

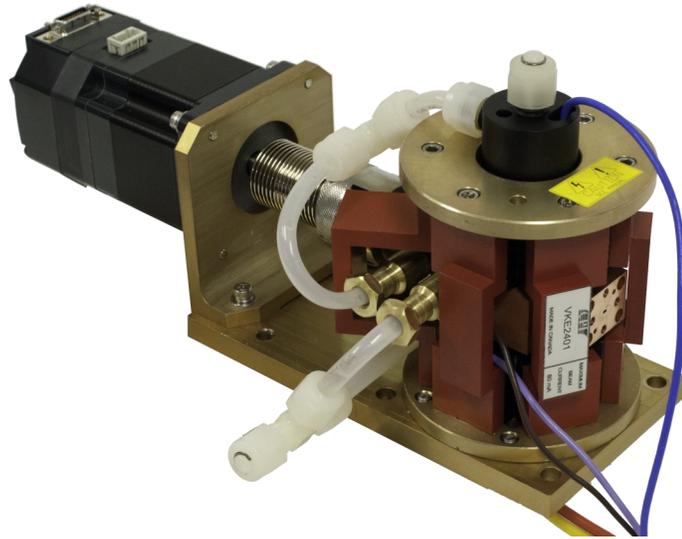
# HIGH POWER mmW OSCILLATOR

## 70 GHz 25 W CW Oscillator

Model VKE2401 is a water-cooled continuous wave (CW) Extended Interaction Klystron Oscillator (EIO) used for instrumentation and scientific applications.

Frequencies are available from 50 GHz to 80 GHz producing up to 25 Watts of CW power with a -3 dB electronic tuning range of 130 MHz and a motorized mechanical tuning range of 3 GHz. This high power vacuum electron device (VED) is remarkably compact, has long life and stable output.

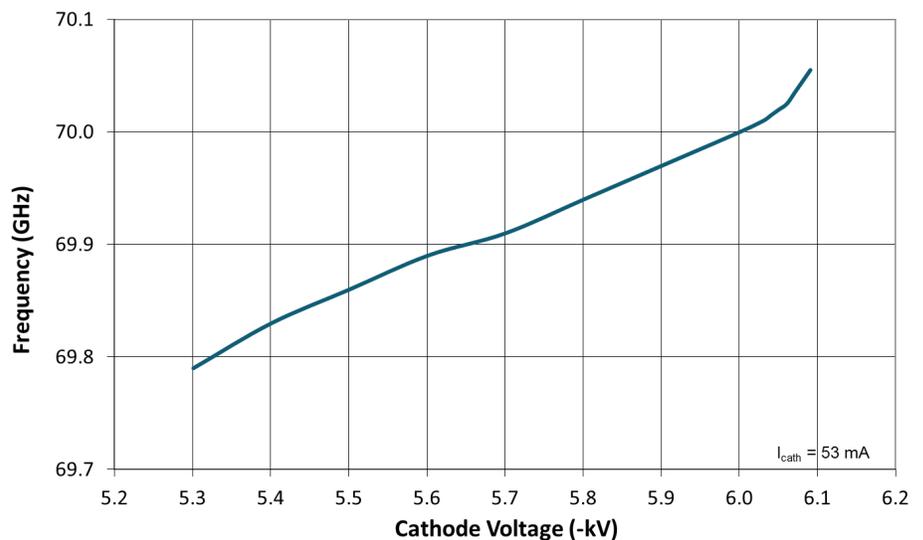
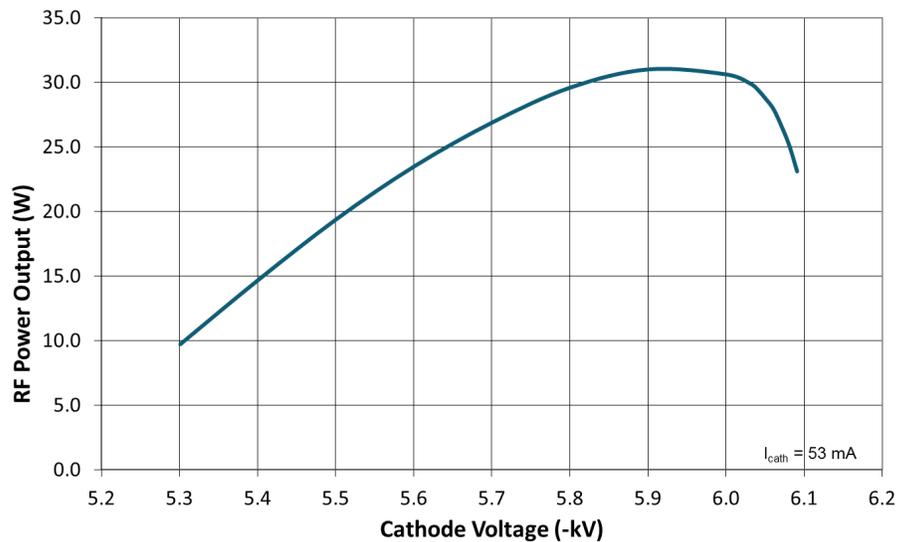
The VKE2401 series of EIOs may be integrated with the CPI VPW2827 series power supply and VJB2002 series heat exchanger resulting in a compact self-contained and highly reliable transmitter subsystem.

