

High Isolation

Switches

SPDT, DC to 4.5 GHz

NEW!

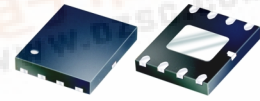
SWM-2-50DR SWMA-2-50DR

Features

- high isolation, 65 dB typ. at 1 GHz
- low insertion loss, 0.7 dB typ. at 1 GHz
- integral TTL driver

Applications

- transmitter/receiver isolation
- automated switching networks



CASE STYLE: DL1020
PRICE: \$5.30 ea. QTY. (10-49)

Electrical Specifications (T_{AMB}= 25°C)

MODEL NO.	FREQ. (GHz)	REFLECTIVE	ABSORPTIVE	INSERTION LOSS (dB)								IN-OUT ISOLATION (dB)				1 dB COMPRESSION (dBm)				
				FREQUENCY BAND								FREQUENCY BAND				FREQUENCY BAND				
				A1	A	B	C	A1	A	B	C	A1	A	B	C	A1*	A	B	C	A1*
SWM-2-50DR	DC-4.5	•		Typ. Max.	Typ. Max.	Typ. Max.	Typ. Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.	Typ.	Typ.	Typ.	Typ.
SWMA-2-50DR	DC-4.5	•		0.6	0.9	0.7	1.2	0.9	1.4	1.6	1.9	75	65	55	45	45	37	35	27	20
				0.6	0.9	0.7	1.1	0.9	1.4	1.4	1.9	80	65	65	55	55	45	38	27	20

A1= DC-100 MHz, A= 0.1-1 GHz, B= 1-2 GHz, C= 2-4.5 GHz

* Drops to 17.0 dBm at 10 MHz.

Switching Specifications

Power Supply Voltage +5V±.20 -5V±.20	Current, mA 9 max. 9 max.
TTL Control low threshold high threshold	Voltage, V 0 min., 0.8 max. 2 min., 5 max.
	Current, mA max. 5
	Control Logic RF1 ON OFF RF2 OFF ON
VSWR* (:1) Rise/Fall Time, ns Switching Time, ns turn on/off Video leakage**, mv p-p	1.15 typ. to 2 GHz, 1.3 typ. to 4.5 GHz 5 typ., 15 max. 10 typ., 20 max. 30 typ.

NOTES:

Operating Temperature, -40°C to 85°C

Storage Temperature, -55°C to 100°C

* For all states of absorptive switch, and for reflective switch in "ON" condition; for reflective switch "OFF" port, 5:1 VSWR typ.

** Video leakage or break through is defined as leakage of TTL switching signal to RF output ports.

1. Absolute maximum power and voltage ratings:

RF input power, 250 mW

Supply voltage: ±6 V DC

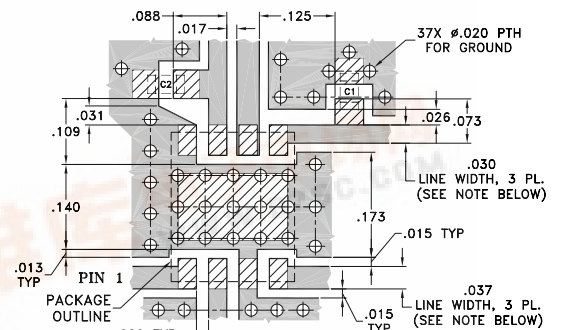
2. OFF state of RF output is low impedance.

3. Prices and specifications subject to change without notice.

Pin Configuration

RF IN	6
RF OUT 1	1
RF OUT 2	4
TTL IN	2
+5V	5
-5V	7
TTL GND	3
GND	8
GND	PADDLE

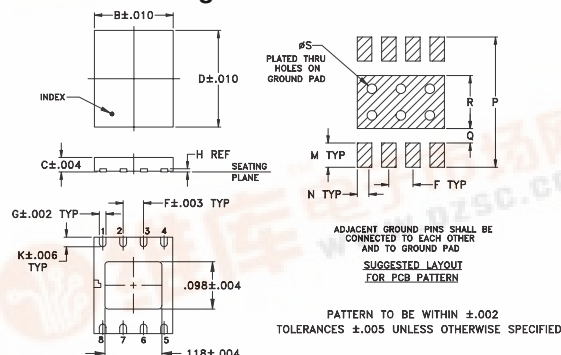
Demo Board MCL P/N: TB-161 Suggested PCB Layout (PL-122)



- NOTE:
1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS .020" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 2. LOCATION OF PTH'S DESIGNATED ACCORDING TO ARTWORK OF TEST BOARD B14-TB-161 (CONTACT WITH MINI-CIRCUITS)
 3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

■ DENOTES PCB COPPER LAYOUT
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt.
.193	.035	.236	6.00	.050	.017	.008	.024	.024	.050	.030	.270	.030	.110	.020	.051	.08	



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