

Datasheet

FLARM BOOSTER He

The FLARM BOOSTER He is a receive preamplifier with an ultra fast automatic switching bypass for transmit mode.

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 ^{(1) (2)}	FLARM connector Minus: Shield Plus: Center
DC Input ⁽¹⁾	DC cable Minus: black Plus: red

⁽¹⁾ DC inputs can be used alternatively.

⁽²⁾ Recommended accessories jetvision Bias Tee No. 69400

RF Parameters (typical)

Description	Value
Frequency range	864 MHz – 874 MHz
RX gain	10 dB
Noise figure	< 1.2 dB ⁽³⁾
Transmit power	15 dBm / 30 mW
TX Switching Sensitivity	0dBm / 1mW
TX path through loss	< 1.3 dB
Input and output impedance	50 Ω



Active Antenna Series

FLARM BOOSTER He

Product Number: 69352

Usage:

Amplification of 868MHz received signal with bypass of transmit signal.

RF Parameters (cont.)

Description	Value
Transmit power (max)	15 dBm / 30 mW
RX to TX switching time (max)	200 ns

⁽³⁾ Gain reduction by physical law leads to noise figure degradation but does not influence overall system performance

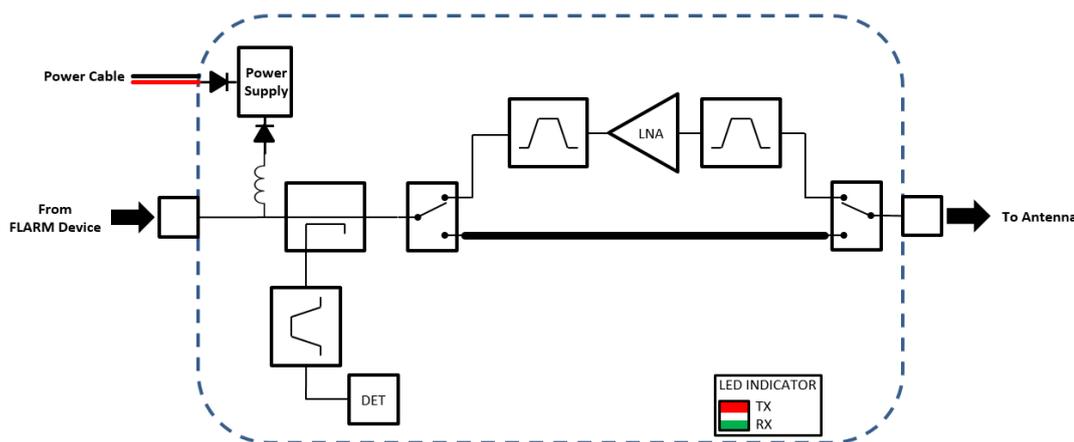
DC Parameters (typical)

Description	Value
DC supply voltage	5 - 15V
DC supply current	70 mA
Operating temperature	0 °C – 60 °C

Absolute Maximum Ratings @25°C

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

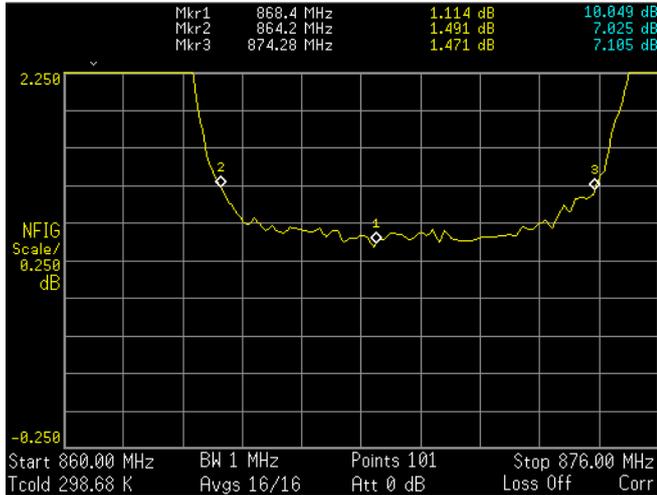
Block Diagram



	Notes:	
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Noise Figure (typical)

