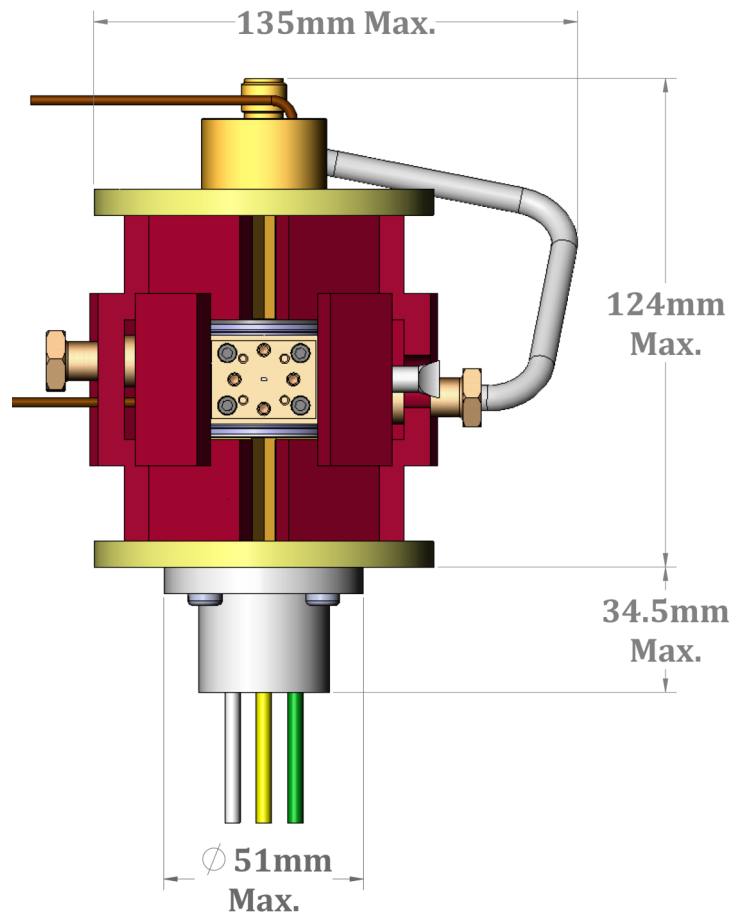
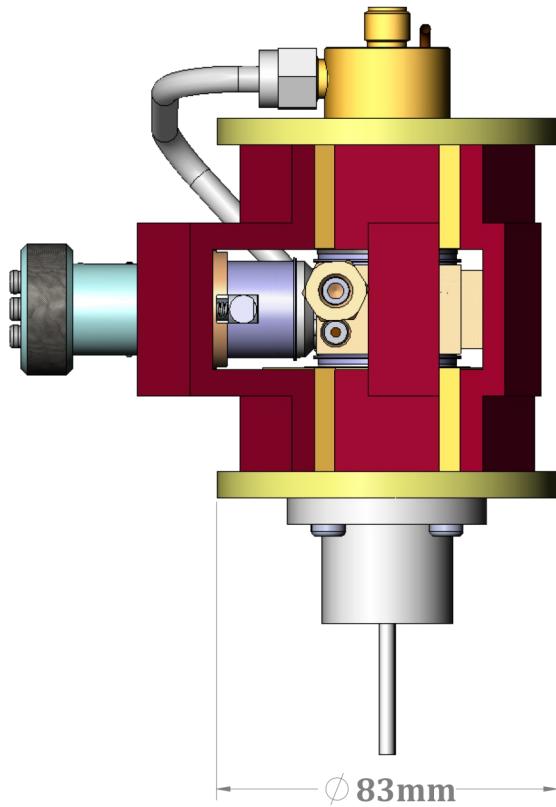


Model VKY2432

| Features | |
|---------------------------|-----------------------------|
| Center Frequency | 263 GHz |
| Power Output (CW) | 5 W |
| Tuning Range Mechanical | 2,000 MHz |
| Cathode Voltage | -11 kV |
| Cathode Current | 117 mA |
| Anode Voltage | 5.5 kV |
| Temperature Operating | +5 to +30 °C |
| Temperature Non-operating | -40 to +60 °C |
| Humidity | 95% relative non-condensing |
| Altitude | 3,000 m |

| Cooling | |
|---------------------|-----------------|
| Type | Deionized Water |
| Temperature Coolant | +5 to +30 °C |
| Flow Rate | 2 l/min |
| Pressure Drop | 200 kPa max. |





Mechanical

| | |
|--------------------------|--|
| Waveguides | WR-4 |
| Flanges | UG-387/U-M MIL-F-3922/67B-M05 |
| Power Supply Connections | Color Coded Flying Leads 450 mm Max. Length |
| Weight | 4.0 kg Max. |

Options

| |
|---|
| Fixed Center Frequency from 220 to 270 GHz |
| Electric Motor Tuning of ± 1 GHz |
| Power Supply |
| Temperature Controlled, De-ionized and Filtered Water Heat Exchanger |