

Coaxial Diplexer

ZCDP-1710-S+

50Ω 1176, 1590 MHz



Generic photo used for illustration purposes only

CASE STYLE: K18

The Big Deal

- Low insertion loss
- High rejection
- Good return loss
- Connectorized package

Product Overview

ZCDP-1710-S+ is a 50Ω high performance diplexer with channel-1 at 1176 MHz and channel-2 at 1590 MHz. Good return loss combined with high out of channel rejection makes it an ideal component in differential GPS and point to point microwave radio communication.

Key Features

Feature	Advantages
Low passband insertion loss	Low signal loss through both the channels.
Excellent stopband rejection	Eliminates unwanted spurious.
Good return loss	Makes signal transmission with less reflections and well- matched with the adjacent component used in the system.
Connectorized package	Easy to interface with other devices.

Notes

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Coaxial Diplexer

50Ω 1176, 1590 MHz

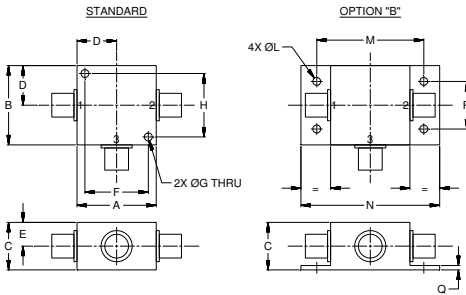
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W Max.
Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation	

Coaxial Connections

COMMON PORT	3
CHANNEL-1	1
CHANNEL-2	2

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

Features

- Low insertion loss
- 50Ω impedance
- Good return loss
- High rejection

Applications

- Differential GPS
- Aeronautical Radio navigation
- Point to point microwave radio communication

ZCDP-1710-S+



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Connectors Model
SMA-F ZCDP-1710-S+
BRACKET (OPTION "B")

+RoHS Compliant

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

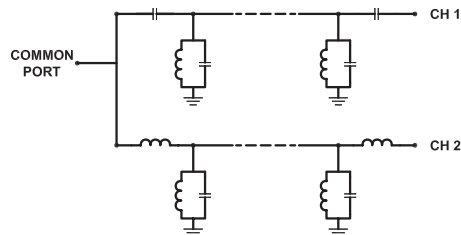
Electrical Specifications at 25°C

Parameter	Port	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	Channel-1	1176	-	0.8	1	dB
		Channel-2	1590	-	0.8	1	
	3 dB Bandwidth	Channel-1	1176	-	60	-	MHz
		Channel-2	1590	-	60	-	
	Return Loss	Channel-1	1176	-	11	-	dB
		Channel-2	1590	-	11	-	
Common		1176	-	11	-		
Stop Band Isolation	Channel-1	1590	30	50	-	dB	
	Channel-2	1176	30	40	-		

Typical Performance Data at 25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)			RETURN LOSS (dB)	
	Channel-1	Channel-2	Common Port	Channel-1	Channel-2
400	99.71	40.75	0.10	0.02	0.10
600	74.85	41.91	0.07	0.03	0.08
750	91.57	44.18	0.07	0.05	0.06
800	67.53	45.32	0.08	0.06	0.06
950	41.74	51.89	0.11	0.09	0.06
1000	34.26	58.07	0.14	0.11	0.06
1036	28.35	77.12	0.17	0.14	0.06
1084	18.80	55.42	0.33	0.27	0.06
1100	14.84	52.46	0.50	0.43	0.05
1144	2.44	49.50	6.15	5.77	0.06
1148	1.77	50.06	8.32	7.80	0.06
1150	1.51	50.29	9.66	9.03	0.06
1176	0.67	50.08	23.02	27.36	0.06
1202	1.98	52.77	6.36	6.47	0.07
1208	2.96	51.85	4.28	4.32	0.07
1290	18.25	37.25	0.26	0.20	0.07
1380	27.91	29.43	0.23	0.13	0.08
1590	55.10	0.76	26.38	0.14	22.26
1710	35.75	23.22	0.37	0.17	0.16
1770	32.94	32.15	0.35	0.19	0.11
1900	29.20	48.52	0.35	0.21	0.10
2000	27.38	66.29	0.36	0.23	0.10

