

Coaxial Triplexer

ZTPL-4620+

50Ω 1 to 4620 MHz
(9.8 - 10.2, 852-1872, 3300-4620 MHz)

The Big Deal

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



CASE STYLE: GW1052

Product Overview

ZTPL-4620+ is a high performance 50Ω triplexer with the lowpass channel-1 at 9.8-10.2 MHz, bandpass channel-2 at 852-1872 MHz and highpass channel-3 at 3300-4620 MHz. The triplexer is a 4 port passive device used to separate the C band and L band receive signals on a common port and route them non-interactively to separate output ports. Additionally, the device routes a 10 MHz reference signal appearing on the 4th port non-interactively to the common port. Built in a rugged connectorized package, this triplexer finds its application in satellite communication systems and military.

Key Features

Feature	Advantages
Low passband insertion loss, 0.5 dB typical at lowpass and Band pass channel, 1 dB typical at the High pass channel	Very low insertion loss ensures less signal loss through all the channels.
Good co-channel rejection	Rejection of 25-35 dB ensures sufficient isolation between the channels
Miniature connectorized package	Triplexer is designed into a compact connectorized package and it is easy to interface with other devices.

Notes

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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.
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Maximum Ratings

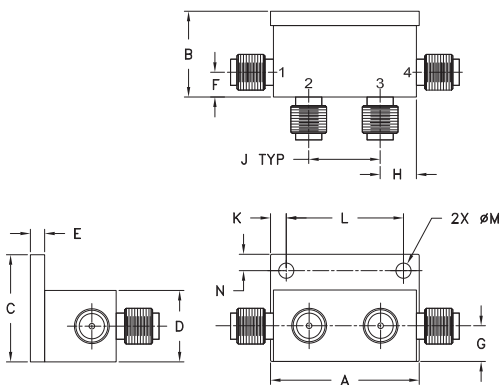
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	2 W

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

Coaxial Connections

BAND PASS PORT	1
HIGH PASS PORT	2
COMMON PORT	3
LOW PASS PORT	4

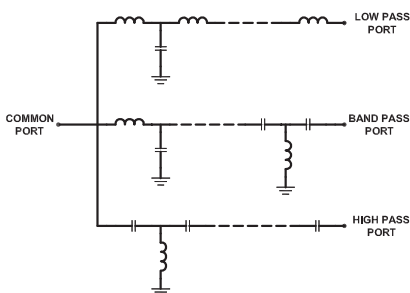
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
1.04	.60	.75	.50	.10	.17	.25
26.42	15.24	19.05	12.70	2.54	4.32	6.35
H	J	K	L	M	N	wt.
.25	.50	.11	.820	.106	.12	grams
6.35	12.70	2.79	20.83	2.69	3.05	21.0

