

MDPX17222538D21

Diplexer For 1710-2200MHz / 2496-3800MHz

MECSINE 兆讯

Multilayer Diplexer

For 1710-2200MHz / 2496-3800MHz

MDPX17222538D21

2.0 x 1.25mm [EIA 0805]

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com may contain us for future information
Feb. 03, 2024

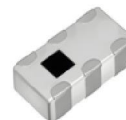
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APPLICATIONS

- 1, Low Insertion Loss
- 2, Small size in 0805
- 3, Excellent high-power capacity up to 2W
- 4, RoHS compliance (Pb-Free)



DESCRIPTION

The MDPX17222538D21 is a low cost, high performance band pass filter in an easy to use surface mount package. The MDPX17222538D21 is ideal for low insertion loss and wide band application. It is suitable used in smart phone, 5G module and other IOT modules. It is constructed from ceramic which possess excellent electrical and mechanical stability. All components are 100% RF tested.

MAXIMUM RATINGS

Characteristic	Ratings	Units
RF Power (in BW)	33	dBm
Operating Temperature Range	-40~+85	°C
Storage Temperature Range	-40~+85	°C
Moisture Sensitivity Levels	3	MSL
ESD Level Human Body Model	8000	V

ELECTRICAL CHARACTERISTICS

Low-Band

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1710 to 1980	-	0.5	0.8(-40 to +85°C)
	2110 to 2170	-	0.8	1(-40 to +85°C)
	2170 to 2200	-	1	1.5(-40 to +85°C)
Return Loss (dB)	1710 to 1980	10	16	-
	2170 to 2200	10	15	-
Attenuation (dB)	2496 to 2690	15	18	-
	2690 to 3800	20	30	-
Characteristics Impedance (Ω)		50 (Nominal)		

- Ta: +25±5°C

High-Band

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	2496 to 2690	-	0.6	1.0 (-40 to +85°C)
	3300 to 3800	-	0.9	1.5 (-40 to +85°C)
Return Loss (dB)	2496 to 2690	10	16	-
	3300 to 3800	10	18	-
Attenuation (dB)	1710 to 1980	15	18	-
	2110 to 2170	15	23	-

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2170 to 2200

15

23

-

Characteristics Impedance (Ω)

50 (Nominal)

• Ta: +25±5°C

Common

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Return Loss (dB)	1710 to 1980	10	20	-
	2110 to 2200	10	15	-
	2496 to 3800	8	12	-
Isolation (dB)	1710 to 1980	15	18	-
	2110 to 2200	15	18	-
	2496 to 3800	15	18	-

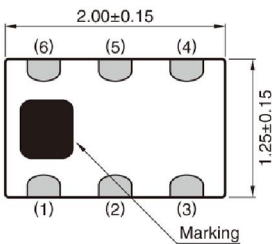
Characteristics Impedance (Ω)

50 (Nominal)

