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Find the *Mini-Circuits ZYSW-2-50DR* at our website: ***Click HERE***

Coaxial

Switch

50Ω SPDT, TTL Driver, Reflective DC to 5 GHz

ZYSW-2-50DR



CASE STYLE: ZZ121

Connectors	Model	Price	Qty.
SMA	ZYSW-2-50DR	$59.95	(1-9)
BRACKET (OPTION "B")		$5.00	(1+)

Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
Input Power	
DC-2000MHz	+22dBm
2000-5000MHz	+24dBm

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

Coaxial/Pin Connections

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

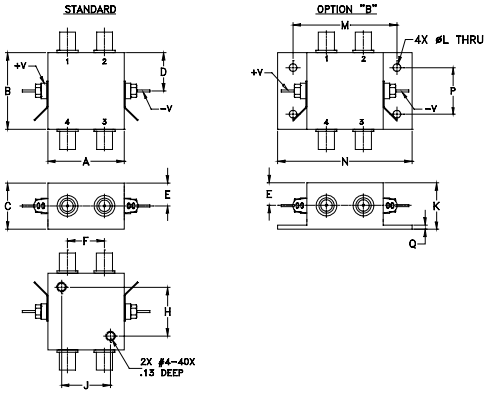
Features

- wideband, DC to 5 GHz
- fast rise/fall time, 6ns typ.
- low video break thru, 30 mV P-P typ.

Applications

- antenna switching
- instrumentation
- cellular/PCN
- transmitters/receivers
- satellite communications

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.25	1.25	0.75	0.63	0.38	0.61	--	0.800
31.75	31.75	19.05	16.00	9.65	15.49	--	20.32

J	K	L	M	N	P	Q	wt
0.800	0.76	0.125	1.688	2.18	0.75	0.07	grams
20.32	19.30	3.18	42.88	55.37	19.05	1.78	85

Electrical Specifications

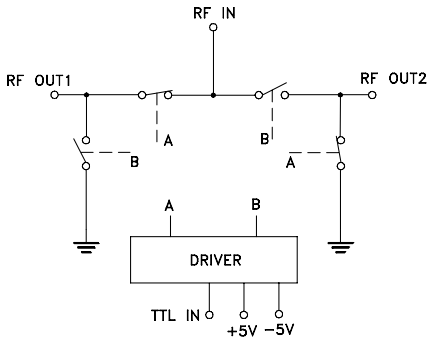
FREQ. (GHz)		INSERTION LOSS (dB)						1dB COMPR. (dBm)						IN-OUT ISOLATION (dB)					
		DC-500 MHz		500-2000 MHz		2000-5000 MHz		DC-500 MHz		500-2000 MHz		2000-5000 MHz		DC-500 MHz		500-2000 MHz		2000-5000 MHz	
f_L	f_U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
DC	5	0.9	1.5	1.3	1.7	2.1	—	20	15	23	19	21	18	44	38	38	28	20	—

Additional Specifications			
Control Voltage Low Threshold, max. High Threshold, min.	0/5.5, max. 0.8 2.0	VSWR(:1)	1.4 typ., 2.0 max. DC to 3 GHz 2.5 max. 3 to 5 GHz
Control Current, mA	High V: 2 typ., 5 max Low V: 0.2 max.	Rise/Fall time (10%-90%), ns Switching time, 50% of Control to 90% RF(Turn-on), ns 10% RF(Turn-off), ns	6 typ., 12 max. 20 typ., 40 max.
Positive Supply, V	+5+0.5/-0.1		
Negative Supply, V	-5-0.5/+0.1		
Positive Supply Current, mA	20 max.	**Video Leakage, mVp-p 0/-5V Control	30 typ.
Negative Supply Current, mA	20 max.		

Control Port	RF outputs	
	1	2
Low	On	Off
High	Off	On

1. OFF state at RF output is low impedance
** Video leakage or break through is defined as leakage of TTL switching signal to RF output ports.
2. All RF connections must be DC blocked or held at 0V DC

