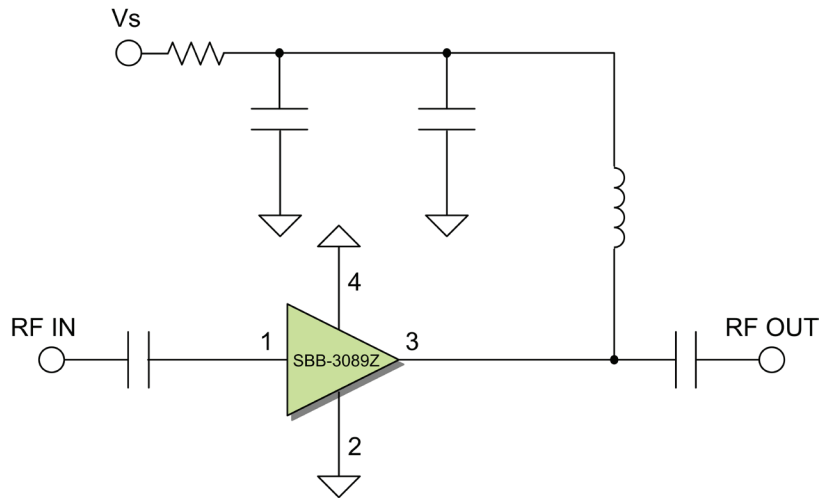


# RFMD® SBB Gain Blocks

## High Linearity InGaP HBT Active Bias Gain Block



The SBB series is a high-performance family of InGaP HBT MMIC amplifiers utilizing a Darlington configuration with an active bias network. The active bias network provides stable current over temperature and process Beta variations. This product is designed for high-linearity 5 V gain block applications that require excellent gain flatness, small size and minimal external components. Only two DC blocking capacitors, a bias resistor and an RF choke are required for operation. The SBBs are internally matched to 50 ohms. Applications for the SBB series include IF/RF amplifiers for WCDMA and TD-SCDMA basestations, and driver amplifiers for cellular repeaters.

### SBB SPECIFICATIONS

Part Number	Frequency	Gain	Id	NF	Output IP3	P1dB	Vd
SBB-1089Z	50-850 MHz	15 dB <sup>1</sup>	90 mA	3.1 dB	43 dBm <sup>2</sup>	19 dBm	5
SBB-2089Z	50-850 MHz	20 dB <sup>1</sup>	90 mA	2.6 dB	42 dBm <sup>2</sup>	20 dBm	5
SBB-3089Z	50-6000 MHz	16.5 dB	40 mA	3.8 dB <sup>3</sup>	28 dBm	15 dBm	5
SBB-4089Z	50-6000 MHz	15 dB <sup>1</sup>	80 mA	4.6 dB	35 dBm	19 dBm	5
SBB-5089Z	50-6000 MHz	20.5 dB <sup>1</sup>	75 mA	4.2 dB	35 dBm	20.5 dBm	5

1 - at 850 MHz  
2 - at 240 MHz  
3 - at 2200 MHz

### FEATURES

- Single fixed 5 V supply
- Patented self-bias circuit and thermal design
- Robust 1000 V ESD, Class 1C HBM
- MSL 1 moisture rating
- High OIP3
- Excellent gain flatness

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