

Description

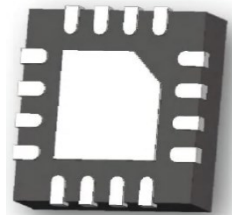
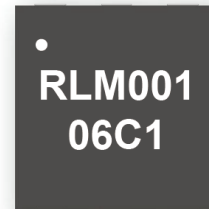
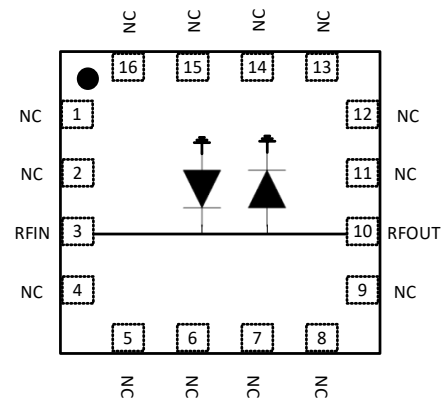
The RLM00106C1 is a low-loss, low-distortion and high power limiter. This device is designed for 100MHz - 6000MHz RF receiver applications.

The RLM00106C1 is fabricated with advanced GaAs technology, achieves low insertion loss , high input power(50W), over a wide range of operating frequency from 100MHz up to 6000MHz.

The RLM00106C1 is available in RoHS-Compliant, 3.0mm x 3.0mm x 0.75mm package.

Features

- Frequency bands: 100-6000 MHz
- Low insertion loss: 0.65dB
- 1dB-compression point=+15dBm
- Max input power : 47dBm@CW
- QFN: 3.0mmX3.0mmX 0.75mm, MSL3.



RF Electrical Specifications (Unless otherwise specified: $T_{CASE} = +25\text{ }^{\circ}\text{C}.$)

Parameter		Conditions	Min.	Typ.	Max.	Units
Ac Electrical Characteristics						
Freq	Frequency Range		0.1		6.0	GHz
IL	Insertion loss	0.1-6GHz		0.65	-	dB
		0.5-1GHz		0.2	0.4	
		1-1.5GHz		0.3	0.55	
		1.5-2GHz		0.35	0.65	
RLin	Input return loss			15		dB
RLout	Output return loss			15		dB
Pmax	Max input power	CW		47		dBm
1dB	1dB compression	f=1000MHz		15		dBm
ATT	Attenuation @+20dBm	f=1000MHz		5		dB
	Attenuation @+30dBm	f=1000MHz		15		dB
TI	Carrier lifetime			20		ns

Yantel Corporation

Add: No.308-322,3F,Building 1,Juchuang Jingu Innovation Park,Wenyuan Road 35,Xili Street,Nanshan,Shenzhen,China

Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

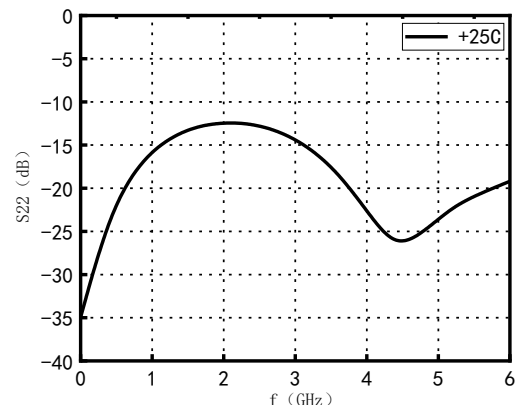
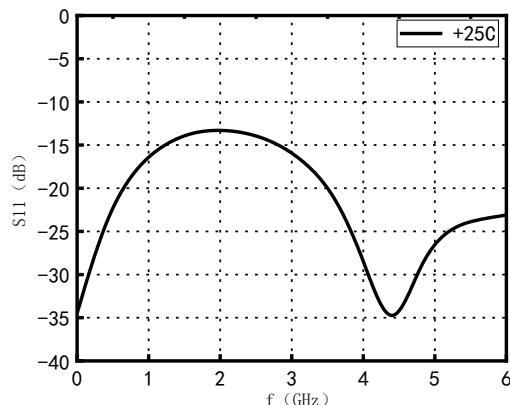
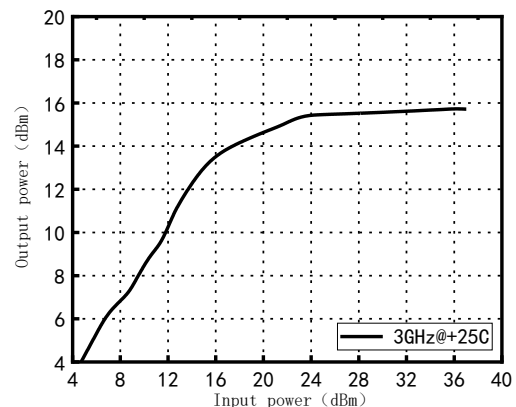
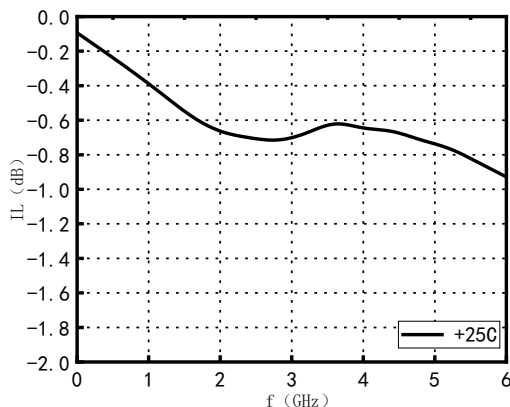
Absolute Maximum Ratings

