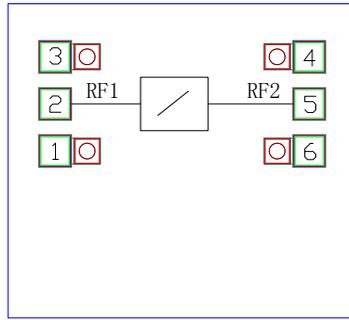


Features

- Freq: DC-2.0 GHz
- Insertion Loss: 0.3dB@2.0GHz
- Attenuation Slope: 2.9dB
- RF1 Return Loss: -20 dB
- RF2 Return Loss: -20 dB
- Die Size: 1.1×1.0×0.1mm³

Functional Diagram



General Description

The MC17027 is an equalizer which operates during DC-2.0 GHz. The attenuation slope is 2.9dB.

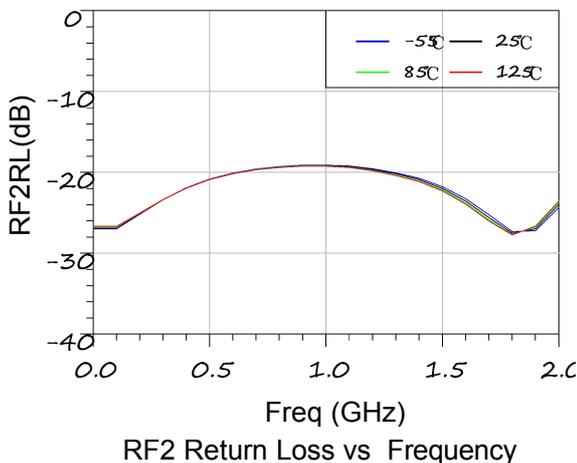
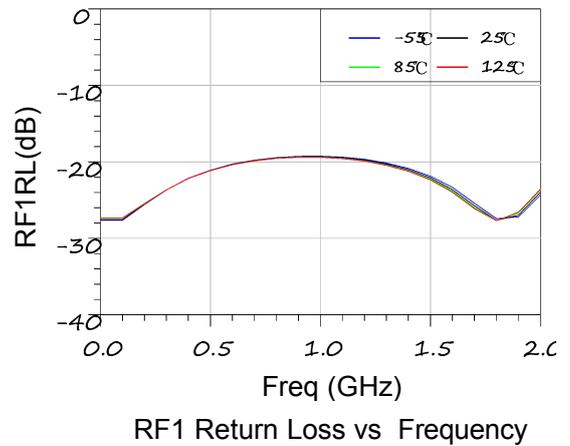
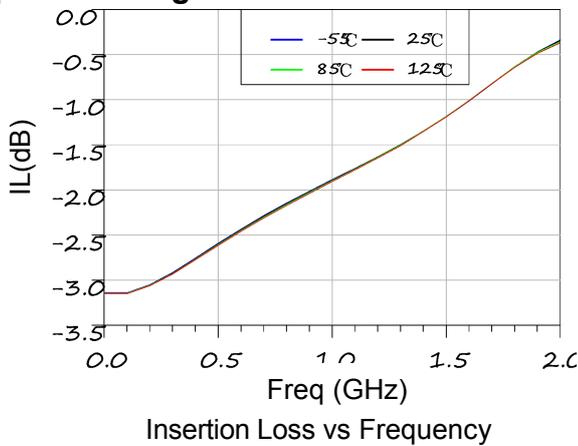
The Chip applies the on-chip metallization through-hole technology thus no need for additional grounding measures which makes it easy and convenient to use. The backside of the chip is metallized, suitable for conductive adhesive bonding or eutectic mounting process.

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

Parameter		Min.	Typ.	Max.	Unit
Frequency Range	Freq	DC	-	2.0	GHz
Insertion Loss	IL	-	0.3	-	dB
Attenuation Slope	ΔIL	-	2.9	-	dB
RF1 Return Loss	RF1RL	-	-20	-	dB
RF2 Return Loss	RF2RL	-	-20	-	dB

[1] The chips are 100% RF tested.

Typical Testing Characteristics



Absolute Maximum Ratings

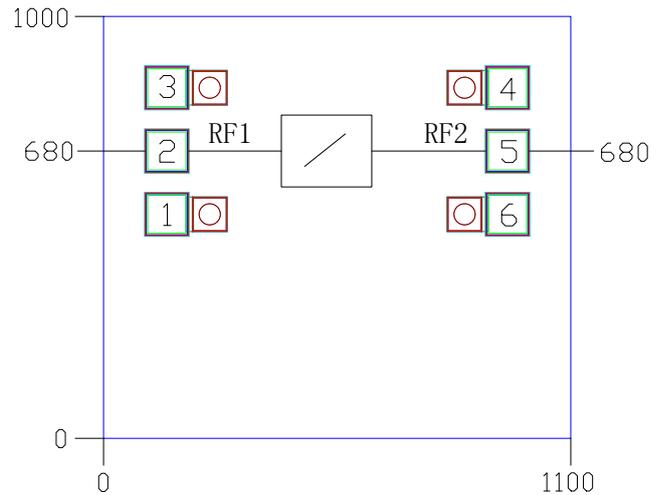
Parameter Limits	Value
Input Power, 50Ω	30dBm
Storage Temperature	-65~+150°C
Operating Temperature	-55~+125°C
Mounting Temperature (30s, N ₂ Protection)	300°C
Exceeding the above conditions may cause permanent damage to the chip	



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 八), the bonding wires should be as short as possible.
- Storing in a dry, N₂ protection environment.

Outline Drawing



Notes:

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

Pad Descriptions

Pad No.	Function	Description
2	RFIN	RF signal input/output, 50Ω matched
5	RFOUT	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

Assembly Diagram

