PRODUCT SUMMARY

SKY66523-11: 3550 to 4200 MHz Wide Instantaneous Bandwidth High-Efficiency Power Amplifier

Applications

- 5G NR enterprise small cell
- Driver amplifier for micro base stations and macro base stations
- 5G massive MIMO Driver

Features

- Wide instantaneous signal bandwidth: 200 MHz
- Wide operational bandwidth: 3550 to 4200 MHz
- High output power: 30 dBm with 200 MHz signal
- High linearity: 3GPP compliant with 200 MHz 5G, 8.5 dB PAR signal
- High efficiency
- High gain: 33 dB
- Integrated active bias: performance compensated over temp
- Integrated enable ON / OFF function
- Pin compatible PA family supporting major 3GPP bands
- Compact (16-pin, 5 × 5) package (MSL3, 260 °C per JEDEC J-STD-020)

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Description

The SKY66523-11 is a 200 MHz instantaneous bandwidth, fully input/output matched 30 dBm power amplifier (PA) with high gain and linearity. The compact 5 × 5 mm PA is designed for 5G NR systems operating from 3550 to 4200 MHz. The active biasing circuitry is integrated to compensate PA performance over temperature, voltage, and process variation.

The SKY66523-11 is part of high-efficiency, pin compatible PA family supporting major 3GPP bands.

A block diagram of the SKY66523-11 is shown in Figure 1. The device package and pinout for the 16-pin device are shown in Figure 2. Table 1 lists the pin compatible parts in the PA family. Signal pin assignments and functional pin descriptions are described in Table 2.

Table 1. Pin Compatible PA Family

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Frequency (MHz)</th>
<th>3GPP Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKY66312-11</td>
<td>2300 to 2400</td>
<td>Bands 30 and 40</td>
</tr>
<tr>
<td>SKY66317-11</td>
<td>2496 to 2690</td>
<td>Bands 7, 38, and 41</td>
</tr>
<tr>
<td>SKY66318-11</td>
<td>3300 to 3600</td>
<td>Bands 22, 42, n77, and n78</td>
</tr>
<tr>
<td>SKY66318-21</td>
<td>3400 to 3700</td>
<td>Bands 22, 42, n77, and n78</td>
</tr>
<tr>
<td>SKY66320-11</td>
<td>3550 to 3800</td>
<td>Bands 43, 48, and n77</td>
</tr>
<tr>
<td>SKY66319-11</td>
<td>4400 to 5000</td>
<td>Band n79</td>
</tr>
<tr>
<td>SKY66520-11</td>
<td>3300 to 3800</td>
<td>n78, B42, and B43</td>
</tr>
<tr>
<td>SKY66523-11</td>
<td>3550 to 4200</td>
<td>n77, n48</td>
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</table>
### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
<th>Evaluation Board Part Number</th>
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<tbody>
<tr>
<td>SKY66523-11</td>
<td>3550 to 4200 MHz Wide Instantaneous BW High-Efficiency PA</td>
<td>SKY66523-11EK1</td>
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</tbody>
</table>

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