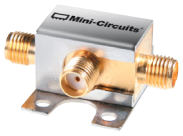
Coaxial

Diplexer

ZX75-23-S+

50Ω 9.8 to 2000 MHz
(9.8-10.2, 650-2000 MHz)



CASE STYLE: FL905

The Big Deal

- Low insertion loss
- High Rejection
- Connectorized package

Product Overview

ZX75-23-S+ is a low-pass + high-pass combination device. Low pass port is designed for 9.8 to 10.2 MHz and high pass port is designed for 650 to 2000 MHz. This diplexer is used to pass IF, pilot carrier or clock synchronizing signal. This diplexer can also be used in various systems including satellite, CATV and multiband radio systems.

Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application.
Extended stopband rejection	Spurious rejection and avoids using additional filters.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.

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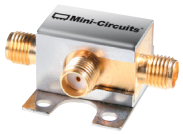


CASE STYLE: FL905

Connectors	Model
SMA	ZX75-23-S+

+RoHS Compliant

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

Maximum Ratings

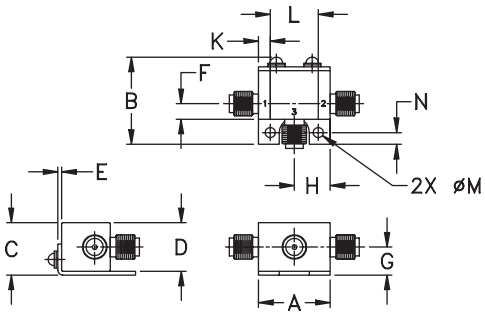
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	400mW at 25°C

Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation

Coaxial Connections

COMMON PORT	1
LOW PASS PORT	2
HIGH PASS PORT	3

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37

H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

Features

- Low insertion loss
- 50Ω Impedance
- Combination of Low pass and High pass filters
- Connectorized package

Applications

- Clock synchronizing signal
- Satellite
- CATV

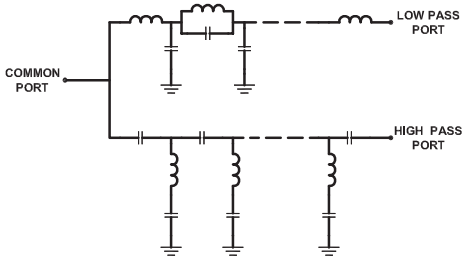
Electrical Specifications at 25°C

Parameter		Port	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	Low Pass	9.8-10.2	-	0.5	1.0	dB
		High Pass	650-2000	-	0.5	1.0	
	Return Loss	Low Pass	9.8-10.2	11	18	-	dB
		High Pass	650-2000	11	18	-	
		Common	9.8-10.2	11	18	-	
			650-2000	11	18	-	
Stop Band Isolation		Low Pass	50-2700	20	36	-	dB
			650-2000	-	52	-	
		High Pass	DC-270	20	31	-	dB
			9.8-10.2	-	90	-	

Typical Performance Data at 25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)		RETURN LOSS (dB)		
	Low Pass Port	High Pass Port	Common Port	Low Pass Port	High Pass Port
0.5	0.34	93.34	28.34	28.42	0.00
9.8	0.48	93.68	19.95	19.16	0.00
10.2	0.49	95.02	20.18	19.38	0.00
20.0	1.17	98.30	14.16	15.32	0.00
30.0	11.08	92.74	1.20	1.84	0.00
40.0	25.01	90.28	0.39	0.78	0.00
50.0	36.55	86.20	0.25	0.51	0.00
150.0	55.68	59.20	0.06	0.09	0.03
270.0	57.07	31.52	0.09	0.05	0.13
350.0	57.55	18.64	0.22	0.04	0.32
400.0	58.29	11.80	0.57	0.04	0.71
450.0	60.23	6.09	1.76	0.04	1.96
480.0	62.23	3.57	3.40	0.04	3.63
500.0	63.69	2.37	5.05	0.04	5.31
650.0	62.66	0.31	24.49	0.04	26.69
750.0	61.76	0.29	18.54	0.04	19.44
1000.0	60.49	0.24	18.81	0.06	19.65
1250.0	59.18	0.20	21.26	0.07	22.03
1500.0	58.18	0.18	24.37	0.08	25.09
2000.0	55.65	0.24	29.14	0.11	29.69
2200.0	53.76	0.46	36.26	0.12	25.03
2700.0	52.48	0.23	21.59	0.31	21.42

Functional Schematic



Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

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