

Coaxial Switch

50Ω SPDT Pin Diode Reflective 10 to 2500 MHz

ZMSW-1211

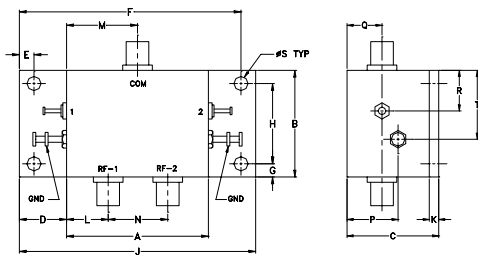
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power	+20 dBm
Control Current	5mA
Permanent damage may occur if any of these limits are exceeded.	

Coaxial/Pin Connections

RF IN	COM
RF OUT 1	RF-1
RF OUT 2	RF-2
CONTROL 1	1
CONTROL 2	2

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J
1.50	1.13	.97	.50	.155	2.345	.14	.850	2.50
38.10	28.70	24.64	12.70	3.94	59.56	3.56	21.59	63.50
K	L	M	N	P	Q	R	S	T
.10	.44	.75	.63	.54	.37	.43	.150	.73
2.54	11.18	19.05	16.00	13.72	9.40	10.92	3.81	18.54
								wt
								grams
								50.0

Features

- wideband, 10 to 2500 MHz
- good isolation, 35 dB typ.

Applications

- VHF/UHF
- satellite communication
- antenna switching
- test set-ups



CASE STYLE: JJ77

Connectors	Model	Price	Qty.
SMA	ZMSW-1211	\$69.95	(1-9)

Switch Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS (dB)				IN-OUT ISOLATION (dB)					
			Low band		Upper band		Frequency Band					
	f_L	f_U					L	M		U		
	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
ZMSW-1211	10	2500	1.1	1.9	1.9	2.7	50	45	35	28	28	22

L= low range (f_L to 10 f_L)

M=mid range (10 f_L to $f_U/2$)
lw=low band (f_L to $f_U/2$)

U=upper range ($f_U/2$ to f_U)

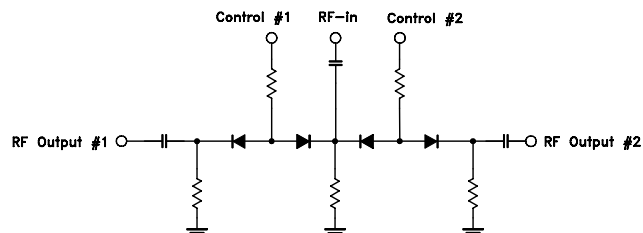
Additional Specifications

VSWR ("ON" STATE)	1.7 Max
SWITCHING TIME (μSEC)	4 Max.
RISE TIME (μSEC)	2 Typ.
CONTROL VOLTAGE	ON condition OFF condition
	+5V 0V
1 dB COMPRESSION	10 to 200 MHz Above 200 MHz
	+6 increasing to +19 dBm +19 dBm min.

LOGIC

	CONTROL 1	CONTROL 2	RF-2	RF-1
State 1:	0V	+5V	ON	OFF
State 2:	+5V	0V	OFF	ON

Electrical Schematic



Mini-Circuits®
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 www.minicircuits.com Provides ACTUAL Data Instantly at minicircuits.com

