

## Bias-T 100-8500MHz

BT-10G is outdoor current injector/extractor designed especially for very wideband RF-systems. Low insertion loss and wide frequency range practically up to 10GHz provide attractive possibilities for using of BT-10G in many applications.

### Features:

- Wideband
- Low insertion loss
- Outdoor
- Compact and reliable
- Wide voltage range
- Widespread type of DC-input

### Applications:

- Radio-monitoring
- Small signals receiving
- RF/IF-systems



### RF characteristics\*

<b>Frequency range</b>	100-8500					<b>MHz</b>
<b>IN/OUT impedance</b>	50/50					<b>Ohm</b>
	<b>100MHz</b>	<b>3000MHz</b>	<b>6000MHz</b>	<b>8500MHz</b>	<b>10000MHz</b>	
<b>Insertion loss</b>	1.2	0.8	0.8	0.8	1.0	<b>dB</b>
<b>VSWR IN</b>	1.6	1.3	1.3	1.3	2.0	<b>dB</b>
<b>VSWR OUT</b>	1.6	1.3	1.3	1.3	2.0	<b>dB</b>

\* Measured at temperature T=+25°C

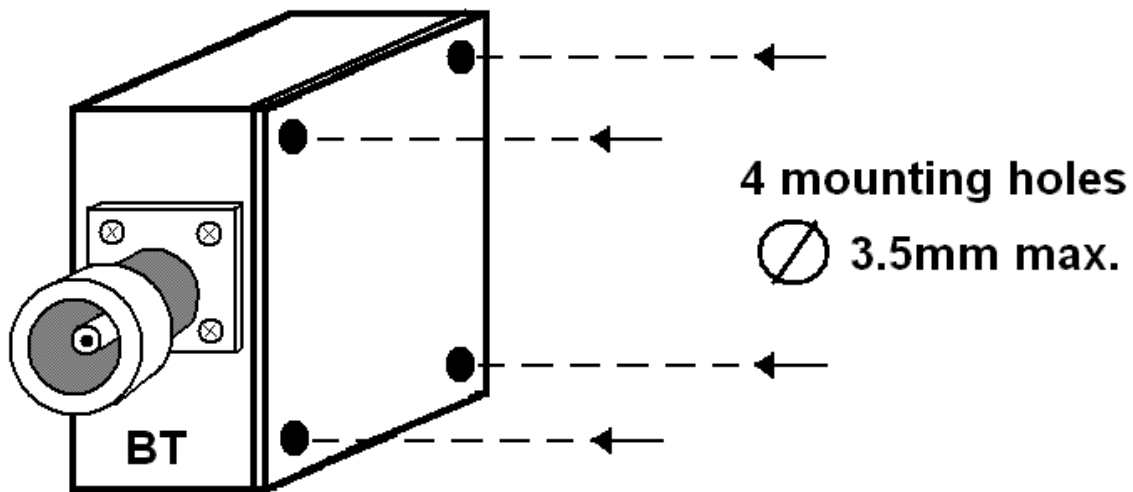
### DC and mechanical characteristics

<b>Operating voltage (DC)</b>	0...+17 (on order up to +32V available)	<b>V</b>
<b>IN/OUT Connector</b>	N-type female/ N-type female	
<b>Enclosure type</b>	Outdoor, aluminium	
<b>Mounting</b>	Suitable for mounting onto flat surface	
<b>DC input</b>	2.1mm input, <b>positive is on central pin</b>	
<b>Dimensions</b> (without mounting clip)	73x49x22	<b>mm</b>

### Absolute maximum ratings

<b>Operating current</b>	200	<b>mA</b>
<b>Input voltage</b>	+17 (on order up to +32V available)	<b>V</b>
<b>CW RF input power</b>	2	<b>W</b>
<b>Operating temperature</b>	-40...+85	<b>°C</b>

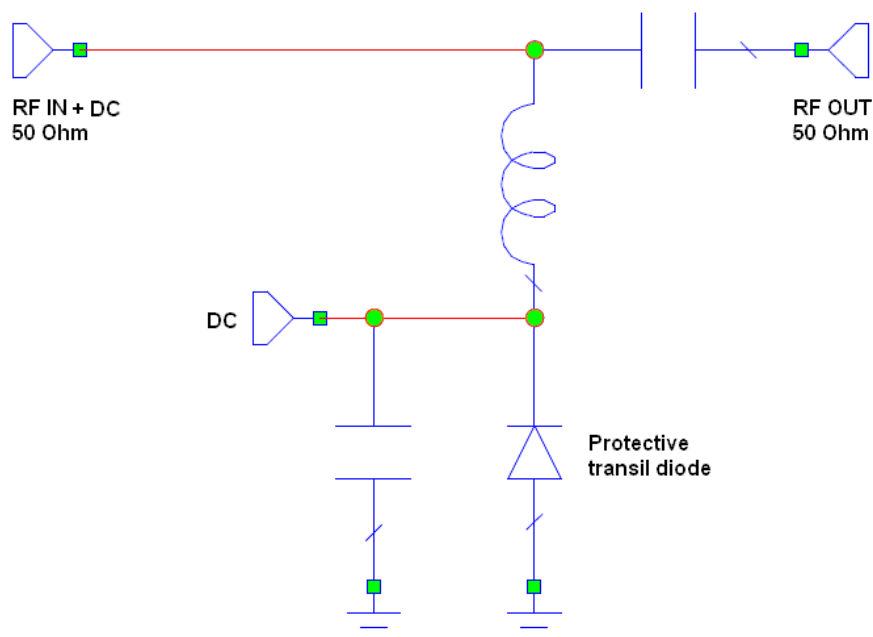
## Mounting and installation instructions



