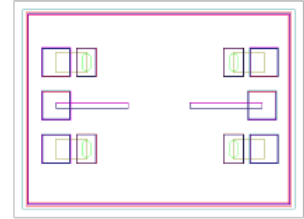


AMT1808-02
1 - 12GHz Equalizer Chip



Key Features :

- Frequency range : 1 – 12GHz
- Equalization : 4dB
- Insertion loss : 1dB
- Input/output standing wave : 1.5
- Chip dimensions : 1.0mm x 0.75mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

Description :

AMT1808-02 is a high performance equalizer chip, it is designed by Gallium Arsenide (GaAs) process. Chip’s insertion loss is positive slope, equalize range is 4dB. This chip is designed with ground through metal vias on the back technology. All chip products p are 100% RF tested.

Absolute Maximum Ratings (Ta = 25°C)

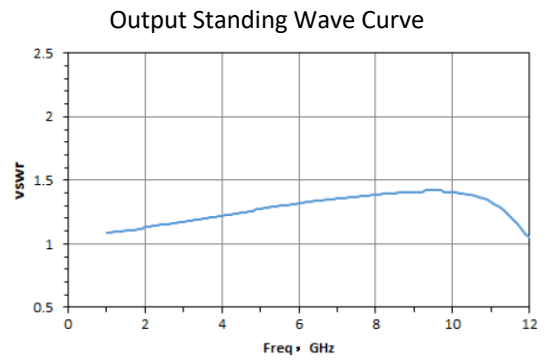
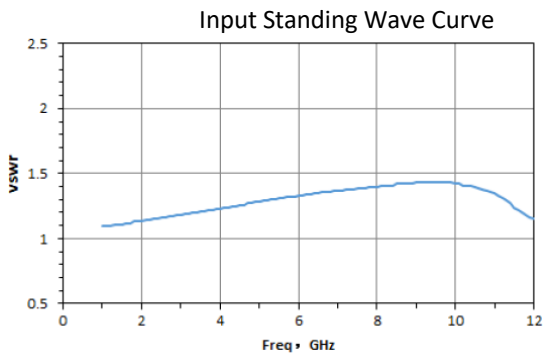
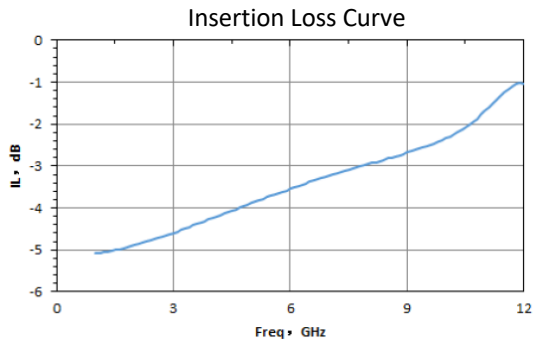
Symbol	Parameter	Value	Remark
Pin	Input Power	30dBm	
Tm	Sintering Temperature	310°C	30s, N ₂ protection
Tstg	Storage Temperature	-65 ~ +150°C	

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

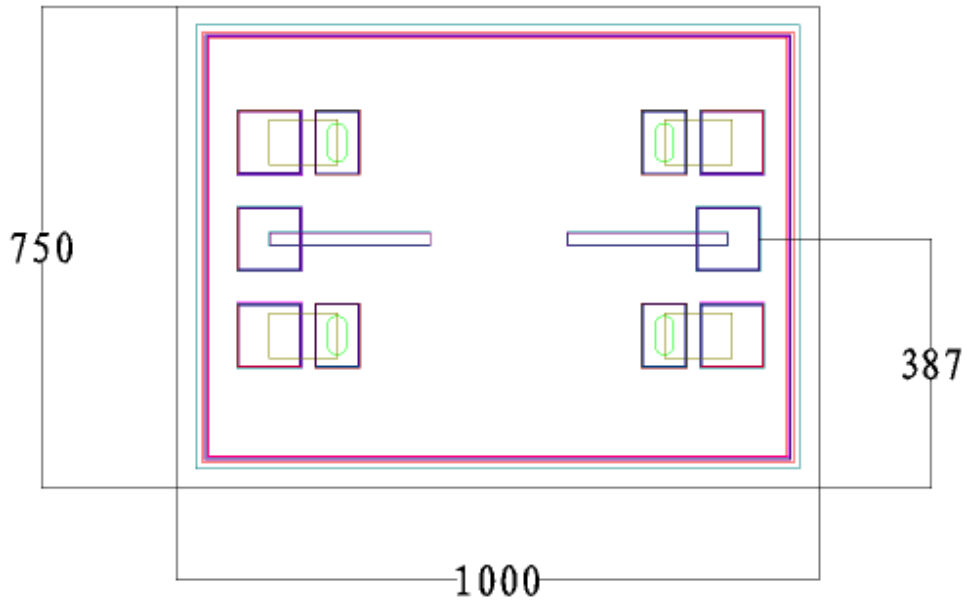
Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Test Condition	Value			Unit
			Min	Typical	Max	
VSWRin	Input Standing Wave	F : 1 ~ 12GHz	-	1.5	1.6	
VSWRout	Output Standing Wave		-	1.5	1.6	
IL	Insertion Loss		-	1	-	dB
ΔLi	Equalize range		3.5	4	4.5	dB

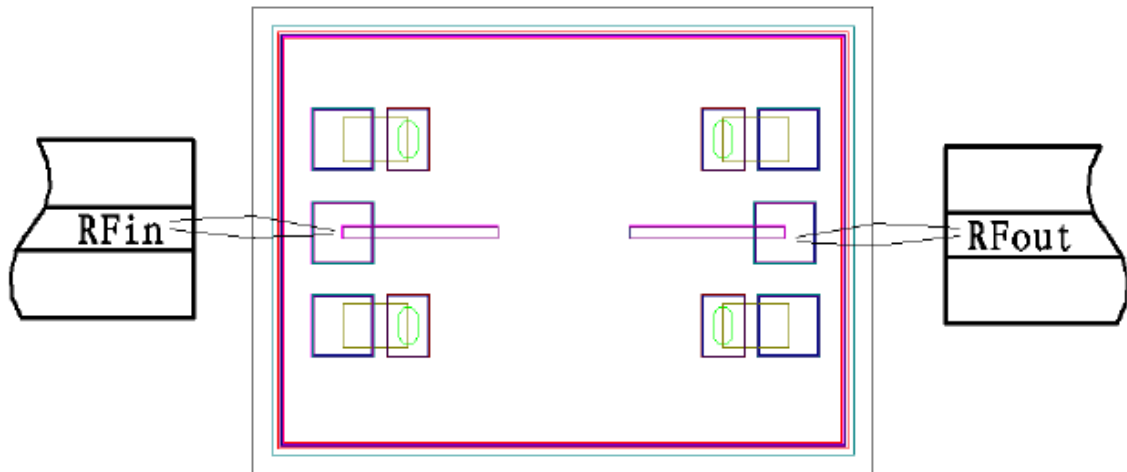
Typical Performance



Chip Dimensions (Unit : μm)



Chip Layout Diagram



Pad Definition

Symbol	Function	Dimension	Equivalent Circuit
RFin	RF signal input port, external connect to 50Ω system, no need DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$	RF in \circ — —
RFout	RF signal output port, external connect to 50Ω system, no need DC blocking capacitor	$100\mu\text{m} \times 100\mu\text{m}$	— — \circ RF out

Please see Appendix A for details.