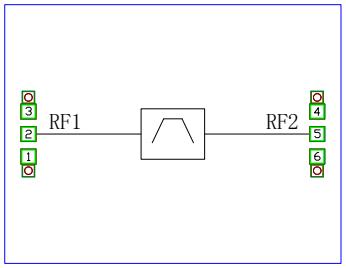
Features

·Passband Freq: 1.4-2.2GHz
·Passband Insertion Loss: 2.4 dB
·Stopband Attenuation:
34dB@1.0GHz
40dB@3.9GHz
·RF1 return loss: -17 dB
·RF2 return loss: -16 dB
·Die Size: 2.7×1.7×0.1mm^3

Functional Diagram



General Description

The MC1717 is a low pass filter with the passband frequency as 1.4-2.2GHz. The typical passband insertion loss is 2.4 dB.

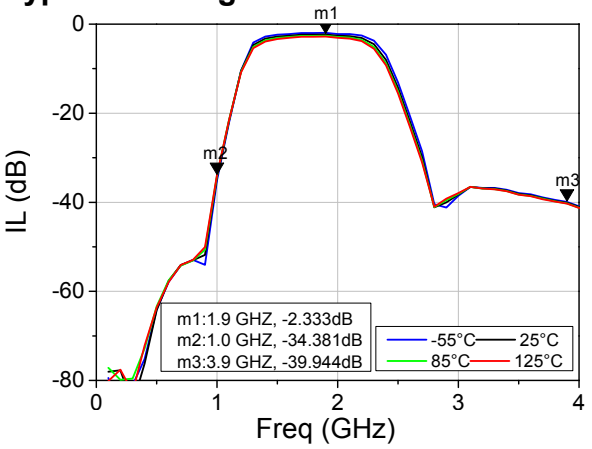
The Chip applies the on-chip metallization through-hole technology thus no need for additional grounding measures which makes it easy and convenient to use. The backside of the chip is metallized, suitable for conductive adhesive bonding or eutectic mounting process.

Electrical Specifications (TA=+25℃, 50Ω system)

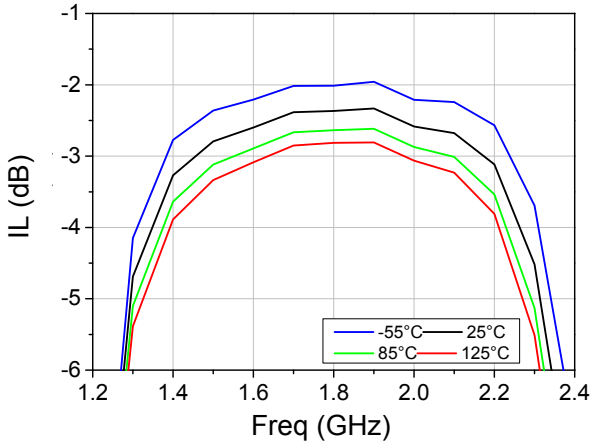
Parameter		Min.	Typ.	Max.	Unit
Passband Frequency	Freq	1.4	-	2.2	GHz
Passband Insertion Loss	IL	-	2.4	-	dB
RF1 Return Loss	RF1RL	-	-17	-	dB
RF2 Return Loss	RF2RL	-	-16	-	dB
Stopband Attenuation@1.0GHz	ISO	-	34	-	dB
Stopband Attenuation@3.9GHz	ISO	-	40	-	dB

[1] The chips are 100% DC and RF tested.

