

Coaxial Switch

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

ZSDR-230+



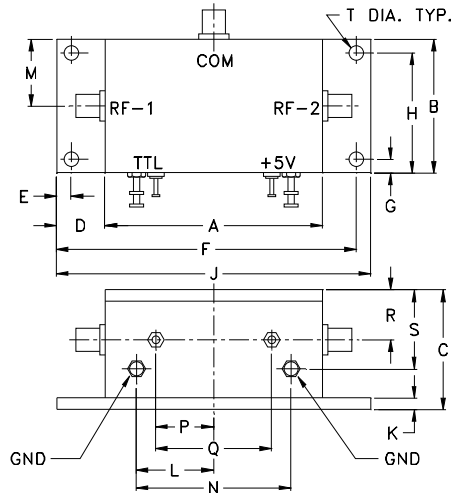
Maximum Ratings

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.
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
TTL-IN	TTL
+5V	+5V

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	
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	wt
.12	.80	.69	1.60	.60	1.200	.52	.82	.150	grams
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

CASE STYLE: CCC127

Connectors	Model	Price	Qty.
SMA	ZSDR-230+	\$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.

Switch Electrical Specifications

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

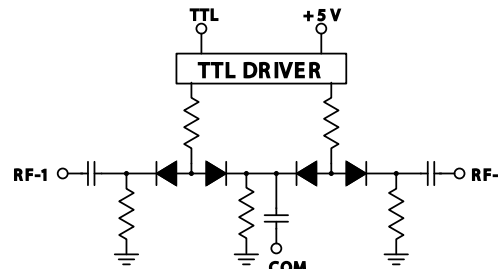
L= low range(f_l to $10 f_l$)

M=mid range($10 f_l$ to $f_u/2$)
U=upper range ($f_l/2$ to f_u)

Additional Specifications

VSWR ("ON" STATE)	1.3 Typ., 1.9 Max.
SWITCHING TIME (μSEC)	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 Above 100 MHz
	+6 increasing to +19 dBm +19 dBm min.

Control Logic



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

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 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. B
M113397
ZSDR-230+
WP/CP/AM
071029

Typical Performance Data

FREQ. (MHz)	ON (TTL LOW @ 0V) IN-OUT		INSERTION LOSS (dB) AMP. UNBAL.		OFF (TTL HIGH @ 5V) IN-OUT		ISOLATION (dB) DELTA		IN	VSWR OUT (RF 1)		
	\bar{x}	σ	\bar{x}	σ	\bar{x}	σ	\bar{x}	σ		\bar{x}	ON	OFF
											\bar{x}	\bar{x}
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	

