

Surface Mount Bias-Tee

50Ω Wideband 10 to 4200 MHz

JEBT-4R2G+ JEBT-4R2G



CASE STYLE: BL301
PRICE: \$39.95 ea. QTY. (1-9)

**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

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

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.

Pin Connections

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

Features

- wideband, 10 to 4200 MHz
- low insertion loss, 0.6 dB typ.
- good isolation, 40 dB typ.

Applications

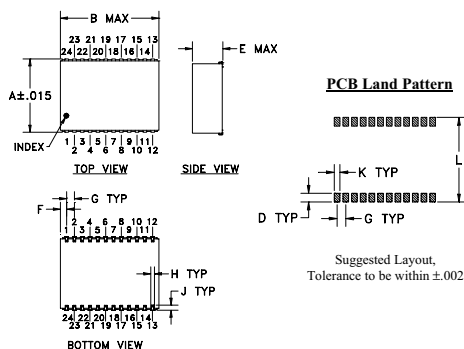
- biasing amplifiers, laser diodes, active antenna
- DC return
- DC blocking
- satellite communication

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.
10	4200	0.15	0.6	0.6	1.2	0.6	1.6	32	20	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.

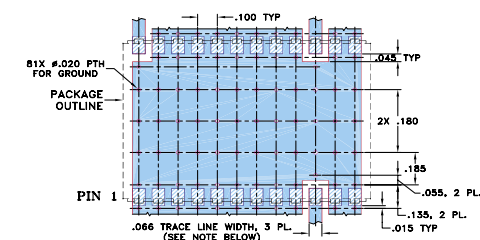
Outline Drawing



Outline Dimensions (inch/mm)

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)

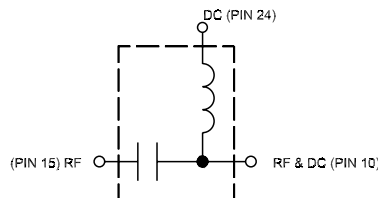


- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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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Performance Charts