Electrical Schematic



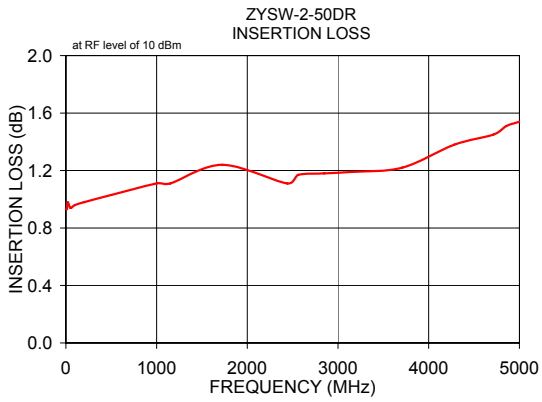
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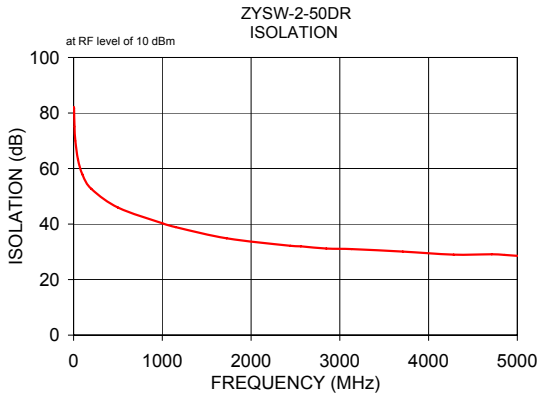
REV. C
M99070
ZYSW-2-50DR
DJ/TD/CP/AM
111121

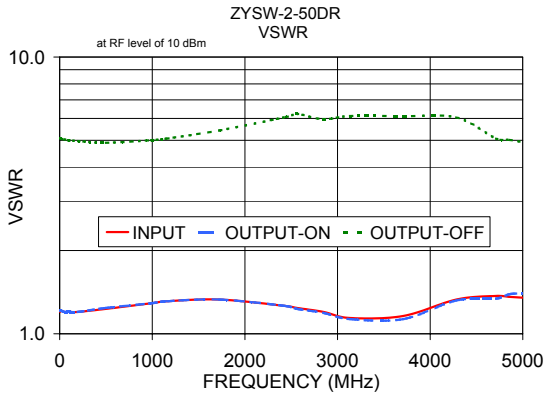
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Typical Performance Data

FREQ. (MHz)	ON TTL Low @ 0V) IN-OUT 1		INSERTION LOSS (dB) AMP. UNBAL.		OFF TTL High @ 5V) IN-OUT 1		ISOLATION (dB) DELTA		VSWR IN	VSWR OUT ON	VSWR OUT OFF
	$\overline{x}$	σ	$\overline{x}$	σ	$\overline{x}$	σ	$\overline{x}$	σ	$\overline{x}$	$\overline{x}$	$\overline{x}$
3.00	0.93	0.03	0.01	0.00	82.19	2.73	4.56	2.14	1.20	1.21	5.09
5.00	0.93	0.03	0.01	0.01	81.63	2.81	2.23	1.14	1.21	1.21	5.07
10.00	0.93	0.02	0.01	0.01	75.09	1.32	1.62	0.75	1.21	1.21	5.08
20.00	0.98	0.03	0.05	0.04	69.97	0.76	1.59	1.48	1.21	1.21	5.06
50.00	0.94	0.03	0.01	0.01	63.18	0.95	1.77	0.64	1.20	1.20	5.04
100.00	0.96	0.03	0.01	0.00	57.83	0.41	0.52	0.21	1.20	1.20	5.00
200.00	0.98	0.03	0.01	0.00	52.68	0.23	0.35	0.28	1.20	1.20	4.97
500.00	1.03	0.03	0.00	0.00	45.93	0.26	0.34	0.16	1.23	1.24	4.90
1000.00	1.11	0.03	0.01	0.01	40.28	0.28	0.34	0.14	1.29	1.29	5.01
1150.64	1.11	0.02	0.01	0.01	38.91	0.25	0.37	0.13	1.31	1.31	5.07
1724.45	1.24	0.01	0.03	0.02	34.88	0.27	0.32	0.09	1.33	1.33	5.43
2441.73	1.11	0.01	0.01	0.01	32.17	0.39	0.21	0.13	1.26	1.26	6.07
2561.27	1.17	0.03	0.02	0.02	31.99	0.39	0.14	0.12	1.24	1.23	6.23
2848.18	1.18	0.02	0.01	0.01	31.20	0.40	0.13	0.07	1.20	1.19	5.96
3135.09	1.19	0.09	0.04	0.04	30.98	0.42	0.15	0.17	1.14	1.13	6.12
3708.91	1.22	0.03	0.06	0.02	30.08	0.46	0.38	0.38	1.16	1.13	6.11
4282.73	1.38	0.10	0.11	0.02	28.98	0.46	0.82	0.28	1.33	1.32	6.05
4713.09	1.45	0.04	0.05	0.04	29.12	0.35	0.88	0.29	1.37	1.34	5.07
4856.55	1.51	0.04	0.06	0.04	28.90	0.33	0.84	0.25	1.36	1.39	5.02
5000.00	1.54	0.04	0.06	0.04	28.56	0.30	0.87	0.28	1.35	1.40	4.92







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