

# Datasheet

## FLARM BOOSTER

The FLARM BOOSTER works as a receive preamplifier but bypasses in transmit mode automatically.

Operation mode is displayed by a red and green LED.

Power can be supplied via attached red/black wire as well as over the RX side coax cable.

A built in filter avoids interferences with out-of-band signals

## Technical Data

### Connectors

| Description                 | Value  |
|-----------------------------|--|
| RF connector                | SMA female                                       |
| DC Input <sup>(1) (2)</sup> | FLARM connector<br>Minus: Shield<br>Plus: Center |
| DC Input <sup>(1)</sup>     | DC cable<br>Minus: black<br>Plus: red            |

<sup>(1)</sup> DC inputs can be used alternatively.

<sup>(2)</sup> Recommended accessories Jetvision Bias Tee No. 69400

### RF Parameters (typical)

| Description                | Value           |
|----------------------------|-----------------|
| Frequency Range            | 866MHz – 870MHz |
| RX Gain                    | 17dB            |
| Noise Figure               | 0.9dB           |
| Transmit power             | 15dBm / 30mW    |
| TX Path through loss       | < 0.8dB         |
| Input and output impedance | 50Ω             |



## Active Antenna Series

### FLARM BOOSTER

Product Number: 69350

### Usage:

Amplification of FLARM received signal with bypass of transmit signal.

### RF Parameters (maximum)

| Description             | Value        |
|-------------------------|--------------|
| Transmit power          | 15dBm / 30mW |
| RX to TX switching time | 0.2μs        |

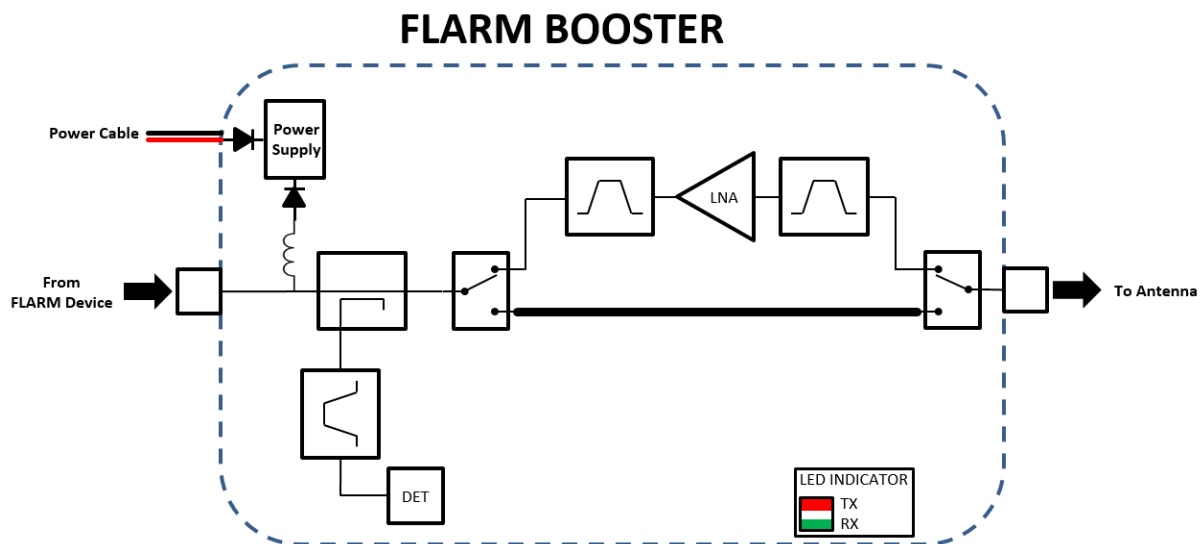
### DC Parameters (typical)


| Description           | Value      |
|-----------------------|------------|
| DC supply voltage     | 5 – 15V    |
| DC supply current     | 60mA       |
| Operating temperature | 0°C – 60°C |

