

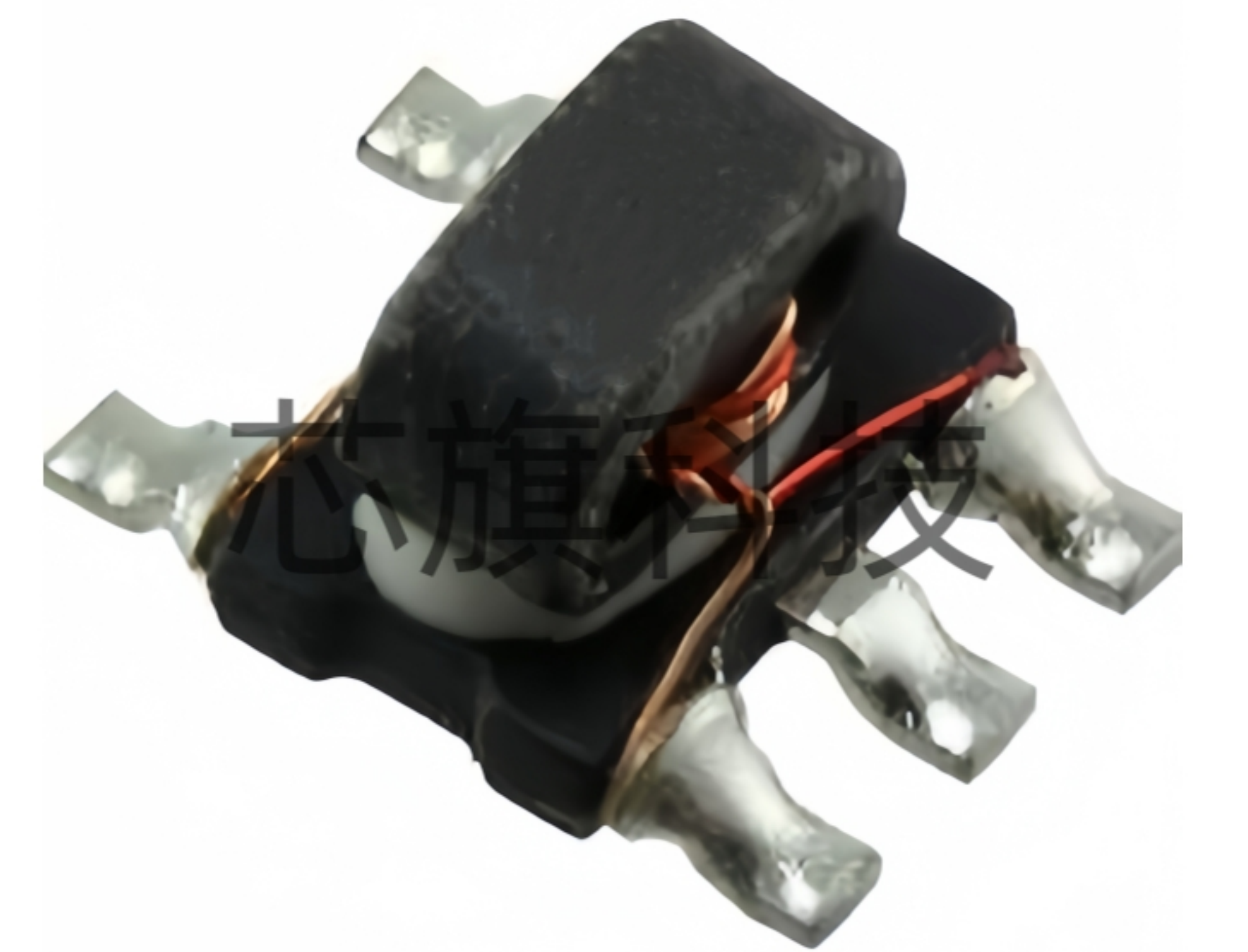
# HBLTCA1-1-13MA+



RF Balun Transformer, 1:1 Transmission Line Transformer 4.5-3000 MHz Rev. 2

## Features:

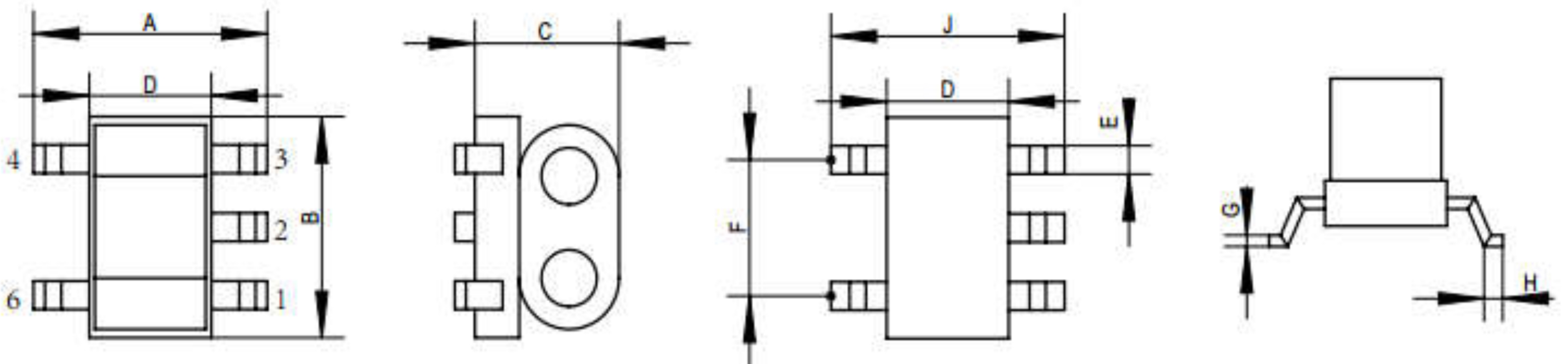
- ◆ 50Ω Impedance
- ◆ Frequency: 4.5to3000 MHz
- ◆ RF power: 0.50W
- ◆ DC current: 30mA
- ◆ Insertion loss: 3.5dB Max; Input Return loss: 10.0dB Min
- ◆ Operating temperature range: -40°C to +85°C
- ◆ Storage temperature range: -55°C to +100°C



