

MDPX24255159D16

Diplexer For 2400-2500MHz / 5100-5950MHz

MECSINE 兆讯

Multilayer Diplexer

For 2400-2500MHz / 5100-5900MHz

MDPX24255159D16

1.6 x 0.8mm [EIA 0603]

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

MDPX24255159D16

Diplexer For 2400-2500MHz / 5100-5950MHz



APPLICATIONS

- 1, Low Insertion Loss
- 2, Small size in 0603
- 3, Excellent high-power capacity up to 2W
- 4, RoHS compliance (Pb-Free)
- 5, AEC-Q200 qualified

DESCRIPTION

Megsine' MDPX24255159D16 is a MiPD diplexer with a low passband from 2400 to 2500 MHz and a high passband from 5100 to 5950 MHz, optimized for diplexing Wi-Fi low band and high band signals. The MDPX24255159D16 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~+125	°C
Storage Temperature Range	-40~+125	°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)	2400 to 2500	-	0.85	1
Return Loss (dB)	2400 to 2500	10	16	-
Attenuation (dB)	4800 to 5000	18	25	-
	7200 to 7500	18	25	-
Characteristics Impedance (Ω)		50 (Nominal)		

- Ta: +25±5°C

High-Band

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	5100 to 5950	-	0.85	1.45
Return Loss (dB)	5100 to 5950	10	22	-
Attenuation (dB)	1800 to 2500	20	32	-
	3700 to 3800	10	15	-
	9800 to 11900	10	25	-
Characteristics Impedance (Ω)		50 (Nominal)		

- Ta: +25±5°C

All Use For RF & Microwave

MDPX24255159D16

Diplexer For 2400-2500MHz / 5100-5950MHz

MECSINE 兆讯

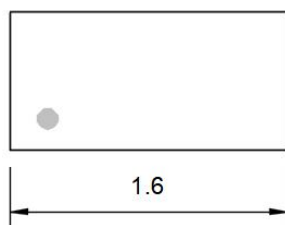
Common

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Isolation (dB)	2400 to 2500	15	30	-
	5100 to 5950	15	20	-
Characteristics Impedance (Ω)		50 (Nominal)		

