

TLCO04981

Ka-Band MMIC Oscillator (ILO)

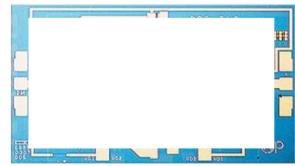
Description

The TLCO04981 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 TLCO04981 oscillator make it an excellent candidate for use in radar or communication systems.

Features

- □ 25 to 27 GHz
- □ Voltage Tuning (f₀) 800 MHz
- $P_0 > 10 \text{ dBm } @ 27 \text{ GHz}$



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	Тур	Max	Units
Frequency	25	27	28	GHz
Po		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.

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