

## **FDCD4GDUF003 3G/4G Low Insertion Loss Diplexer**

### **Features**

- 3G/4G Whole operating band
- New circuit topology for excellent return loss and low insertion loss
- Novel Transmission zero control technology to enhance out-of-band rejection
- Passive integration on High-Si

### **Applications**

- Wireless communication

### **Specification**

#### **Low-Band**

Description	value
Insertion loss	0.65 dB max @0.699~0.960 GHz
VSWR	1.4 max @0.699~0.960 GHz
Attenuation	10.5 dB min @1.406-1.496 GHz 14 dB min @1.554-1.574GHz 19 dB min @1.648-1.724 GHz 18 dB min @1.710-2.690 GHz 20 dB min @1.760-1.830 GHz 28 dB min @2.109-2.244 GHz 30 dB min @2.110-2.170 GHz 25 dB min @2.331-2.361GHz 21 dB min @2.472-2.586 GHz 21 dB min @2.640-2.745GHz 15 dB min @3.4-3.6 GHz 21 dB min @4.905-5.85GHz 24 dB min @5.15-5.85 GHz 24 dB min @6.0-6.5GHz
Dimension	1.6mm*0.8mm*0.3mm

# Data Sheet -IPD

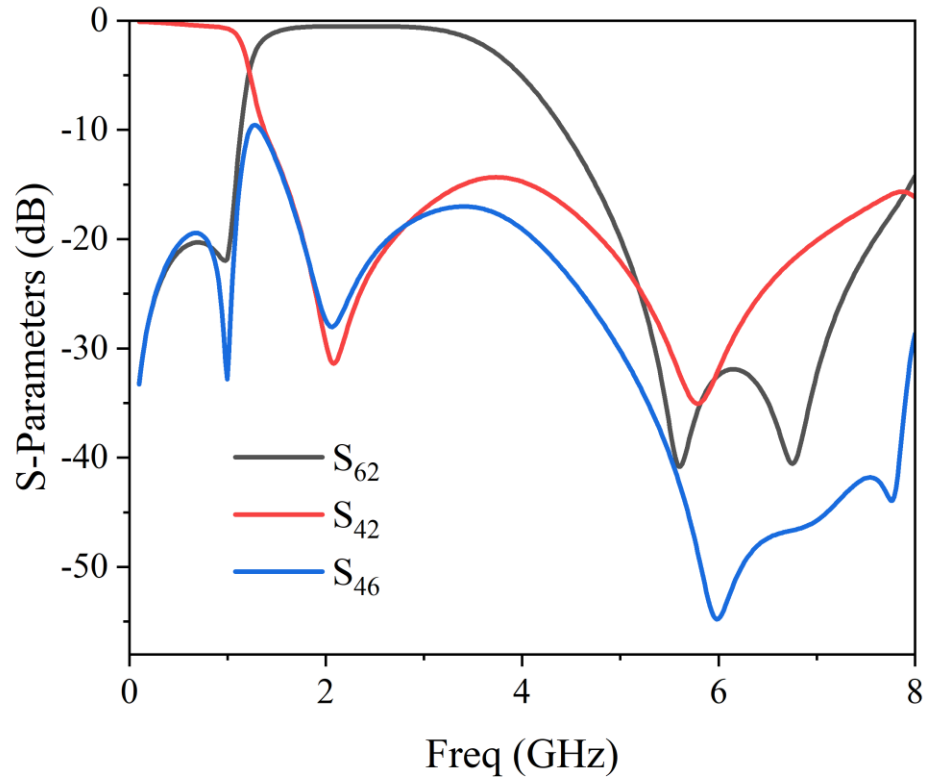


## High-Band

Description	Value
Insertion loss	0.64 dB max @ 1.71~2.69 GHz
VSWR	1.35 max @ 1.71~2.69 GHz
Attenuation	20 dB@0.699-0.915 GHz 22 dB@0.915-0.960GHz 18 dB dB@4.905-5.85 GHz 32 dB@6.030-6.075GHz 32 dB@6.0-6.5GHz
Dimension	1.6mm*0.8mm*0.3mm

Description	Value
Isolation	20 dB@0.699-0.915 GHz 24 dB@0.915-0.960GHz 19 dB@ 1.71-2.69 GHz 27 dB@2.110-2.170GHz 27 dB@2.112-2.148GHz
Power Capacity	3.0 W max (at 50% duty)

## Electrical Performance

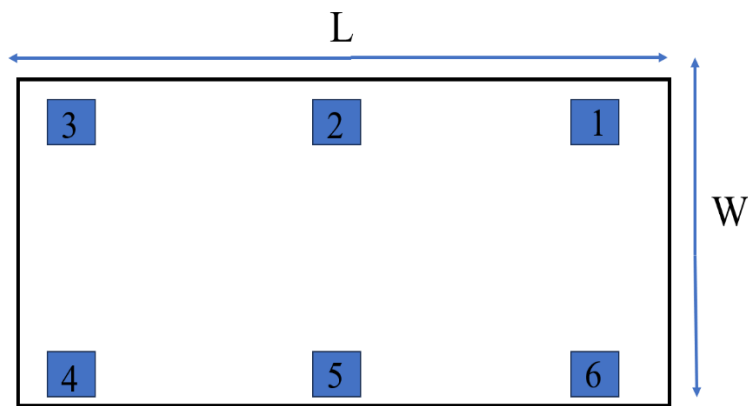


\*Designed by UltraEM V202109, Faraday Dynamics, Inc., Hangzhou, Zhejiang, China, 2023

## Layout & Dimension

### Dimension

Max Length--L(mm)	1.6
Max Width--W(mm)	0.8
Max Height--H(mm)	0.3
Package	FlipChip



Top View

### PIN Description

PIN	Description
1	GND
2	Port 3 (common)
3	GND
4	Port 2 (Low Band)
5	GND
6	Port 1 (High Band)