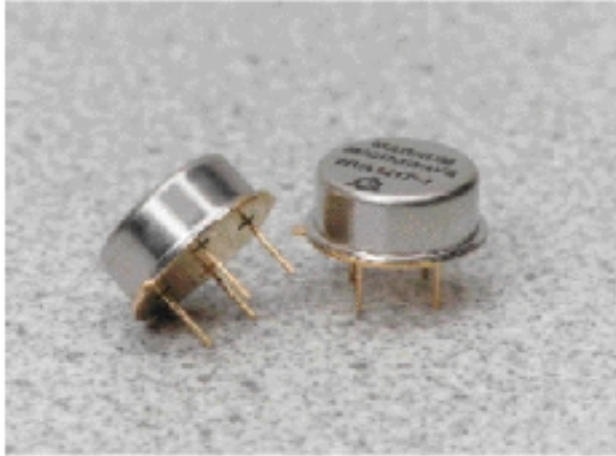


VCOs for Optical Clock Data Recovery

Low Cost Solutions for High Performance Requirements



FEATURES

- 2.5 Gbit and 10Gbit Frequencies
- Low Phase Noise (Jitter)
- High Output Power
- Low Temperature Drift
- High Reliability Hybrid Assembly

Description

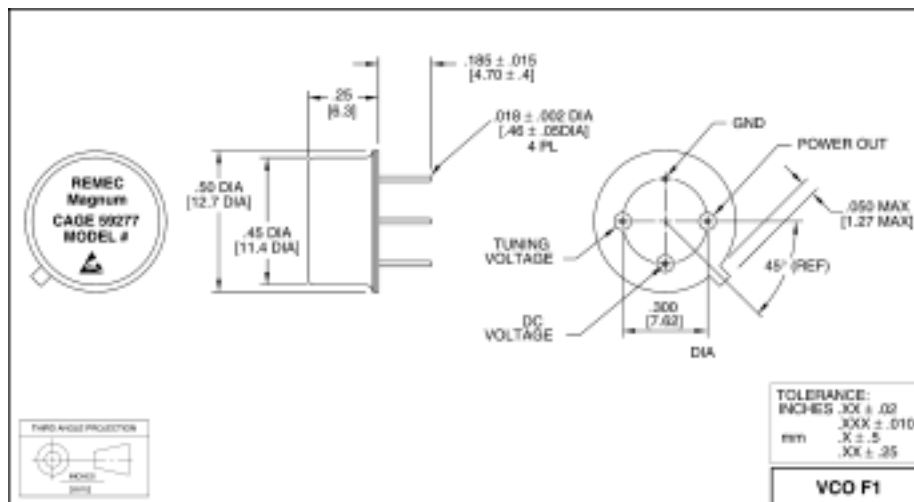
REMEC offers high reliability voltage controlled oscillators for optical clocking or clock and data recovery appliances at 2.5 Gbit (OC -48/SDH-16) or 10 Gbit (OC -192/SDH -64). Both standard clock rate and forward error correction (FEC) data rate units are available in hermetically sealed packages. Low phase noise results in low jitter performance and low temperature drift insures stable operation over the lifetime of the system. REMEC Magnum has over 15 years experience in the volume production of VCOs for avionics, spacecraft, instruments and communications networks.

VCO APPLICATIONS

- ☐ Microwave Radio
- ☐ Satellite Communications
- ☐ Avionics
- ☐ Test Equipment
- ☐ Optical Communications Systems (OC-48/SDH-16 and OC-192/SDH-64)

PACKAGING

- ☐ TO-8 Can
- ☐ Direct PWB Mounting
- ☐ Hermetic Enclosure
- ☐ Surface Mount Available



The Total Microwave Solution

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VCOs for Optical Clock Data Recovery

MODEL	HV71T-3	HV71T-14	HVA121T-1	HVA121T-2
Frequency	2.488 GHz	2.666 GHz	9.958 GHz	10.650 GHz
Output Power (50 Ohm Load at 25° C)	+9 to +13 dBm	+9 to +13 dBm	+9 to +13 dBm	+9 to +13 dBm
Power Variation (over temp)	1.0 dB max	1.0 dB max	1.6 dB max	1.6 dB max
Tuning Voltage*	+4 to +8 V	+4 to +8 V	+3 to +7 V	+3 to +7 V
Frequency Drift (over temp)	100 MHz	100 MHz	105 MHz	105 MHz
Frequency Pulling (12 dB Return Loss)	30 MHz	30 MHz	15 MHz	15 MHz
Frequency Pushing (± 1% Voltage Variation)	8 MHz/V	8 MHz/V	1 MHz/V	1MHz/V
Harmonics	-15 dBc	-15 dBc	-14dBc	-14 dBc
Spurious	-60 dBc max	-60 dBc max	-60 dBc max	-60dBc max
Phase Noise (offset)				
10 KHz	-70 dbc/Hz	-70 dbc/Hz	-53 dbc/Hz	-53 dbc/Hz
100 KHz	-94 dBc/Hz	-94 dBc/Hz	-80 dBc/Hz	-80 dBc/Hz
1 MHz	-118 dBc/Hz	-118 dBc/Hz	-102 dBc/Hz	-102 dBc/Hz
DC Power	+ 12 V ± 1% 60 mA max	+ 12 V ± 1% 60 mA max	+15 V ± 1% 60 mA max	+15 V ± 1% 60 mA max
Operating Temp	0 to +85 °C	0 to +85 °C	0 to +85 °C	o to +85° C
* NOTE: Minimum and maximum tuning voltage required to maintain center frequency under all conditions of lead variation, power supply variation and temperature.				

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