Functional Schematic



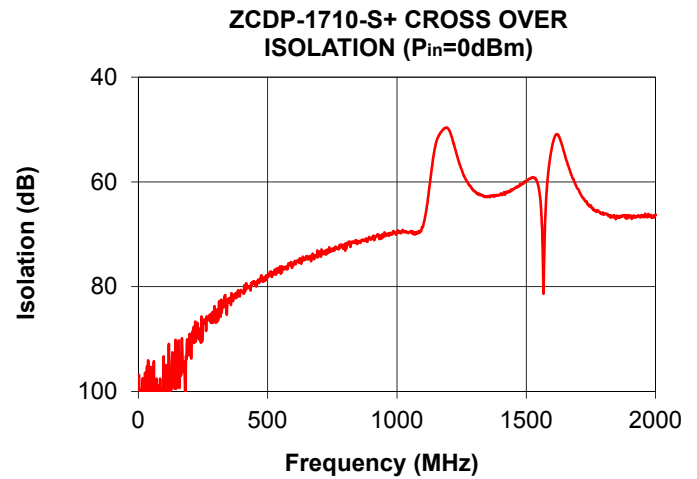
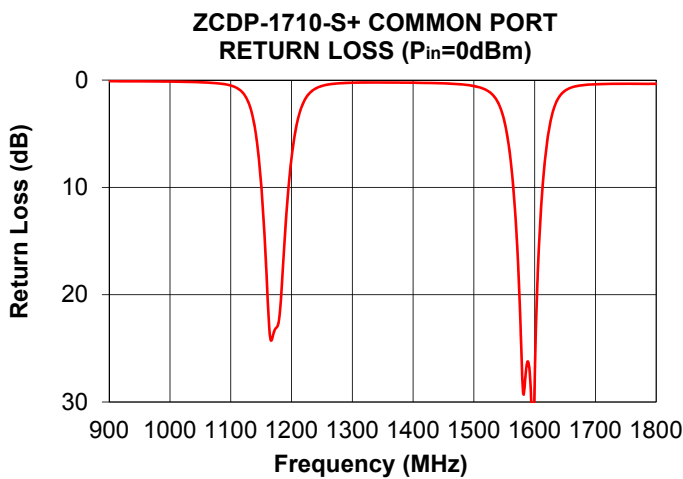
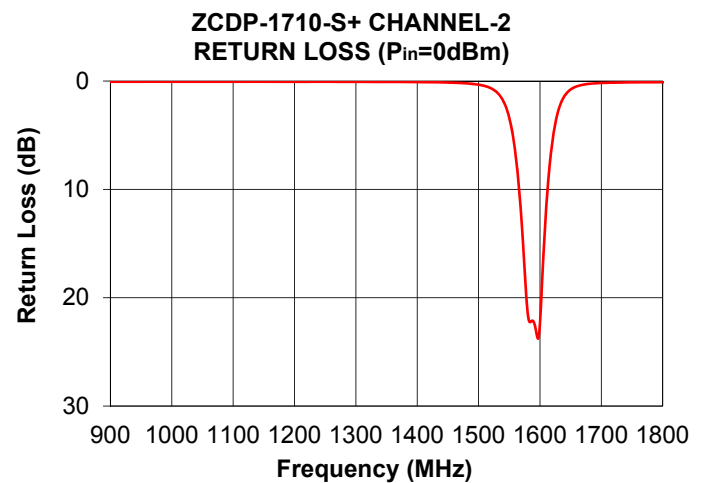
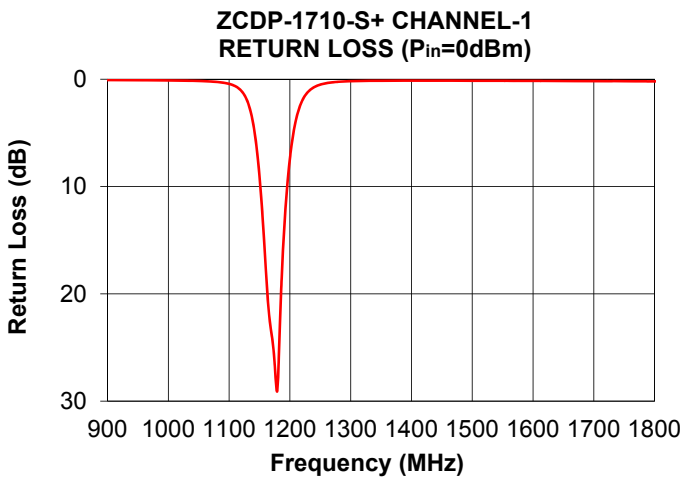
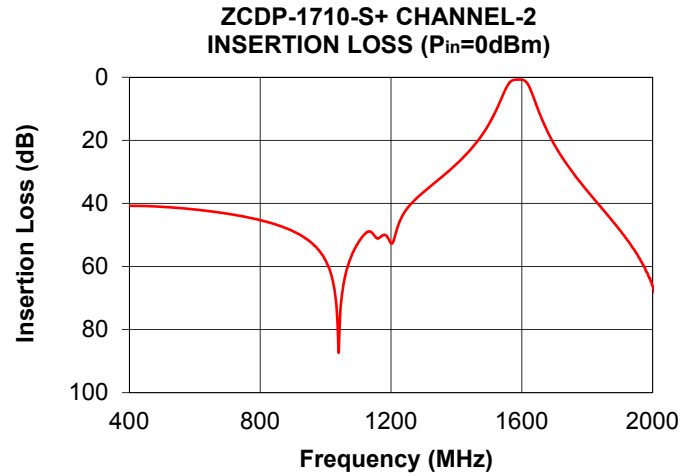
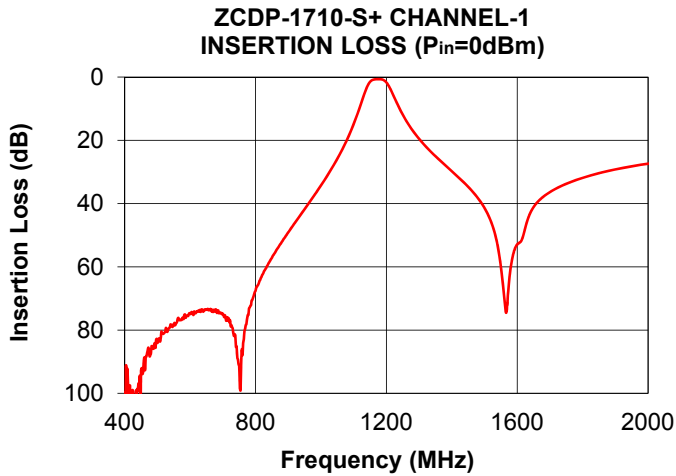
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