Coaxial

Diplexer

ZDPLX-592-S+

50Ω 2.4 to 5.9 GHz
(2.4 - 2.5, 5.1- 5.9 GHz)

Generic photo used for illustration purposes only

CASE STYLE: K18

The Big Deal

- Very Low insertion loss, 0.8 dB typical
- High co-channel Rejection, 40 dB typical
- Connectorized package

Product Overview

ZDPLX-592-S+ is a high performance hybrid diplexer with the lowpass port at 2.4 - 2.5 GHz and highpass port at 5.1 - 5.9 GHz. Bulit in a rugged connectorized package, this diplexer finds its application in Wi-Fi communication systems with high speed data rates.

Key Features

Feature	Advantages
Low passband insertion loss	Very low insertion loss ensures less signal loss through the device.
Excellent co-channel rejection	Co-channel rejection of 40 dB ensures unwanted spurious are eliminated
Connectorized package	Connectorized package is easy to interface with other devices and well suited for test setups.

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Connectors	Model
SMA	ZDPLX-592-S+
BRACKET (OPTION "B")	

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W

Permanent damage may occur if any of these limits are exceeded.

Features

- Low insertion loss
- Very good co-channel rejection
- Connectorized package

Applications

- Wi-Fi communication systems
- Mobile satellite
- Private & public land mobile

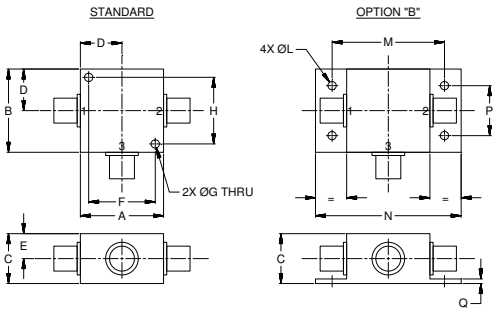
+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Coaxial Connections

HIGH PASS PORT	2
LOW PASS PORT	3
COMMON PORT	1

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.25	**1.25**	**.75**	**.63**	**.38**	**1.000**	**.125**	**1.000**
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

J	K	L	M	N	P	Q	Wt.
--	**--**	**.125**	**1.688**	**2.18**	**.75**	**.07**	**grams**
--	--	3.18	42.88	55.37	19.05	1.78	**70.0**

Note: Please refer to case style drawing for details

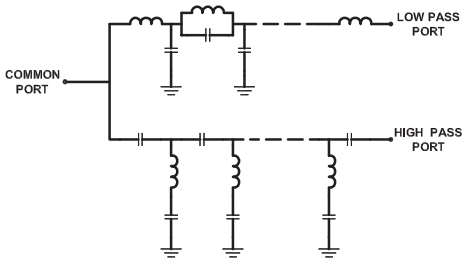
Electrical Specifications at 25°C

Parameter		Port	Frequency (GHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	Low Pass	2.4-2.5	-	0.8	1.2	dB
		High Pass	5.1-5.9	-	0.9	1.7	
	Return Loss	Low Pass	2.4-2.5	10	16	-	dB
		High Pass	5.1-5.9	8	12	-	
		Common	2.4-2.5	10	16	-	
			5.1-5.9	8	12	-	
Stop Band Isolation		Low Pass	5.1-5.9	38	45	-	dB
		High Pass	2.4-2.5	35	40	-	

Typical Performance Data at 25°C

FREQUENCY (GHz)	INSERTION LOSS (dB)		RETURN LOSS (dB)		
	Low Pass Port	High Pass Port	Common Port	Low Pass Port	High Pass Port
0.01	0.02	102.05	47.95	45.76	0.00
0.10	0.07	85.34	30.41	30.62	0.05
0.70	0.26	62.39	18.14	18.21	0.18
1.50	0.33	51.65	24.76	22.92	0.19
2.00	0.53	47.66	16.04	15.78	0.21
2.40	0.65	42.87	17.43	17.53	0.24
2.50	0.67	41.53	22.19	23.52	0.24
2.70	1.11	37.66	14.34	15.54	0.27
2.84	3.79	32.31	4.78	6.23	0.30
2.88	6.31	30.45	2.79	4.05	0.30
2.98	18.99	27.35	0.91	1.53	0.33
3.00	23.06	26.91	0.83	1.36	0.33
3.08	30.72	25.43	0.69	0.96	0.35
3.20	24.69	23.38	0.65	0.69	0.39
3.30	25.39	21.72	0.64	0.58	0.42
3.40	27.25	20.07	0.69	0.51	0.45
3.54	30.96	17.82	0.82	0.45	0.53
4.00	46.38	10.20	3.02	0.38	1.18
4.30	43.45	5.32	3.64	0.35	2.62
4.50	41.58	3.11	5.43	0.34	4.59
5.10	45.63	0.77	19.79	0.31	18.86
5.90	48.45	0.71	18.00	0.25	17.36

