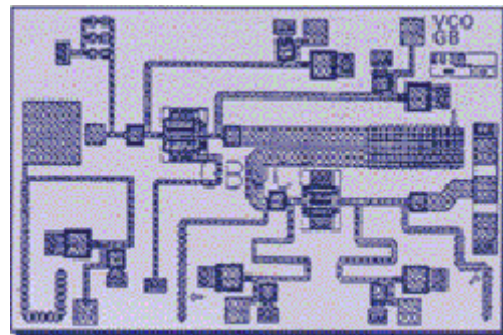


KA-BAND MMIC VCO

VCO-GB1730 (TLCO06981)

- 17 to 30 GHz
- Power Output > 16 dBm @ 24 GHz
- Tuning Bandwidth 100 MHz

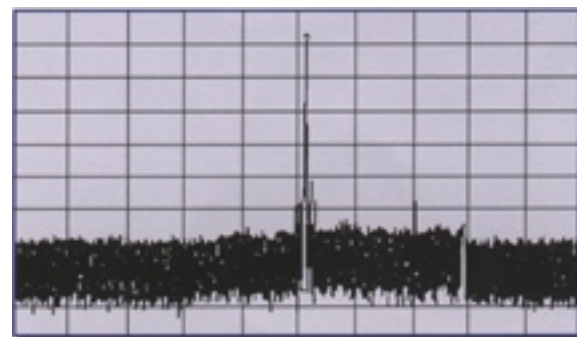


Size: 2.17 x 1.3 x 0.1 mm

DESCRIPTION AND APPLICATIONS

The VCO-GB1730 is a general purpose voltage controlled oscillator with both fundamental tuning from 17 to 30 GHz and fine bandwidth tuning of 1 GHz. A 0.25μm PHEMT process was chosen to provide > 16 dBm of output power at 24 GHz and low power consumption. Chip capacitors on the bias ports and series resistance in the gate bias help the unconditionally stable operations.

The versatility of the VCO-GB1730 makes it an excellent candidate for use in radar and communication systems.



PERFORMANCE SUMMARY

Parameter (@ 25°C)	Min	Typ	Max
Frequency (GHz)	17	24	30
P0 (dBm)	14	16	20

OPERATING CONDITIONS

$V_{gs} = -1.5V$ to $-1.1V$ $V_{ds} = 2.7V$ to $5.4V$
 $I_{ds} = 3.0mA$ to $34.2mA$

ASSEMBLY

Ti/Pt/Au metallization is used for the bond pads and backside which is compatible with eutectic die attach and thermocompression or thermosonic bonding. Either 3 mil Au ribbon or 1 mil Au wire may be used to connect the MMW and DC pads to the system.

Additional DC bypass capacitors (22 pf & 0.1 μf) are recommended.

The data contained in this data sheet is for information only. TLC reserves the right to change this product without notice.



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