• Ta: +25±5°C

SHAPES AND DIMENSIONS

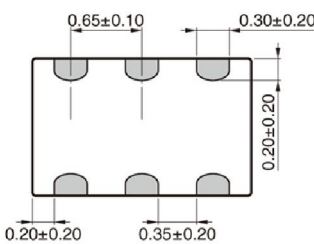
Top View



Side View



Bottom View



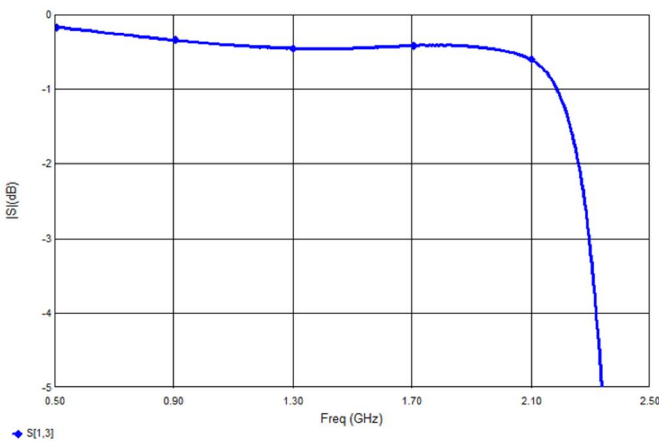
Terminal Functions

1	GND
2	Common
3	GND
4	High-Band
5	GND
6	Low-Band

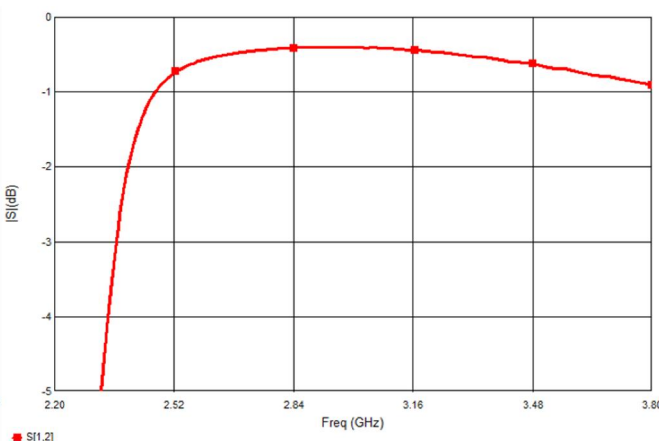
Unit: mm

FREQUENCY CHARACTERISTICS

Low-Band Insertion Loss



High-Band Insertion



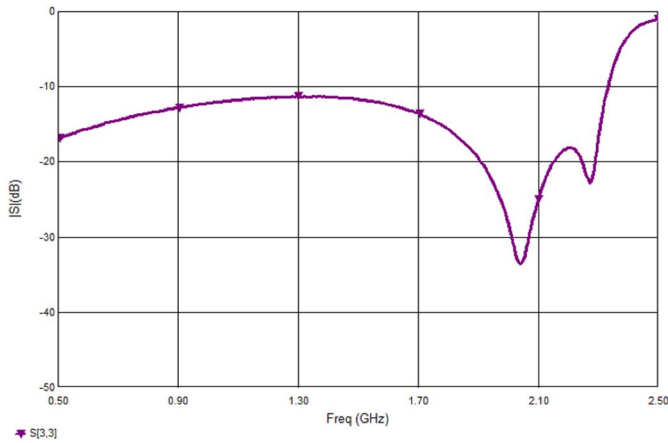
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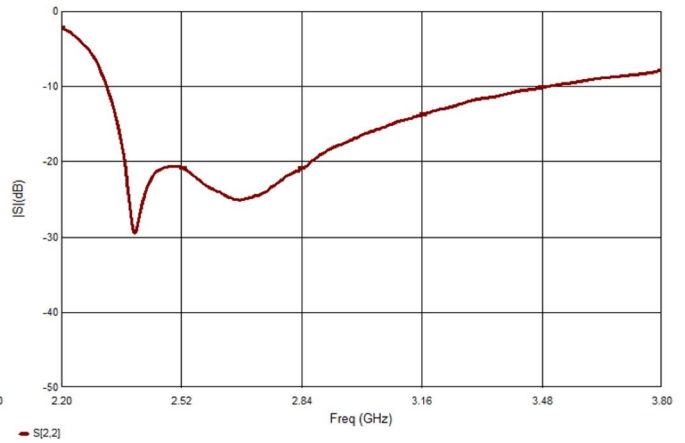
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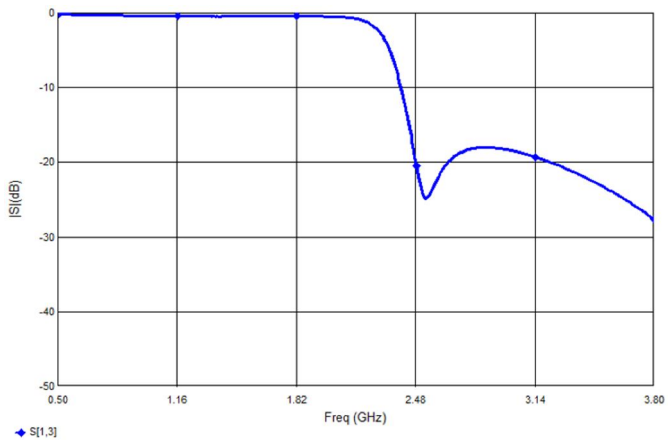
Low-Band Return Loss



