

Coaxial High Isolation Switch

50Ω SPDT, TTL Driver, Reflective DC to 5000 MHz

ZASW-2-50DR+



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

Features

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

Applications

- transmitter receiver isolation
- automated switching networks

Connectors	Model	Price	Qty.
SMA	ZASW-2-50DR+	\$89.95	(1-9)

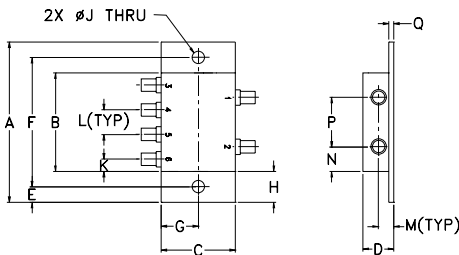
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

FREQ. (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					
f _L f _U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Typ.	Typ.	Typ.	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	19	100	80	90	75	82	65	68	46

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

Additional Specifications

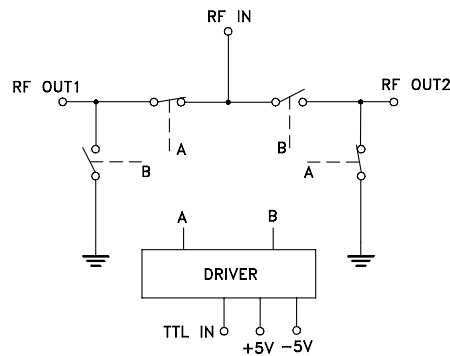
Low Threshold, V	0 Min., 0.8 Max.
High Threshold, V	2 Min., 5 Max.
Control Current, mA	High V, 5 Max. Low V, 0.2 Max.
Positive Supply, V	+5±0.5/-0.1
Negative Supply, V	-5-0.5/+0.1
Positive Supply Current, mA	22 Typ., 60 Max.
Negative Supply Current, mA	22 Typ., 60 Max.
Video Leakage ¹ , mVp-p	140 Typ.
RF Power Input ²	250mW
VSWR (:1)	1.3 Typ.
ON, all ports	1.3 Typ.
OFF, Input	3.3 Typ.
OFF, Output	3.3 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.

CONTROL LOGIC

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

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.

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB)		OFF ISOLATION (dB)		VSWR		VSWR OUT
	IN-OUT		IN-OUT		IN	ON	
	\bar{x}	σ	\bar{x}	σ	\bar{x}	\bar{x}	\bar{x}
1.00	1.06	0.01	109.17	3.64	1.20	1.23	5.70
10.00	1.08	0.01	108.91	10.51	1.19	1.23	5.70
50.00	1.28	0.01	104.03	5.94	1.17	1.18	5.63
100.00	1.38	0.00	105.82	7.43	1.16	1.17	5.61
300.00	1.53	0.01	97.50	4.30	1.25	1.25	5.56
500.00	1.64	0.02	93.26	3.56	1.34	1.35	5.59
700.00	1.71	0.03	89.84	2.64	1.40	1.43	5.68
1000.00	1.80	0.05	86.55	2.68	1.37	1.42	5.89
1400.00	1.73	0.02	85.22	3.42	1.20	1.20	6.26
1800.00	1.83	0.07	80.22	1.20	1.13	1.09	6.68
2000.00	1.98	0.07	75.82	0.90	1.24	1.24	6.86
2400.00	2.15	0.06	70.36	0.67	1.39	1.38	7.25
2800.00	2.46	0.05	69.10	0.43	1.36	1.18	7.53
3000.00	2.60	0.13	68.74	0.75	1.34	1.17	7.53
3400.00	3.13	0.04	71.45	4.25	1.33	1.41	7.38
3600.00	2.96	0.08	76.78	3.43	1.36	1.53	7.28
4000.00	2.70	0.13	62.02	0.76	1.43	1.41	6.83
4500.00	2.55	0.17	55.47	0.73	1.43	1.36	5.87
4800.00	2.71	0.22	53.70	0.67	1.78	1.58	5.34
5000.00	2.90	0.16	53.70	0.76	1.85	1.68	4.99