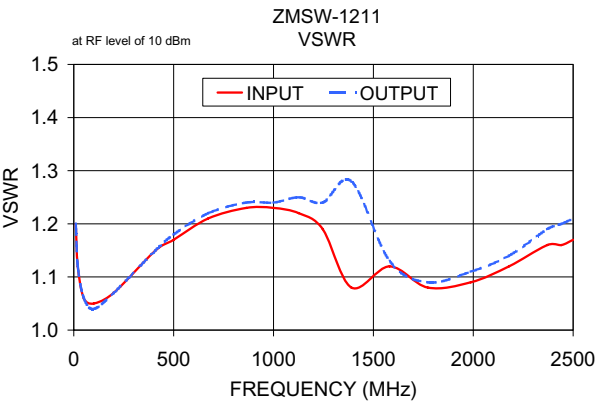
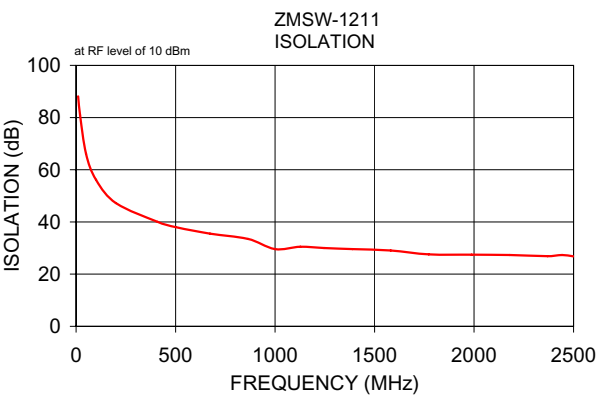
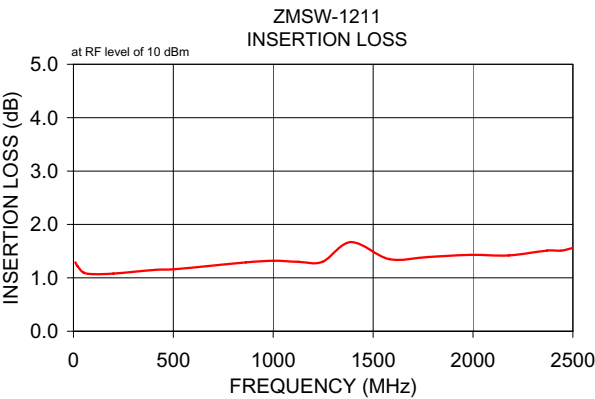
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established 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.

For detailed performance specs
& shopping online see web site

REV. OR
M97979
ZMSW-1211
WP/CP/AM
120214
Page 1 of 2

Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB) (Ctrl1 @ 0V, Ctrl 2 @ 5V) IN-OUT		AMP. UNBALANCE (dB)		OFF ISOLATION (dB) (Ctrl1 @ 5V, Ctrl 2 @ 0V) IN-OUT		OFF ISOLATION (dB) DELTA		IN	VSWR OUT	OUT (RF1) OFF
	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	$\bar{X}$	$\bar{X}$
10.00	1.29	0.19	0.13	0.12	88.14	5.32	5.52	5.48	1.20	1.20	27.17
20.00	1.22	0.14	0.09	0.06	80.95	3.49	5.99	5.45	1.12	1.12	25.49
50.00	1.10	0.10	0.07	0.06	66.03	2.18	0.79	0.77	1.06	1.06	26.18
100.00	1.07	0.09	0.07	0.06	56.13	2.48	0.63	1.00	1.05	1.04	24.91
200.00	1.08	0.09	0.06	0.05	47.23	1.83	0.65	0.71	1.07	1.07	24.71
409.45	1.15	0.08	0.07	0.05	40.05	1.43	0.45	0.39	1.15	1.15	23.36
500.00	1.16	0.08	0.06	0.04	38.02	1.28	0.50	0.28	1.17	1.18	22.80
672.45	1.22	0.08	0.06	0.04	35.50	1.05	0.49	0.36	1.21	1.22	21.45
863.73	1.29	0.08	0.06	0.04	33.51	0.92	0.71	0.29	1.23	1.24	19.28
1000.00	1.32	0.07	0.05	0.03	29.59	0.41	3.76	0.96	1.23	1.24	19.05
1126.73	1.30	0.08	0.06	0.05	30.50	0.46	2.81	0.52	1.22	1.25	17.59
1246.27	1.30	0.07	0.07	0.06	30.00	0.41	3.80	0.53	1.19	1.24	17.26
1389.73	1.67	0.09	0.41	0.09	29.58	0.43	1.32	1.45	1.08	1.28	15.74
1581.00	1.35	0.07	0.05	0.04	29.04	0.47	0.58	0.46	1.12	1.13	14.86
1772.27	1.39	0.08	0.05	0.05	27.59	0.59	1.64	0.77	1.08	1.09	13.60
1987.45	1.43	0.07	0.05	0.04	27.44	0.74	2.62	0.92	1.09	1.11	12.58
2178.73	1.42	0.08	0.06	0.04	27.34	0.87	3.10	1.03	1.12	1.14	14.41
2370.00	1.51	0.09	0.08	0.05	26.88	1.06	3.36	1.25	1.16	1.19	12.24
2441.73	1.51	0.08	0.07	0.04	27.35	1.15	3.49	1.39	1.16	1.20	10.69
2500.00	1.56	0.09	0.08	0.06	26.81	1.21	3.44	1.50	1.17	1.21	11.44



For detailed performance specs
& shopping online see web site

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

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.