Functional Schematic



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Features

- Low insertion loss
- 50Ω Impedance
- Miniature Connectorized package

Applications

- Military
- Satellite communication



CASE STYLE: GW1052

Connectors	Model
SMA	ZTPL-4620-S+

+RoHS Compliant

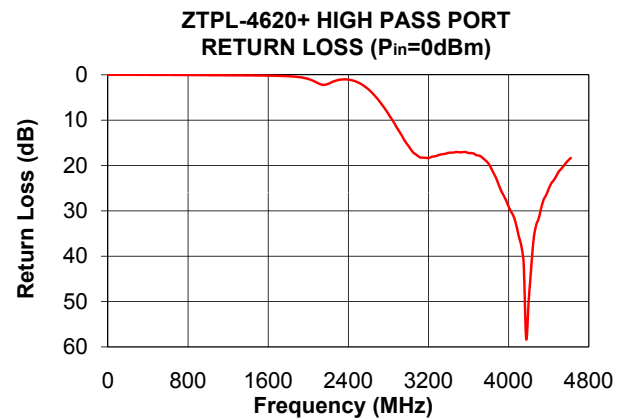
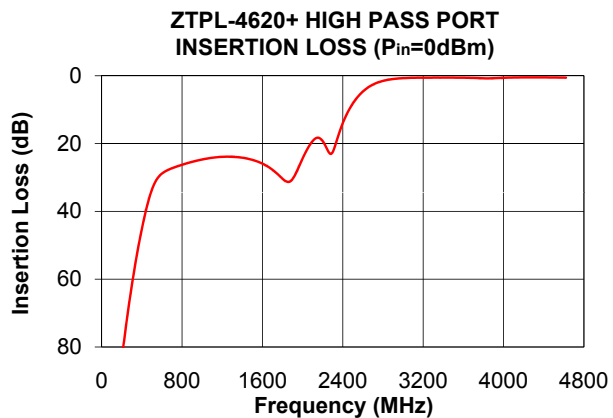
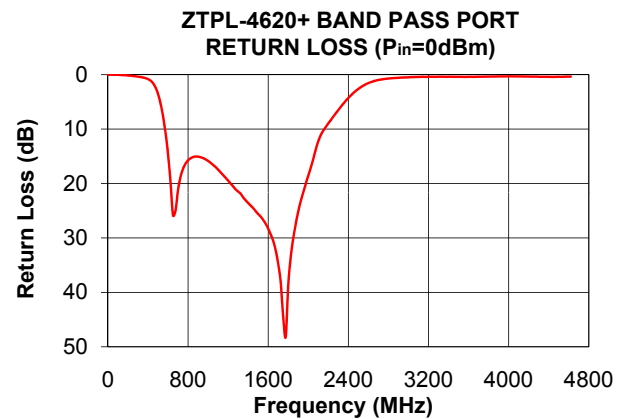
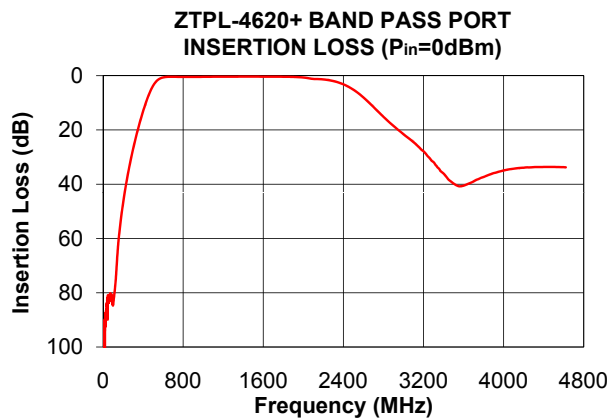
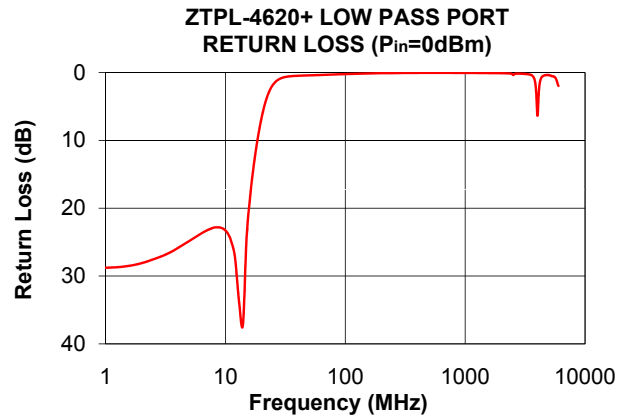
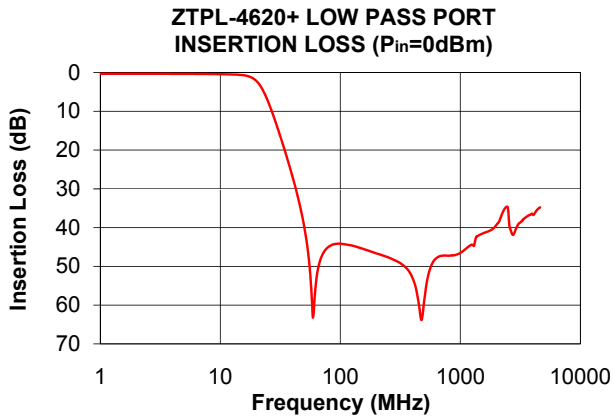
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications at 25°C

