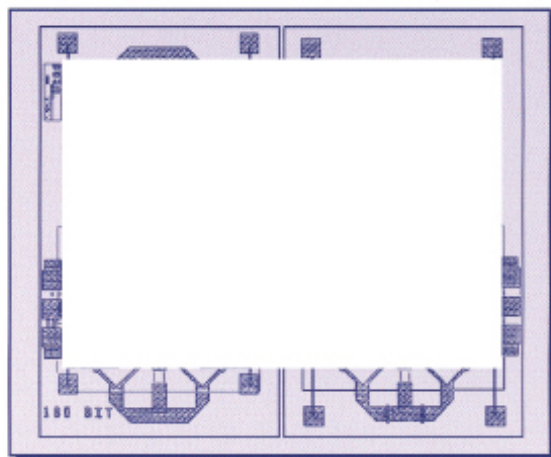


KA-BAND QPSK/BPSK PHASE MODULATOR

TLC PMLB01, 02, 03 & 04 Series

- 28 GHz to 40 GHz
- Insertion loss < 6 dB
- Direct phase modulation
- Fast switching (nsec)
- Negligible power consumption



Size: 2.6 x 2.17 x 0.1 m

DESCRIPTION AND APPLICATIONS

The VS-QPSK-PM is a delay line phase shifter which can be operated as a digital phase modulator for up to 5% fractional bandwidth.

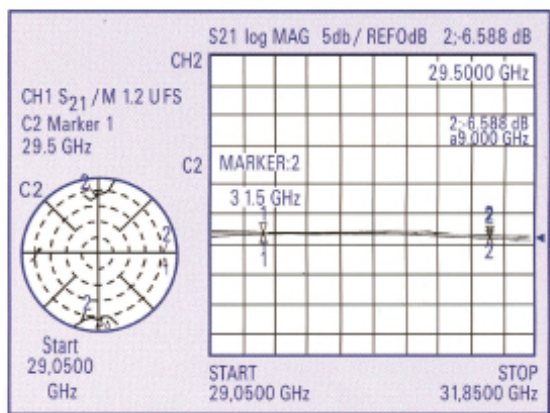
The flat insertion loss provided by the VS-QPSK-PM makes it an excellent candidate for use as a digital phase modulator in angle modulation communication systems.

PERFORMANCE SUMMARY

PARAMETER (@ 25°)	MIN	TYP	MAX
Frequency (GHz)	28	-	40
Insertion loss (dB)	-	6	-
Delta Insertion loss (dB)	-	1	-
DC Power (mW)	-	~0	-

TYPICAL OPERATING CONDITIONS

$V_{gs} = 0$ to 4.5V $V_{ds} = 0V$
Max Input Power Levels ≤ 23 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 μ 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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