

Coaxial Switch

50Ω SPDT, TTL Driver, Reflective DC to 5 GHz

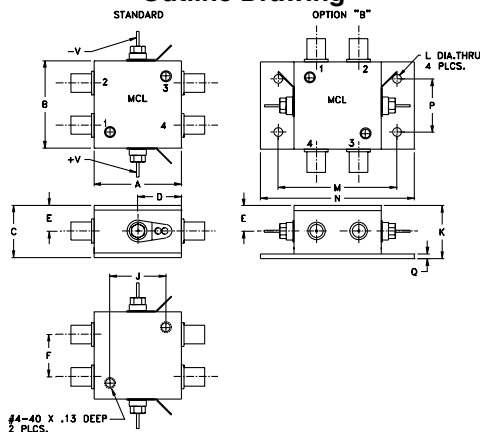
Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
Input Power	
DC-2000MHz	+22dBm
2000-5000MHz	+24dBm

Coaxial/Pin Connections

RF IN	3
RF OUT 1	2
RF OUT 2	1
TTL-IN	4
+5V	+5VDC
-5V	-5VDC

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	1.25	0.75	0.63	0.38	0.61	--	0.80
31.75	31.75	19.05	16.00	9.65	15.49	--	20.32

J	K	L	M	N	P	Q	wt
0.80	0.76	0.12	1.68	2.18	0.75	0.07	grams
20.32	19.30	3.18	42.88	55.37	19.05	1.78	85

Features

- wideband, DC to 5 GHz
- fast rise/fall time, 6ns typ.
- low video break thru, 30 mV P-P typ.

Applications

- antenna switching
- instrumentation
- cellular/PCN
- transmitters/receivers
- satellite communications

Electrical Specifications

FREQ. (GHz)	INSERTION LOSS (dB)						1dB COMPR. (dBm)						IN-OUT ISOLATION (dB)					
	DC-500 MHz	500-2000 MHz	2000-5000 MHz	DC-500 MHz	500-2000 MHz	2000-5000 MHz	DC-500 MHz	500-2000 MHz	2000-5000 MHz	DC-500 MHz	500-2000 MHz	2000-5000 MHz	DC-500 MHz	500-2000 MHz	2000-5000 MHz	DC-500 MHz	500-2000 MHz	2000-5000 MHz
f _L f _H	Typ. Max.	Typ. Max.	Typ. Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.
DC 5	0.9 1.5	1.3 1.7	2.1 --	20 15	23 19	21 18	44 38	38 28	20 --									

Additional Specifications

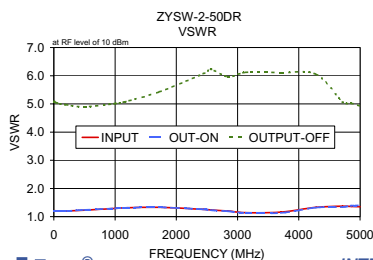
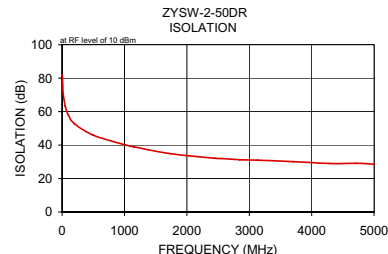
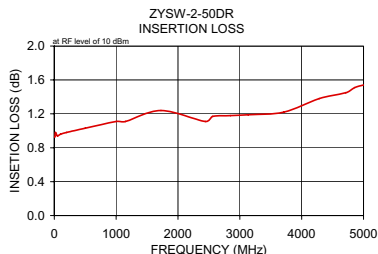
Control Voltage	0/5.5, max.	VSWR(:1)	1.4 typ., 2.0 max. DC to 3 GHz
Low Threshold, max.	0.8		2.5 max. 3 to 5 GHz
High Threshold, min.	2.0		
Control Current, mA	High V: 2 typ., 5 max Low V: 0.2 max.	Rise/Fall time (10%-90%), ns	6 typ., 12 max.
Positive Supply Current, mA	+5±0.5/-0.1	Switching time, 50% of Control to 90% RF(Turn-on), ns	20 typ., 40 max.
Negative Supply V.	-5-0.5/+0.1	10% RF(Turn-off), ns	
Positive Supply Current, mA	20 max.	**Video Leakage, mVp-p	30 typ.
Negative Supply Current, mA	20 max.	0/-5V Control	

