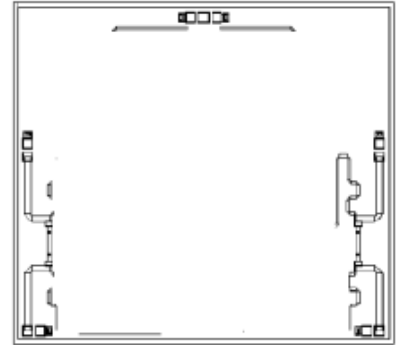


**AMT1805**  
**2 – 18GHz Power Divider Chip**



**Key Features :**

- Frequency range : 2 – 18GHz
- Input/output standing wave : 1.3
- Insertion loss : 2dB
- Isolation : 30dB
- Chip dimensions : 3.85mm x 4.3mm x 0.1mm
- Applications : wireless communication, transceiver module, radio telecommunication etc.

**Description :**

AMT1805 is a 1-to-4 power divider chip designed by Gallium Arsenide (GaAs) process, it covers 2 – 18GHz frequency range, with typical 30dB isolation. This chip is designed with ground through metal vias on the back technology.

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

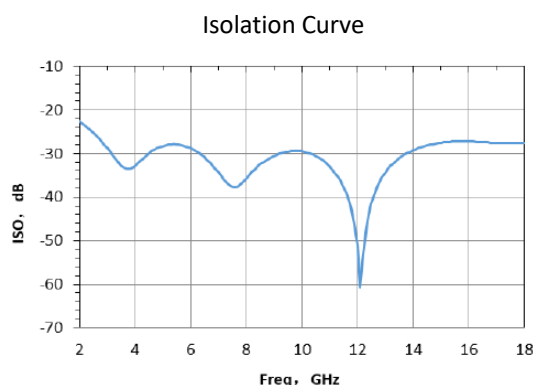
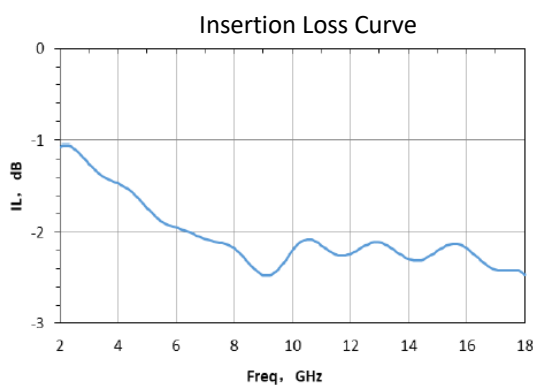
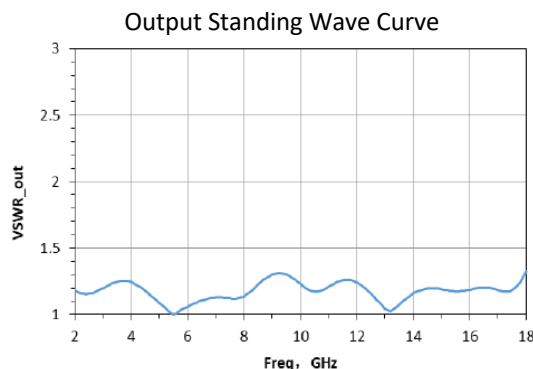
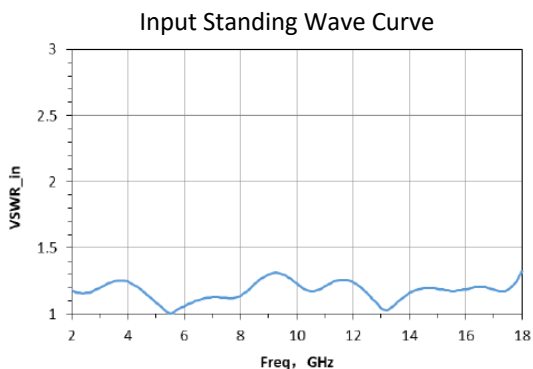
| Symbol | Parameter             | Value        | Remark                         |
|--------|-----------------------|--------------|--------------------------------|
| Pin    | Input Power           | +37dBm       |                                |
| Tch    | Operating Temperature | 150°C        |                                |
| 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.