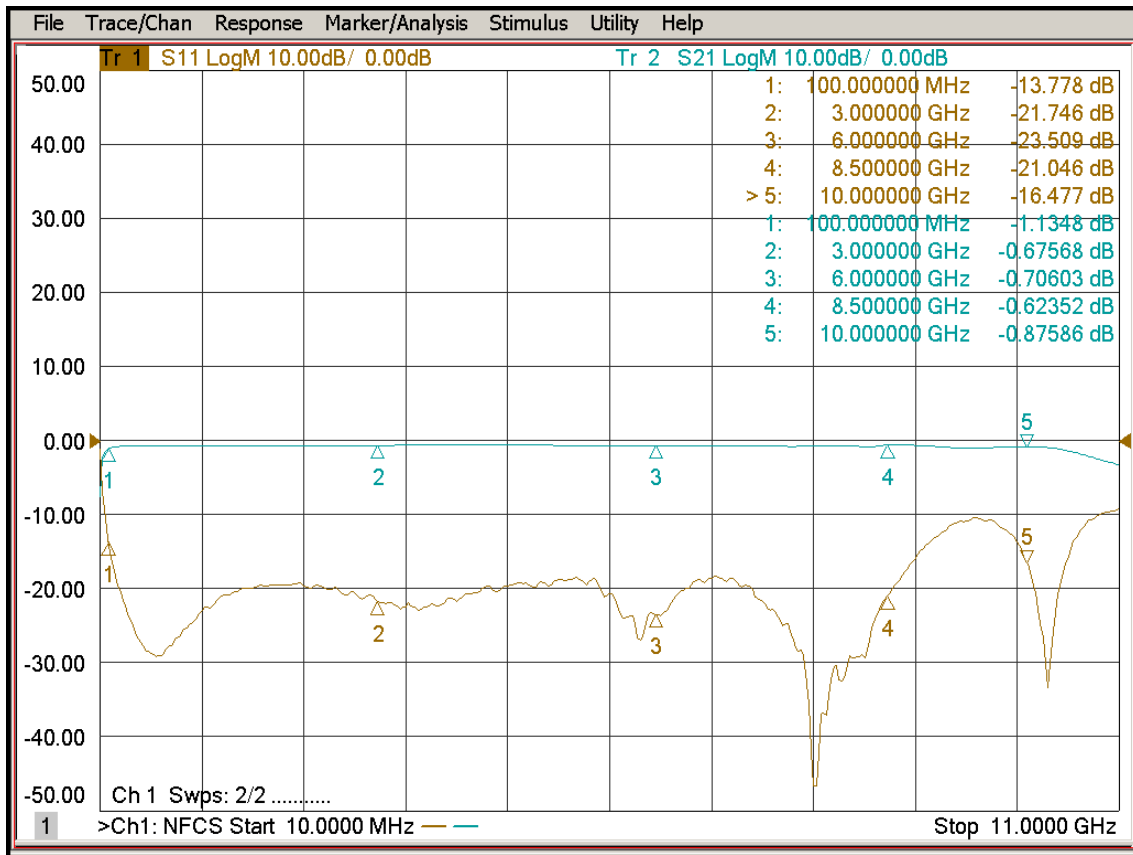
BT-10G can be mounted through four 3.5mm diameter holes, using suitable screws (as example M3x30) or other proper tools.

After connecting DC-plug into BT-10G the sum of RF and DC signals must appeared on RF IN+DC. At the same time on RF OUT pure RF signal can be found only. Actually RF signal direction between RF IN+DC and RF OUT is not important. Also direction of current between RF IN+DC and DC is not specified. Therefore BT-10G can be usable in both ways as current injector and current extractor.

## Principal circuit diagram of BT-10G



### Example of BT-10G responses



$S_{21} = (-1) * \text{insertion loss}$

$S_{11} = (-1) * \text{return loss}$