

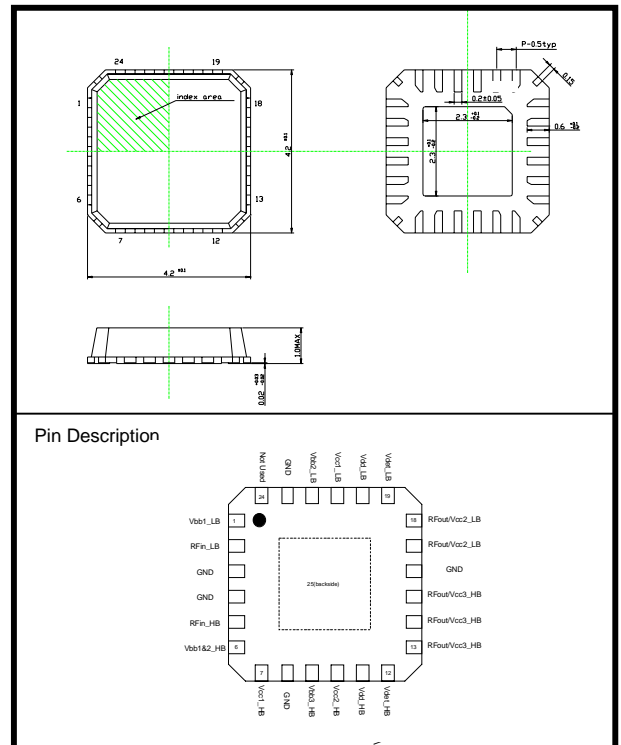
**IRM046U**

2.4 / 5GHz ISM Power Amplifier MMIC for W-LAN

- Small Package (4.2 × 4.2 × 0.9mm)
- High Gain : 30dB for 5GHz & 2.4GHz
- 18dBm Output Power for 802.11a
- 18dBm Output Power for 802.11g
- Very Low Current Consumption

Absolute Maximum Ratings ( Ta=25 )

Parameters	Symbol	Rating	Unit
DC Supply Voltage	Vcc	6	V
Input RF Power	Pin	5	dBm
Peak Supply Current	Icc	300	mA
Total DC Power Dissipation	Pt	1	W
Storage Temperature	Tstg	-30 - +120	
Operating Temperature	Tc_opr	-25 - +85	



Electrical Characteristics ( Ta=25 )

Parameter	Symbol	Test Condition	IRM046U						Unit	
			IRM047U			IRM048U				
Supply Voltage	Vcc		Min.	Typ.	Max.	Min.	Typ.	Max.	V	
Frequency	Freq		2400		2500	4900		5900	MHz	
Operating Case Temperature	Tc(opr)		-25	25	+85	-25	25	+85		
Ileak Current	Ileak	Vcc=6V, Vbb=0V, No RF output		0.02	0.1		0.02	0.1	μA	
Idle Current	Iidle	Vcc=3.3V, Vbb=2.8V, No RF output		55			75		mA	
Output Power Gain	Gain	Vcc=3.3 V, Vbb =2.8 V, Pout=18 dBm  For Freq. 2400 - 2500  <IEEE802.11g OFDM-64QAM Input for 2.4GHz>  For Freq. 4900 – 5900 MHz  <IEEE802.11a OFDM-64QAM Input for 5GHz>	27	30		27	30		dB	
Collector Current	Icc			105			140		mA	
Control Current	Ibb			5			6.5		mA	
Adjacent Channel Power Rejection	ACPR1				-37			-37		dBc
Alt. Adjacent Channel Power Rejection	ACPR2				-51			-51		dBc
Error Vector Magnitude*	EVM			3			2		%	

\* Excluding non-linearity of SG.