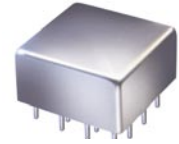


# Plug-In Bias-Tee

50Ω Wideband 0.1 to 1000 MHz

## PBTC-1GW+ PBTC-1GW



CASE STYLE: C07  
PRICE: \$38.20 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.*

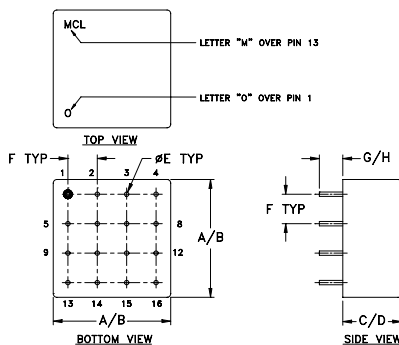
### Maximum Ratings

Operating Temperature	-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.

### 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

### Outline Drawing



### Outline Dimensions (inch/mm)

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

### Features

- wideband, 0.1 to 1000 MHz
- low insertion loss, 0.3 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.	Max.	Typ.	Max.								
0.1	1000	0.15	0.8	0.3	0.7	0.3	1.0	25	15	33	20	30	20	1.06	1.6	1.06	1.2	1.1	1.38

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 1 dB Max. and Isolation 7 dB Min. 0.1 to 0.3 MHz

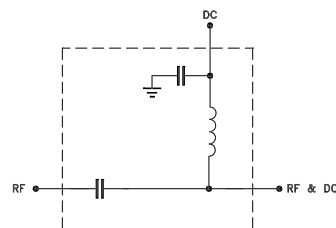
Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

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

### 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	19.91	0.01	0.22	0.24	0.34	0.47	0.60	16.77	16.38	15.07	12.23	10.85	10.02	1.19
0.15	19.90	0.03	0.20	0.21	0.27	0.33	0.41	19.48	18.98	17.69	14.60	12.92	11.80	1.13
1.00	19.20	0.02	0.15	0.15	0.15	0.15	0.16	30.27	30.21	29.76	28.40	27.06	25.91	1.02
5.05	19.91	0.07	0.17	0.18	0.18	0.18	0.18	32.03	31.73	31.24	31.01	31.05	31.05	1.02
7.53	19.82	0.09	0.17	0.18	0.20	0.20	0.19	31.82	31.38	30.76	30.39	30.35	30.49	1.02
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

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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070530  
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# Performance Charts

# PBTC-1GW+ PBTC-1GW

