Coaxial

Diplexer

ZX75-2R15+

50Ω DC to 2150 MHz (DC-20, 950-2150 MHz)



CASE STYLE: FL905

The Big Deal

- Low insertion loss
- High Rejection
- Connectorized package

Product Overview

ZX75-2R15+ is a low-pass + high-pass combination device. Low pass port is designed for DC to 20 MHz and high pass port is designed for 950 to 2150 MHz. This diplexer is used to pass IF, pilot carrier or clock synchronizing signal. This diplexer can also be used in automotive electronics, satellite systems, point-to-point radios, 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.

Notes
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Connectors	Model
SMA	ZX75-2R15-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	1W at 25°C

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

Pin Connections

HIGH PASS PORT	1
LOW PASS PORT	2
COMMON PORT	3

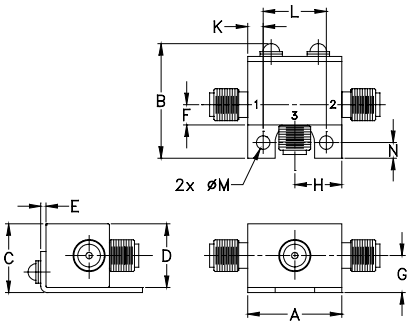
Features

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

Applications

- Satellite systems
- Automotive electronics
- Ponit-to-point radios

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

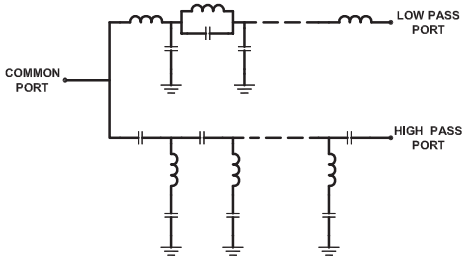
Electrical Specifications at 25°C

Parameter		Port	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	Low Pass	DC-20	-	0.4	1.0	dB
		High Pass	950-2150	-	0.5	1.0	
	Return Loss	Low Pass	DC-20	18	26	-	dB
		High Pass	950-2150		26	-	
		Common	DC-20	18	26	-	
			950-2150		24	-	
Stop Band Isolation		Low Pass	70-2500	20	30	-	dB
			950-2150	-	49	-	
		High Pass	DC-320	20	30	-	dB
			DC-20	-	91	-	

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	0.23	100.08	31.94	32.19	0.00
20.0	0.39	97.64	29.34	32.49	0.00
30.0	0.72	97.31	15.97	17.45	0.00
40.0	4.11	92.55	3.53	3.74	0.00
50.0	13.60	86.89	0.74	0.87	0.00
70.0	30.49	82.31	0.27	0.36	0.01
110.0	66.66	77.18	0.14	0.18	0.01
200.0	54.57	53.30	0.08	0.08	0.05
320.0	55.29	31.09	0.10	0.05	0.16
450.0	56.26	14.56	0.36	0.04	0.54
500.0	57.34	9.60	0.81	0.04	1.05
550.0	59.16	5.64	1.88	0.04	2.17
600.0	61.76	2.95	3.95	0.05	4.27
650.0	63.92	1.48	7.01	0.05	7.32
700.0	63.58	0.79	10.71	0.05	10.96
950.0	60.10	0.23	30.09	0.06	30.96
1250.0	58.01	0.19	25.95	0.08	27.60
1500.0	55.59	0.18	25.49	0.09	26.46
2000.0	58.34	0.19	31.74	0.11	33.20
2150.0	55.86	0.18	31.24	0.13	31.97
2300.0	54.23	0.19	29.08	0.18	29.15
2500.0	56.12	0.21	25.28	0.23	25.02

