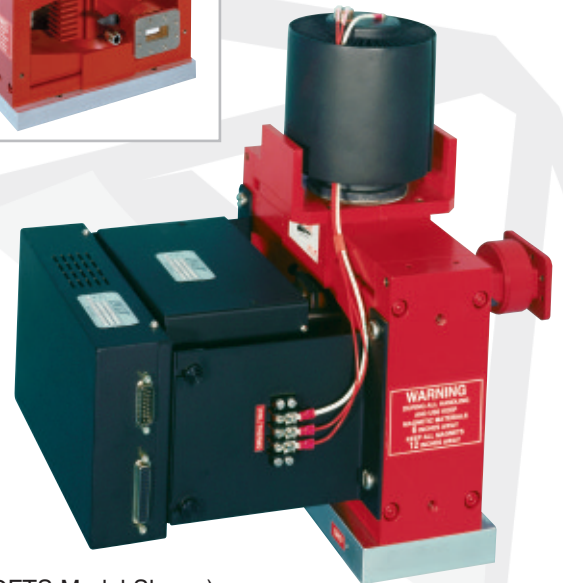
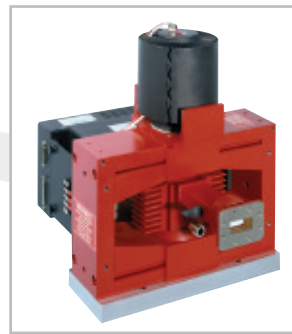


C-Band Klystrons

VA936/VKC7936 Series

The VA936/VKC7936 Series of klystron is designed for use in ground based earth-to-satellite communication amplifiers. The VA936/VKC7936 Series is available in various configurations and frequency ranges to suit customer's exact requirements. This family of klystrons has output power specifications ranging from 1500 to 3350 watts over 40 or 45 MHz of instantaneous bandwidth. These klystrons can be configured to provide users with 6,12, or 24 channel configurations thus allowing operators to select preset center frequencies within seconds. As an option, Digital Fast Tuner System (DFTS) channel changers are available for sub-second selection of up to 50 channels.



(DFTS Model Shown)

RF and Electrical Specifications

Frequency Range (Channel Centers)

| | |
|-----------------------|--------------------|
| VA936/VKC7936G, and L | 5.925 to 6.425 GHz |
| VA936/VKC7936J | 5.925 to 6.425 GHz |
| VA936/VKC7936R, and T | 5.850 to 6.425 GHz |
| VKC 7936W | 5.945 to 6.455 GHz |
| VKC 7936X | 5.945 to 6.435 GHz |
| VKC 7936Y | 5.850 to 6.480 GHz |

Output Power

| | |
|---------------------|-------|
| VA936/VKC936J and T | 1500W |
| VA936/VKC7936G | 3000W |
| other models | 3350W |

Instantaneous Bandwidth-minimum at -1 dB points

| | |
|---------------------|--------|
| VA936/VKC936J and T | 40 MHz |
| other models | 45 MHz |

Gain - minimum (at rated power)

| | |
|---------------------|-------|
| VA936/VKC936J and T | 37 dB |
| other models | 40 dB |

Beam Voltage - maximum

| | |
|---------------------|---------|
| VA936/VKC936J and T | 6.8 kV |
| VA936/VKC7936G | 8.15 kV |
| Other Models | 8.3 kV |

Beam Current - maximum

| | |
|---------------------|---------|
| VA936/VKC936J and T | 0.825 A |
| other models | 1.15 A |

Heater Voltage - nominal 6.0 V

Heater Current - typical 6.0 A

Physical Characteristics

| | |
|--------------------------|------------------------------------|
| Dimensions | See outline drawings. |
| Weight - approximate | 70 lb (32 kg) |
| Operating Orientation | Collector up |
| Cooling | Forced Air |
| collector flow - minimum | |
| VA936/VKC7936J and T | 375 lb/hr (170 kg/hr) |
| other models | 1000 lb/hr (450 kg/hr) |
| body flow - minimum | 90 lb/hr (41 kg/hr) |
| RF Connectors | |
| output | Mates with CPR-137F flange |
| input | Mates with type "N" plug, UG-21D/U |
| Focusing | Integral permanent magnet |