Parameter	Symbol	Values			Units
		Min.	Typ.	Max.	
Reverse Voltage	V_{CC}	-0.3	-	50	V
RF input power	P_{IN}	-	-	47	dBm
Package thermal resistance	θ_{JA}	-	45		°C/W
Junction temperature	T_J	-	-	150	°C
Storage temperature range	T_{STG}	-55	-	+125	°C
Ambient temperature range	T_{amb}	-40	-	+85	°C
Solder temperature(10s)		-	260	-	°C
ESD(HBM)	VESD	2000			V
ESD(CDM)		2000			V

Application Information

The RLM00106C1 should be placed close to the antenna. Use 50-ohm micro-strip lines to connect RF INPUT and RF OUTPUT. Proper grounding of the GND pins is very important.

Typical Electrical Graphs



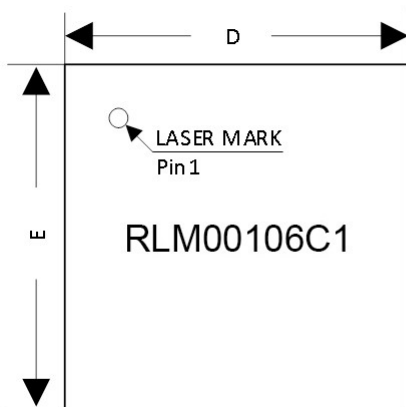
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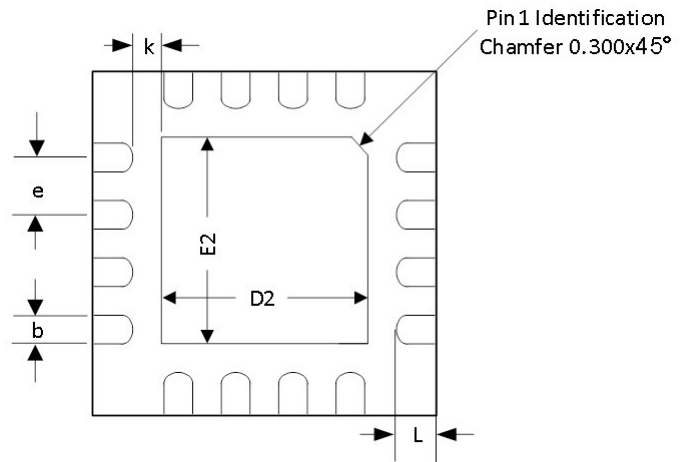
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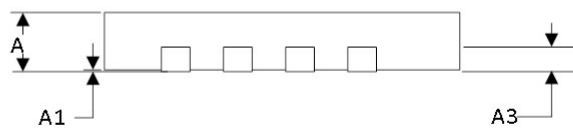
Package Information



