

Satellite MuxTee Bias-Tee

Z3BT-2R15G+

50Ω 5 to 2600MHz



Generic photo used for illustration purposes only
CASE STYLE: CC1553

The Big Deal

- Low RF Insertion Loss:0.9 dB Typ. over 5-2600 MHz
- DC pass through: 7A, 100V
- Excellent power handling, 7W
- Simple installation in Satellite System

Product Overview

The Z3BT-2R15G+ is a Low loss bias tee designed for use with L-Band systems, capable of injecting up to 7A, this Bias tee is ideal for satellite communications applications. Built in a rugged shielded case, the Z3BT-2R15G+ is equipped with SMA Female connectors for all ports. The Z3BT-2R15G+ is ideally suited for powering Satellite up converters and LNBs where RF and DC are injected on a single coax cable.

Key Features

Feature	Advantages
Low insertion loss. 0.9 dB typical	Low insertion loss of Z3BT-2R15G+ is useful in very critical satellite and wireless applications.
Excellent matching 1.3:1 typ. over entire band.	Good VSWR ensures better matching when used with other devices.
DC pass through / DC Feed	Enables remote powering of antenna mounted amplifiers while splitting the RF signal. Eliminates additional cable runs. Designed to handle up to 7 Amp at 100 Volts, the Z3BT-2R15G+ can also support a wide variety of remotely powered RF equipment.
Connectors	All connectors are SMA Female.

Notes

- A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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Z3BT-2R15G+



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Connectors	Model
SMA FEMALE	Z3BT-2R15G+

+RoHS Compliant

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

Maximum Ratings

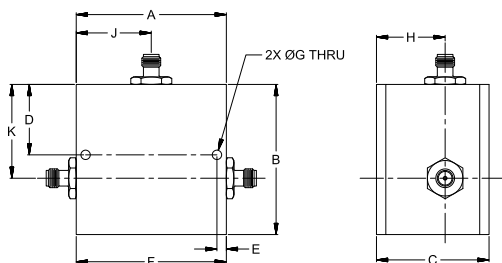
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	7W Max.
Voltage at DC port	+100V Max.
Input Current	7A
DC resistance from DC to RF&DC port	0.50hm Typ.

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

RF	Port-1 (SMA female)
RF&DC	Port-2 (SMA female)
DC	Port-S (SMA female)

Outline Drawing

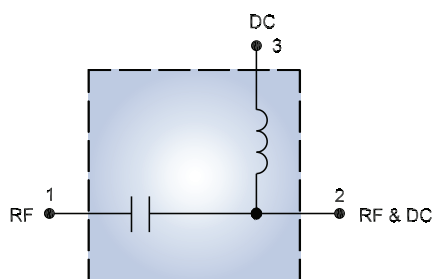


Outline Dimensions (inch/mm)

A	B	C	D	E	
2.000	2.000	1.500	.938	.125	
50.80	50.80	38.10	23.83	3.18	
F	G	H	J	J	Wt.
1.750	.125	.915	1.000	1.250	grams
44.45	3.18	23.24	25.4	31.75	154

Note: Please refer to case style drawing for details

Functional Block Diagram



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Features

- DC pass through: 7A, 100V
- Low insertion loss, 0.9dB Typ.
- Good Isolation, 40dB Typ.
- Power handling, 7W

Applications

- Satellite IF band
- Satellite Receivers / Transmitters
- Test accessory

Electrical Specifications at 25°C

Parameter	Port	Frequency (MHz)	Min.	Typ.	Max.	Unit
Insertion Loss	RF to RF & DC	5-10	-	0.3	1.0	dB
		10-2200	-	0.9	1.8	
		2200-2600	-	0.9	2.2	
VSWR	RF	5-10	-	1.1	1.6	:1
		10-1300	-	1.2	1.5	
		1300-2600	-	1.3	1.6	
	RF & DC	5-10	-	1.1	1.6	:1
		10-1300	-	1.2	1.5	
		1300-2600	-	1.3	1.6	
Isolation*	RF to DC	5-10	25	40	-	dB
		10-1300	40	55	-	
		1300-2200	37	45	-	
	DC to RF & DC	5-10	25	40	-	dB
		10-1300	40	55	-	
		1300-2200	35	45	-	
1300-2600	20	35	-			

Typical Performance Data

FREQ. (MHz)	INSERTION LOSS (dB) (P _{IN} = 0dBm) with Current RF Port to RF&DC Port				ISOLATION (dB) (P _{IN} = 0dBm) with 7A Port		VSWR (:1) (P _{IN} = 0dBm) With 7A Port	
	0.1A	3A	5A	7A	1 to S	S to 2	RF	RF&DC
5	0.41	0.41	0.43	0.45	39.07	39.06	1.28	1.29
10	0.30	0.29	0.30	0.30	49.73	49.77	1.14	1.15
20	0.22	0.22	0.22	0.22	61.70	61.53	1.06	1.07
50	0.25	0.25	0.23	0.22	70.09	70.33	1.07	1.08
75	0.46	0.46	0.44	0.43	63.92	63.78	1.16	1.16
100	0.78	0.77	0.76	0.75	63.60	63.74	1.23	1.23
500	0.89	0.89	0.89	0.89	62.55	59.14	1.16	1.20
950	0.80	0.80	0.79	0.79	66.10	56.06	1.12	1.19
1000	0.77	0.77	0.77	0.77	63.79	55.38	1.12	1.19
1200	0.71	0.71	0.71	0.71	59.58	53.51	1.14	1.19
1300	0.70	0.70	0.70	0.71	57.24	51.93	1.15	1.20
1500	0.70	0.70	0.70	0.70	53.04	48.84	1.17	1.22
1700	0.72	0.72	0.72	0.73	51.31	46.76	1.19	1.23
1800	0.74	0.75	0.75	0.75	51.39	45.88	1.21	1.24
2000	0.80	0.80	0.80	0.80	51.91	43.93	1.23	1.25
2150	0.86	0.87	0.87	0.87	51.16	42.41	1.25	1.27
2200	0.89	0.89	0.89	0.90	50.28	41.94	1.25	1.28
2300	0.94	0.94	0.94	0.95	48.11	40.96	1.27	1.30
2500	1.08	1.08	1.08	1.09	42.48	38.83	1.30	1.35
2600	1.16	1.16	1.16	1.17	39.37	37.13	1.32	1.38