Functional Schematic



Notes

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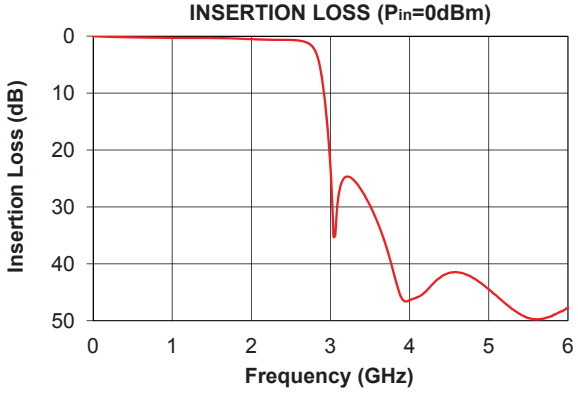
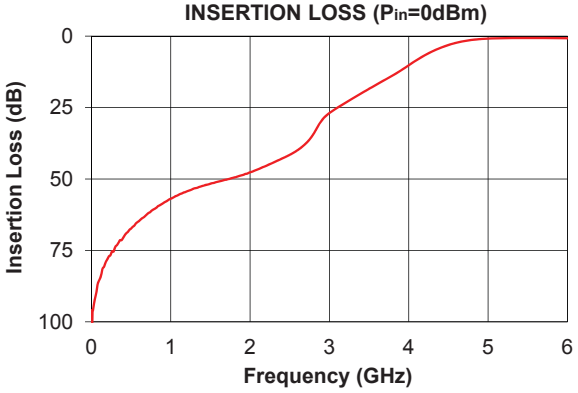
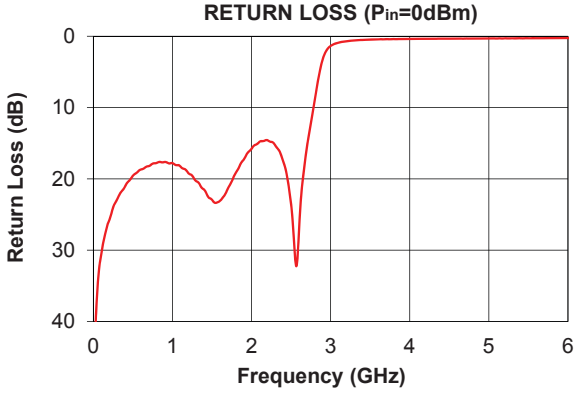
ZDPLX-592-S+ LOW PASS PORT
INSERTION LOSS (P_{in}=0dBm)



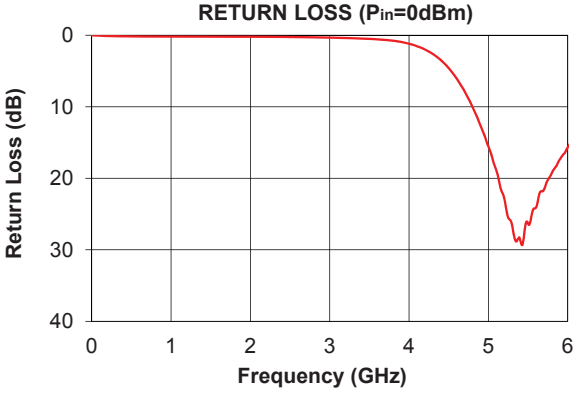
ZDPLX-592-S+ HIGH PASS PORT
INSERTION LOSS (P_{in}=0dBm)



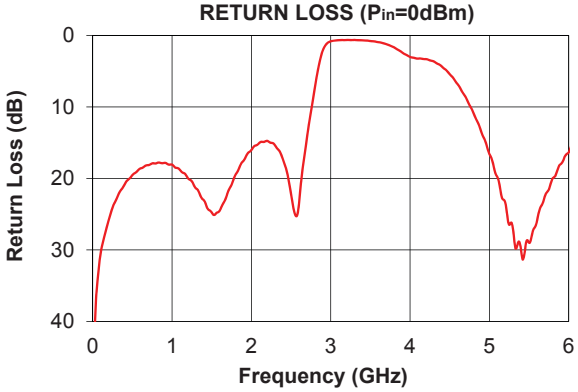
ZDPLX-592-S+ LOW PASS PORT
RETURN LOSS (P_{in}=0dBm)



ZDPLX-592-S+ HIGH PASS PORT
RETURN LOSS (P_{in}=0dBm)



ZDPLX-592-S+ COMMON PORT
RETURN LOSS (P_{in}=0dBm)



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