

MCCI6472-P41-1

C-Band Internally Matched GaAs Device

Key Features

■ Operating Frequency: 6.40~7.20 GHz

■ P_{1dB} ≥ 41 dBm

■ Power Gain(Gp): ≥ 9.0dB

■ Efficiency (η): ≥ 38%

■ Port Matching: $Zin/Zout = 50 \Omega$



Product Description

The MCCI6472-P41-1 is a internal matching GaAs device, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 6.40~7.20GHz.

This device can be used in different RF/Microwave system and subsystem. The high output power, high efficiency and wide temperature range can make application very flexible.

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DS}	11	V
Gate-Source Voltage	V _G s	-5	V
Storage Temperature	T _{stg}	-65 ~ +150	°C
Channel Temperature	Tch	150	°C

^{*}Not recommended to work under these conditions.

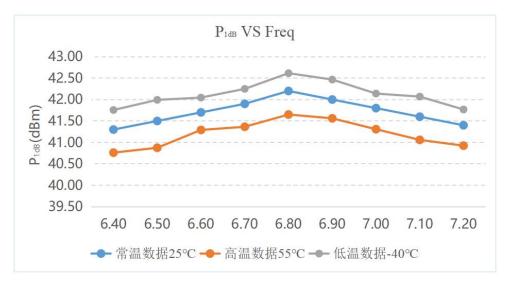
Microwave Electrical Characteristics

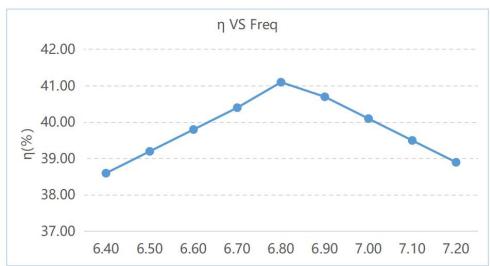
Parameter	Symbol	Test Condition	Min	Тур	Max	Unit
Drain Current	ldsr	VDS:10V CW Pin: 32dBm Freq: 6.4~7.2GHZ	-	3.3	-	Α
Output Power at 1dB	P _{1dB}		41	-	-	dBm
Power Gain	G₽		9	-	-	dB
Work Efficiency	η		38	-	-	%
Gain Flatness	ΔG		-0.8	-	0.8	dB

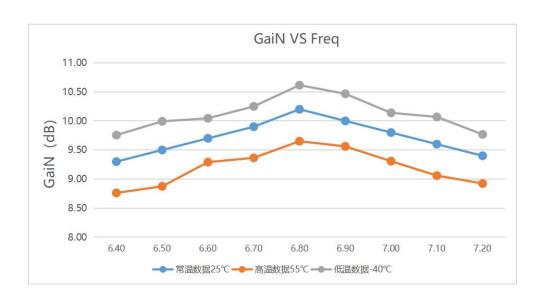


C-Band Internally Matched GaAs Device

Typical Curves





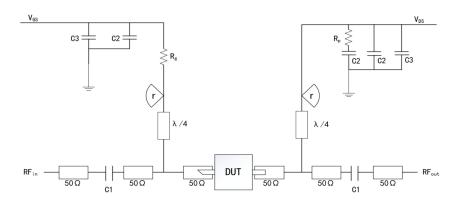






C-Band Internally Matched GaAs Device

Recommended Application Circuit



DUT: Device Under Test

C1:3pF Rp:51 Ω C2:1000pF Rg:15 Ω

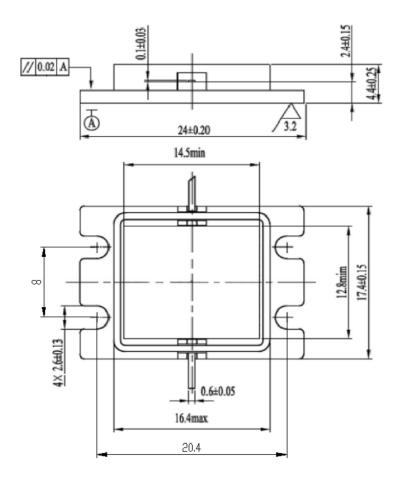
C3:100uF

Radius ≈ 4.5mm (Rogers 5880, 20 mil)

ESD Level

ESD	Class III	2000V
-----	-----------	-------

Overall Dimensions



Using Notes:

- During transportation and storage, ensure proper drying.
- During the use and assembly of the chip, take precautions against static electricity. Wear a grounded anti-static wristband.
- When powering on, apply gate voltage first, then apply leakage voltage.