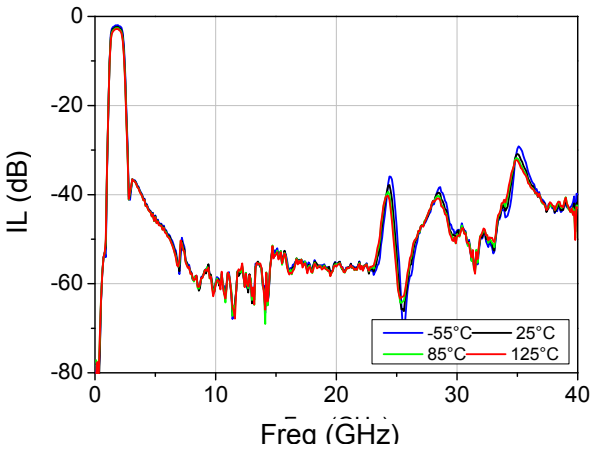
Typical Testing Characteristics



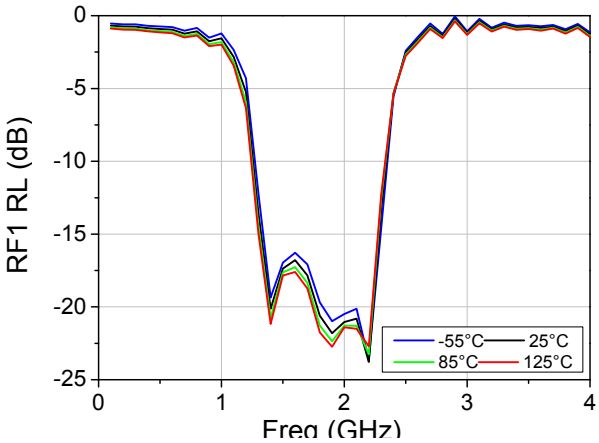
Insertion loss vs Frequency



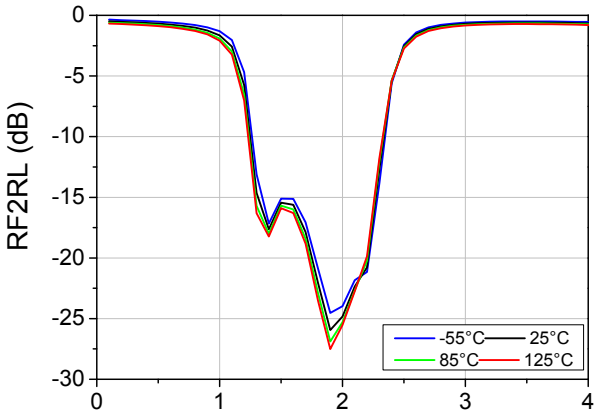
Insertion loss vs Frequency



Insertion loss vs Frequency



RF1 Return loss vs Frequency



Freq (GHz)
RF2 Return Loss vs Frequency

Absolute Maximum Ratings

Parameter Limits	Value
Input Power,50Ω	30dBm
Storage Temperature	-65~+150℃
Operating Temperature	-55~+125℃
Mounting Temperature (30s, N_2 Protection)	300℃
Exceeding the above conditions may cause permanent damage to the chip	

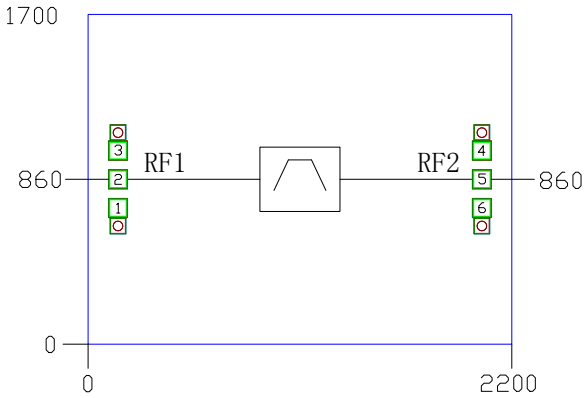
This product is ESD(Electrostatic discharge) sensitive. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

·Assembling in a clean environment.
·Avoiding rapid temperature changes during the mounting process.
·Do not touch the surface or use dry/wet chemical methods to clean the surface
·2 bonding wires for input and output (in figure /\), the bonding wires should be as short as possible.
·Storing in a dry, N_2 protection environment.

Pad Descriptions

Pad No.	Function	Description
2	RF1	RF signal input/output, 50Ω matched
5	RF2	RF signal input/output, 50Ω matched
1, 3, 4, 6	GND	Grounding pad for probe test
Die Bottom	GND	Die bottom must be connected to RF/DC ground

Outline Drawing



Notes:

1. Unit:μm
2. Back Side Metallization:Gold
3. Back side metal is ground
4. Bonding pad size: 100μm
5. Outline Dimensional Tolerance:±50 μm

Assembly Diagram