Functional Schematic



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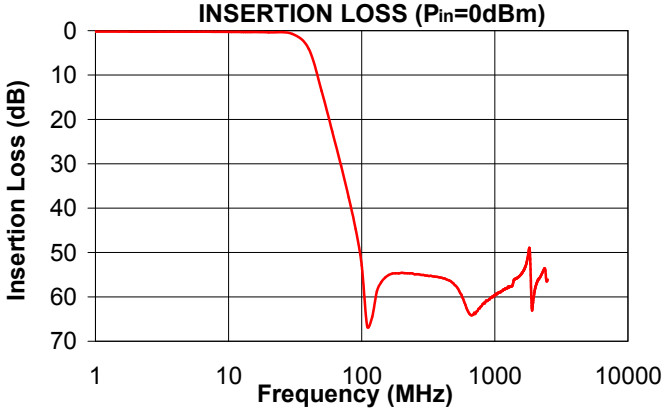
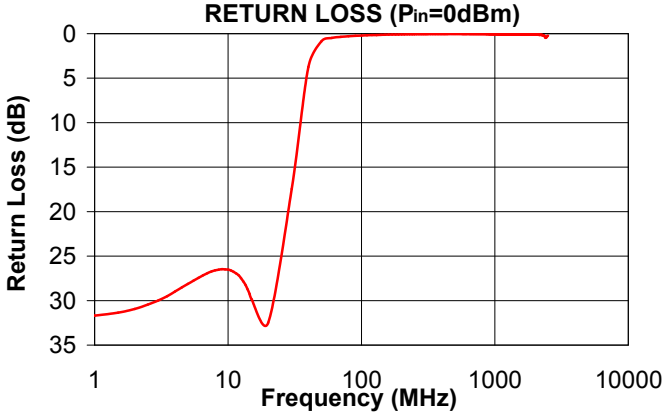
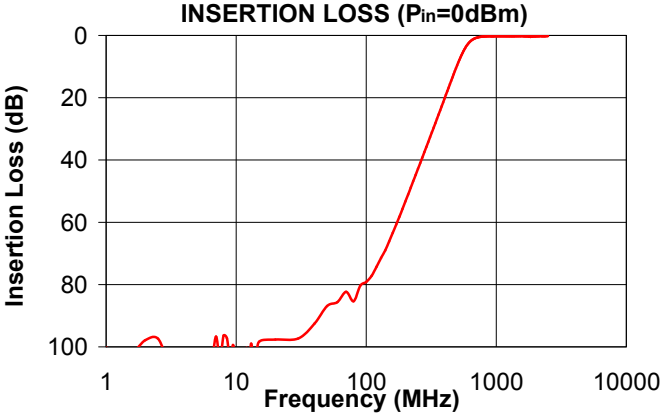
ZX75-2R15+ LOW PASS PORT
INSERTION LOSS (P_{in}=0dBm)



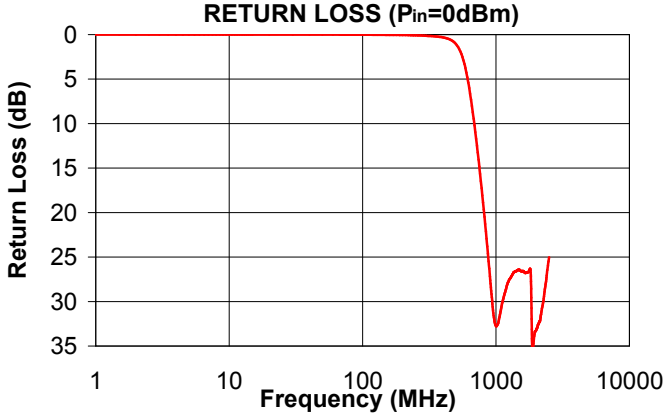
ZX75-2R15+ LOW PASS PORT
RETURN LOSS (P_{in}=0dBm)



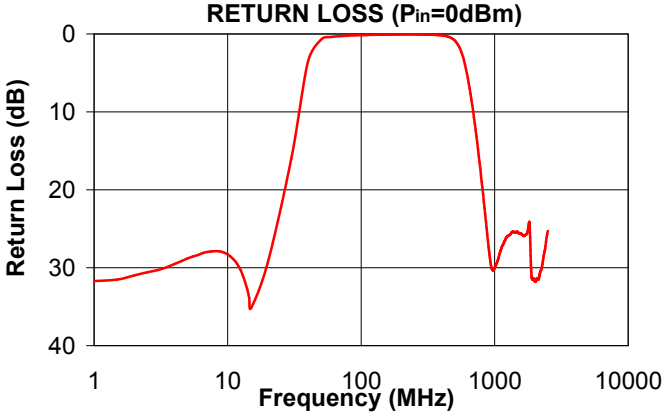
ZX75-2R15+ HIGH PASS PORT
INSERTION LOSS (P_{in}=0dBm)



ZX75-2R15+ HIGH PASS PORT
RETURN LOSS (P_{in}=0dBm)



ZX75-2R15+ COMMON PORT
RETURN LOSS (P_{in}=0dBm)



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