## Applications:

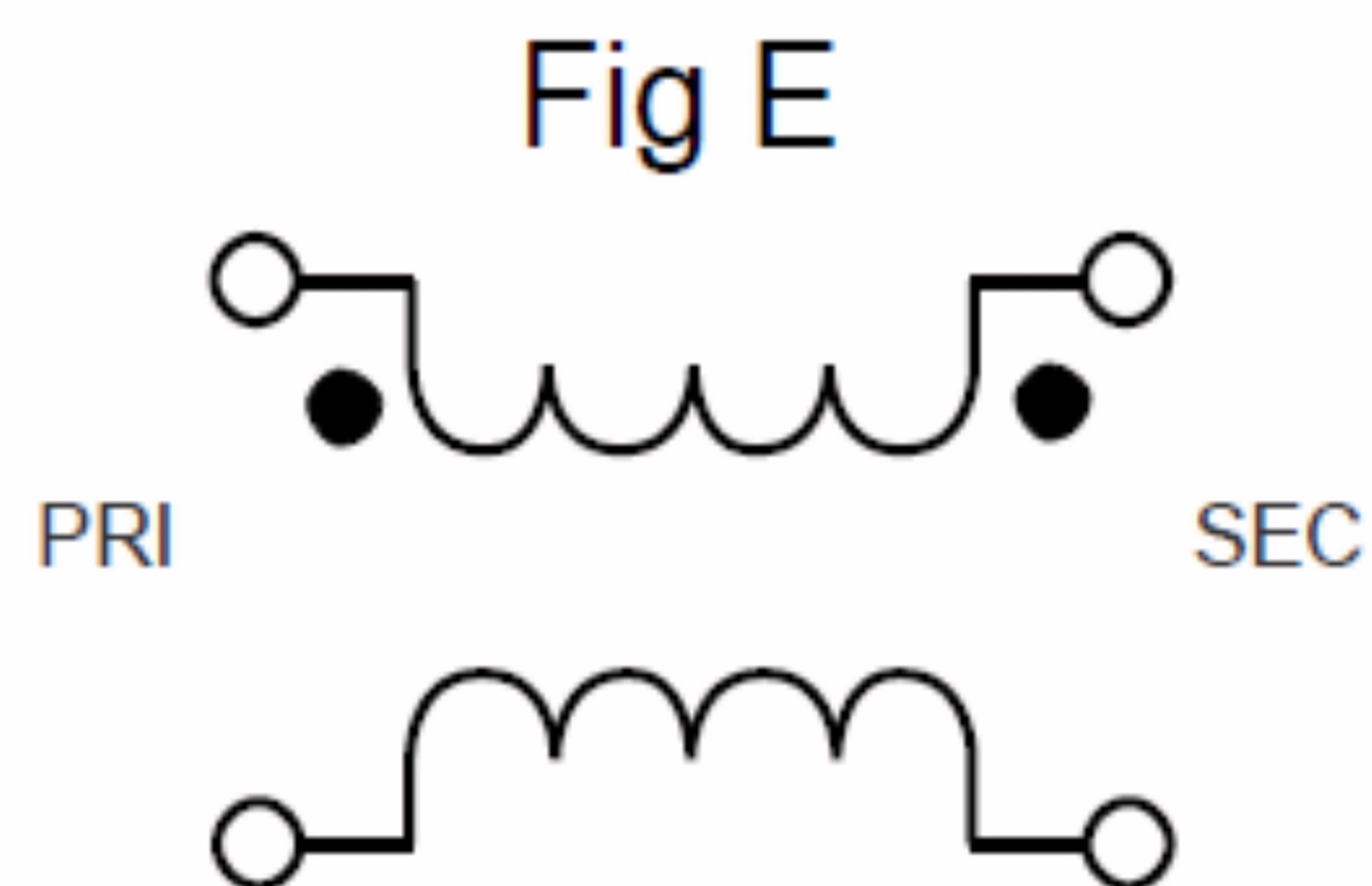
- ◆ For broadband and wireless communications
- ◆ For VHF/UHF receivers/transmitters and push-pull amplifiers

