

Preliminary

9.2 – 10.2 GHz 26 dBm MMIC
FEATURES

- P₂ dB: 26 dBm
- Small Signal Gain: 19 dB
- Bias Condition: 190 mA @ 8V

DESCRIPTION

The TC1073 is a two stages PHEMT medium power amplifier MMIC that operates from 9.2 to 10.2 GHz. The amplifier provides a minimum of 18 dB gain and delivers 26 dBm of P2dB. The MMIC is fabricated using Transcom's proprietary matured GaAs PHEMT process. The process features full passivation for increased performance and reliability. All devices are 100 % DC tested to assure consistent quality. Bond pads are gold plated for thermocompression wire bonding. Backside gold plating is compatible with standard AuSn die-attach.

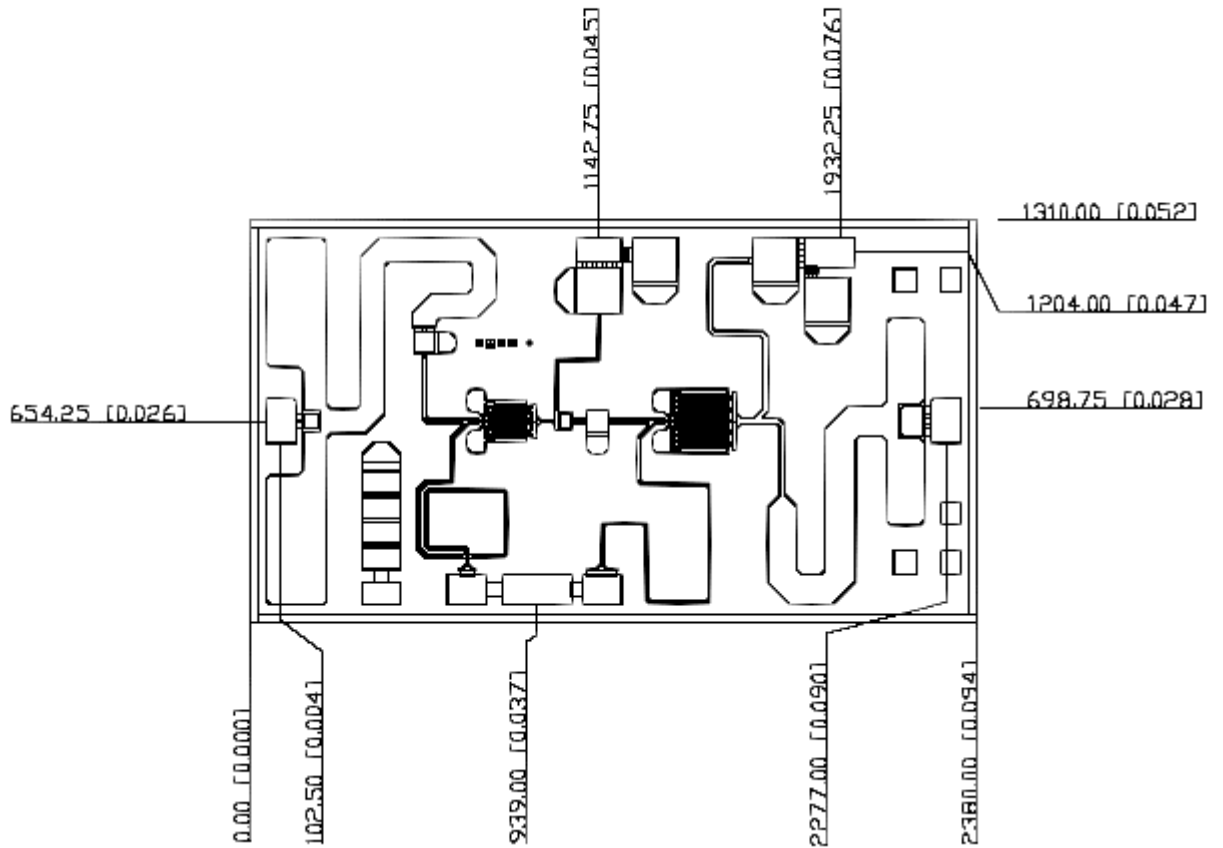
ELECTRICAL SPECIFICATIONS (T_A=25 °C)

Symbol	Conditions	MIN	TYP	MAX	UNIT
FREQ	Frequency Range	9.2		10.2	GHz
SSG	Small Signal Gain	18	19		dB
P2 dB	Output Power at 2 dB Gain Compression	25	26		dBm
VSWR, IN	Input VSWR		2.5:1		-
VDD	Supply Voltage		8		Volt
Vg	Gate Voltage		-1.0		Volt
IDD	Bias Current		190		mA
η_a	Power Added Efficiency		28		%

MECHANICAL OUTLINE

Units: micrometer (inch)

Thickness: 76.2 (0.003)

 Chip Size: $2380 \pm 50.8 \times 1310 \pm 50.8$ ($0.094 \pm 0.002 \times 0.0516 \pm 0.002$)


ASSEMBLY DIAGRAM

* Note: Using 1mil Au Wire

