C-Band Klystrons VKC2486 - High C-Band Series

The High C-Band klystron series is designed for use in ground based earth-to-satellite communication amplifiers. This family of klystrons has output power specifications ranging from 3000 to 3450 watts over 40 MHz of bandwidth. With the exception of the VKC2486B and E which are single channel, the klystrons in this series can be configured to provide users with 6, 12, or 24 channels. These channels settings allow 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.



RF and Electrical Specifications

Center Channel Frequency Range

VKC2486A 6.700 to 7.050 GHz

VKC2486B, and E 7.050 GHz

VKC2486C 7.145 to 7.235 GHz VKC2486D 6.720 to 7.200 GHz

Output Power - minimum at -1 dB points VKC2486E 3350W other models 3000W

Instantaneous Bandwidth - minimum at -1 dB point

VKC2486A, C, and D 40 MHz VKC2486B, and E 50 MHz

Gain - minimum

VKC2486A 40 dB VKC2486B 37 dB Other models 39 dB

Beam Voltage - maximum 10.0 kV

Beam Current - maximum 1.25A

Body Current - maximum 50 mA

- typical

5 mA

Heater Voltage - nominal 6.0 V Heater Current - maximum 7.0 A

- typical 6.1 A

Physical Characteristics

Dimensions See outline drawing.

Weight - approximate 70 lb (32 kg)

Operating Orientation Any - normally collector up

Cooling Forced Air

collector flow - minimum 1000 lb/hr (455 kg/hr) body flow - minimum 90 lb/hr (41 kg/hr)

RF Connectors output

output

VKC2486 Mates with CPR-137F

flange

Other Models Mates with CPR-137

flange

input Mates with type "N" plug,

UG-21D/U

Focusing Integral permanent

magnet



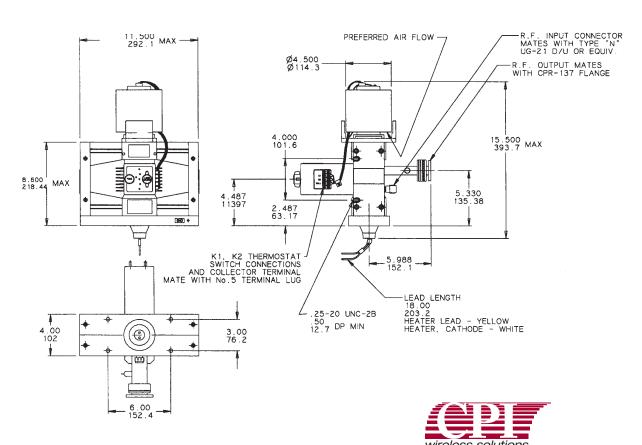
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Typical Characteristics

Туре	Frequency Range (GHz)*Note 1	Instantaneous Bandwidth (GHz)*Note 2	Output Power (W)	Gain (dB)	Beam Voltate (kV)	Beam Current (mA)
VKC2486A	6.700 - 7.050	43	3083	48	8.3	1.14
VKC2486B	7.050	52	3100	41	8.3	1.15
VKC2486C	7.145 - 7.235	45	3200	42	8.6	1.15
VKC2486D	6.700 - 7.200	45	3400	42	8.7	1.15
VKC2486E	7.050	52	3400	43	8.6	1.13

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

Typical Outline Drawing



For complete information on the full High C-Band Series and other klystrons used in satellite communications, please contact your local CPI office, or CPI Canada Inc. Communications & Power Industries Canada Inc.
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