

Coaxial High Isolation Switch

50Ω SPDT, TTL Driver, Absorptive DC³ to 5000 MHz

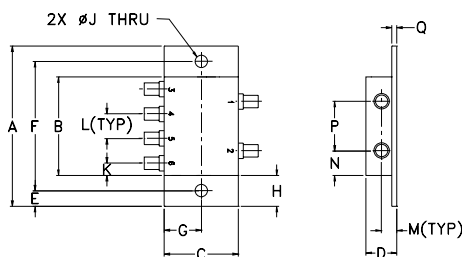
Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 150°C
Input Power	see Table & Note 2
Supply V	see Table
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

RF IN	1
RF OUT 1	3
RF OUT 2	6
TTL IN	4
+5V	2
-5V	5

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
3.24	2.00	1.50	.62	.31	2.620	.75	.62
82.30	50.80	38.10	15.75	7.87	66.55	19.05	15.75
J	K	L	M	N	P	Q	wt
.250	.25	.50	.31	.50	1.00	.13	grams
6.35	6.35	12.70	7.87	12.70	25.40	3.30	65.0

Features

- wideband, DC to 5 GHz
- integral TTL driver
- high isolation, 82 dB typ at 2GHz

Applications

- transmitter receiver isolation
- automated switching networks

Electrical Specifications

FREQ. ³ (MHz)		INSERTION LOSS (dB)								1dB COMPR. (dBm)								IN-OUT ISOLATION (dB)							
		DC-100 MHz		100-1000 MHz		1000-2000 MHz		2000-5000 MHz		DC-100 MHz		100-1000 MHz		1000-2000 MHz		2000-5000 MHz		DC-100 MHz		100-1000 MHz		1000-2000 MHz		2000-5000 MHz	
f _L	f _U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.		Typ.		Typ.		Typ.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
DC	5000	1.3	2.0	1.7	2.5	1.8	3.0	3.0	4.5	17	20	20	20	19				100	80	90	75	82	65	68	46

Additional Specifications

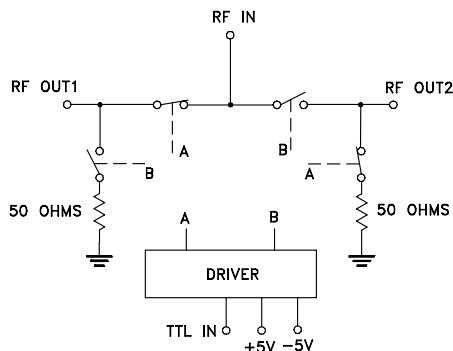
Low Threshold, V	0 Min., 0.8 Max.
High Threshold, V	2 Min., 5 Max.
Control Current, mA	High V, 5 Max. Low V, 0.2 Max.
Positive Supply, V	+5+0.5/-0.1
Negative Supply, V	-5-0.5/+0.1
Positive Supply Current, mA	22 Typ., 60 Max.
Negative Supply Current, mA	22 Typ., 60 Max.
Video Leakage ¹ , mVp-p	140 Typ.
RF Power Input ²	250mW
VSWR (:1)	
ON, all ports	1.3 Typ.
OFF, Input	1.3 Typ.
OFF, Output	1.3 Typ.
Rise/Fall Time (10%-90%), ns	5 Typ., 15 Max.
Switching Time, 50% of control to 90% RF (Turn-on), ns	10 Typ., 20 Max.
10% RF (Turn-off), ns	10 Typ., 20 Max.

1. Video leakage or break through is defined as leakage of TTL switching signal to RF output ports.
2. Above 20° derate power linearly to zero at 150°C
3. All RF connections must be DC blocked or held at 0V DC.

