

10 W Power Amplifier RFM0424-10

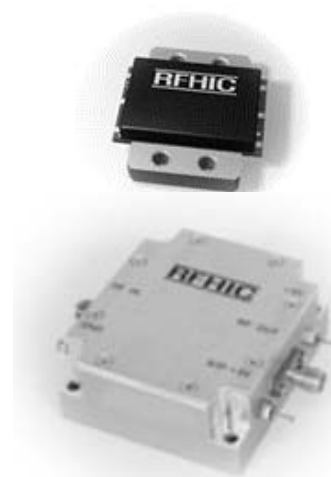
RFHIC

Product Features

- Small size by using simple matching circuit board
- High Efficiency
- Single Supply Voltage
- High Linearity, 10W Power
- Heat sink 99.9% copper, gold plate
- High Productivity
- Low Manufacturing Cost
- GaAs MESFET

Application

- PCS Repeater
- RF Sub-Systems
- Base Station
- Converter
- IMT-2000
- ISM
- MMDS



Description

The power amplifier module is designed for base stations and cell extenders as cellular and GSM, IMT-2000, ISM, MMDS frequency systems.

GaAs MESFET is used and attached on a copper sub carrier. It is connected by using bias and in/out matching circuit method with gold wire bonding.

The bias and matching circuit are designed much simpler than other circuits for silicon IC's, LDMOS because

GaAs MESFET is operated by low supply voltage whereas others are operated by high supply voltage.

For better thermal conductivity, enhanced mode PCB was used in the 99.9% copper gold plate heat sink.

This simplicity results cost competitiveness and performance enhancement.

Specifications

PARAMETER	RFM0424-10
Frequency Range (MHz)	350 ~ 450
Small Signal Gain (dB)	15
Gain Flatness (Max.)	$\pm 0.5\text{dB @ } 60\text{MHz BW}$
VSWR (Input/Output)	1.5 : 1
1 dB Compression Point (dBm)	39
CDMA Power (1 FA) (dBm)	32
CDMA Power (7 FA) (dBm)	28
Vcc / Idc (CDMA Only)	9V / 1.5A
WCDMA (1 FA)	30
WCDMA (4 FA)	25
OIP3 (dBm)	50dB @tone / 27dBm
Noise Figure (Typ.)	5 dB
Shut Down (On/Off)	+5V @ 25 μA / 0V
In/Out Connectors	SMA Female (50 Ω)
Operating Temp Range	-25°C ~ +70°C
Dimensions (W×L×H)	29.0 × 30.2 × 9.0 [mm] (RFM) 48.0 × 54.2 × 22.0 [mm] (RFH)

NOTE

* CDMA : 1.23MHz symbol rate ; Forward Link ; 9 Channels, Multi tone Available

@ $\pm 750\text{KHz}$ offset in 30KHz resolution bandwidth

@ $\pm 1.98\text{MHz}$ offset in 30KHz resolution bandwidth

* RFM : Internally Matched Module

* RFH : Housing Type

: RF Connector

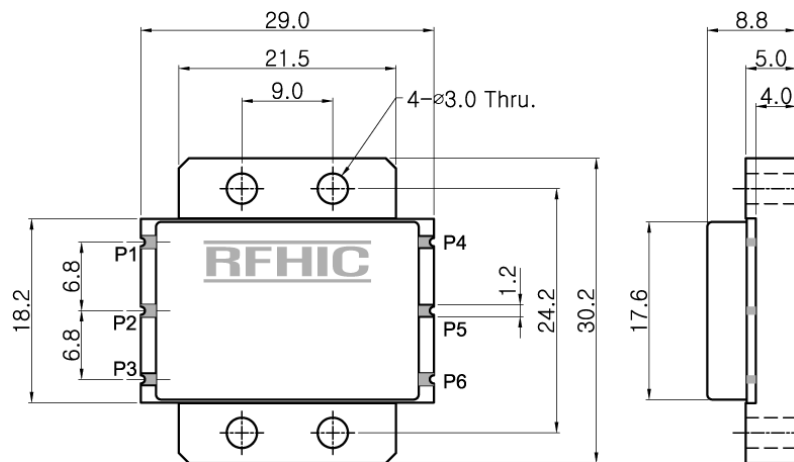
: SMA Female

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Dimensions in mm

(RFM0424-10)



Pin No.	Function	Pin No.	Function
P1	Ground	P4	Vcc
P2	RF IN	P5	RF Out
P3	Ground	P6	Shut Down

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