1. OFF state at RF output is low impedance
2. All RF connections must be DC blocked or held at 0V DC

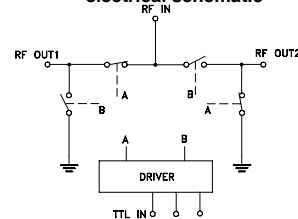
Control Port	RF outputs	
	1	2
Low	On	Off
High	Off	On

Typical Performance Data

FREQ. (MHz)	ON TTL Low @ 0V IN-OUT 1				INSERTION LOSS (dB)				OFF TTL High @ 5V IN-OUT 1				ISOLATION (dB)				VSWR		
	AMP. UNBAL.				DELTA				IN				ON				OUT		
	X	σ	X	σ	X	σ	X	σ	X	σ	X	σ	X	σ	X	σ	ON X	OFF X	
3.00	0.93	0.03	0.01	0.00	82.19	2.73	4.56	2.14	1.20		1.21		1.21		1.21		1.21	5.09	
5.00	0.93	0.03	0.01	0.01	81.63	2.81	2.23	1.14	1.21		1.21		1.21		1.21		1.21	5.07	
10.00	0.93	0.02	0.01	0.01	75.09	1.32	1.62	0.75	1.21		1.21		1.21		1.21		1.21	5.08	
20.00	0.98	0.03	0.05	0.04	69.97	0.76	1.59	1.48	1.21		1.21		1.21		1.21		1.21	5.06	
50.00	0.94	0.03	0.01	0.01	63.18	0.95	1.77	0.64	1.20		1.20		1.20		1.20		1.20	5.04	
100.00	0.96	0.03	0.01	0.00	57.83	0.41	0.52	0.21	1.20		1.20		1.20		1.20		1.20	5.00	
200.00	0.98	0.03	0.01	0.00	52.68	0.23	0.35	0.28	1.20		1.20		1.20		1.20		1.20	4.97	
500.00	1.03	0.03	0.00	0.00	45.93	0.26	0.34	0.16	1.23		1.23		1.23		1.23		1.23	4.90	
1000.00	1.11	0.03	0.01	0.01	40.28	0.28	0.34	0.14	1.29		1.29		1.29		1.29		1.29	5.01	
1150.64	1.11	0.02	0.01	0.01	38.91	0.25	0.37	0.13	1.31		1.31		1.31		1.31		1.31	5.07	
1724.45	1.24	0.01	0.03	0.02	34.88	0.27	0.32	0.09	1.33		1.33		1.33		1.33		1.33	5.43	
2441.73	1.11	0.01	0.01	0.01	32.17	0.39	0.21	0.13	1.26		1.26		1.26		1.26		1.26	6.07	
2561.27	1.17	0.03	0.02	0.02	31.99	0.39	0.14	0.12	1.24		1.24		1.24		1.24		1.24	6.23	
2848.18	1.18	0.02	0.01	0.01	31.20	0.40	0.13	0.07	1.20		1.19		1.19		1.19		1.19	5.96	
3135.09	1.19	0.09	0.04	0.04	30.98	0.42	0.15	0.17	1.14		1.13		1.13		1.13		1.13	6.12	
3708.91	1.22	0.03	0.06	0.02	30.08	0.46	0.38	0.38	1.16		1.16		1.16		1.16		1.16	6.11	
4282.73	1.38	0.10	0.11	0.02	28.98	0.46	0.82	0.28	1.33		1.32		1.32		1.32		1.32	6.05	
4713.09	1.45	0.04	0.05	0.04	29.12	0.35	0.88	0.29	1.37		1.34		1.34		1.34		1.34	5.07	
4856.55	1.51	0.04	0.06	0.04	28.90	0.33	0.84	0.25	1.36		1.39		1.39		1.39		1.39	5.02	
5000.00	1.54	0.04	0.06	0.04	28.56	0.30	0.87	0.28	1.35		1.40		1.40		1.40		1.40	4.92	



Electrical Schematic



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