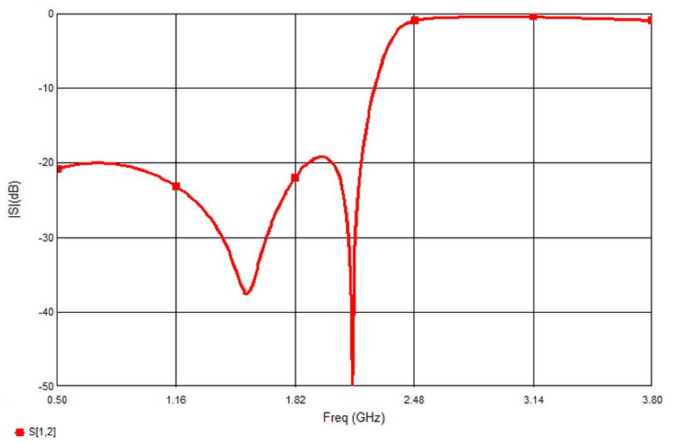
High-Band Return Loss



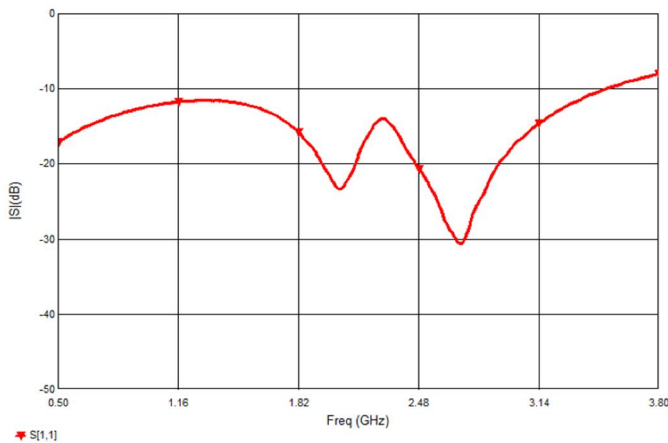
Low-Band Attenuation



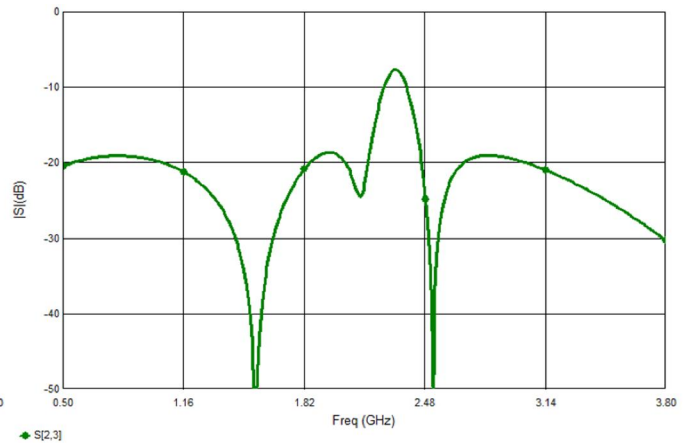
High-Band Attenuation



Common Return Loss



Common Isolation



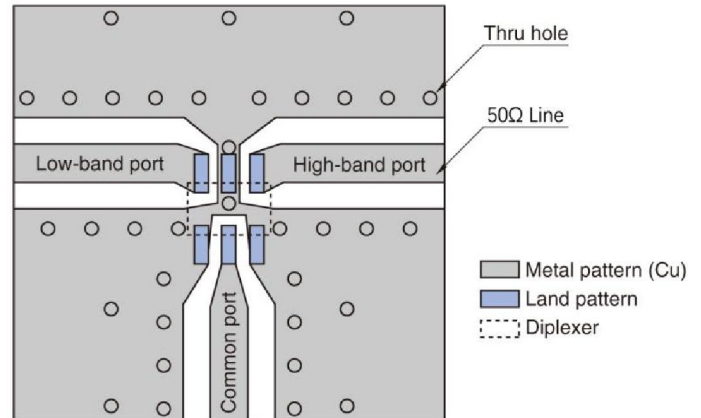
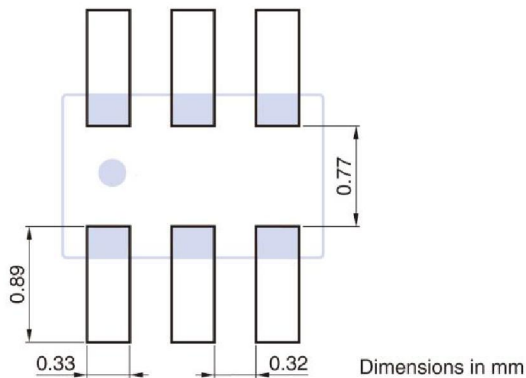
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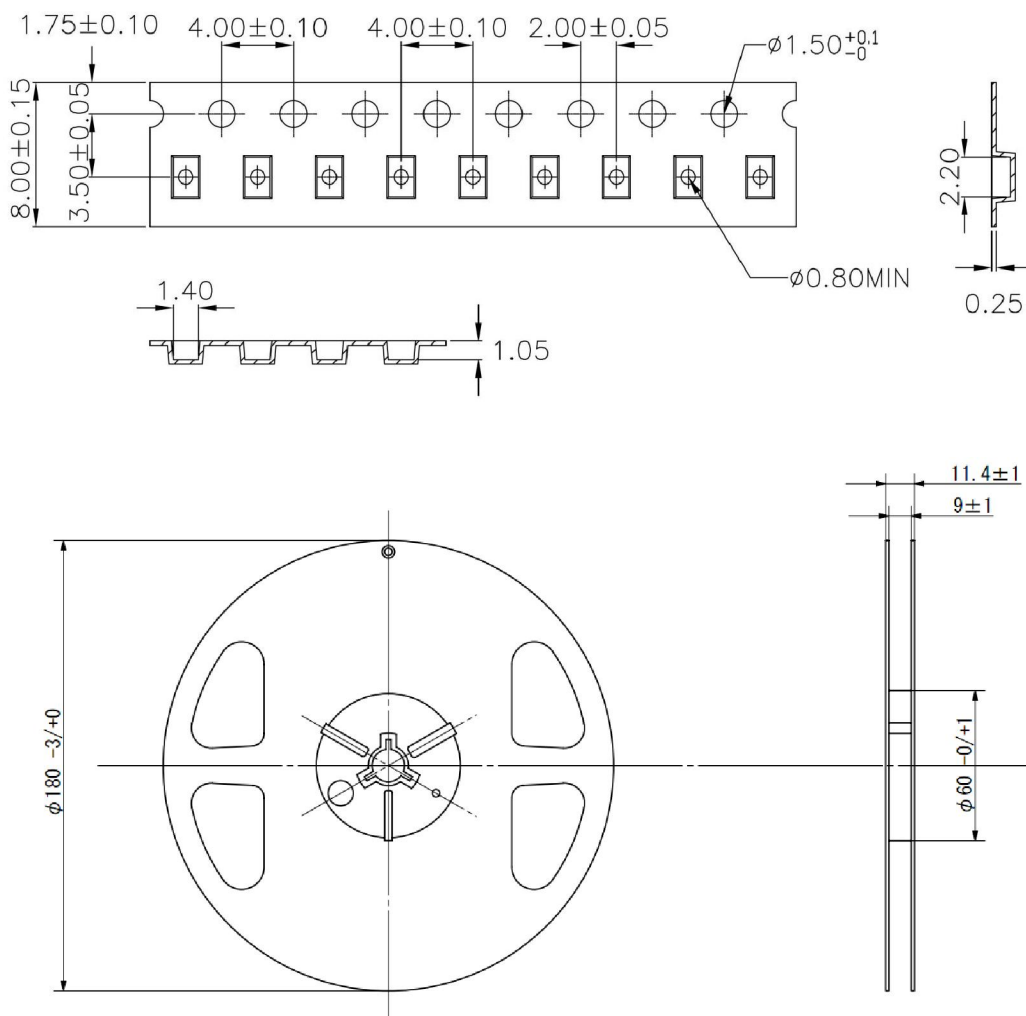
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RECOMMENDED LAND PATTERN AND EVALUATION BOARD



PACKAGING AND ORDERING INFORMATION



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Device	Package	Reel	Shipping
MDPX17222538D21	2.0*1.25mm	7"	3000 Reel

Revision	Description	Date
Rev0	Preliminary	2024/2/26

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