

Coaxial Switch

ZMSW-1211

50Ω SPDT Pin Diode Reflective 10 to 2500 MHz

Maximum Ratings

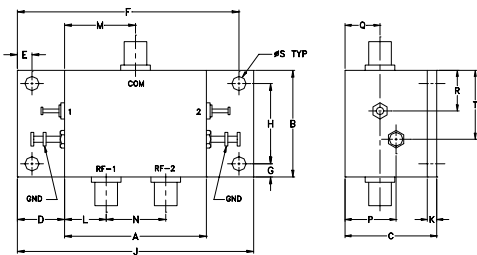
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power	+20 dBm
Control Current	5mA

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/mm)

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	wt
.10	.44	.75	.63	.54	.37	.43	.150	.73	grams
2.54	11.18	19.05	16.00	13.72	9.40	10.92	3.81	18.54	50.0

Features

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

Applications

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



Generic photo used for illustration purposes only

CASE STYLE: JJ77

Connectors	Model
SMA	ZMSW-1211

Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS (dB)				IN-OUT ISOLATION (dB)						
			Low band lw		Upper band U		Frequency Band						
			Typ.	Max.	Typ.	Max.	L		M		U		
ZMSW-1211	10	2500	1.1	1.9	1.9	2.7	50	45	35	28	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 $f_L/2$)

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

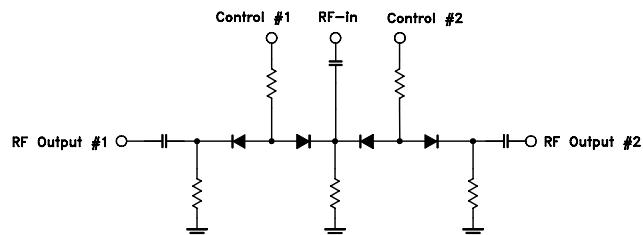
Additional Specifications

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



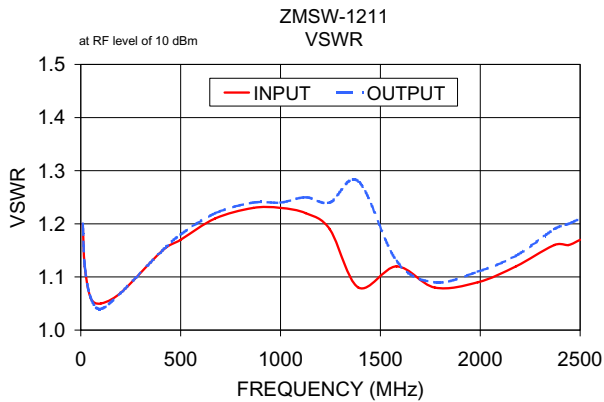
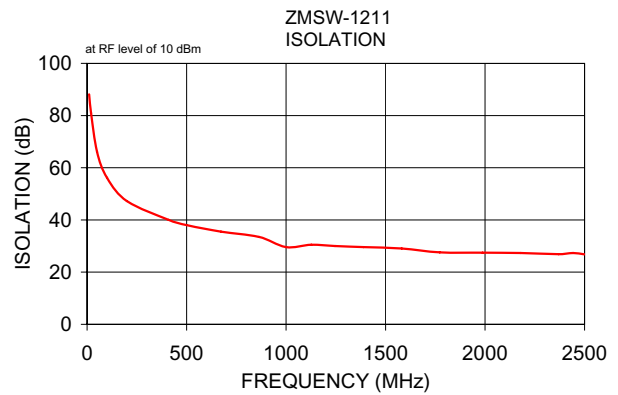
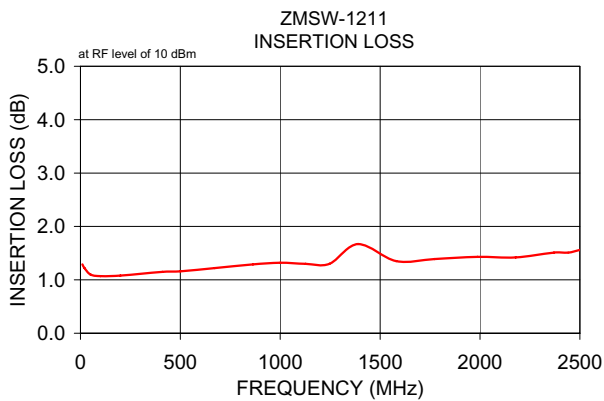
Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB) (Ctrl1 @ 0V, Ctrl2 @ 5V) IN-OUT		AMP UNBALANCE (dB)		OFF ISOLATION (dB) (Ctrl1 @ 5V, Ctrl2 @ 0V) IN-OUT		OFF ISOLATION (dB) DELTA		IN	VSWR	
	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ		OUT	OUT (RF1) OFF
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



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