## Dimension Diagram (Unit:mm) :

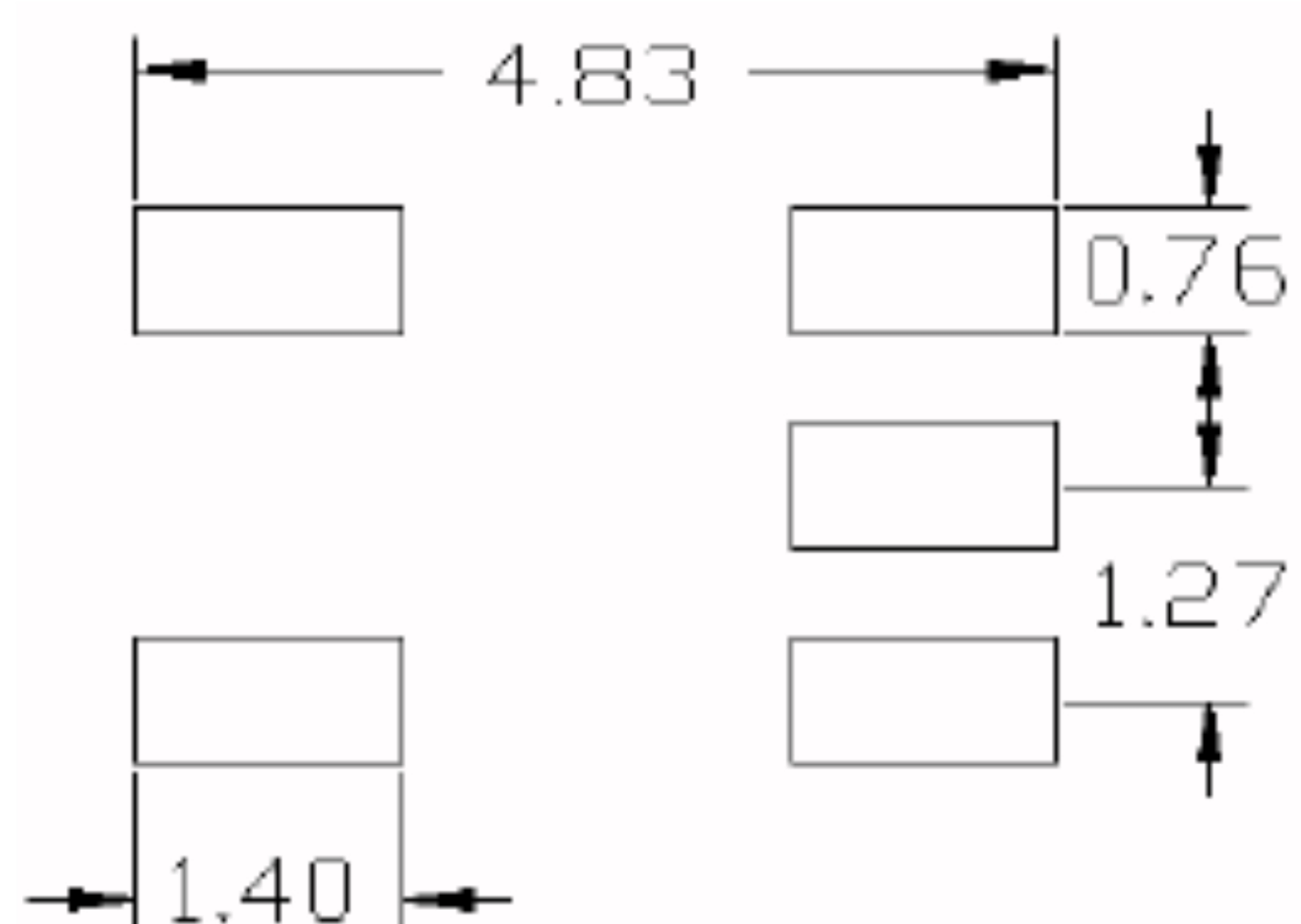


A=4.10±0.20 B=5.00±0.20 C=4.30±0.20 D=2.20±0.20 E=0.50±0.10 F=2.54±0.10 G=0.25±0.10 H=0.30±0.10

## Electrical structure:

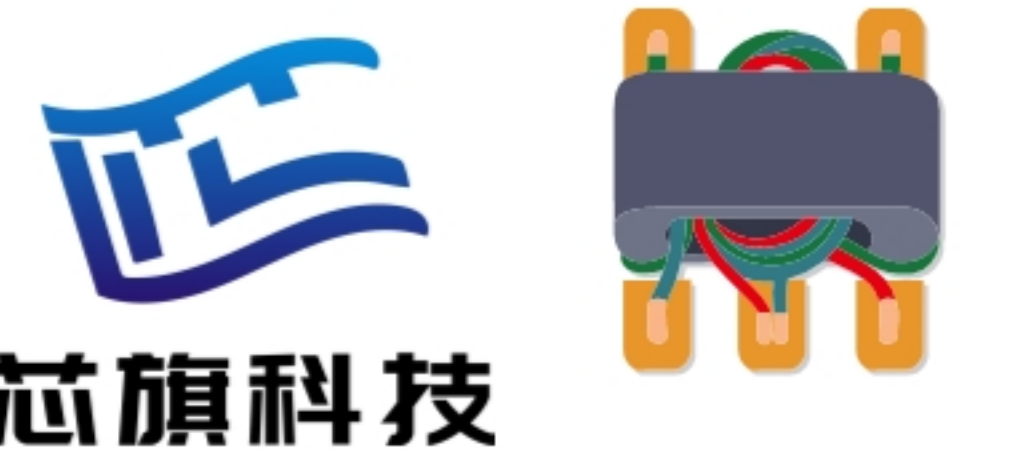


## Recommended layout:





# HBLTCA1-1-13MA+

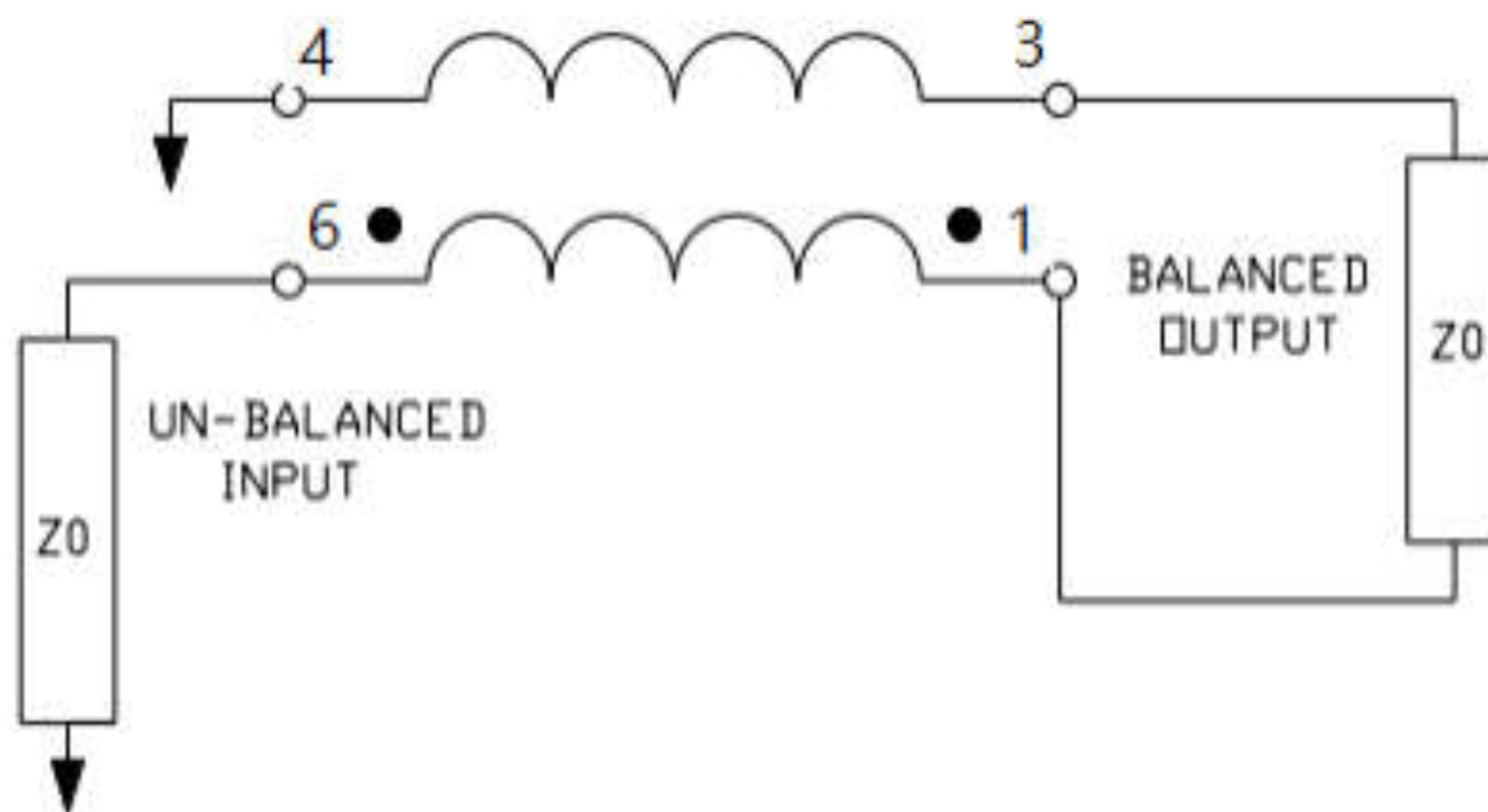


