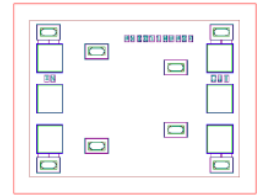


AMT1511
30 - 40GHz Clipper Chip



Key Features :

- Frequency range : 30 – 40GHz
- Input/output standing wave : 1.5
- Insertion loss : 0.7dB
- Endurance power : 2W (CW)
- Chip dimensions : 0.98mm x 0.7mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

Description :

AMT1511 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 30 ~ 40GHz, typical insertion loss is 0.6dB, and input/output standing wave is 1.3.

Absolute Maximum Ratings (Ta = 25°C)

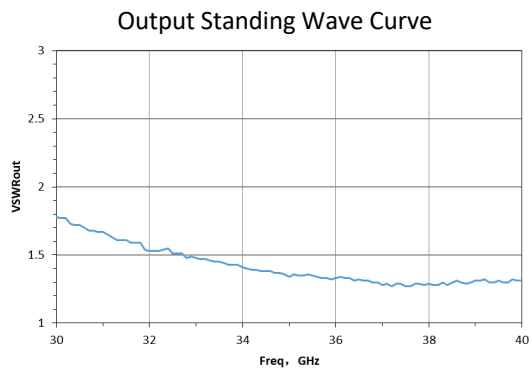
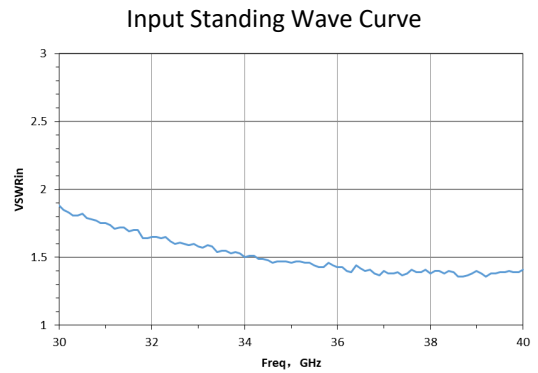
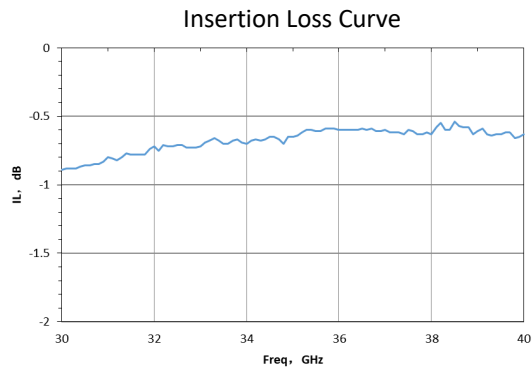
Symbol	Parameter	Value	Remark
Pin	Input Power	33dBm	
Tch	Operation Temperature	150°C	
Tm	Sintering Temperature	310°C	30s, N ₂ protection
Tstg	Storage Temperature	-65 ~ +150°C	

