

# KA-BAND MMIC AMPLIFIER

## TLCA06981

- 16 to 30 GHz
- Gain > 10 dB
- 2 stage
- Unconditionally stable



Size: 2.17 x 1.3 x 0.1 mm

### DESCRIPTION AND APPLICATIONS

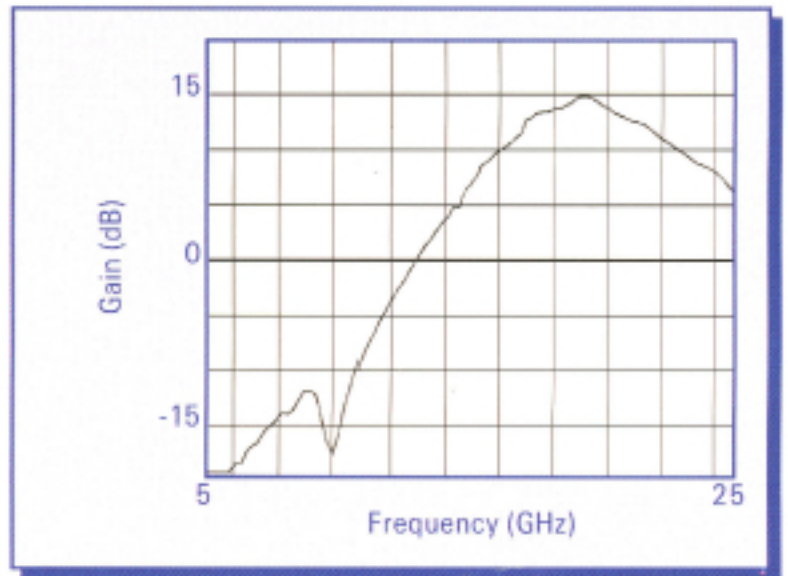
The TLCA06981 is a broadband, two-stage, general purpose MMIC amplifier. A 0.25um PHEMT process was chosen to provide 10dB of gain over 16 to 30 GHz with low power consumption. The broadband gain provided by the TLCA06981 makes it an excellent candidate for use in radar or communication systems.

### PERFORMANCE SUMMARY

PARAMETER (@ 25°)	MIN	TYP	MAX
Frequency GHz	16	-	30
Gain (dB)	10	12	15
DC Power (mW)	-	360	460

### TYPICAL OPERATING CONDITIONS

$V_{gs} = -0.30V$        $V_{ds} = 4.5V$   
Input Power Level = 10 dBm



### 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  $\mu$ f) are recommended but not necessary.

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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