

# Coaxial Switch

50Ω SPDT Pin Diode, TTL Driver 10 to 3000 MHz

# ZSDR-230+ ZSDR-230



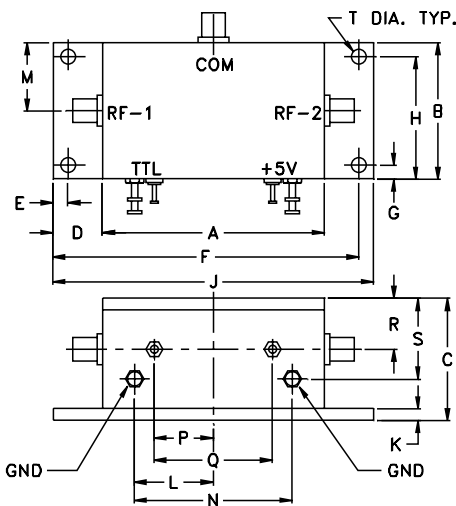
## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power	L(+20 dBm), M(+28 dBm), U(+30 dBm)
Supply V	+6V max.

## Coaxial/Pin Connections

RF IN	COM
RF OUT 1	RF-1
RF OUT 2	RF-2
TTL-IN	TTL
+5V	+5V

## Outline Drawing



## Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	wt
2.25	1.38	1.24	.50	.150	3.100	.138	1.238	3.25	
57.15	35.05	31.50	12.70	3.81	78.74	3.51	31.45	82.55	
K	L	M	N	P	Q	R	S	T	grams
.12	.80	.69	1.60	.60	1.200	.52	.82	.150	
3.05	20.32	17.53	40.64	15.24	30.48	13.21	20.83	3.81	80.0

## Features

- wideband, 10 to 3000 MHz
- high isolation, 40 dB typ.

## Applications

- test set-ups
- antenna switching
- satellite communications

## Switch Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS (dB)				IN-OUT ISOLATION (dB)							
			Low band Lw		Upper band U		Frequency Band L			Frequency Band M			Frequency Band U	
	$f_l$	$f_u$	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
ZSDR-230(+)	10	3000	1.3	1.9	1.8	2.7	60	40	40	28	35	22		

L= low range( $f_l$  to 10  $f_l$ )

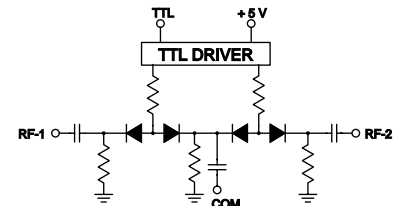
M=mid range(10  $f_l$  to  $f_u/2$ )  
Lw=low band ( $f_l$  to  $f_l/2$ )

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

## Additional Specifications

VSWR ("ON" STATE)	1.3 Typ., 1.9 Max.
SWITCHING TIME ( $\mu$ SEC)	2.0 Typ., 4.0 Max.
SUPPLY VOLTAGE	+5V
SUPPLY CURRENT	10mA Max.
TTL INPUT HIGH THRESHOLD	2V Min.
TTL INPUT LOW THRESHOLD	0.8V Max.
1 dB COMPRESSION	10 to 100 MHz +6 increasing to +19 dBm Above 100 MHz +19 dBm min.

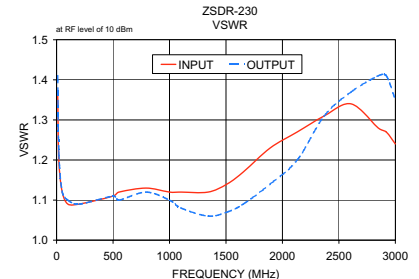
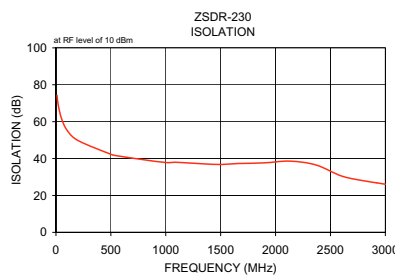
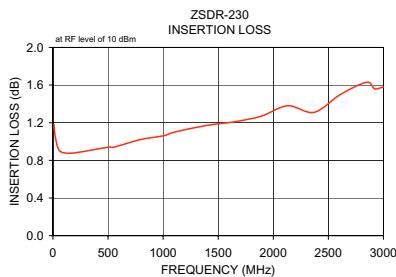
## Control Logic



TTL LOGIC	RF-1/OFF	RF-2/ON
TTL 1:	RF-1/OFF	RF-2/ON
TTL 0:	RF-1/ON	RF-2/OFF

## Typical Performance Data

Freq. (MHz)	ON (TTL LOW @ 0V) IN-OUT		INSERTION LOSS (dB)				OFF (TTL HIGH @ 5V) IN-OUT		ISOLATION (dB)		VSWR	
	$\bar{x}$	$\sigma$	$\bar{x}$	$\sigma$	AMP.	UNBAL	$\bar{x}$	$\sigma$	DELTA	IN	OUT (RF 1)	
10.00	1.18	0.04	0.03	0.02	74.26	1.60	1.14	0.39	1.37	1.41	31.26	
20.00	1.06	0.05	0.05	0.05	69.20	1.46	1.45	1.51	1.20	1.22	30.31	
50.00	0.92	0.03	0.02	0.01	61.84	1.14	1.60	1.01	1.12	1.12	30.07	
100.00	0.88	0.03	0.02	0.01	55.48	0.61	0.75	0.63	1.09	1.10	30.07	
200.00	0.88	0.02	0.02	0.01	49.81	0.72	0.64	0.70	1.09	1.09	30.49	
500.00	0.94	0.02	0.02	0.01	42.32	0.56	0.53	0.77	1.11	1.11	29.97	
552.91	0.94	0.02	0.01	0.01	41.56	0.50	0.61	0.74	1.12	1.10	28.88	
792.00	1.02	0.01	0.01	0.01	39.41	0.46	0.68	0.76	1.13	1.12	26.27	
1000.00	1.06	0.01	0.01	0.01	37.86	0.40	0.67	0.71	1.12	1.10	24.84	
1102.82	1.10	0.01	0.01	0.01	37.96	0.40	0.70	0.73	1.12	1.08	22.83	
1341.91	1.16	0.01	0.02	0.01	37.13	0.42	0.94	0.69	1.12	1.06	21.66	
1509.27	1.19	0.02	0.02	0.01	36.81	0.45	0.96	0.75	1.14	1.07	20.69	
1652.73	1.21	0.01	0.02	0.01	37.32	0.53	0.89	0.79	1.17	1.09	19.92	
1891.82	1.27	0.02	0.02	0.02	37.64	0.67	1.82	0.71	1.23	1.14	19.28	
2130.91	1.38	0.02	0.02	0.03	38.60	1.13	0.82	0.94	1.27	1.20	24.87	
2370.00	1.31	0.02	0.03	0.03	36.48	3.02	2.00	1.04	1.31	1.31	19.46	
2609.09	1.50	0.04	0.06	0.03	30.37	2.46	0.49	0.56	1.34	1.37	11.80	
2848.18	1.63	0.06	0.04	0.02	27.51	2.19	0.30	0.21	1.28	1.41	10.49	
2919.91	1.56	0.04	0.03	0.02	26.87	2.12	0.56	0.28	1.27	1.41	9.46	
3000.00	1.58	0.04	0.05	0.03	26.08	2.02	0.86	0.48	1.24	1.35	11.35	



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RF/IF MICROWAVE COMPONENTS

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