RF Balun Transformer, 1: 1 Transmission Line Transformer 4.5-3000 MHz Rev. 2

Pin configuration:

Pin No.	Function
1	Secondary (Output 2)
2	Not connected
3	Secondary dot (Output 1)
4	Primary dot (Input)
6	Primary (Ground)

Application circuit :

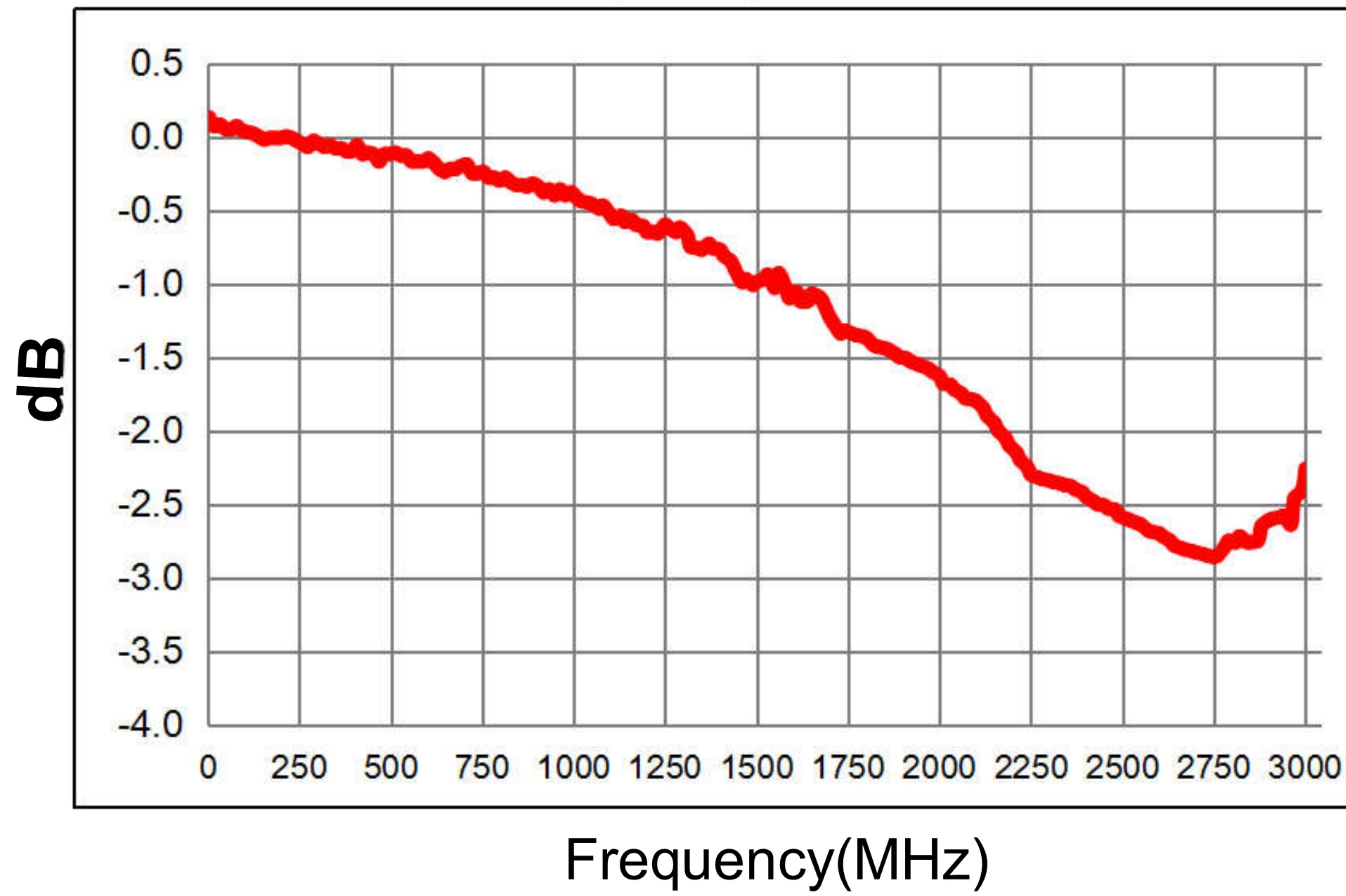


Electrical Specifications: TA=25°C , 0dBm,Z0=50Ω:

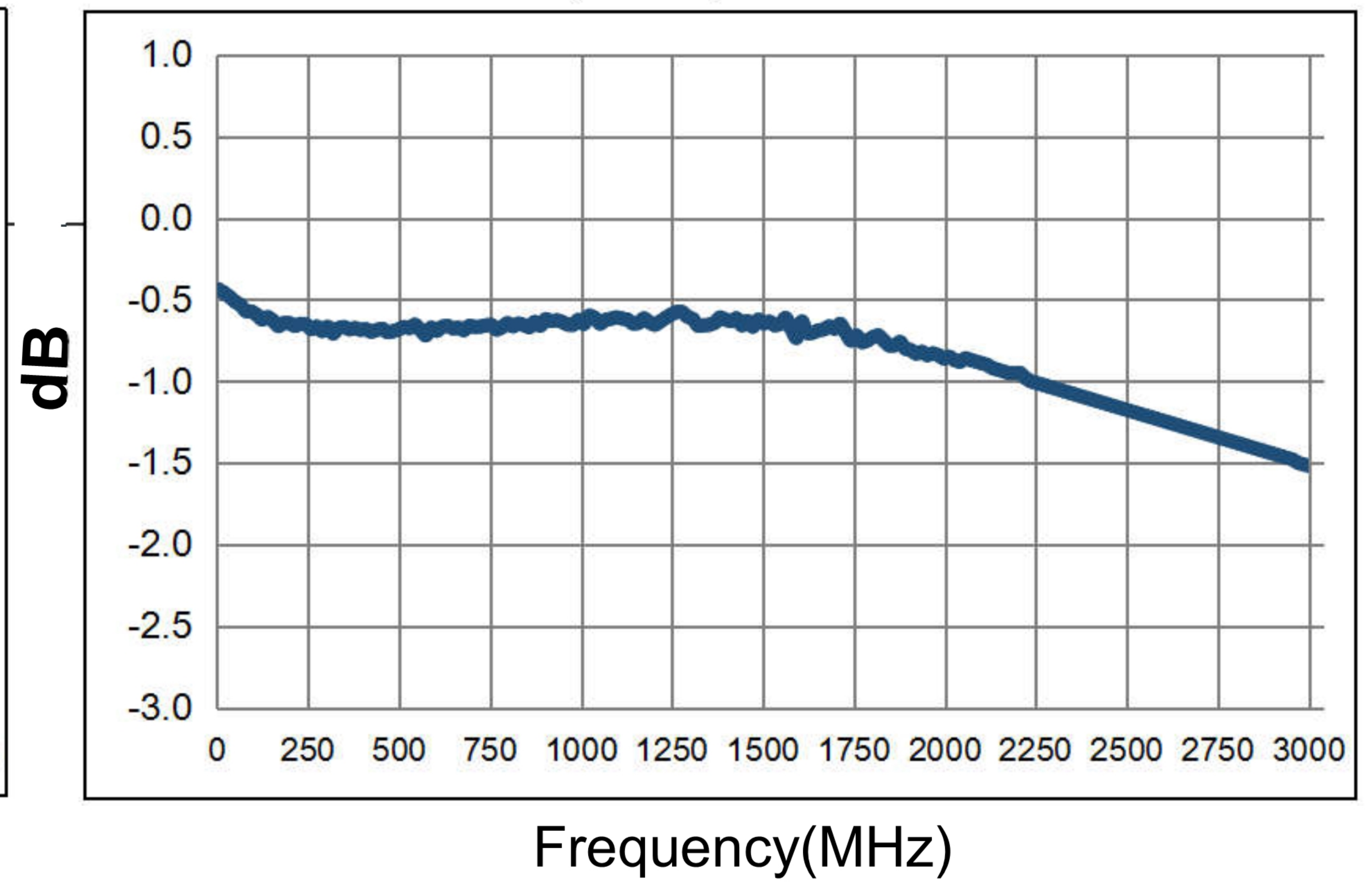
Parameter	Test Conditions	Units	Min	Typ	Max
Main line Loss(out1)	4.5-3000MHz	dB	—	1.50	3.50
Main line Loss(out2)	4.5-3000MHz	dB	—	0.70	3.50
Amplitude Balance	4.5-3000MHz	dB	—	±0.50	±1.00
Phase Balance	4.5-3000MHz	Degrees	—	±5.70	±10.00
Input Return Loss	4.5-3000MHz	dB	9.00	15.00	—



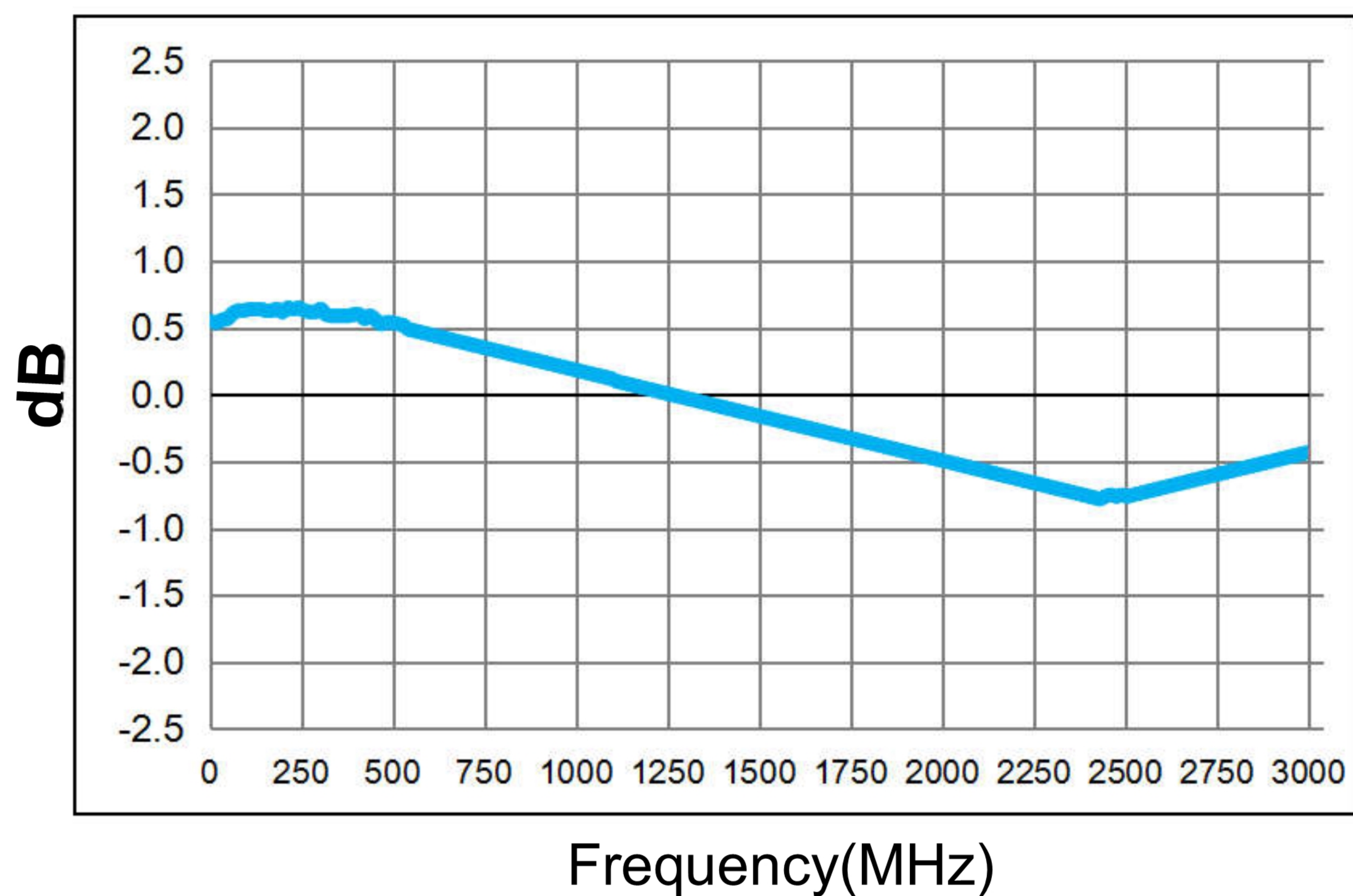
### Main line Loss(out1)