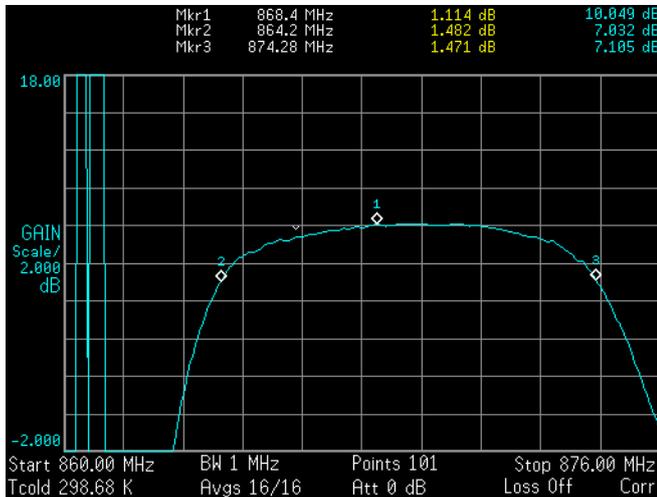
Narrow range:



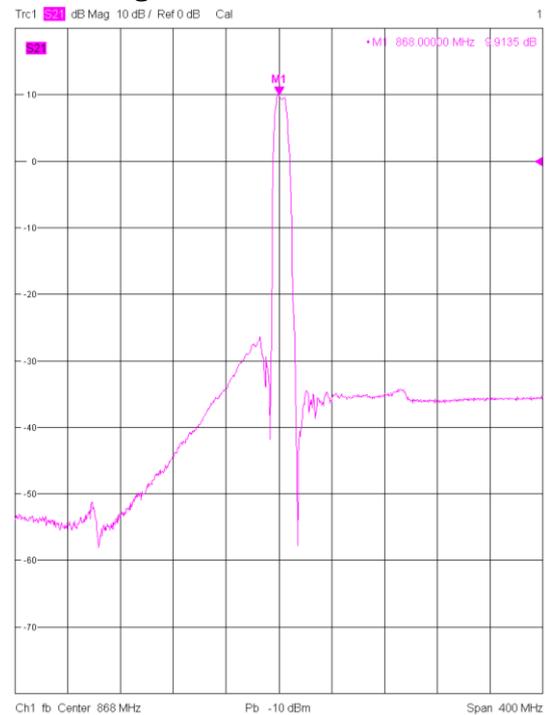
Agilent N8973A Noise Figure Analyzer with N4000A 6dB ENR Noise Source

Receive Gain Over Frequency (typical)

Narrow range:



Wide Range

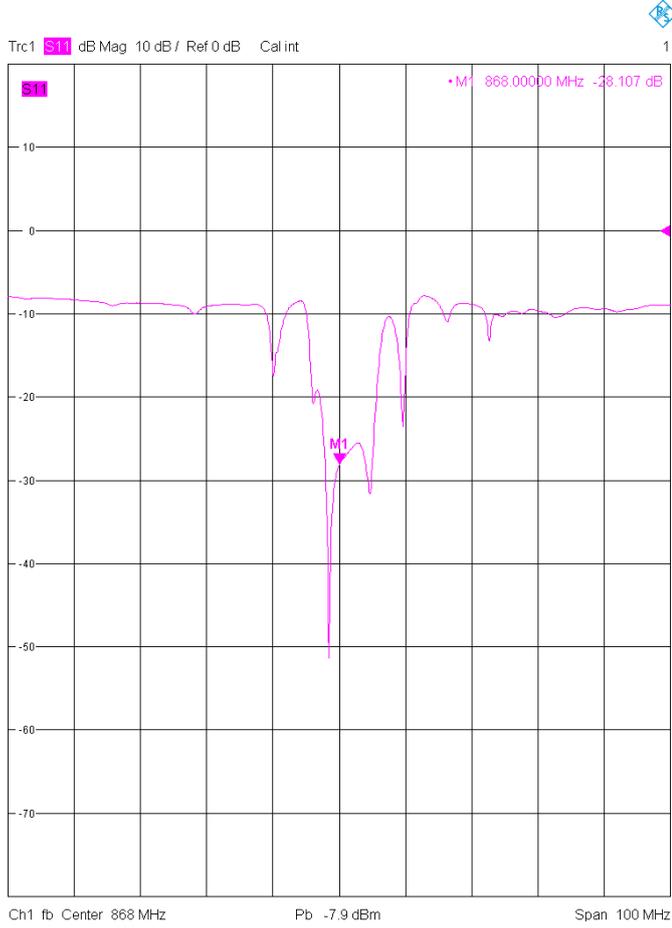


Rohde & Schwarz ZVB8 Network Analyzer →

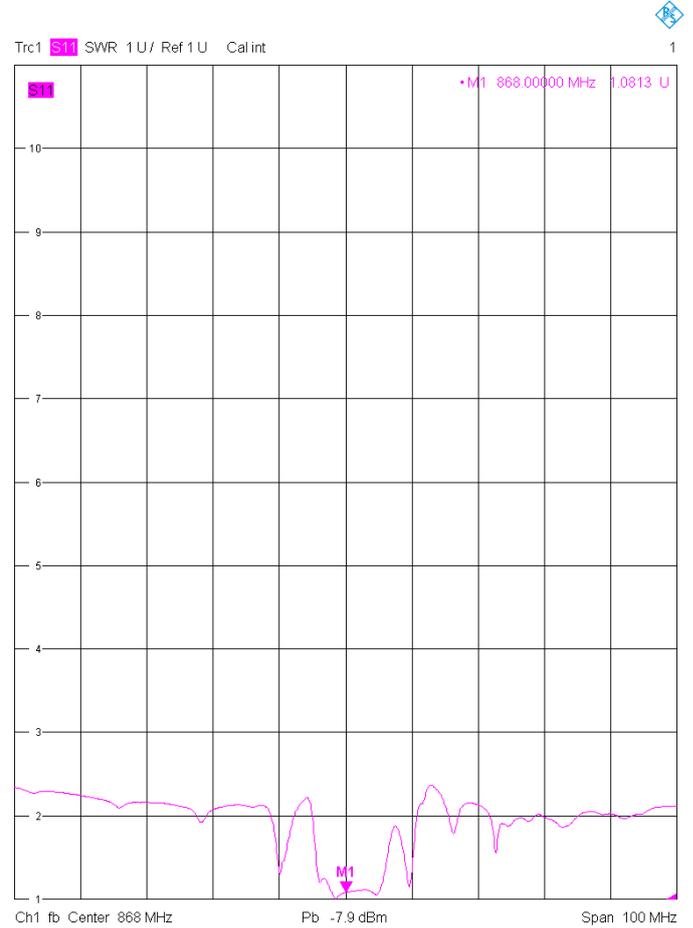
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Antenna Side Input (typical)