CONTROL LOGIC

TTL Control Port	RF outputs	
	1	2
HIGH	OFF	ON
LOW	ON	OFF

Electrical Schematic

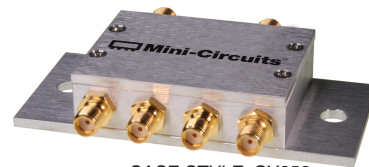


Notes

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ZASWA-2-50DR+



CASE STYLE: CY353

Connectors	Model
SMA	ZASWA-2-50DR+

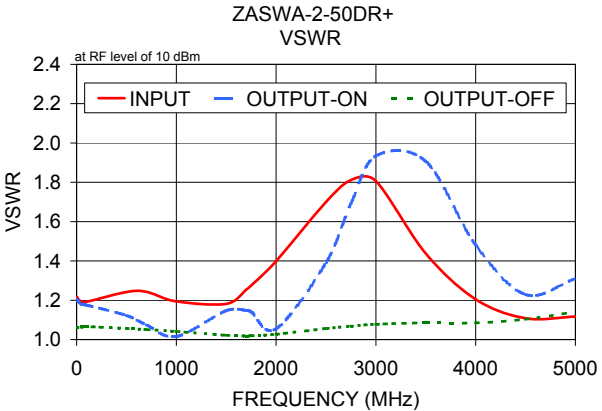
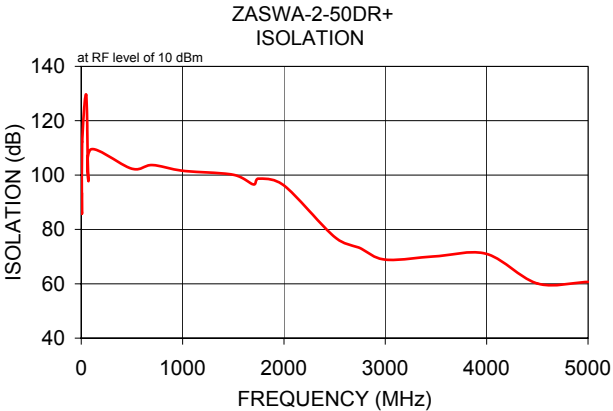
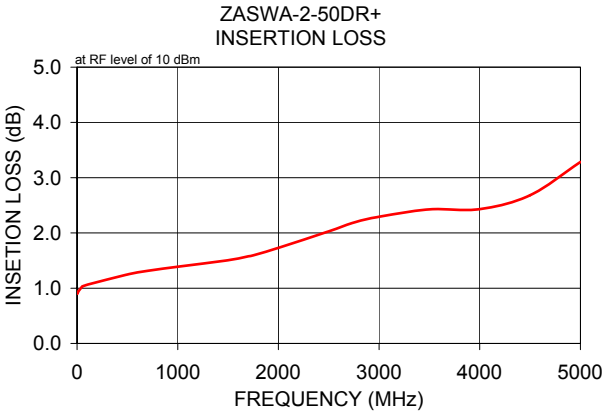
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Typical Performance Data

FREQ. (MHz)	ON	INSERTION LOSS (dB)		OFF	ISOLATION (dB)		VSWR	VSWR	VSWR
		IN-OUT			IN-OUT		IN	OUT	OUT
		$\overline{x}$	σ		$\overline{x}$	σ	$\overline{x}$	$\overline{x}$	$\overline{x}$
1.00	0.90	0.92	85.71	86.73	1.22	1.20	1.06		
5.00	0.91	0.93	93.44	88.36	1.21	1.20	1.06		
7.00	0.92	0.94	86.39	93.70	1.21	1.20	1.06		
10.00	0.94	0.96	112.23	102.89	1.21	1.20	1.06		
50.00	1.02	1.05	129.40	106.48	1.19	1.18	1.06		
70.00	1.04	1.06	98.25	99.51	1.19	1.18	1.07		
100.00	1.06	1.08	109.53	102.28	1.19	1.18	1.07		
500.00	1.25	1.27	102.33	107.49	1.24	1.12	1.06		
700.00	1.31	1.34	103.70	96.29	1.24	1.08	1.05		
1000.00	1.39	1.41	101.60	94.08	1.19	1.02	1.04		
1500.00	1.51	1.52	100.11	93.51	1.18	1.15	1.02		
1700.00	1.58	1.58	96.53	93.66	1.25	1.15	1.02		
1750.00	1.60	1.59	98.68	92.81	1.27	1.14	1.02		
2000.00	1.73	1.67	96.16	89.17	1.40	1.05	1.03		
2500.00	2.03	1.99	77.20	89.90	1.70	1.39	1.06		
2750.00	2.19	2.20	73.17	81.52	1.81	1.69	1.07		
3000.00	2.29	2.37	68.89	77.37	1.81	1.93	1.08		
3500.00	2.43	2.41	70.14	73.03	1.44	1.91	1.09		
4000.00	2.43	2.36	70.97	67.71	1.20	1.48	1.08		
4500.00	2.68	2.64	60.11	55.94	1.11	1.23	1.10		
5000.00	3.28	2.98	60.67	58.11	1.12	1.31	1.14		



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