

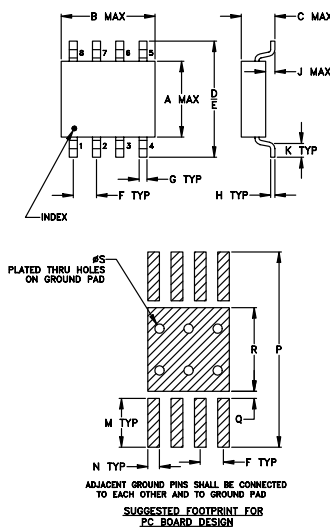
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 150°C
Input Power	see Table & Note1
Control Current	see Table

Pin Connections

RF IN	1
RF OUT	5
CONTROL 1	2
CONTROL 2	3
GROUND	4,6,7,8

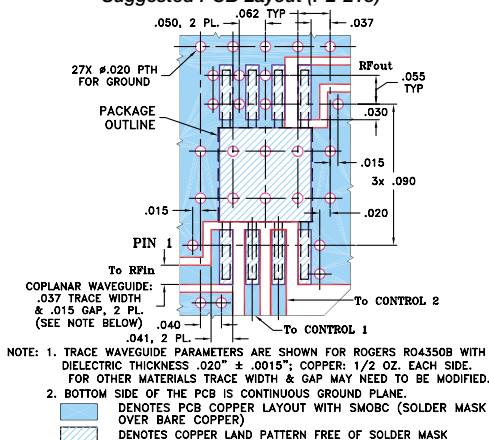
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	
.180	.180	.070	.400	.350	.050	.015	.005	
4.57	4.57	1.78	10.16	8.89	1.27	0.38	0.13	
J	K	M	N	P	Q	R	S	wt.
.005	.070	.105	.025	.420	.015	.180	.020	grams
0.13	1.78	2.67	0.64	10.67	0.38	4.57	0.51	0.15

Demo Board MCL P/N: TB-206 Suggested PCB Layout (PL-218)



Features

- wideband, DC to 2000 MHz
- low insertion loss, 1.3 dB typ.
- low video leakage, 30 mVp-p typ.
- hermetically sealed glass-metal package

Applications

- PCN
- cellular
- antenna switching



CASE STYLE: XX112
PRICE: \$34.95 ea. QTY (1-9)

Electrical Specifications

FREQ. (MHz)		INSERTION LOSS (dB)				1dB COMPR. (dBm)			IN-OUT ISOLATION (dB)					
		DC-100 MHz		100-1000 MHz		1000-2000 MHz		Typ.	DC-100 MHz		100-1000 MHz		1000-2000 MHz	
f _L	f _U	Typ.	Max.	Typ.	Max.	Typ.	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.
DC	2000	0.8	1.2	1.3	1.7	1.3	1.7	19	19	26	75	60	65	58

Additional Specifications

Control Voltage, V	-8/0 for compression			
Low Threshold, V	-8 to -5/0 other specs			
Control Current, mA	0.2 Max. to -8V 0.5 Max. at -9V to -12V Typ.			
VSWR (:1)	DC-0.2 GHz		0.2-2 GHz	
ON, all ports	1.25 Max.		1.5 Max.	
OFF, Input	1.25 Max.		1.5 Max.	
OFF, Output	1.4 Max.		1.5 Max.	
Rise/Fall Time (10%-90%), ns	3 Typ., 5 Max.			
Switching Time, 50% of control to 90% RF (Turn-on), ns	7 Typ., 10 Max.			
10% RF (Turn-off), ns	3 Typ., 10 Max.			
Video Leakage ³ , mVp-p	30 Typ., 50 Max.			
RF Power Input Max. ¹	DC-.02	.02-5	.5-2	GHz
Steady State 0/-8V control	+23	+30	+33	dBm
As Modulator ²	+14.5	+20	+27	dBm

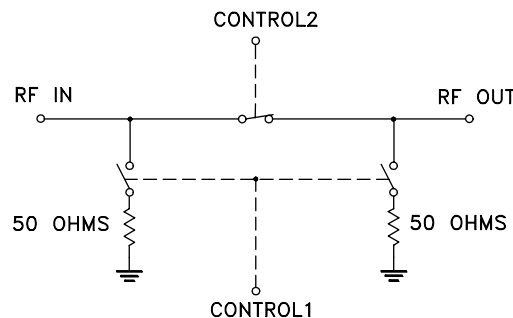
Notes:

1. Above 20° C derate power linearly to zero at 150C.
2. In modulator service, unrestricted switching is permitted with RF applied.
3. Video leakage or break through is defined as leakage of switching signal to RF output ports.
4. All RF pins must be DC blocked or held at 0V DC.

CONTROL LOGIC

Control Ports		RF output
1	2	
-V	0	ON
0	-V	OFF

Electrical Schematic



Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB) (ctrl1 @ -8V, ctrl2 @ 0V) IN-OUT		OFF ISOLATION (dB) (ctrl1 @ 0V, ctrl2 @ -8V) IN-OUT		VSWR		
	\bar{X}	σ	\bar{X}	σ	IN \bar{X}	OUT \bar{X}	OFF \bar{X}
0.30	0.62	0.01	90.61	3.68	1.15	1.15	1.03
5.30	0.63	0.01	85.48	6.29	1.16	1.15	1.03
10.30	0.69	0.01	83.23	4.25	1.16	1.15	1.03
100.29	0.79	0.01	67.92	1.22	1.15	1.15	1.03
280.26	0.85	0.01	66.96	1.83	1.15	1.14	1.03
390.24	0.92	0.00	67.09	1.35	1.15	1.14	1.03
445.23	0.90	0.01	67.05	1.41	1.16	1.15	1.03
610.21	0.96	0.01	65.89	1.85	1.16	1.15	1.04
780.18	0.99	0.01	64.48	1.97	1.17	1.16	1.05
890.17	1.02	0.01	63.58	2.32	1.18	1.16	1.06
945.16	1.04	0.01	63.07	2.05	1.18	1.16	1.07
1000.15	0.99	0.00	62.55	1.47	1.18	1.15	1.08
1165.13	1.09	0.02	61.49	2.35	1.18	1.15	1.09
1335.10	1.11	0.02	61.45	1.70	1.17	1.14	1.12
1445.08	1.14	0.02	61.66	1.64	1.16	1.13	1.13
1500.08	1.09	0.02	62.32	2.10	1.16	1.12	1.14
1665.05	1.17	0.01	60.72	1.78	1.15	1.10	1.17
1835.03	1.13	0.01	60.34	0.70	1.14	1.07	1.20
1945.01	1.22	0.03	60.54	1.60	1.13	1.06	1.22
2000.00	1.17	0.01	61.08	1.47	1.13	1.05	1.23

