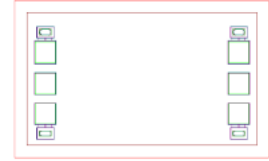


AMT1501
0 - 18GHz Clipper Chip



Key Features :

- Frequency range : 0 – 18GHz
- Input/Output standing wave : 1.5
- Insertion loss : 0.6dB
- Endurance power : 5W (CW)
- Chip dimensions : 1.2mm x 0.75mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

Description :

AMT1501 is a high performance 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 0 ~ 18GHz, typical insertion loss of 0.6dB, and input/output standing wave is 1.5.

Absolute Maximum Ratings (Ta = 25°C)

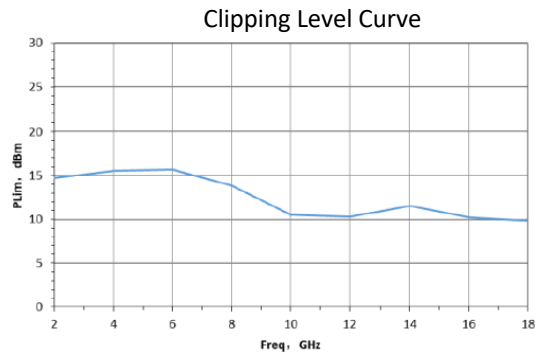
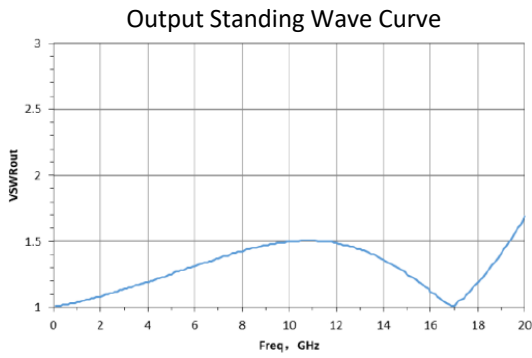
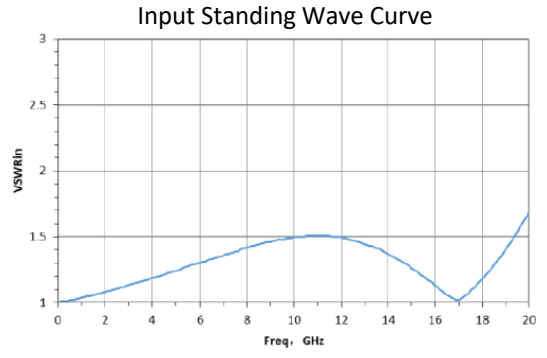
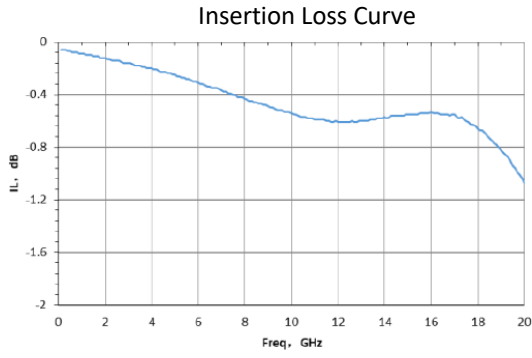
Symbol	Parameter	Value	Remark
Pin	Input Power	40dBm	
Tch	Operating Temperature	150°C	
Tm	Sintering Temperature	310°C	30s, N ₂ protection
Tstg	Storage Temperature	-65 ~ +150°C	

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

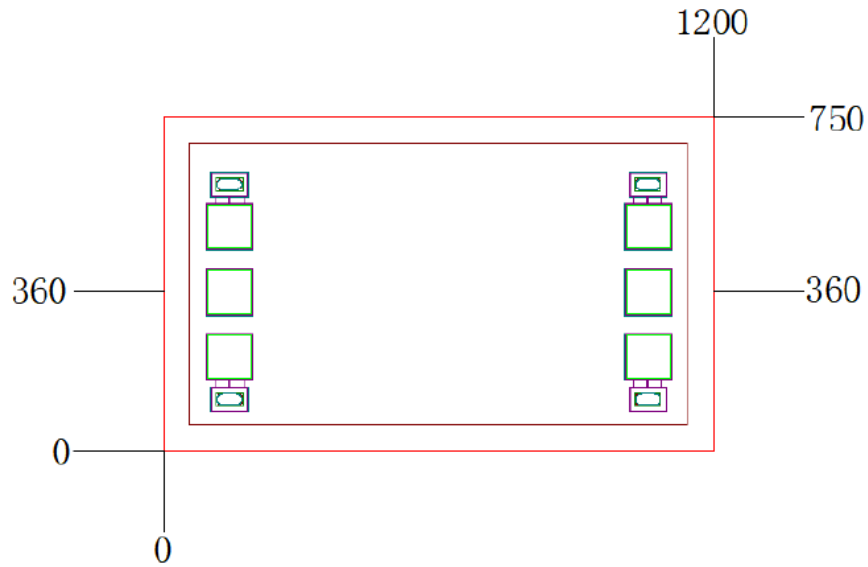
Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typical	Max	
VSWRin	Input Standing Wave	F : 0 – 18GHz	-	1.5	-	-
VSWRout	Output Standing Wave		-	1.5	-	-
IL	Insertion Loss		-	0.6	0.8	dB
P _{LIM}	Clipper output level		-	15	-	dBm

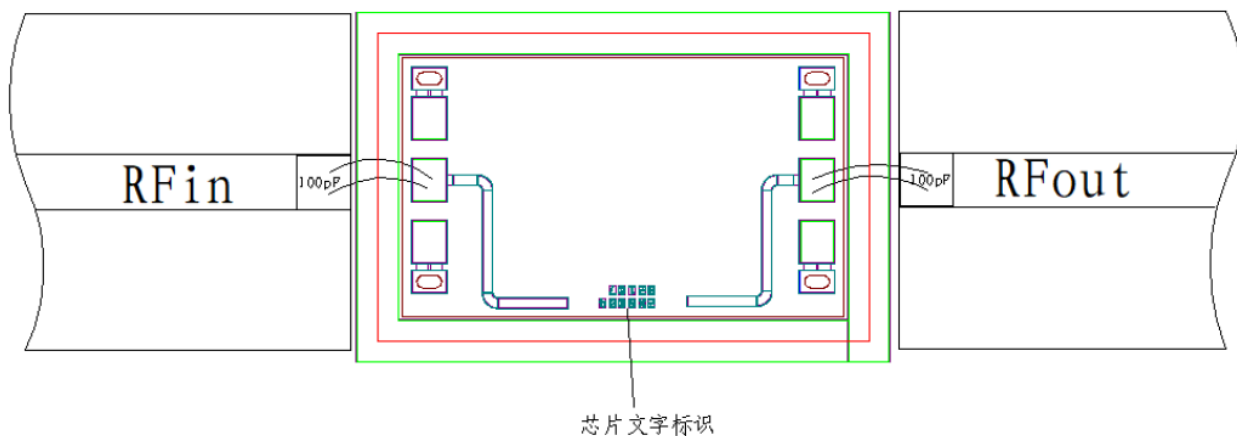
Typical Performance



Chip Dimensions (Unit : μm)



Chip Layout Diagram



Pad Definition

No.	Symbol	Function Description	Dimensions
1	RFin	RF signal input port, external connect to 50Ω system, no need DC blocking capacitor.	100μm*100μm
2	RFout	RF signal output port, external connect to 50Ω system, no need DC blocking capacitor.	100μm*100μm

Please see Appendix A for details.