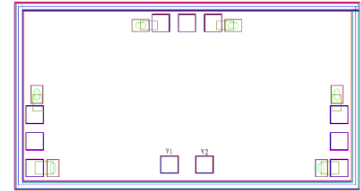


**AMT1711  
6 - 18GHz SPDT Switch Chip**



**Key Features :**

- Frequency range : 6 – 18GHz
- Insertion loss : 2.5dB
- Isolation : 42dB
- Input/output standing wave : 1.3
- Switch over time : 20ns
- Control method : 0/-5V
- Chip dimensions : 1.9mm x 1.0mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

**Description :**

AMT1711 is a voltage controlled absorb-type SPDT switch chip, it is designed by Gallium Arsenide (GaAs) pHEMT process. This chip is designed with ground through metal vias on the back technology. All chip products p are 100% RF tested. The chip uses 0V, -5V supply, typical insertion loss is 2.5dB, isolation is 42dB, input/output standing wave is 1.3, 20ns switching time.

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

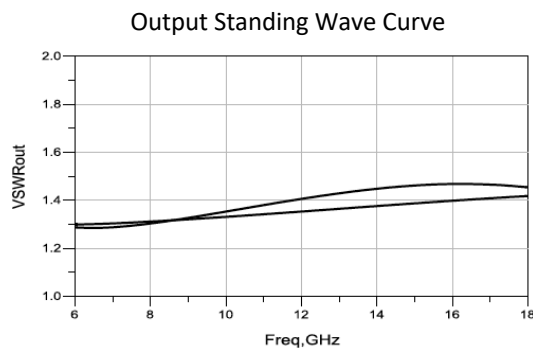
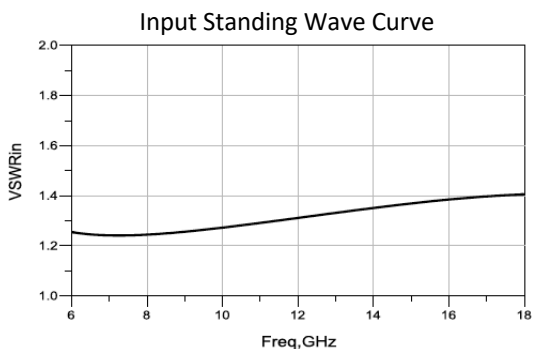
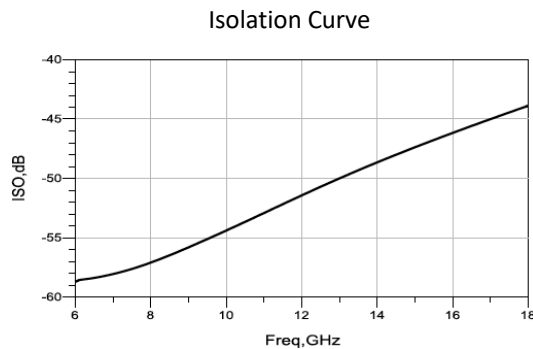
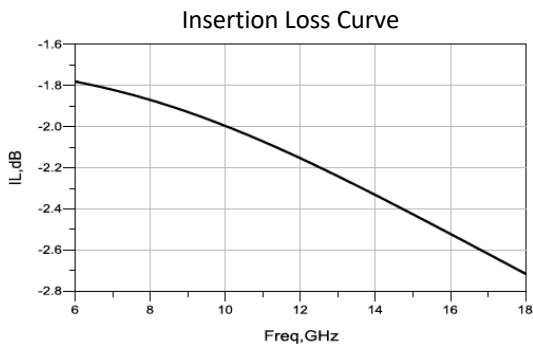
Symbol	Parameter	Value	Remark
V1, 2	Control voltage	0.6V/-8V	
Pin	Input Power	20dBm	
Tm	Sintering Temperature	310°C	30s, N <sub>2</sub> protection
Tstg	Storage Temperature	-65 ~ +150°C	

