

50Ω Wideband 0.1 to 4200 MHz

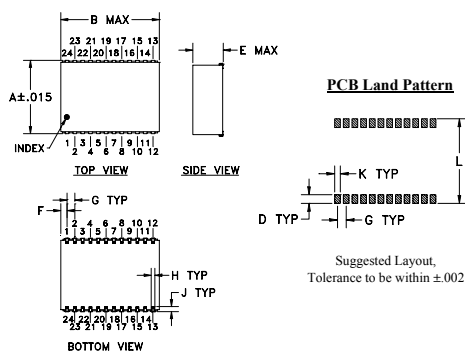
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm max.
Voltage at DC port	25V max.
Input Current	500mA
DC resistance from DC to RF&DC port	4.5 ohm typ.
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

RF	15
RF&DC	10
DC	24
GROUND	all other pins

Outline Drawing

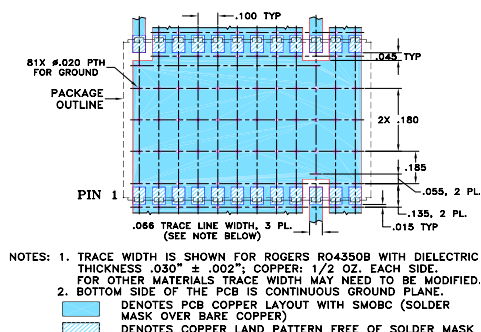


Outline Dimensions (inch)

A	B	C	D	E	F
.940	1.260	--	.100	.390	.080
23.88	32.00	--	2.54	9.91	2.03

G	H	J	K	L	wt
.100	.047	.065	.065	.970	grams
2.54	1.19	1.65	1.65	24.64	7.2

Demo Board MCL P/N: TB-359 Suggested PCB Layout (PL-216)



Features

- wideband, 0.1 to 4200 MHz
- low insertion loss, 0.6 dB typ.
- good isolation, 40 dB typ.

Applications

- biasing amplifiers, laser diodes, active antenna
- DC return
- DC blocking
- satellite communication



Generic photo used for illustration purposes only

CASE STYLE: BL301

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Bias-Tee Electrical Specifications

FREQUENCY (MHz)	INSERTION LOSS* (dB)						ISOLATION* (dB) (RF port to DC port) (RF&DC port to DC port)					
	L		M		U		L		M		U	
f _L f _U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.1 4200	0.15	0.8	0.6	1.2	0.6	1.6	25	15	40	20	40	20

L= low range (f_L to 10 f_L)

M= mid range (10 f_L to f_U/2)

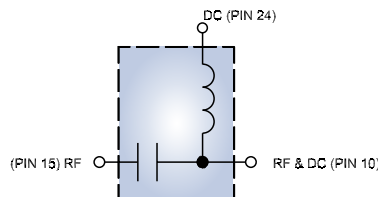
U= upper range (f_U/2 to f_U)

* Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

Typical Performance Data

Freq. (MHz)	Pin (dBm)	INSERTION LOSS (dB) with Current						ISOLATION (dB) (Pin= -10dBm) with current						VSWR (:1)
		0mA	20mA	50mA	100mA	150mA	200mA	10mA	20mA	50mA	100mA	150mA	200mA	
0.10	19.80	0.17	0.17	0.16	0.17	0.20	0.24	19.46	19.04	17.83	14.58	12.66	11.75	1.16
0.27	19.80	0.13	0.13	0.13	0.14	0.14	0.15	25.86	25.53	24.52	21.43	19.31	18.16	1.07
0.53	19.80	0.12	0.12	0.12	0.11	0.11	0.11	29.17	28.98	28.36	26.18	24.40	23.37	1.04
1.06	19.80	0.13	0.13	0.12	0.11	0.12	0.12	30.81	30.74	30.56	29.62	28.62	27.92	1.02
10.00	18.50	0.16	0.17	0.17	0.16	0.16	0.16	30.06	30.07	30.07	30.20	30.38	30.56	1.04
114.75	19.50	0.22	0.25	0.24	0.22	0.22	0.22	34.45	34.49	34.27	33.99	33.83	33.59	1.07
324.25	19.70	0.50	0.55	0.53	0.52	0.53	0.56	44.65	44.61	44.25	43.90	43.91	43.34	1.06
743.25	18.70	0.28	0.31	0.30	0.29	0.29	0.29	51.19	50.50	50.16	50.65	51.69	52.47	1.06
952.75	18.20	0.31	0.33	0.33	0.31	0.32	0.33	40.75	40.80	40.97	40.97	40.93	40.95	1.11
1581.25	18.00	0.46	0.48	0.47	0.46	0.48	0.49	42.58	42.59	43.94	43.77	44.36	44.17	1.13
2000.25	17.10	0.46	0.48	0.47	0.46	0.46	0.47	45.46	45.57	45.73	45.48	46.14	45.28	1.12
2524.00	14.40	0.40	0.42	0.41	0.42	0.43	0.44	53.15	53.72	52.19	53.17	52.67	53.67	1.12
3047.75	14.20	0.45	0.48	0.47	0.46	0.46	0.49	52.46	52.25	51.55	51.33	51.46	50.99	1.09
3676.25	15.10	0.73	0.74	0.75	0.75	0.75	0.75	46.32	47.19	46.36	45.53	46.19	45.65	1.07
4200.00	17.90	1.04	1.07	1.07	1.06	1.05	1.06	28.42	28.36	28.24	28.14	28.01	27.92	1.09
4502.50	-0.60	1.17	1.19	1.18	1.19	1.17	1.16	28.15	28.10	28.05	27.96	27.84	27.87	1.14
4802.00	-0.70	1.26	1.26	1.27	1.25	1.22	1.20	37.95	38.01	38.19	37.93	37.58	37.51	1.12
5251.75	-1.10	1.19	1.17	1.16	1.13	1.11	1.09	49.68	51.04	49.12	49.37	49.13	48.19	1.11
5550.75	-2.00	1.65	1.63	1.60	1.56	1.54	1.51	38.44	38.56	38.36	38.07	37.85	38.19	1.10
6000.00	-2.40	1.70	1.71	1.65	1.59	1.54	1.50	34.37	34.36	34.23	34.40	34.49	34.48	1.12

Electrical Schematic



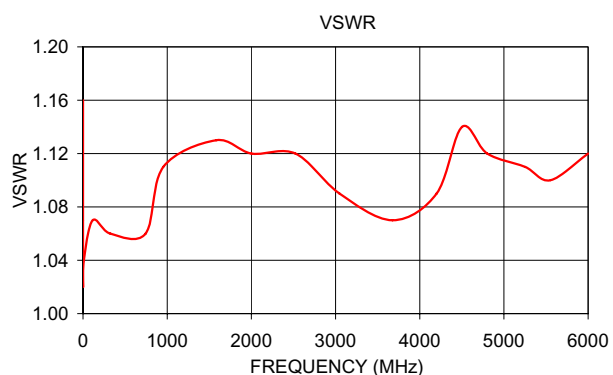
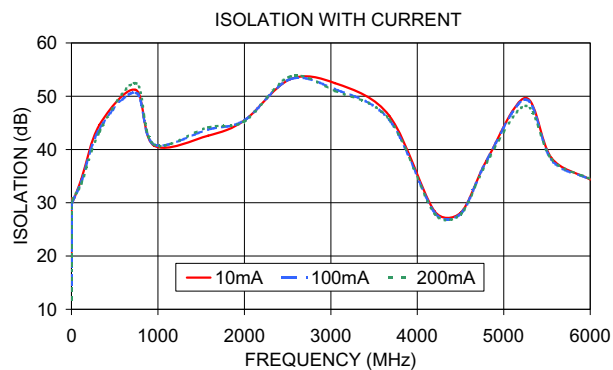
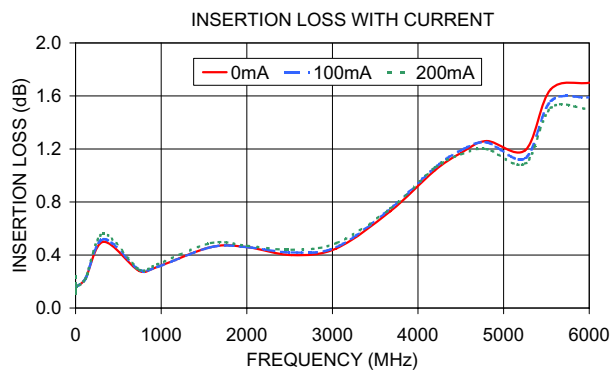
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