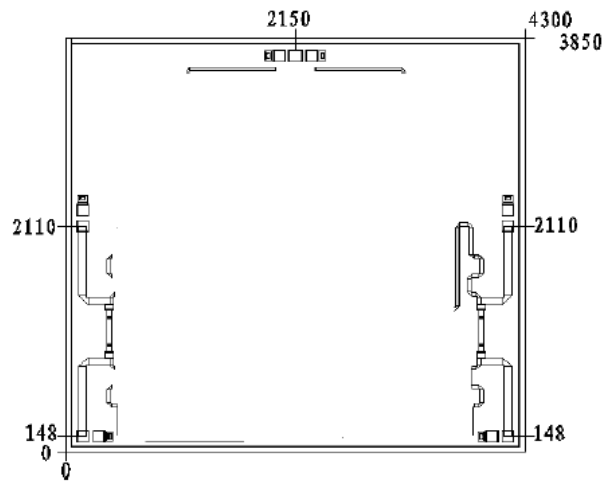
**Electrical Characteristics (Ta = 25°C)**

| Symbol   | Parameter            | Test Conditions              | Value |         |     | Unit |
|----------|----------------------|------------------------------|-------|---------|-----|------|
|          |                      |                              | Min   | Typical | Max |      |
| VSWR_in  | Input Standing Wave  | Pin = 0 dBm<br>F : 2 ~ 18GHz | -     | 1.3     | 2   | -    |
| VSWR_out | Output Standing Wave |                              | -     | 1.3     | 1.5 | -    |
| IL       | Insertion Loss       |                              | -     | 2       | 2.5 | dB   |
| ISO      | Isolation            |                              | 20    | 30      | -   | dB   |

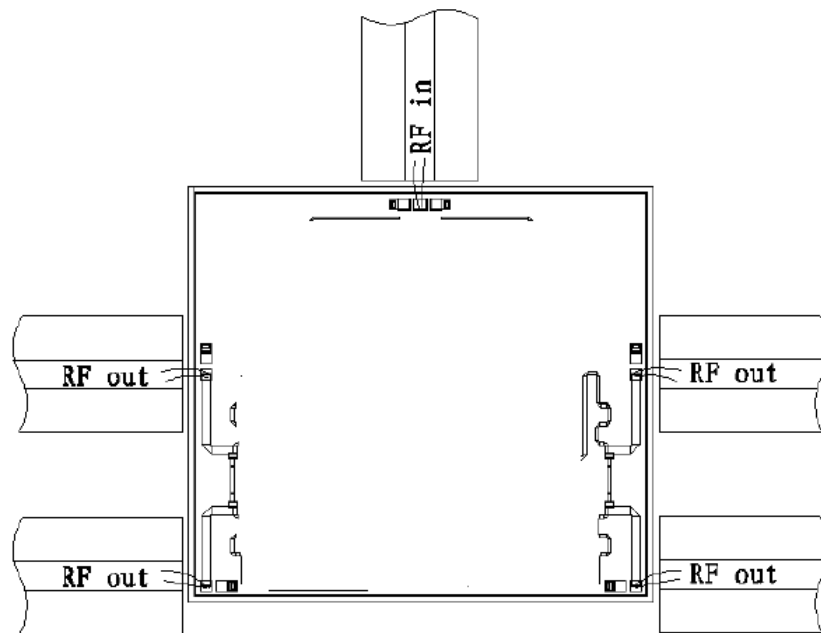
### Typical Performance



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



### Chip Layout Diagram



Please see Appendix A for details.