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PRODUCT SUMMARY

SKY66181-11: 1805 to 1880 MHz Linear Power Amplifier

Applications

- 3G/4G LTE Band 3 small cell
- Active distributed antenna system
- Cellular repeaters
- Driver amplifier

Features

- High gain: 38 dB (unconditionally stable)
- High linearity: +23 dBm with < -50 dBc ACLR @ 85°C (WCDMA Test Model 1 with 64 DPCH)
- RF Input and Output internally matched to 50 Ω
- Excellent output return loss: < 30 dB
- Integrated active bias: performance compensated over temp
- PA On/Off function: < 2 μs switching time
- Integrated coupler for output power monitoring
- Single supply voltage: 3.3 V
- Minimal external components
- Pin-to-pin compatible PA family supporting all 3GPP bands
- Small 5 x 5 mm, 28-pin package (MSL3, 260 °C per JEDEC J-STD-020)



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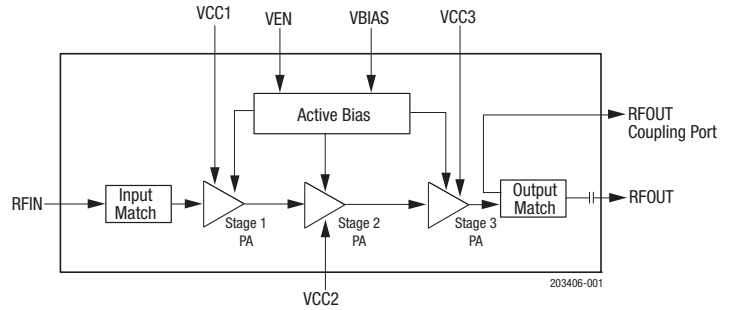


Figure 1. SKY66181-11 Linear PA Block Diagram

Description

The SKY66181-11 is a high-linearity power amplifier (PA) with fully matched input/output and high gain. The compact 5 x 5 mm PA is designed for FDD 3G/4G LTE small cell base stations operating from 1805 to 1880 MHz. The active biasing circuitry is integrated to compensate PA performance over temperature, voltage, and process variation as well as an internal coupler for power monitoring.

The SKY66181-11 requires minimal external components and is part of a high-linearity, pin-to-pin compatible PA family supporting all 3GPP bands.

A block diagram of the SKY66181-11 is shown in Figure 1. The device package and pinout for the 28-pin device are shown in Figure 2. Table 1 lists the pin-to-pin compatible parts in the PA family.

Table 1. Pin-to-Pin Compatible PA Family

Part Number	Frequency (MHz)	LTE Band
SKY66181-11	1805 to 1880	3
SKY66184-11	2110 to 2170	1, 4, and 10
SKY66185-11	851 to 894	5, 6, 18, 19, 26, and 27
SKY66186-11	728 to 768	12, 13, 14, and 17
SKY66187-11	2620 to 2690	7
SKY66188-11	758 to 803	28
SKY66189-11	1930 to 1995	2 and 25

Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY66181-11: Linear PA	SKY66181-11	SKY66181-11-EK1

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