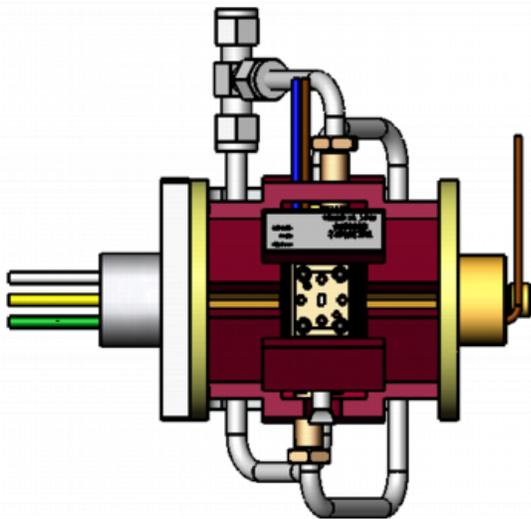
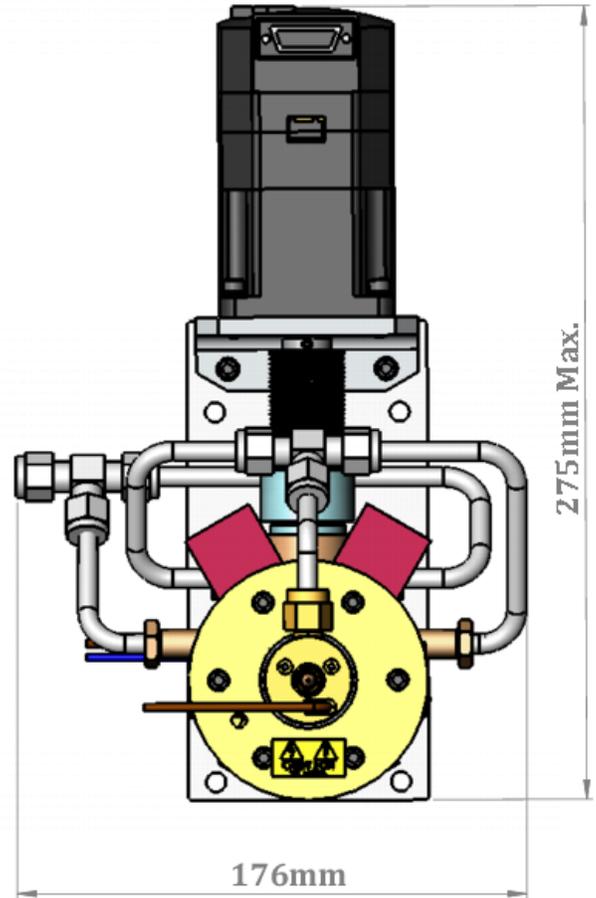
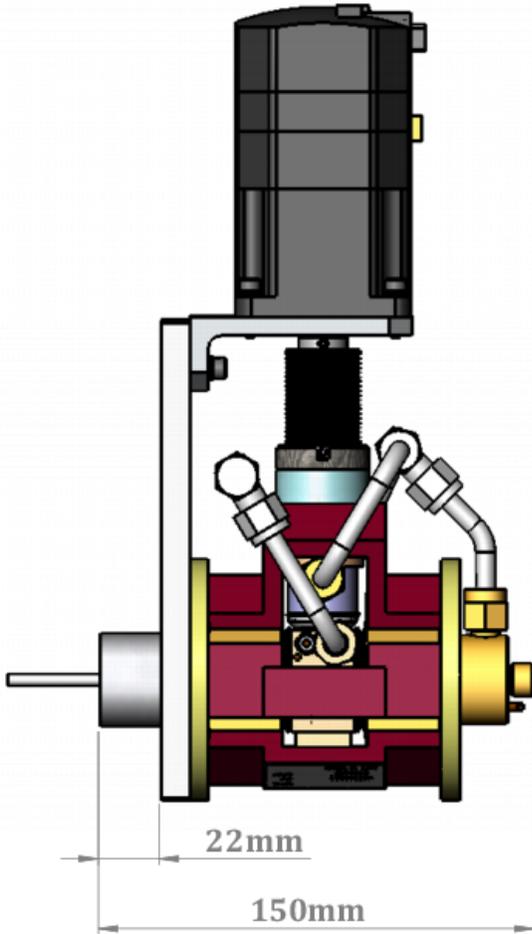


Model VKE2401

Features	
Center Frequency Range	50 to 80 GHz
Power Output (CW)	25 W
Tuning Range Mechanical	3,000 MHz
Cathode Voltage	-6.5 kV
Cathode Current	100 mA
Anode Voltage	+2.5 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	1.5 l/min
Pressure Drop	200 kPa max.





## Mechanical

Waveguides	WR-15
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 in the range of 50 to 80 GHz

Stepper Motor Tuning of  $\pm 1.5$  GHz

Power Supply, DC or AC Prime Power

Temperature Controlled, De-ionized and Filtered  
Water Heat Exchanger