AMT1814-01
9.1 – 10.3GHz Bandpass Filter Chip

Key Features :

- Pass band frequency : 9.1 – 10.3GHz
- Centre insertion loss : 4dB
- In-band standing wave : 1.5
- Out-band rejection : ≥45dBc
- Input/output standing wave : 1.4/1.4
- Chip dimensions : 2.2mm x 0.86mm x 0.1mm
- Applications : 5G mobile communication, wireless communication, radio telecommunication etc.

Description :

AMT1814-01 is a high performance bandpass filter chip. Its pass band frequency range is 9.1 – 10.3GHz, in-band insertion loss is less than 6dB, in-band standing wave is less than 1.7.

Absolute Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Remark
Pin	Input signal power	30dBm	
Ta	Operation Temperature	-55°C ~ +125°C	
Tstg	Storage Temperature	-55°C ~ +125°C	

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

Electrical Characteristics (Ta = 25°C)

Symbol	Parameter			Value			Unit
				Min	Typical	Max	
IL_0	Centre Insertion loss			-	4	6	dB
SS	Out-band rejection	9.1 – 10.3	8GHz	-	45	-	dBc
			11.7GHz	-	45	-	
			15GHz	-	40	-	
VSWR	In-band standing wave			-	1.5	1.7	-

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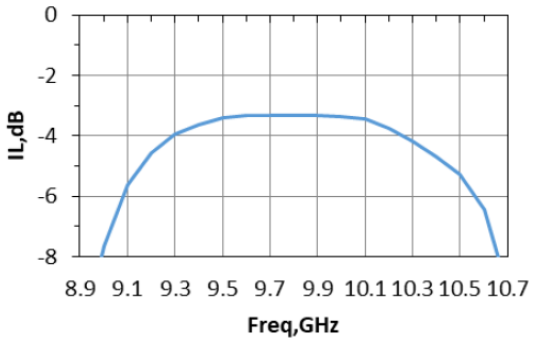
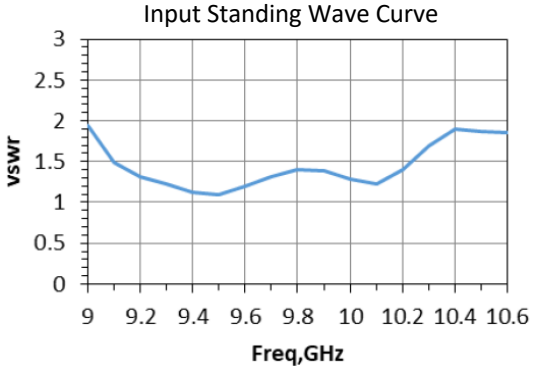
Typical Performance

In-band Insertion Loss Curve

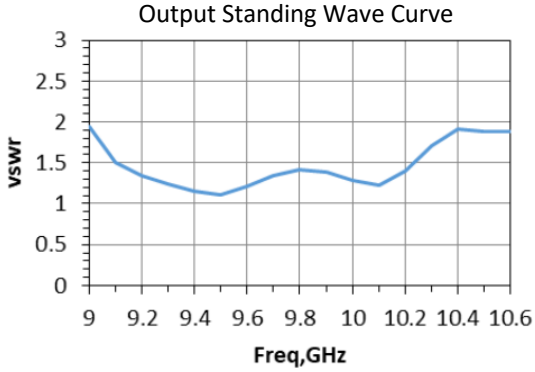


Out-band Rejection Curve

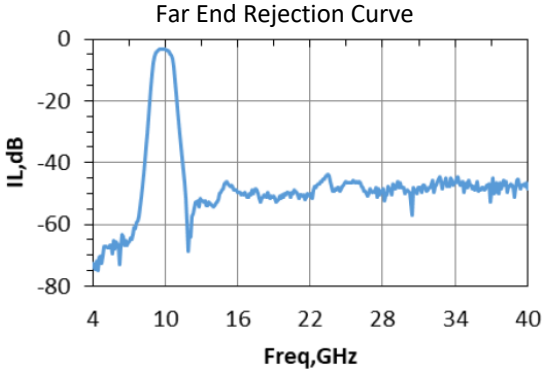
Input Standing Wave Curve



Output Standing Wave Curve



Far End Rejection Curve



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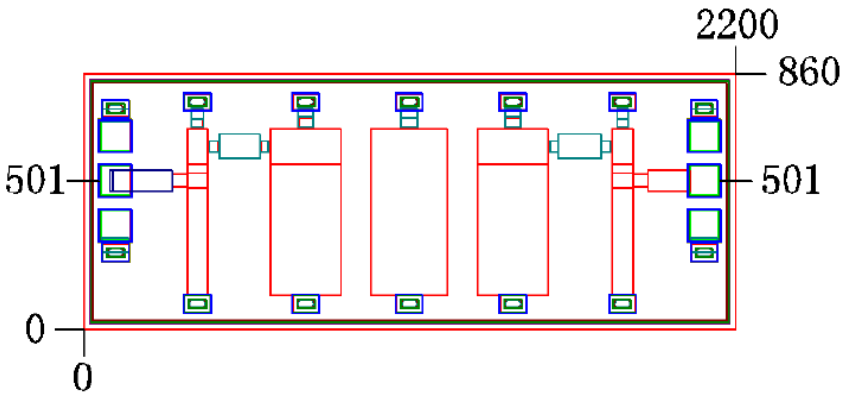
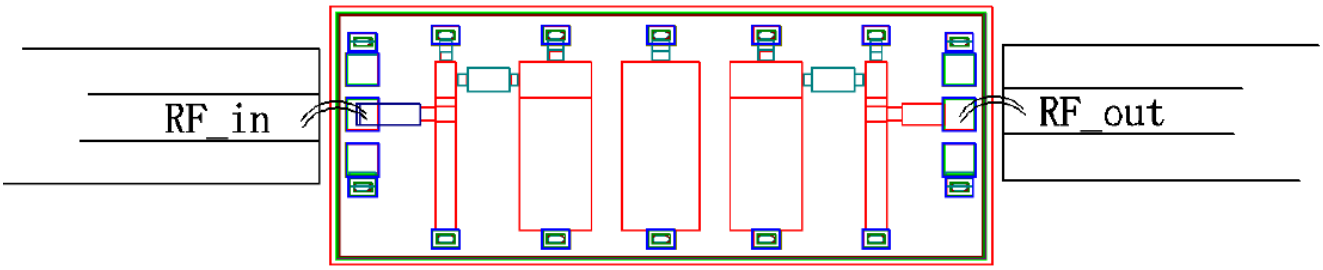
Chip Dimensions (Unit : μm)



Chip Layout Diagram



Pad Definition

Symbol	Function Description	Dimension
RF_in	RF signal input port	100μm*100μm
RF_out	RF signal output port	100μm*100μm

Please see Appendix A for details.

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