### Absolute Maximum Ratings @25°C

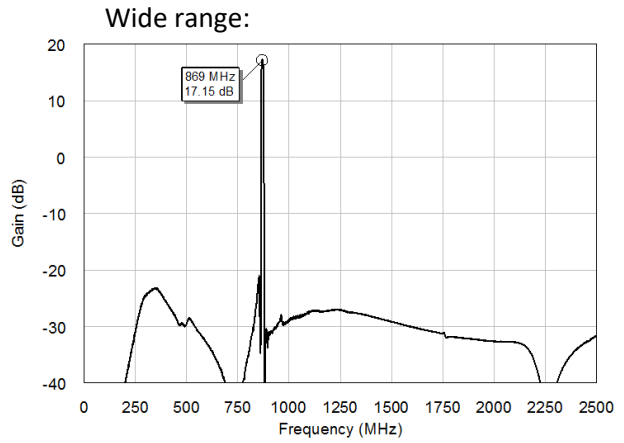
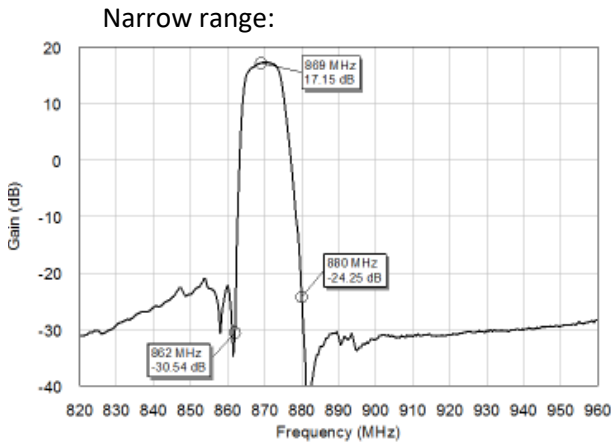
| Description           | Value         |
|-----------------------|---------------|
| Transmit power        | 20dBm / 100mW |
| DC supply voltage     | 15V           |
| Operating Temperature | 0°C – +60°C   |
| Storage Temperature   | -20°C - +65°C |

### Block Diagram

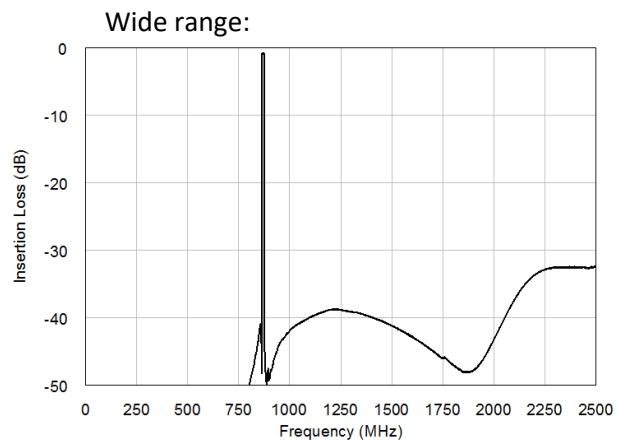
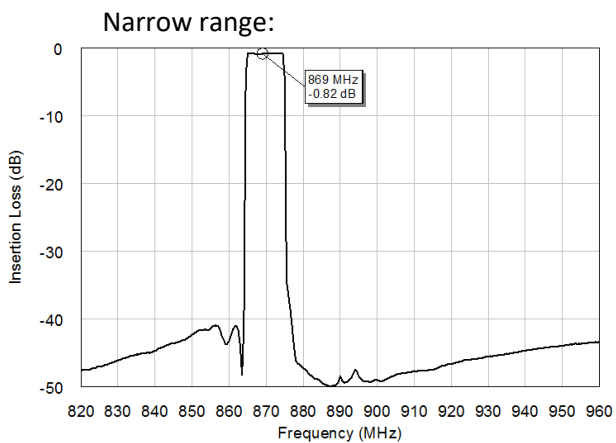



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|--|---|---|
|  | Notes:  |   |
|  | Title:<br>Active Antennas Series<br>FLARM BOOSTER | Article No:<br>69350<br><br>Author:<br>Günter Köllner |