TOP VIEW



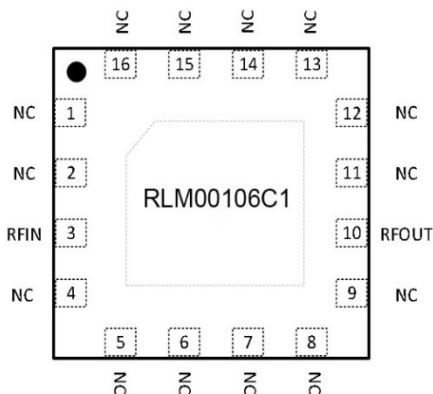
BOTTOM VIEW



SIDE VIEW

Ref.	Min	Typ	Max	Ref.	Min	Typ	Max
A	0.70	0.75	0.80	E2	1.80	1.90	2.00
A1	0.00	0.02	0.05	e	0.5 BSC		
A3	0.20REF			L	0.25	0.30	0.35
b	0.20	0.25	0.30	K	0.15	0.25	0.35
D	2.90	3.00	3.10				
D2	1.80	1.90	2.00				
E	2.90	3.00	3.10				

Pin Configuration and Marking



Pin	Name	Description
0	GND	Ground
3	RFIN	RF Input
10	RFOUT	RF Output
1,2,4,5,6,7,8,9,11,12,13,14,15,16	NC	No Connection

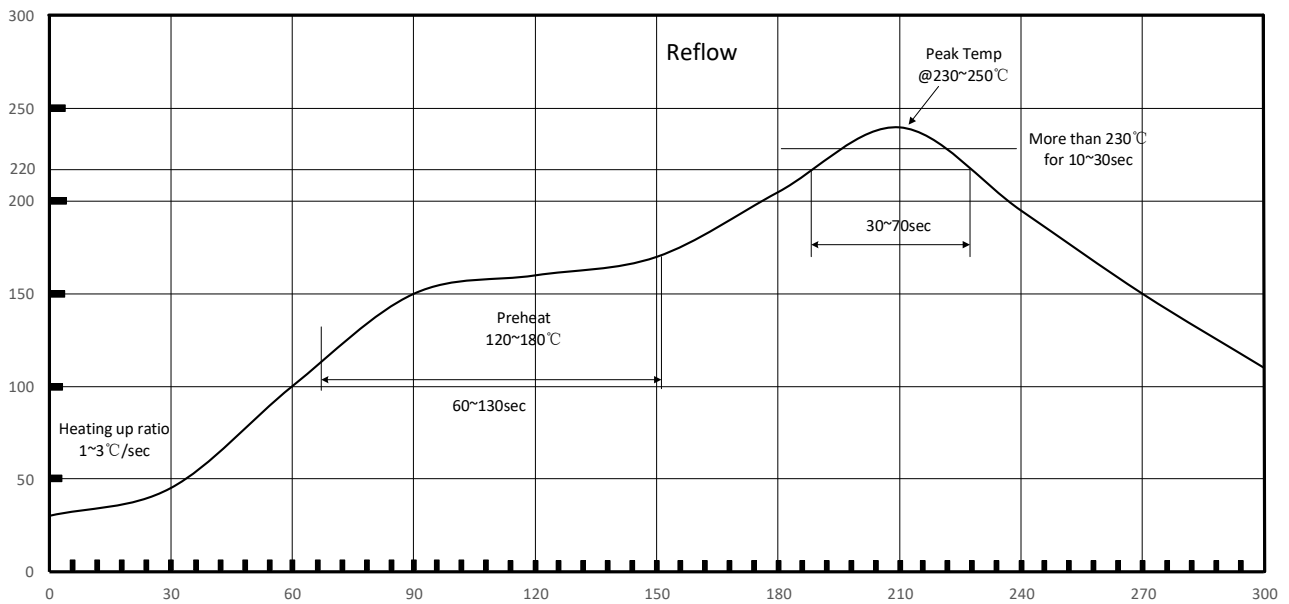
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Recommended Solder Temperature



RoHS Compliant

The product does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls(PBB) or polybrominated diphenyl ethers(PBDE), and are therefore considered RoHS compliant.

Order Information

Part Number	Temperature	Package	RoHS	Mark	SPQ
RLM00106C1	-40°C ~ +85°C	3.0mm x 3.0 mm x 0.75mm	Yes	RLM00106C1	Tape and Reel 3000 pcs/Reel