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

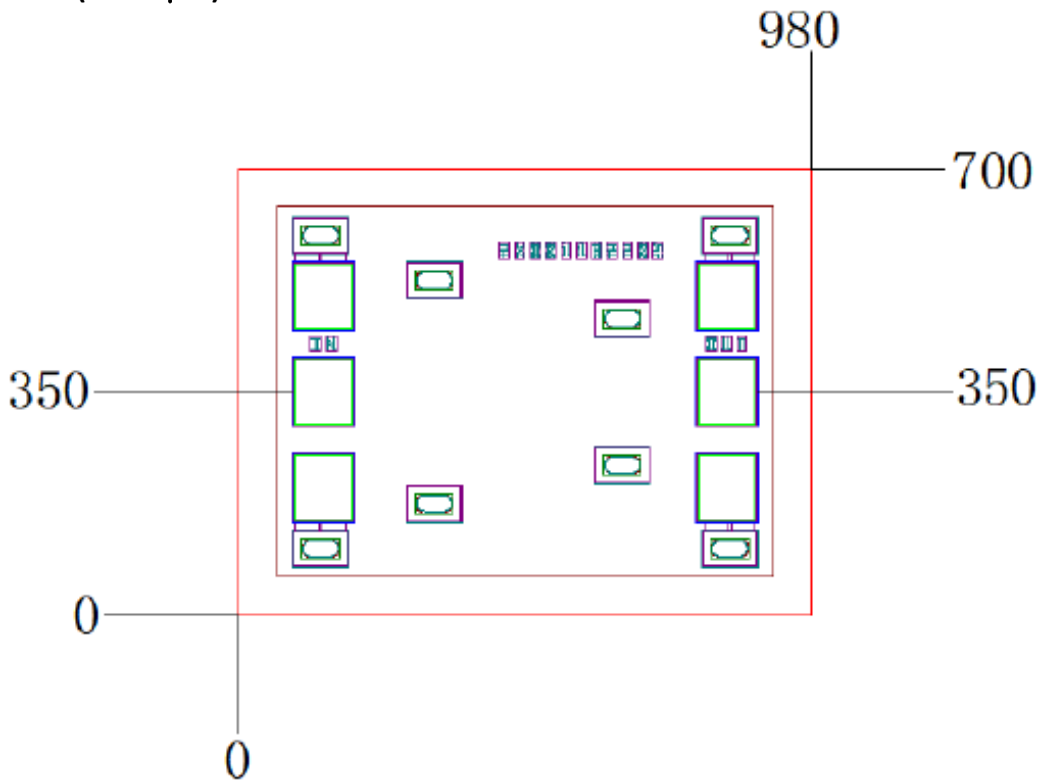
Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typical	Max	
VSWRin	Input Standing Wave	F : 30 ~ 40GHz	-	1.5	-	-
VSWRout	Output Standing Wave		-	1.5	-	-
IL	Insertion Loss		-	0.7	-	dB
Po	Clipping output level		-	15	-	dBm

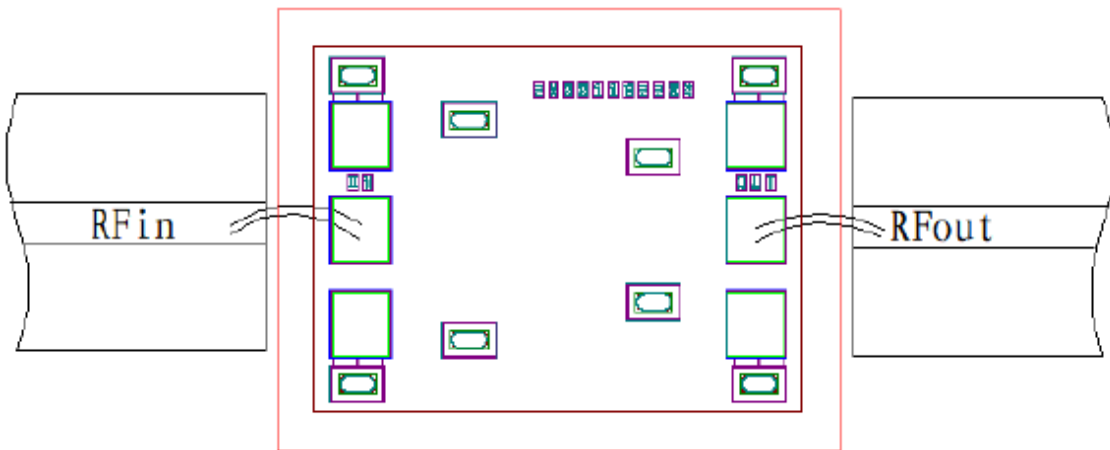
Typical Performance



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, internal built in DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$
2	RFout1	RF signal output port, external connect to 50Ω system, internal built in DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$

Please see Appendix A for details.