### Receive gain over Frequency



### TX loss over Frequency



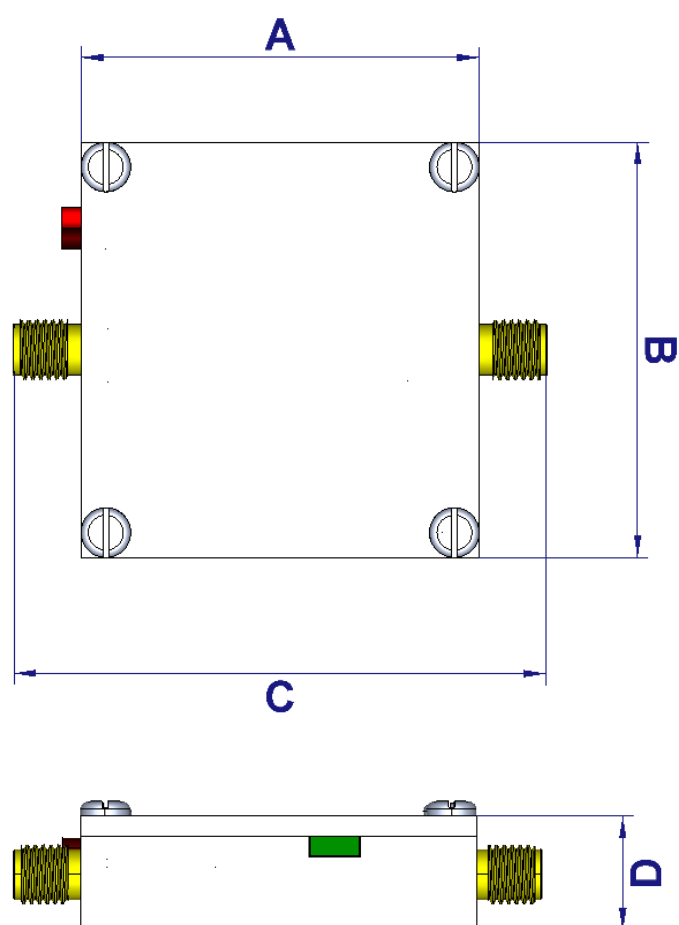
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|--|---------------------------|------------------|
|  | Notes:                    |                  |
| Title:<br>Active Antennas Series<br>FLARM BOOSTER                                  | Article No:<br>69350      | Version: 1.0     |
|  | Author:<br>Günter Köllner | © Copyright 2018 |


### Mechanical Specification

| Description        | Value              |
|--------------------|--------------------|
| Overall Dimensions | 54mm x 42mm x 12mm |
| Weight             | tbd                |

### Outline

|       | A  | B  | C  | D  |
|-------|----|----|----|----|
| in mm | 40 | 42 | 54 | 12 |



|  |   |   |
|--|---|---|
|  | Notes:  |   |
|  | Title:<br>Active Antennas Series<br>FLARM BOOSTER | Article No:<br>69350<br><br>Author:<br>Günter Köllner |

## Datasheet

### Bias Tee

The Bias Tee is used to provide DC power onto an antenna cable without interfering the existing RF path.

A self-resettable fuse and green LED power indicator complete the function.

### Technical Data

#### Connectors

| Description                 | Value      |
|-----------------------------|------------|
| Antenna Side                | SMA female |
| Receiver / Transmitter Side | SMA male   |
| DC Input                    | USB mini   |

#### RF Parameters

| Description             | Value            |
|-------------------------|------------------|
| Frequency Range         | 100MHz – 2500MHz |
| Insertion loss @1090MHz | 0.4dB            |
| Return Loss @1090MHz    | -15dB            |