Parameter	Port	Frequency (MHz)	Min.	Typ.	Max.	Unit		
Pass Band	Insertion Loss	Low Pass, Channel -1	9.8-10.2	-	0.5	1.0	dB	
		Band Pass, Channel -2	852-1872	-	0.5	1.0		
		High Pass, Channel -3	3300-4620	-	1.0	2.0		
	Return Loss	Common	Low Pass, Channel -1	9.8-10.2	10	17	-	dB
			Band Pass, Channel -2	852-1872	9	14	-	
			High Pass, Channel -3	3300-4620	8	15	-	
Common		9.8-10.2	10	17	-			
			852-1872	9	14	-		
			3300-4620	8	15	-		
Stop Band Isolation	Common	Low Pass, Channel-1	50-4620	20	33	-	dB	
		Band Pass, Channel -2	1-250	20	35	-		
		High Pass, Channel -3	1-600	20	26	-		
		High Pass, Channel -3	600-1872	16	23	-		

Typical Performance Data at 25°C

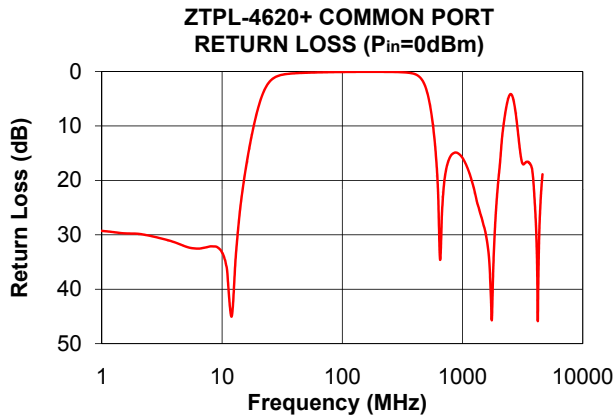
FREQ. (MHz)	INSERTION LOSS (dB)			Common	RETURN LOSS (dB)		
	Low Pass Channel -1	Band Pass Channel -2	High Pass Channel -3		Low Pass Channel -1	Band Pass Channel -2	High Pass Channel -3
1.00	0.31	118.76	98.06	29.29	28.77	0.01	0.01
9.80	0.43	108.97	102.87	32.92	23.14	0.01	0.01
10.20	0.44	102.93	94.57	33.63	23.44	0.01	0.01
22.00	3.87	90.57	98.35	3.87	3.88	0.01	0.01
35.00	20.76	86.09	96.36	0.44	0.54	0.01	0.01
43.00	30.50	82.01	91.77	0.29	0.45	0.01	0.01
50.00	39.68	81.87	103.01	0.22	0.41	0.01	0.01
250.00	47.67	36.05	72.12	0.08	0.08	0.25	0.01
350.00	50.24	19.64	52.92	0.20	0.05	0.53	0.02
500.00	58.90	3.73	33.63	3.33	0.04	3.52	0.02
600.00	48.60	0.64	28.86	15.41	0.04	14.55	0.04
852.00	47.21	0.45	25.79	14.94	0.05	15.12	0.07
1872.00	40.29	0.43	31.22	27.58	0.09	27.74	0.43
2100.00	38.51	1.19	19.27	13.74	0.10	12.23	1.88
2400.00	34.74	3.17	13.96	4.92	0.14	4.29	1.06
2500.00	35.30	5.16	8.18	4.15	0.33	2.62	1.72
2640.00	40.85	9.35	3.69	5.09	0.17	1.28	4.05
2960.00	39.76	20.35	0.79	13.33	0.17	0.52	14.43
3300.00	38.05	31.86	0.56	16.84	0.22	0.38	17.69
4620.00	34.80	33.76	0.57	18.88	0.40	0.36	18.35



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