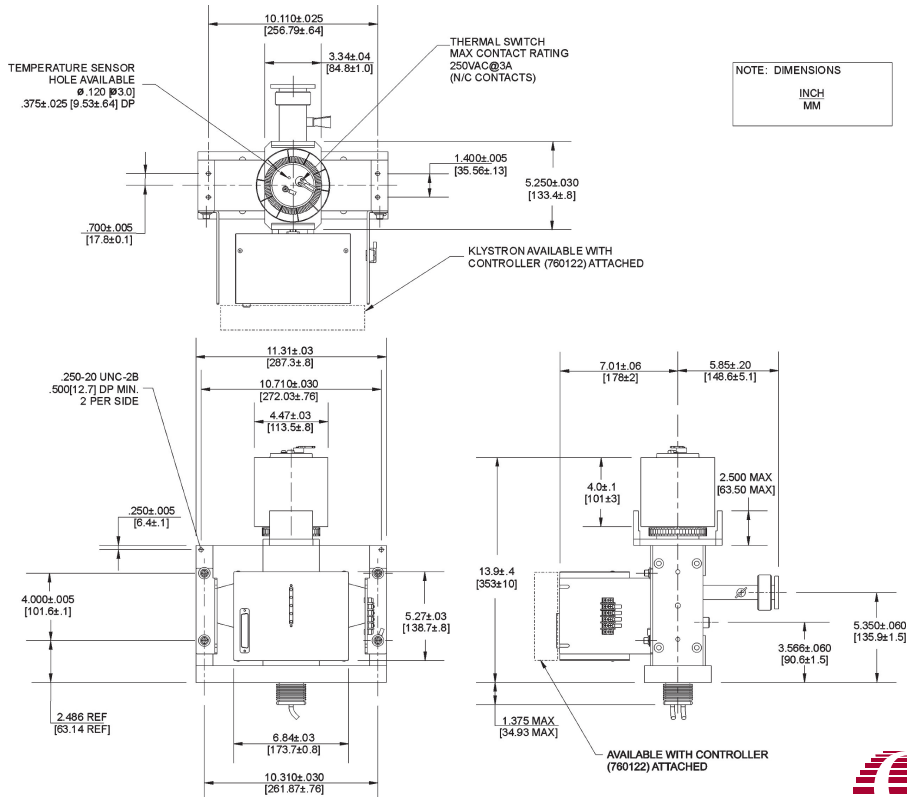
VA936/VKC7936 Series

Typical Characteristics

| Type | Frequency Range (GHz)*Note 1 | Instantaneous Bandwidth (MHz)*Note 2 | Output Power (W) | Gain (dB) | Beam Voltage (kV) | Beam Current (mA) |
|----------------|------------------------------|--------------------------------------|------------------|-----------|-------------------|-------------------|
| VA936/VKC7936J | 5.925 - 6.425 | 45 | 1550 | 40 | 6.8 | 0.83 |
| VA936/VKC7936T | 5.850 - 6.425 | 50 | 1550 | 40 | 6.8 | 1.10 |
| VA936/VKC7936G | 5.925 - 6.425 | 50 | 3100 | 43 | 8.15 | 1.10 |
| VKC7936L | 5.925 - 6.425 | 50 | 3450 | 44 | 8.3 | 1.10 |
| VKC7936R | 5.850 - 6.425 | 50 | 3450 | 44 | 8.3 | 1.10 |
| VKC7936W | 5.945 - 6.455 | 50 | 3450 | 44 | 8.3 | 1.10 |
| VKC7936X | 5.945 - 6.435 | 50 | 3450 | 44 | 8.3 | 1.10 |
| VKC7936Y | 5.850 - 6.480 | 50 | 3450 | 44 | 8.3 | 1.10 |

- Note 1: Frequencies listed are channel centers.
- Note 2: Bandwidth measured at -1dB points.
- For full specifications please contact CPI.

Sample Outline Drawing



For complete information on the full VA936/VKC7936 Series and other klystrons used in satellite communications, please contact your local CPI office, or CPI Canada Inc.



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