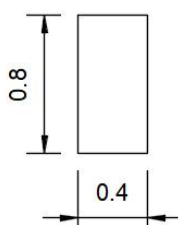
- Ta: +25 $\pm$ 5°C

SHAPES AND DIMENSIONS

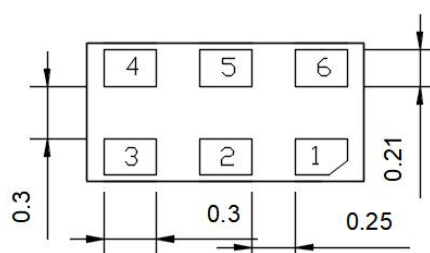
Top View



Side View



Bottom View



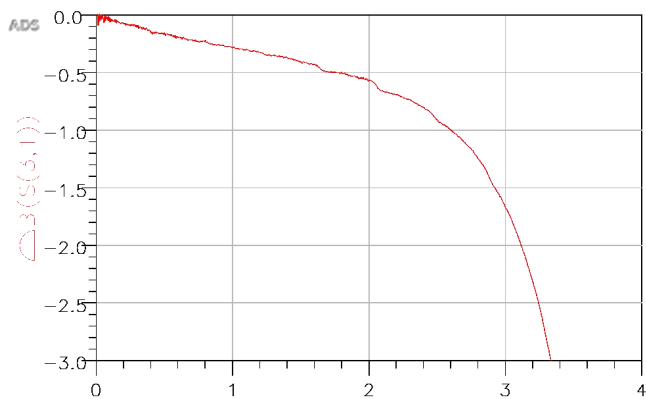
Terminal Functions

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

Unit: mm Tolerance: ± 0.1

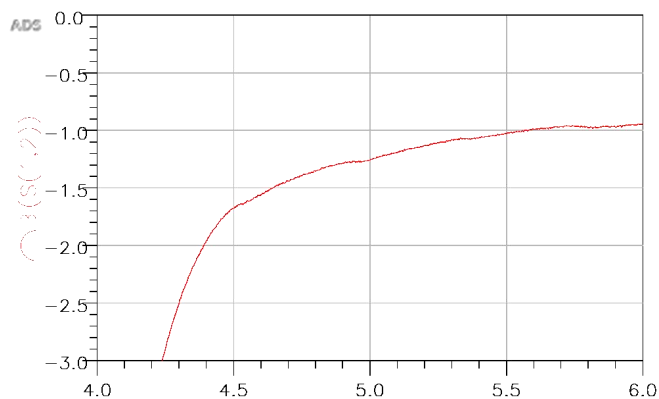
FREQUENCY CHARACTERISTICS

Low-Band Insertion Loss



Low-Band Return Loss

High-Band Insertion Loss



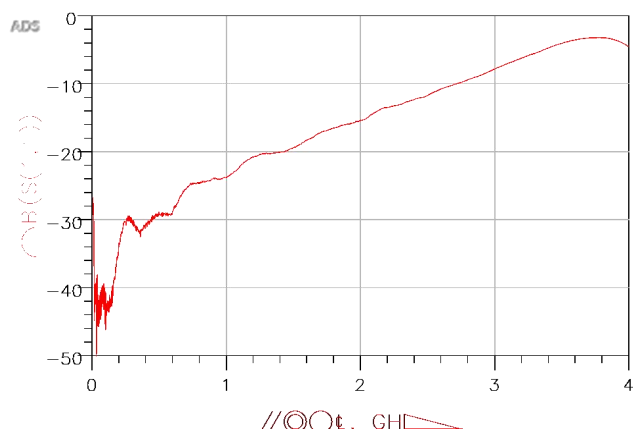
High-Band Return Loss

All Use For RF & Microwave

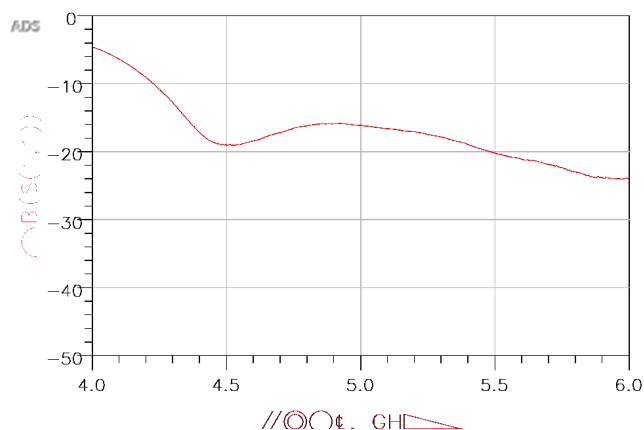
MDPX24255159D16

Diplexer For 2400-2500MHz / 5100-5950MHz

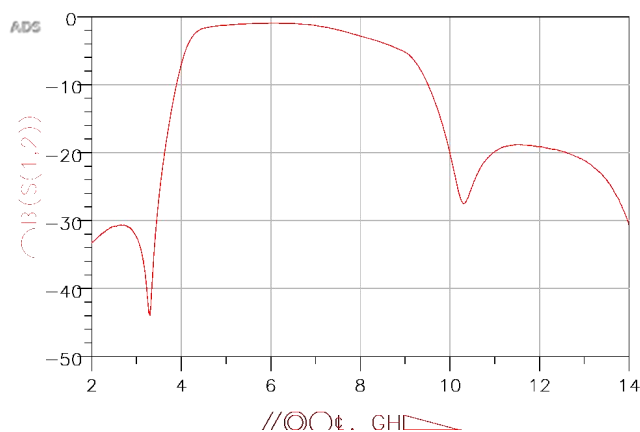
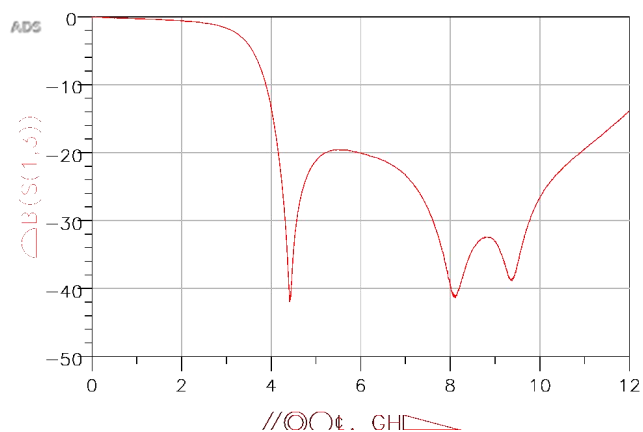
MECSINE 兆讯



Low-Band Attenuation



High-Band Attenuation



Device	Package	Reel	Shipping
MDPX24255159D16	1.6*0.8mm	7"	5000 Reel

Revision	Description	Date
Rev0	Preliminary	2024/2/26

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