Return Loss



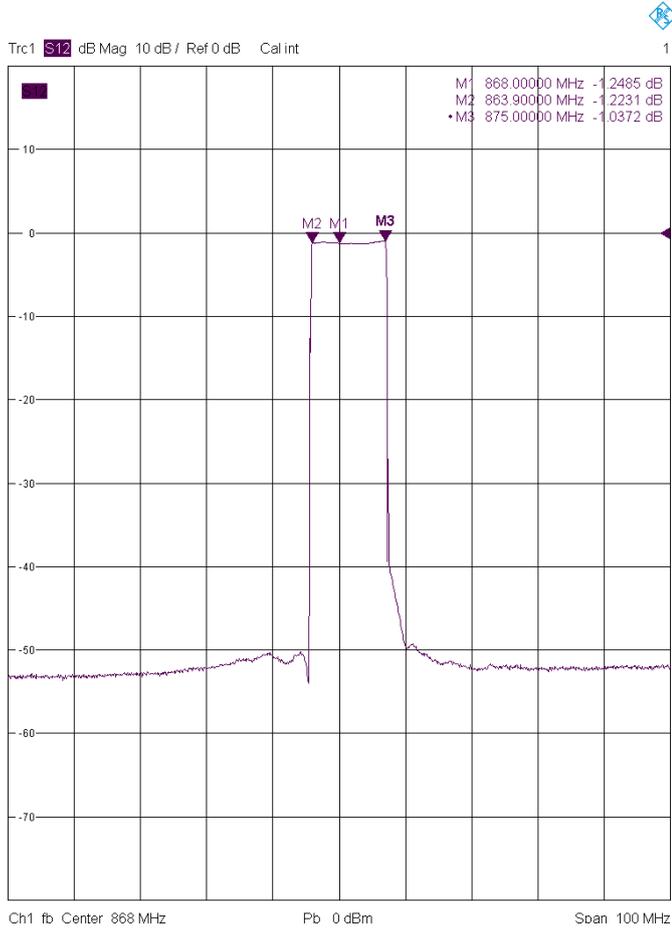
SWR



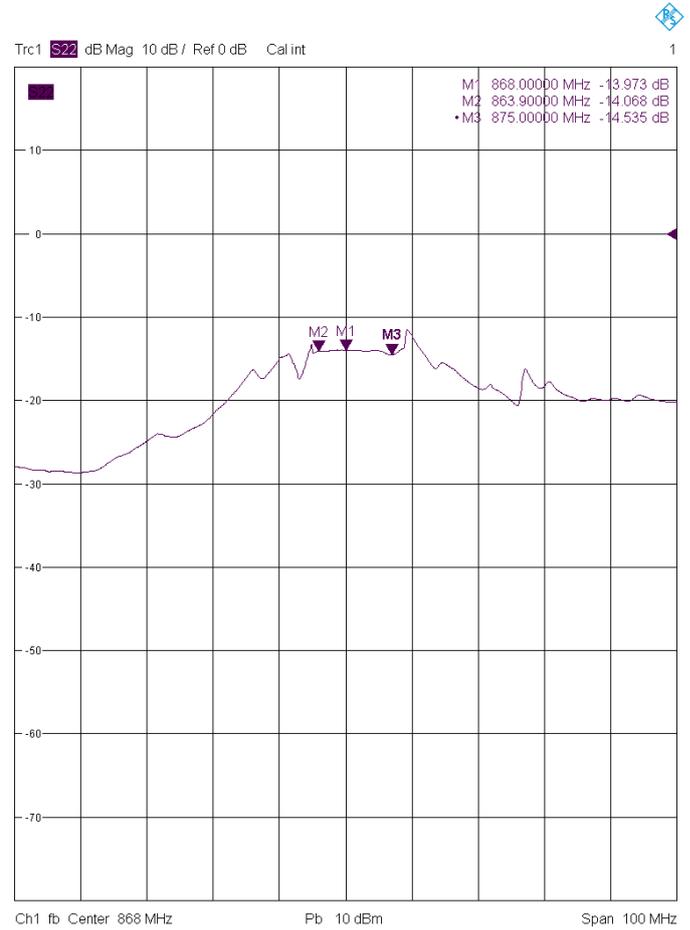
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TX bypass

Loss:



Match: (with perfect antenna match)



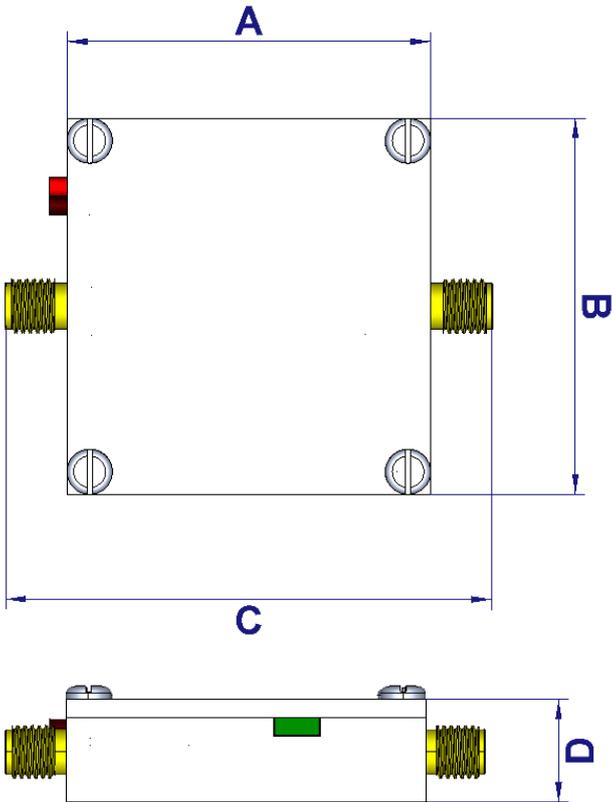
Mechanical Specification

Description	Value
Overall Dimensions	54mm x 42mm x 12mm
Weight	30g

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Outline

	A	B	C	D
in mm	40	42	54	12



Mounting Instructions

Description	Value
Mounting Direction	vertical, Antenna element upwards
SMA torque	1Nm ⁽¹⁾

⁽¹⁾ If there is no torque spanner available just tighten with fingers. Do not overtighten when using standard spanners or any other tool.

We reserve the right to make technical changes, which serve to improve the product, without prior notification.

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