

Plug-In Bias-Tee

PBTC-3G+

50Ω Wideband 10 to 3000 MHz



Generic photo used for illustration purposes only

CASE STYLE: C07

+RoHS Compliant

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

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm max.
Voltage at DC port	30V 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	9
RF&DC	12
DC	3
GROUND	all other pins
CASE GROUND	1,2,4,5,7,8,11,13,14,15,16

Features

- wideband, 10 to 3000 MHz
- low insertion loss, 0.6 dB typ.
- hermetic, metal case

Applications

- biasing laser diodes
- biasing amplifiers
- biasing active antennas
- DC return
- DC blocking
- military, hi-rel application

Bias-Tee Electrical Specifications

FREQUENCY (MHz)		INSERTION LOSS* (dB)						ISOLATION* (dB) (RF port to DC port) (RF&DC port to DC port)						VSWR** (:1)					
f_L	f_U	L		M		U		L		M		U		L		M		U	
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
10	3000	0.15	0.7	0.3	1.5	1.0	2.5	27	20	30	20	35	20	1.06	1.2	1.13	1.66	1.6	1.7

L= low range (f_L to 10 f_L)

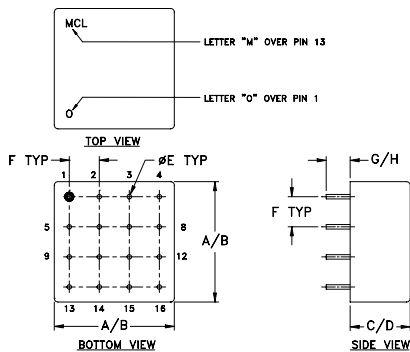
M= mid range (10 f_L to $f_U/2$)

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.

** VSWR measured with open and short at DC port.

Outline Drawing



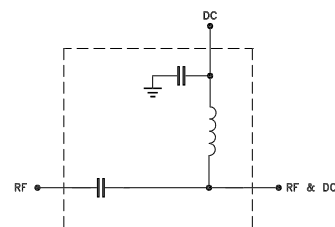
Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	wt
.770	.810	.380	.410	.030	.200	.20	.14	grams
19.56	20.57	9.65	10.41	0.76	5.08	5.08	3.56	11.0

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	
10.00	19.79	0.11	0.15	0.16	0.17	0.17	0.18	31.50	31.01	29.96	29.26	29.22	29.42	1.02
15.00	21.83	0.14	0.18	0.18	0.21	0.21	0.15	31.07	30.42	28.95	27.53	27.08	27.10	1.02
141.86	20.57	0.21	0.25	0.25	0.26	0.27	0.23	33.27	33.24	33.17	33.06	32.90	32.75	1.02
276.19	20.83	0.33	0.37	0.36	0.34	0.36	0.36	33.42	33.39	33.57	33.84	33.99	34.10	1.01
403.05	20.98	0.21	0.25	0.22	0.24	0.27	0.22	40.88	41.42	41.56	42.17	41.76	42.32	1.04
791.10	20.55	0.24	0.27	0.28	0.30	0.32	0.29	35.93	36.18	36.01	35.69	35.76	36.04	1.13
925.43	20.02	0.26	0.28	0.26	0.29	0.33	0.29	30.93	30.83	30.98	30.93	31.00	31.02	1.16
1000.00	19.70	0.33	0.34	0.35	0.35	0.38	0.38	35.63	35.41	35.62	35.80	35.55	35.86	1.17
1313.48	19.25	0.38	0.42	0.41	0.43	0.44	0.44	37.38	37.67	37.35	37.42	38.05	38.00	1.26
1701.53	20.14	1.45	1.46	1.50	1.49	1.50	1.45	34.14	33.79	33.97	34.12	34.23	34.09	1.38
1962.71	19.86	0.81	0.79	0.85	0.85	0.84	0.81	34.01	34.04	34.25	34.12	34.13	34.42	1.40
2350.76	20.42	0.74	0.80	0.80	0.78	0.80	0.76	39.61	38.75	38.52	38.86	38.96	38.75	1.50
2477.63	20.80	1.34	1.38	1.41	1.42	1.41	1.36	37.19	37.73	37.85	36.87	37.46	36.98	1.48
2873.14	21.04	1.83	1.92	1.93	1.91	1.93	1.93	40.84	40.10	39.86	41.04	40.12	39.78	1.39
3000.00	21.16	1.80	1.91	1.92	1.90	1.92	1.91	34.25	34.42	34.80	37.52	35.61	34.79	1.31

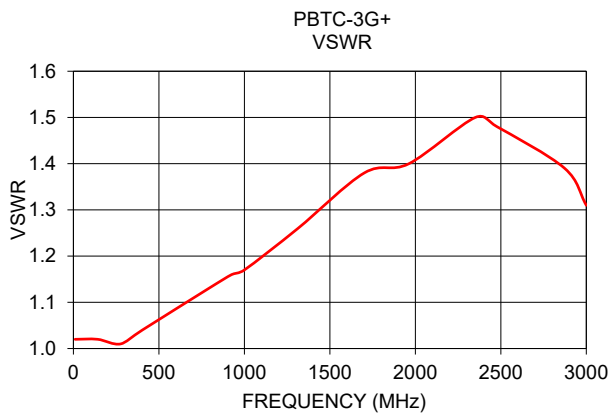
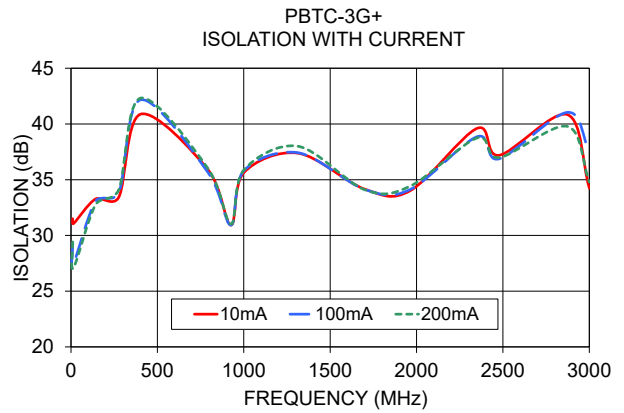
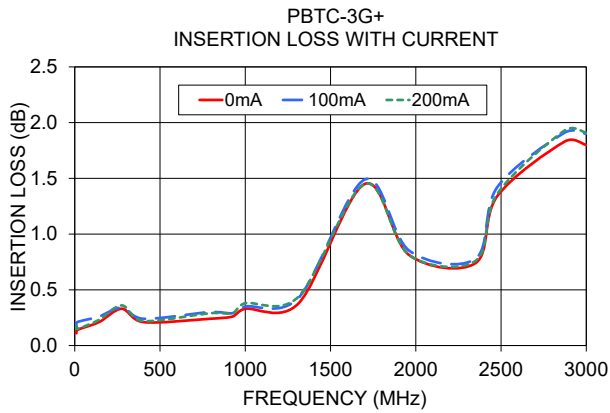
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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