#### DC Parameters @ +25°C

| Description | Value   |
|-------------|---------|
| Voltage     | 0 – 15V |

#### Absolute Maximum Ratings

| Description                   | Value         |
|-------------------------------|---------------|
| Antenna Supply Current @+25°C | max. 250mA    |
| RF Input Power @+25°C         | +33dBm        |
| DC Input Voltage              | 15V           |
| Operating Temperature         | -20°C - +65°C |
| Storage Temperature           | -20°C - +65°C |



### Active Antennas Series

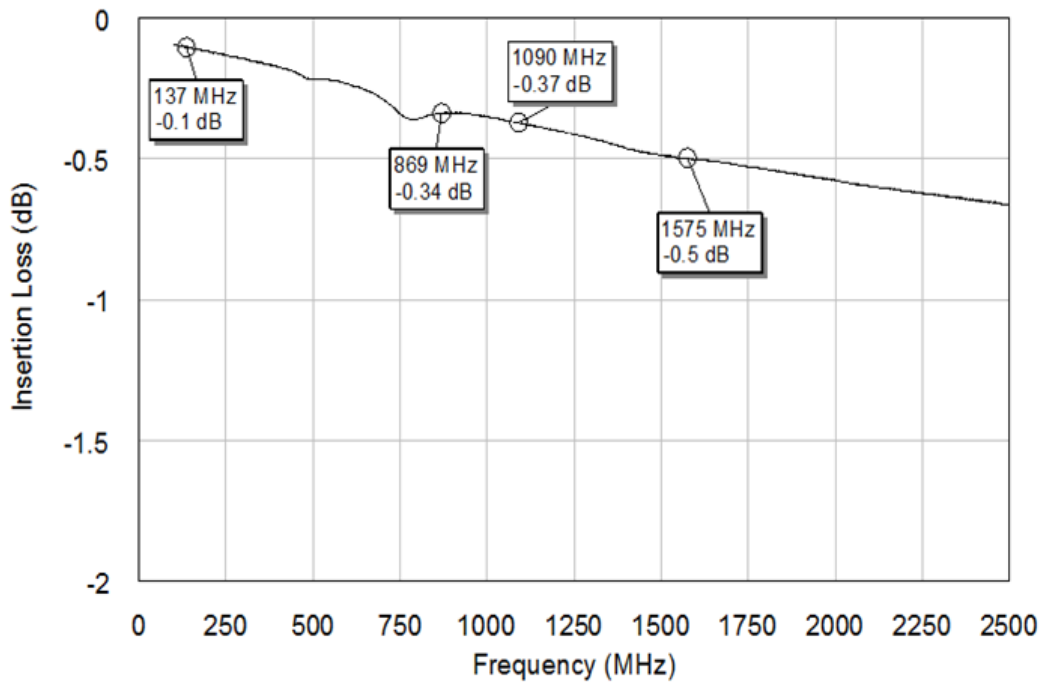
#### Bias Tee

Product Number: 69400

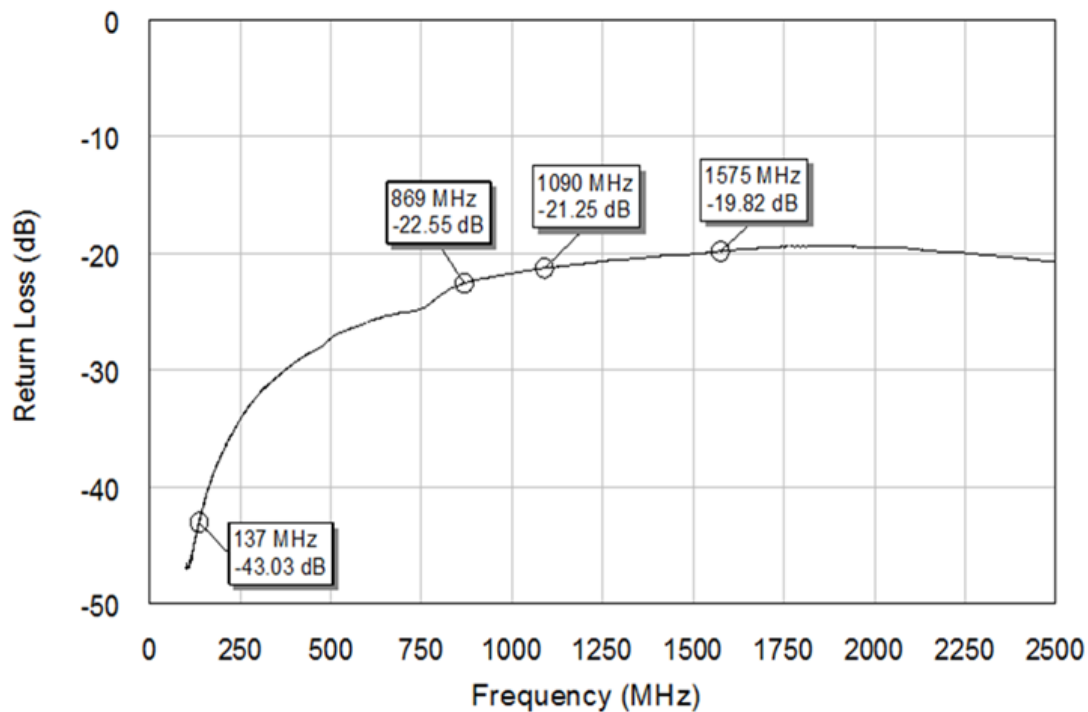
#### Usage:


Provides DC power to an antenna cable for active antennas

### Insertion Loss over Frequency



### Return Loss over Frequency



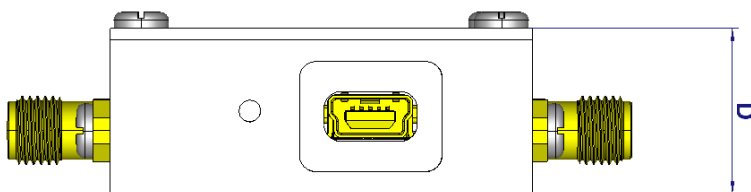