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

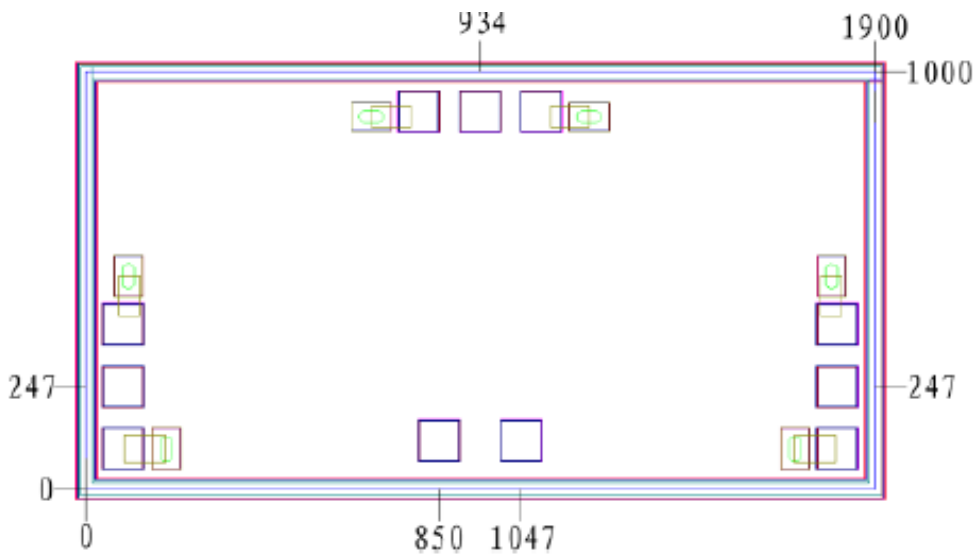
**Electrical Characteristics (Ta = 25°C)**

Symbol	Parameter	Value			Unit
		Min	Typical	Max	
VSWRin	Input standing wave	-	1.3	-	-
VSWRout	Output standing wave	-	1.3	-	-
IL	Insertion Loss	-	2.5	-	dB
ISO	Isolation	-	42	-	dB

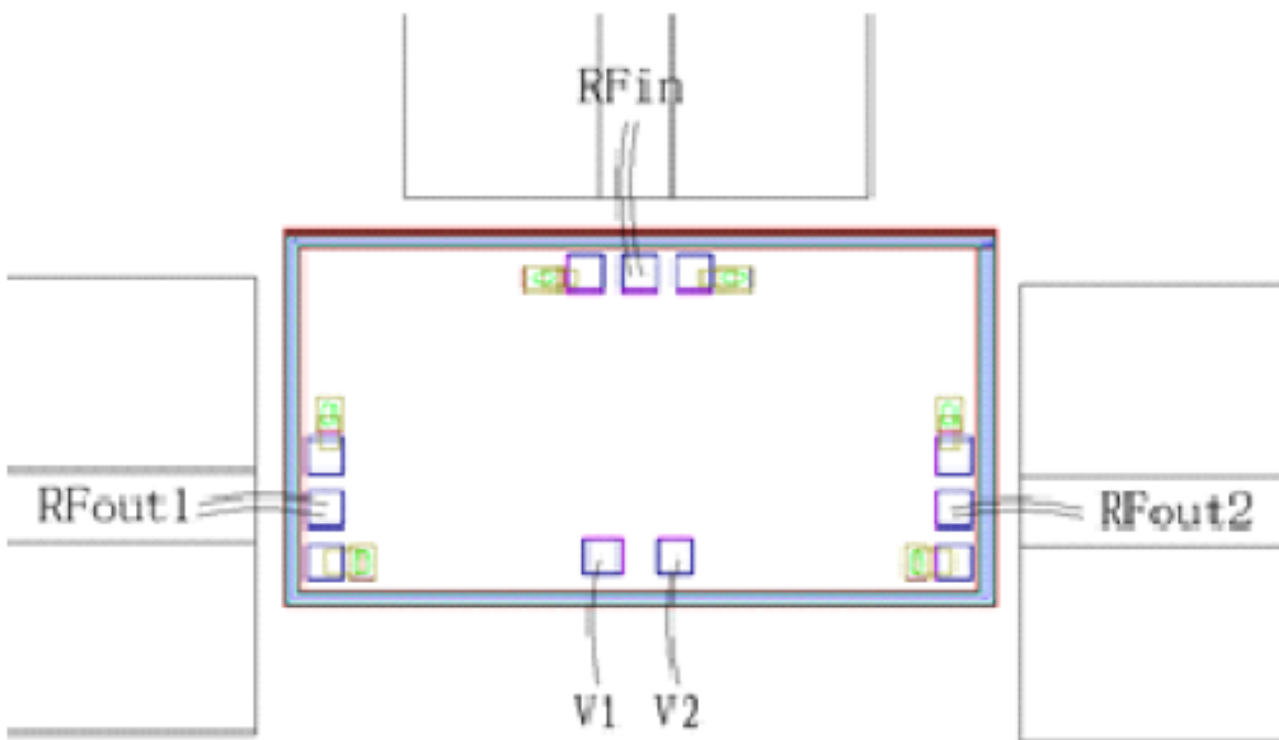
### Typical Performance



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



**Chip Layout Diagram**



**Truth Table**

	V1	V2
RFin – RFout1	0V	-5V
RFin – RFout2	-5V	0V
Off	-5V	-5V

Please see Appendix A for details.