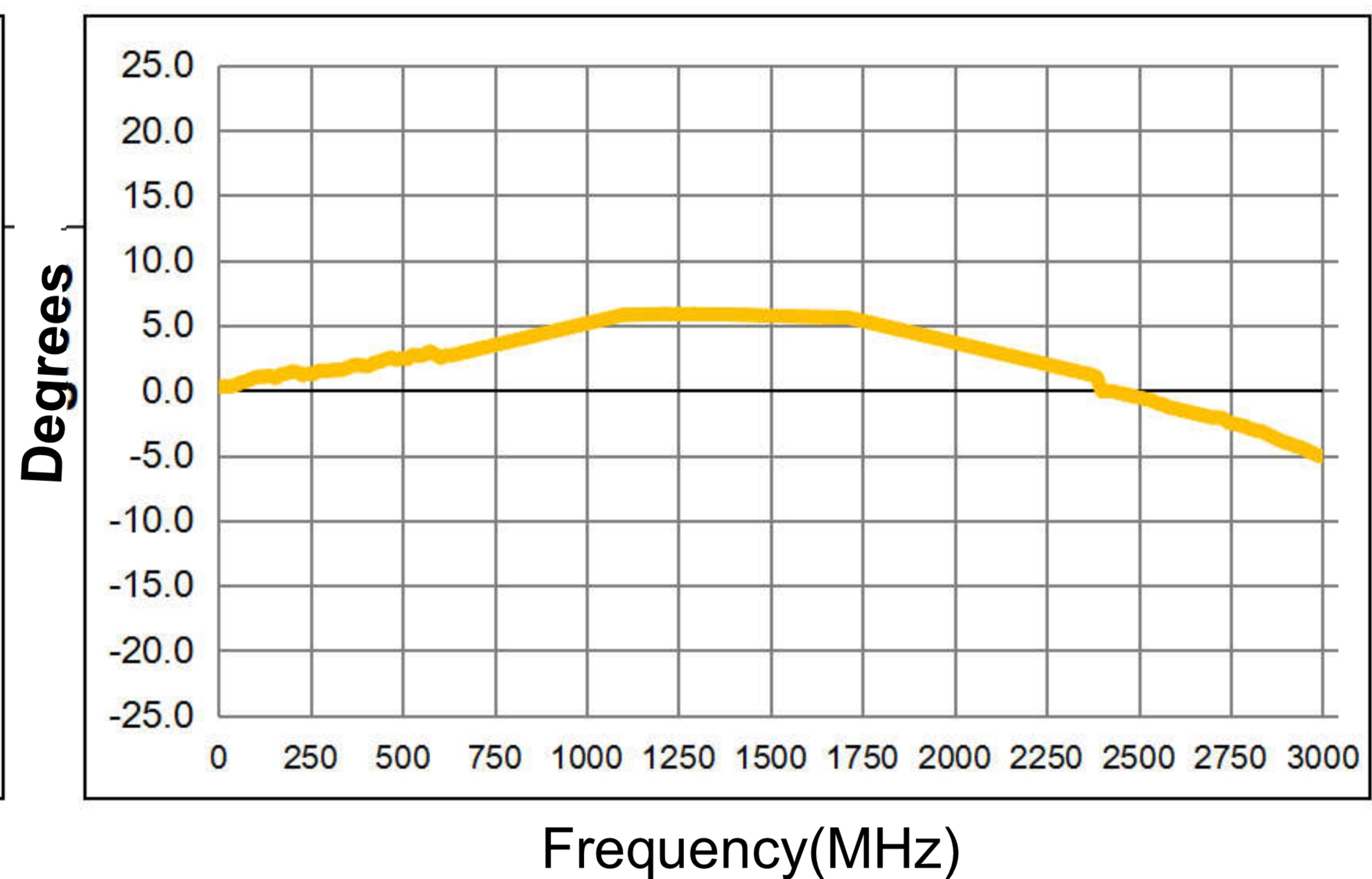
### Main line Loss(out2)



