



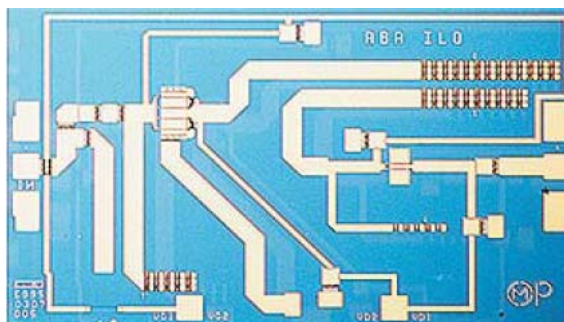
TLC004981

Ka-Band MMIC Oscillator (ILO)

Description The TLC004981 is an image lock oscillator with an output buffer amplifier. A 0.25µm PHEMT process was chosen to provide 10 dBm of output power at 27 GHz and low power consumption. The frequency is voltage and mechanically tunable.

The versatility of the TLC004981 oscillator make it an excellent candidate for use in radar or communication systems.

- Features**
- ❑ 25 to 27 GHz
 - ❑ Voltage Tuning (f_0) 800 MHz
 - ❑ $P_o > 10$ dBm @ 27 GHz



Maximum Ratings

Symbol	Parameter	Rating	Units
VG	Negative Supply Voltage	- 2	V
TC	Operating Temperature	- 50 to 130	° C
TSTG	Storage Temperature	- 65 to -150	° C

Performance Summary

Parameter (@ 25 °C)	Min	Typ	Max	Units
Frequency	25	27	28	GHz
P_o	--	16	--	dBm
P_N (@ 1 MHz DRO operation)	--	-87	-80	dBc/Hz
DC Power	--	540	740	mW

Operating Conditions Frequency input levels = 10 dBm
 $V_{gs-trans} = -0.6$ V $V_{ds-trans} = 5$ V

TLC can auto tune chip to maximize performance at customer target frequency and bias.

TLC reserves the right to change performance data and specifications without notice