

MDPX1216D21

Diplexer For 1166-1280MHz / 1525-1606MHz

MECSINE 兆讯

Multilayer Diplexer

For 1166~1280MHz / 1525~1606MHz

MDPX1216D21

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 5W
- 4, AEC-Q200 qualified
- 5, RoHS compliance (Pb-Free)

DESCRIPTION

The MDPX1216D21 is a low cost, high performance diplexer in an easy to use surface mount package. The MDPX1216D21 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 and PTFE which possess excellent electrical and mechanical stability. All components are 100% RF tested.

MAXIMUM RATINGS

Characteristic	Ratings	Units
RF Power (in BW)	37	dBm
Operating Temperature Range	-40~+125	°C
Storage Temperature Range	-55~+125	°C
Moisture Sensitivity Levels	3	MSL
ESD Level Human Body Model	1000	V

ELECTRICAL CHARACTERISTICS

Low-Band

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1166 to 1240	-	0.5	0.8(-55 to +105°C)
	1240 to 1280	-	0.8	1(-55 to +105°C)
Return Loss (dB)	1166 to 1240	10	20	-
	1240 to 1280	10	19	-
Attenuation (dB)	1525 to 1575	7	9	-
	1575 to 1605	8	11	-
Characteristics Impedance (Ω)		50 (Nominal)		

- Ta: +25±5°C

High-Band

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1525 to 1575	-0.9	1.8	1.0 (-55 to +105°C)
	1575 to 1605	-1.0	2.0	1.5 (-55 to +105°C)
Return Loss (dB)	1525 to 1575	10	19	-
	1575 to 1605	10	15	-
Attenuation (dB)	1166 to 1240	9	12	-
	1240 to 1280	10	15	-
Characteristics Impedance (Ω)		50 (Nominal)		

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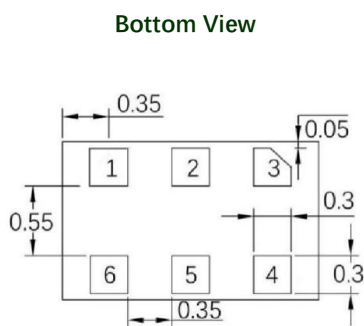
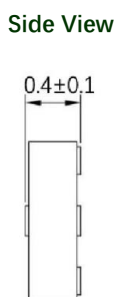
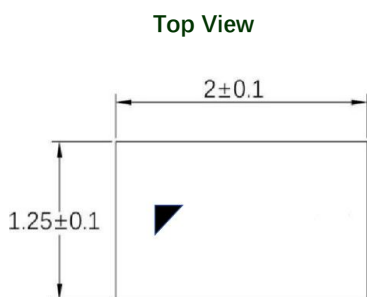
- Ta: +25±5°C

Common

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Return Loss (dB)	1166 to 1280	8	10	-
	1525 to 1606	8	10	-
Isolation (dB)	1166 to 1280	10	19	
	1525 to 1606	10	18	
Characteristics Impedance (Ω)		50 (Nominal)		

- Ta: +25±5°C

SHAPES AND DIMENSIONS

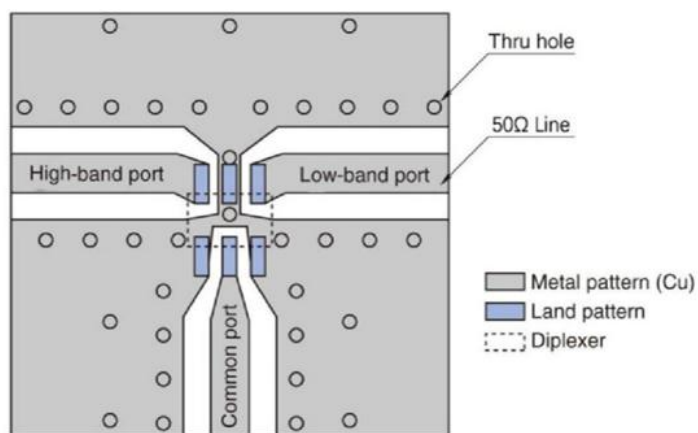
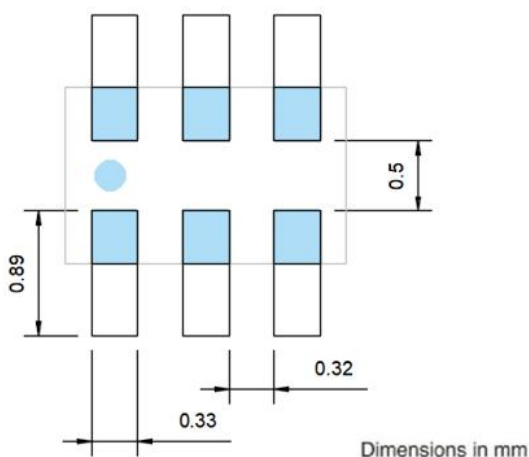