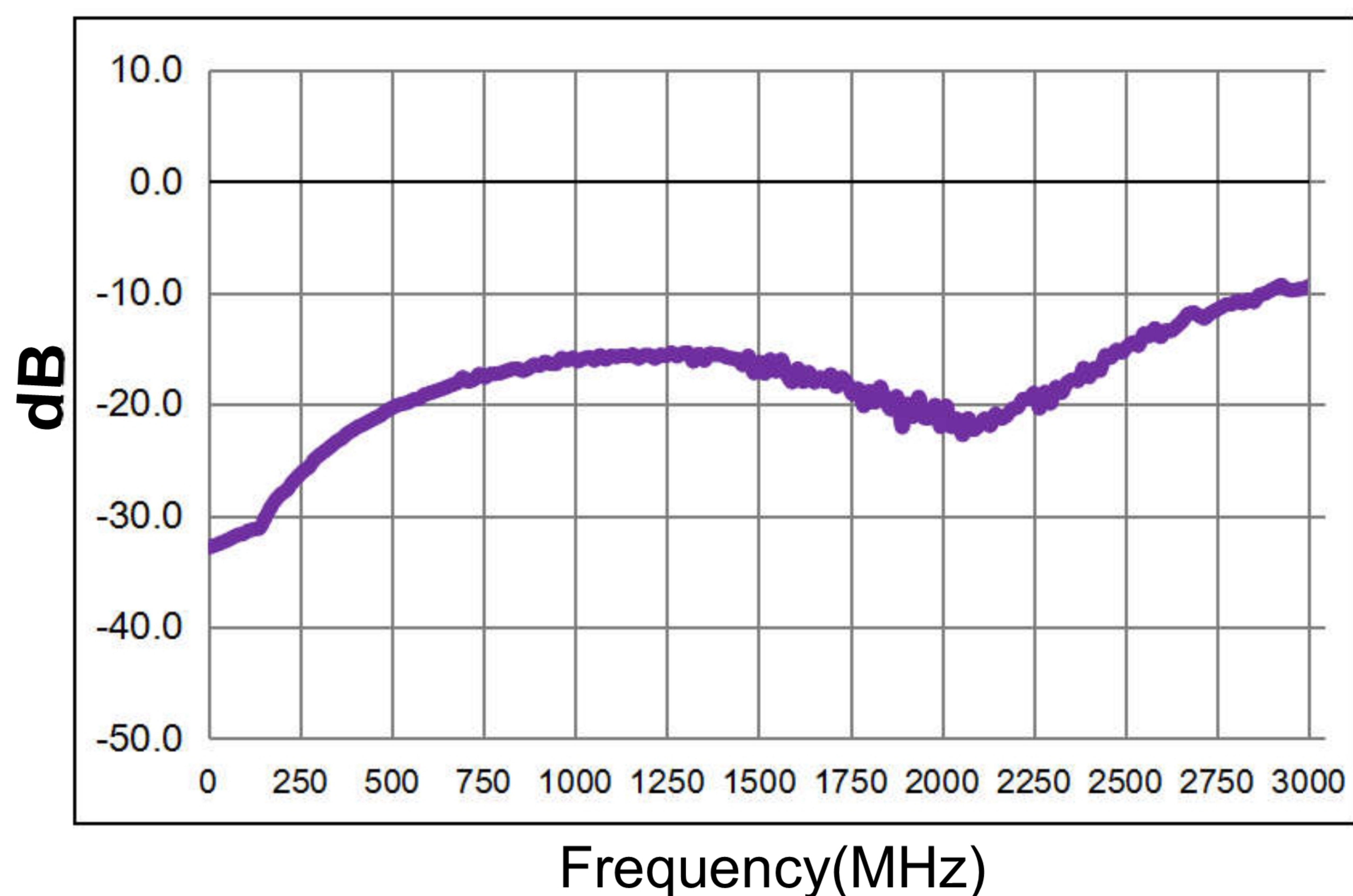
### Amplitude Balance



### Phase Balance



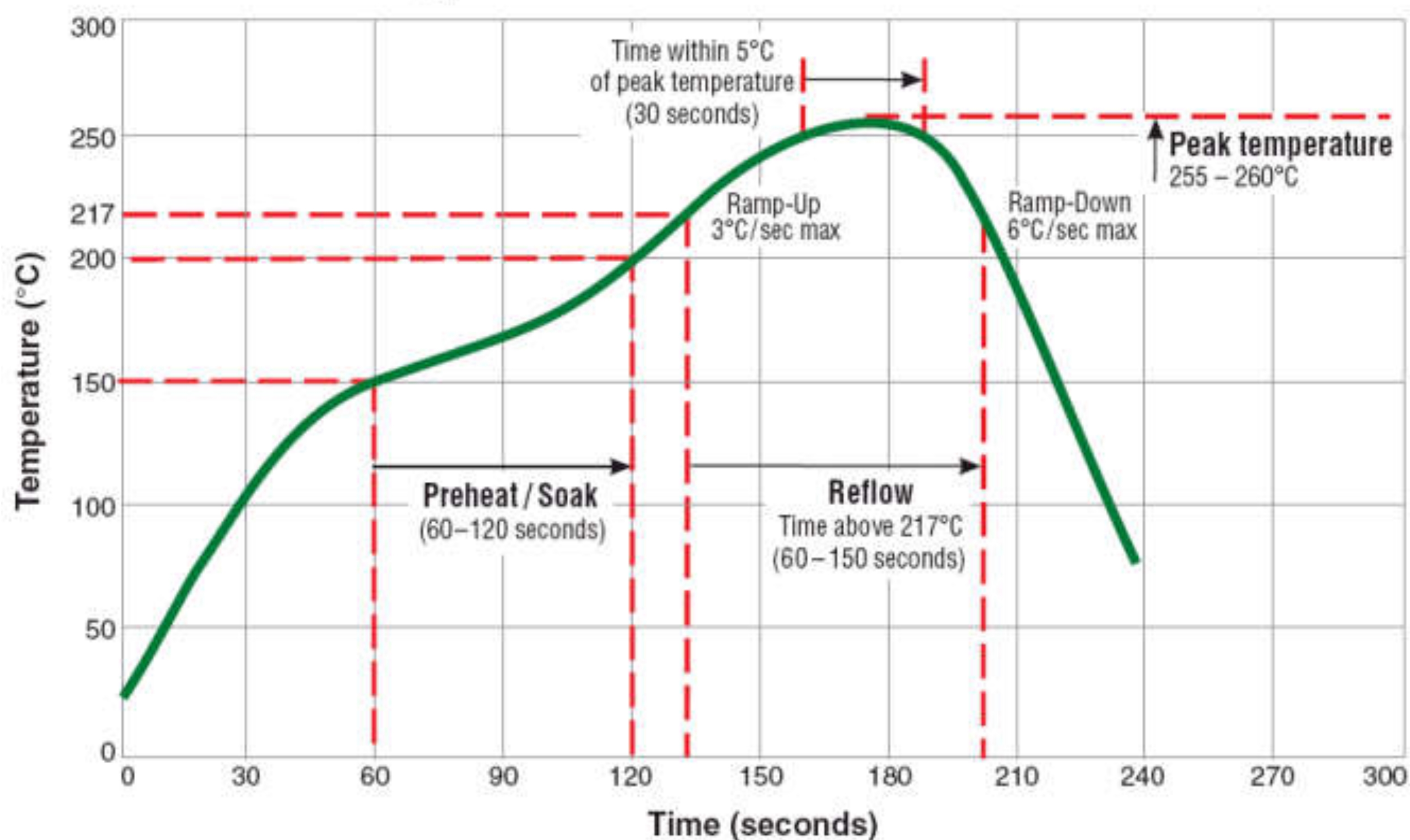
### Input Return Loss



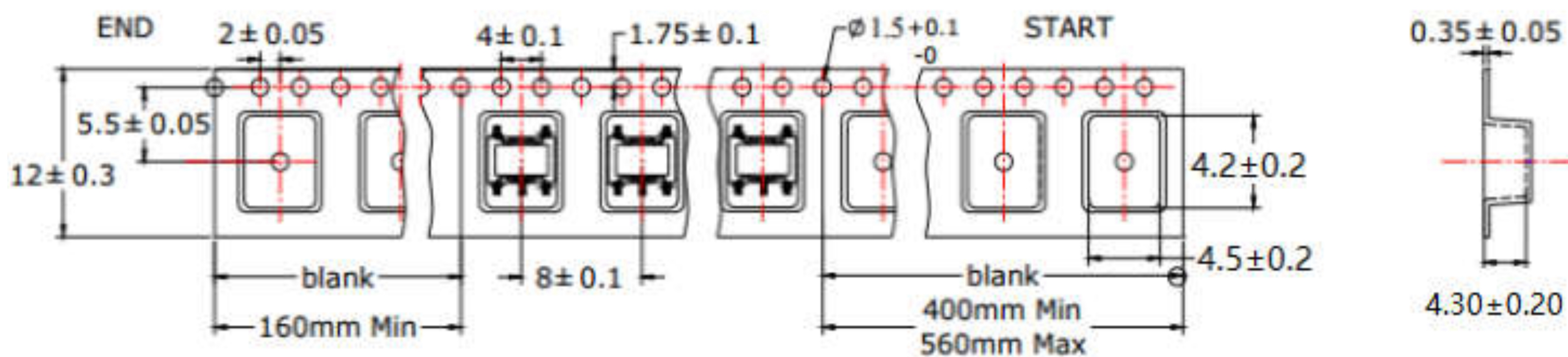


## Recommended Soldering Temperature Graph:

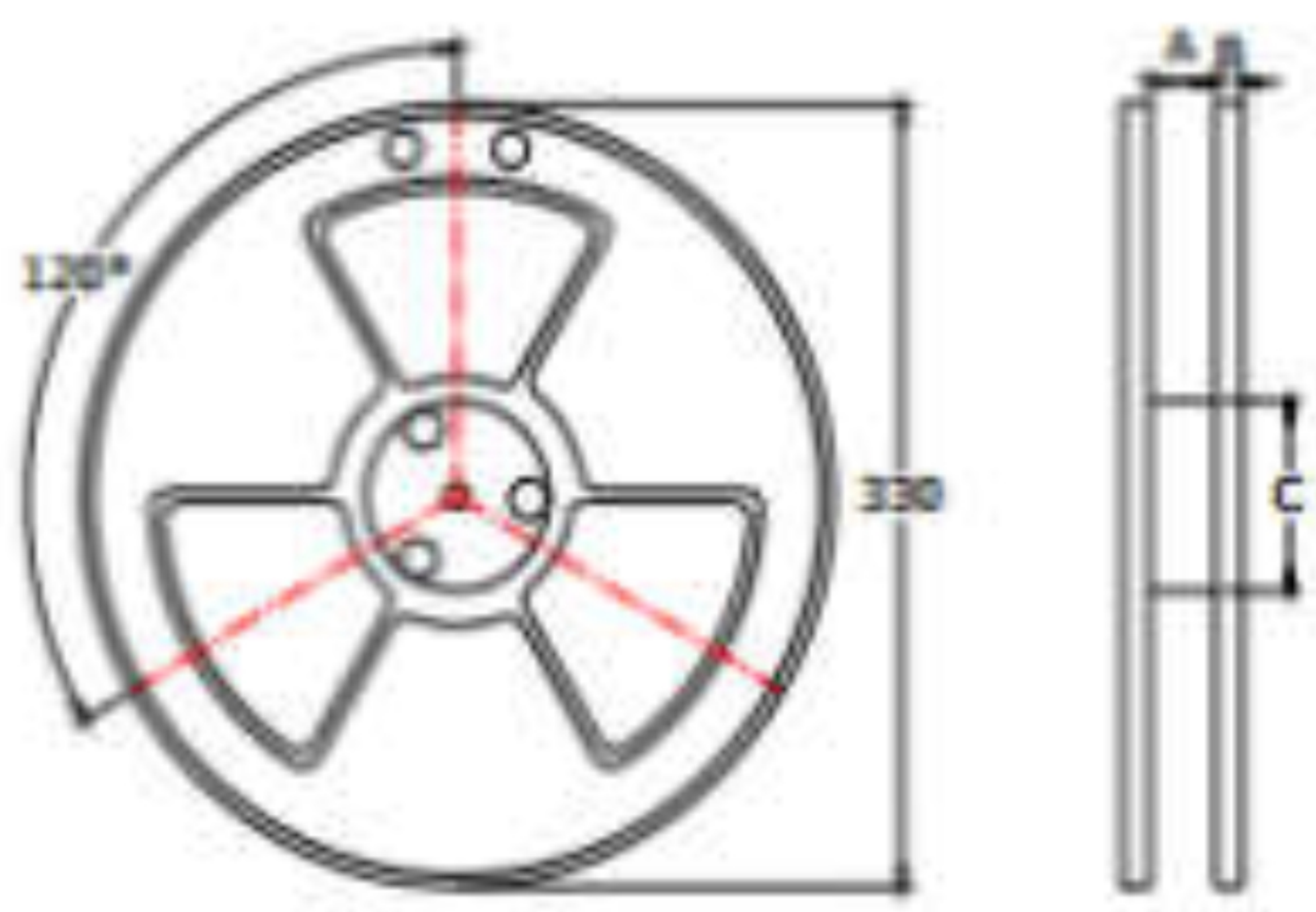
### Typical RoHS Reflow Profile



## Packging Dimension For Caeier Tape(UNIT:mm):



<b>QUANTITY</b>
2000PCS/Reel
4Reels/Middle Carton Middle Carton:
4 Middle Cartons/Big Carton
32000PCS/ Big Carton



<b>SPEC</b>	8	12	16	24
<b>DIM A±0.1</b>	8.5	12.5	16.5	24.5
<b>DIM B±0.1</b>	2.3	2.3	2.3	2.3
<b>DIM C±0.1</b>	100	100	100	100