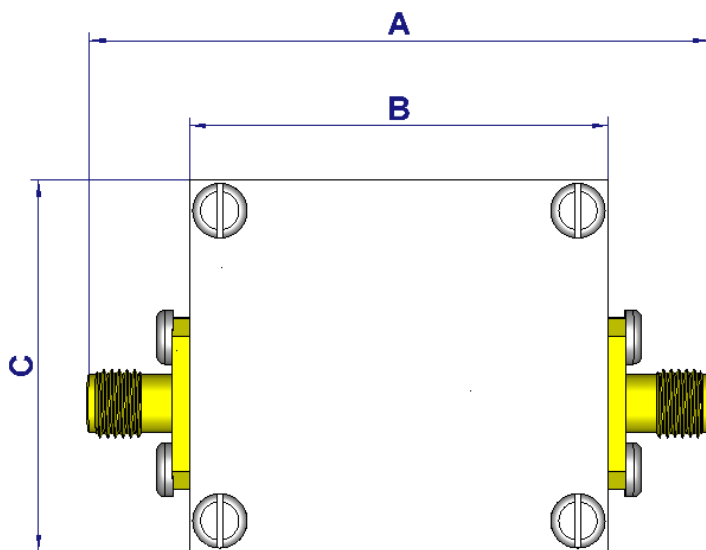
|  |  |                      |
|--|--|----------------------|
|  | Notes:                                       |                      |
|  | Title:<br>Active Diapason Series<br>Bias Tee | Article No:<br>69400 |
|  | Author:<br>Günter Köllner                    | © Copyright 2018     |


### Mechanical Specification

| Description        | Value              |
|--------------------|--------------------|
| Overall Dimensions | 57mm x 34mm x 15mm |
| Weight             | 41g                |

### Outline

|       | A  | B    | C  | D  |
|-------|----|------|----|----|
| in mm | 57 | 38.4 | 34 | 15 |



|  |  |   |
|--|--|---|
|  | Notes:                                       |   |
|  | Title:<br>Active Diapason Series<br>Bias Tee | Article No:<br>69400<br><br>Author:<br>Günter Köllner |