Terminal Functions

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

Unit: mm

RECOMMENDED LAND PATTERN AND EVALUATION BOARD



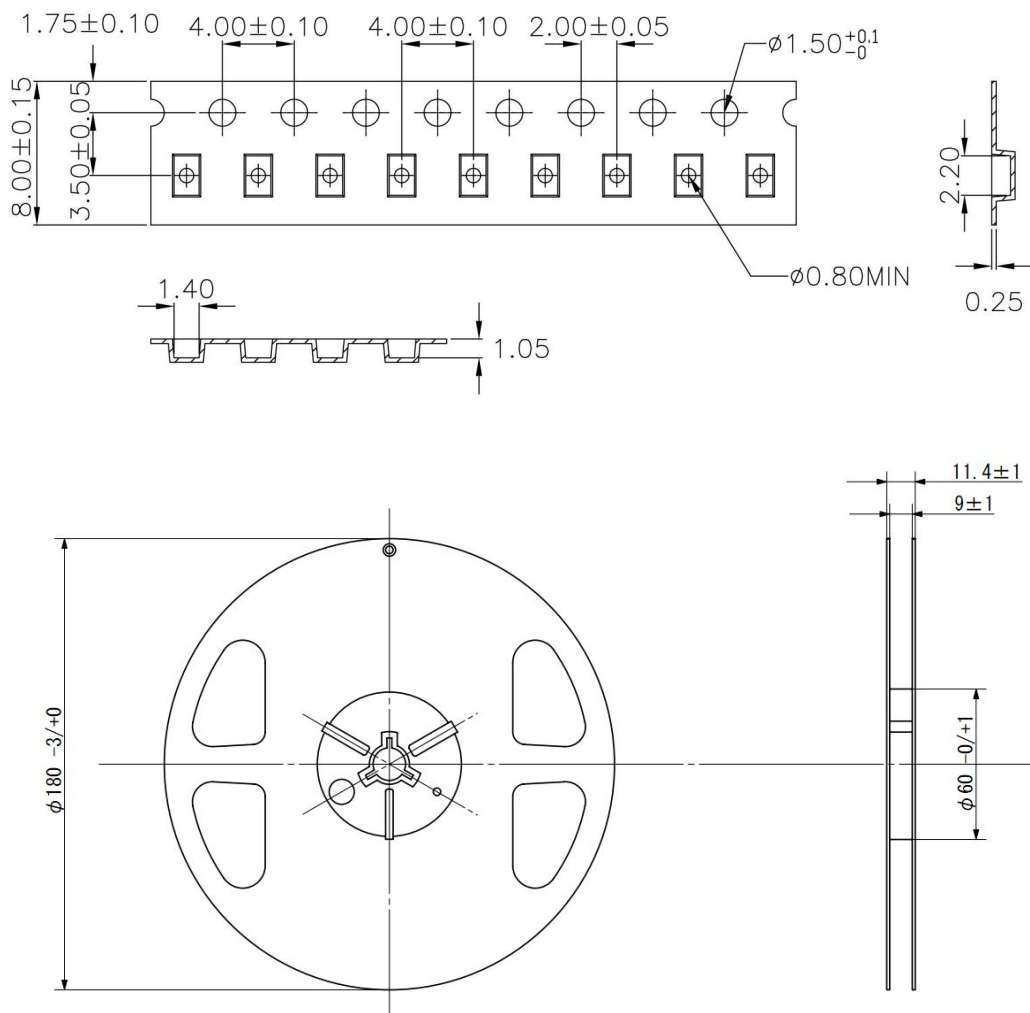
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PACKAGING AND ORDERING INFORMATION



Device	Package	Reel	Shipping
MDPX25381722D21	2.0*1.25mm	7"	5000 Reel

Revision	Description	Date
Rev0	Preliminary	2024/2/26
Rev1	Packaging	2025/6/13
Rev2	Update	2026/8/6

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