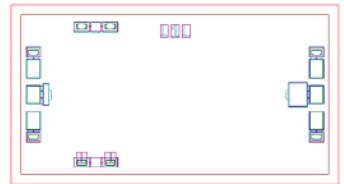


**AMT1508A  
8 - 14GHz Clipper Chip**



**Key Features :**

- Frequency range : 8 – 12GHz
- Input/output standing wave : 1.5
- Insertion loss : 0.6dB
- Clipping level : 17dBm
- Endurance power : 60W (CW)
- Chip dimensions : 1.92mm x 1.04mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

**Description :**

AMT1508A is a passive clipper chip, it is designed by Gallium Arsenide (GaAs) process. This chip is designed with ground through metal vias on the back technology. It covers frequency range of 8 ~ 12GHz, typical insertion loss is 0.6dB, and input/output standing wave is 1.5.

**Absolute Maximum Ratings (Ta = 25°C)**

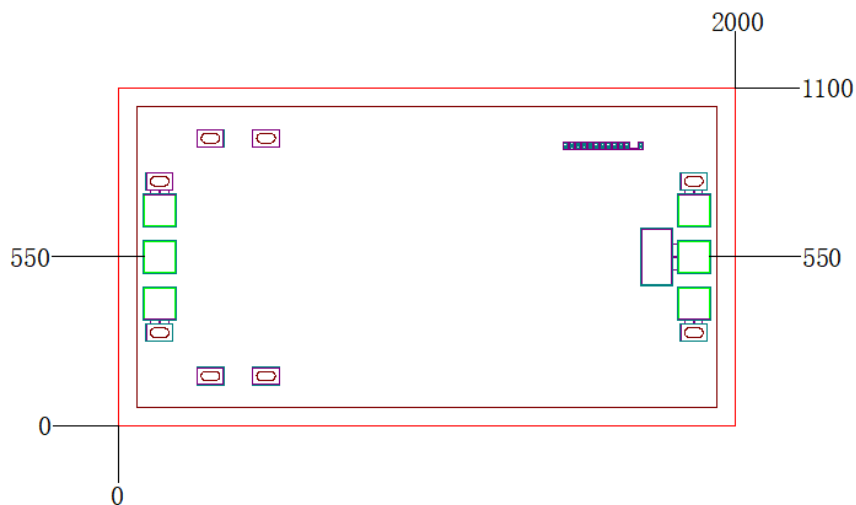
Symbol	Parameter	Value	Remark
Pin	Input Power	48dBm	
Tch	Operating Temperature	150°C	
Tm	Sintering Temperature	310°C	30s, N <sub>2</sub> protection
Tstg	Storage Temperature	-65 ~ +150°C	

[1] Operation outside any of the Absolute Maximum Ratings may cause permanent device damage.

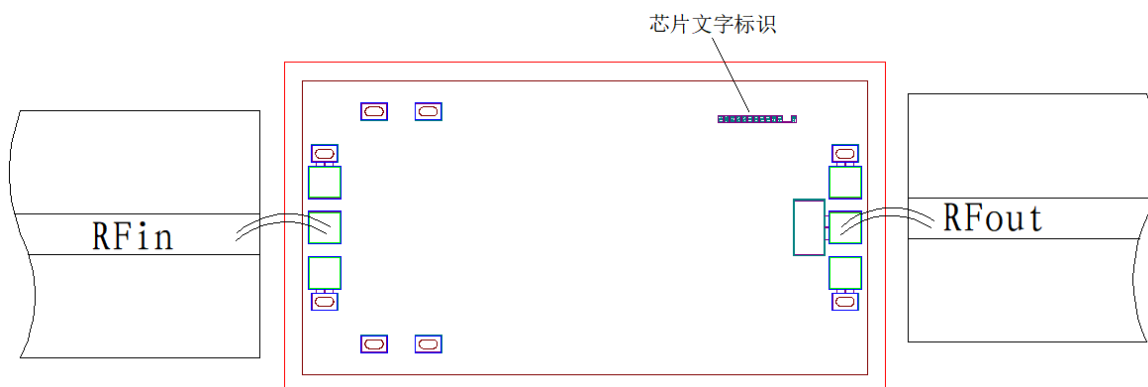
**Electrical Characteristics (Ta = 25°C)**

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typical	Max	
VSWRin	Input Standing Wave	F : 8 – 14GHz	-	1.5	-	-
VSWRout	Output Standing Wave		-	1.5	-	-
IL	Insertion Loss		-	0.6	-	dB
P <sub>LIM</sub>	Clipper output level		-	17	-	dBm

### Chip Dimensions (Unit : $\mu\text{m}$ )



### Chip Layout Diagram



### Pad Definition

No.	Symbol	Function Description	Dimensions
1	RFin	RF signal input port, external connect to $50\Omega$ system, no DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$
2	RFout1	RF signal output port, external connect to $50\Omega$ system, internal built in DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$

Please see Appendix A for details.