

DATA SHEET

CX65003: 1400–2500 MHz Linear Power Amplifier Driver

Applications

- PCS/DCS/2.5G/3G base stations
- WLANs
- GSM/CDMA/W-CDMA handsets
- WLL and ISM bands
- Repeaters
- Telematics

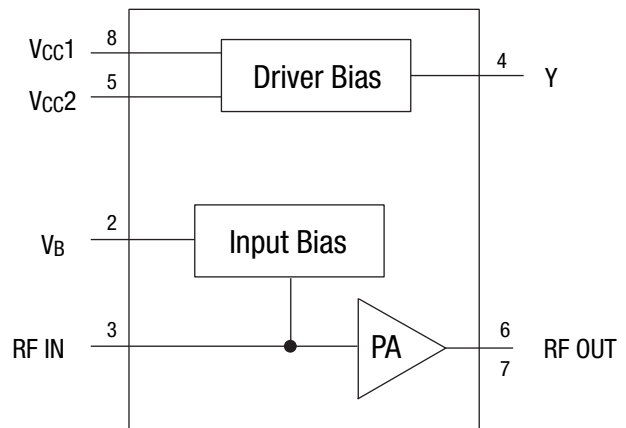
Features

- 5 V single supply operation
- 24.5 dBm linear P_{OUT}
- 48 dBm OIP3
- Excellent W-CDMA performance
- Internal bias circuits
- 8-pin SOIC 5.994 x 4.928 mm package with downset paddle

Description

Skyworks CX65003 power amplifier driver offers a desirable combination of features that provide superb performance and ease of use in a low-cost Surface-Mounted Technology (SMT) package. This Gallium Arsenide (GaAs) Heterojunction Bipolar Transistor (HBT) power amplifier driver was developed and optimized for extreme linear performance in a variety of applications. It is ideal as a driver or output stage in transceivers and repeaters for Wideband Code Division Multiple Access (W CDMA) and CDMA2000 applications.

A functional block diagram for the CX65003 is shown in Figure 1. Recommended operating conditions are provided in Table 1. Package dimensions for the 5.994 x 4.928 mm Small Outline Integrated Circuit (SOIC) are shown in Figure 2.

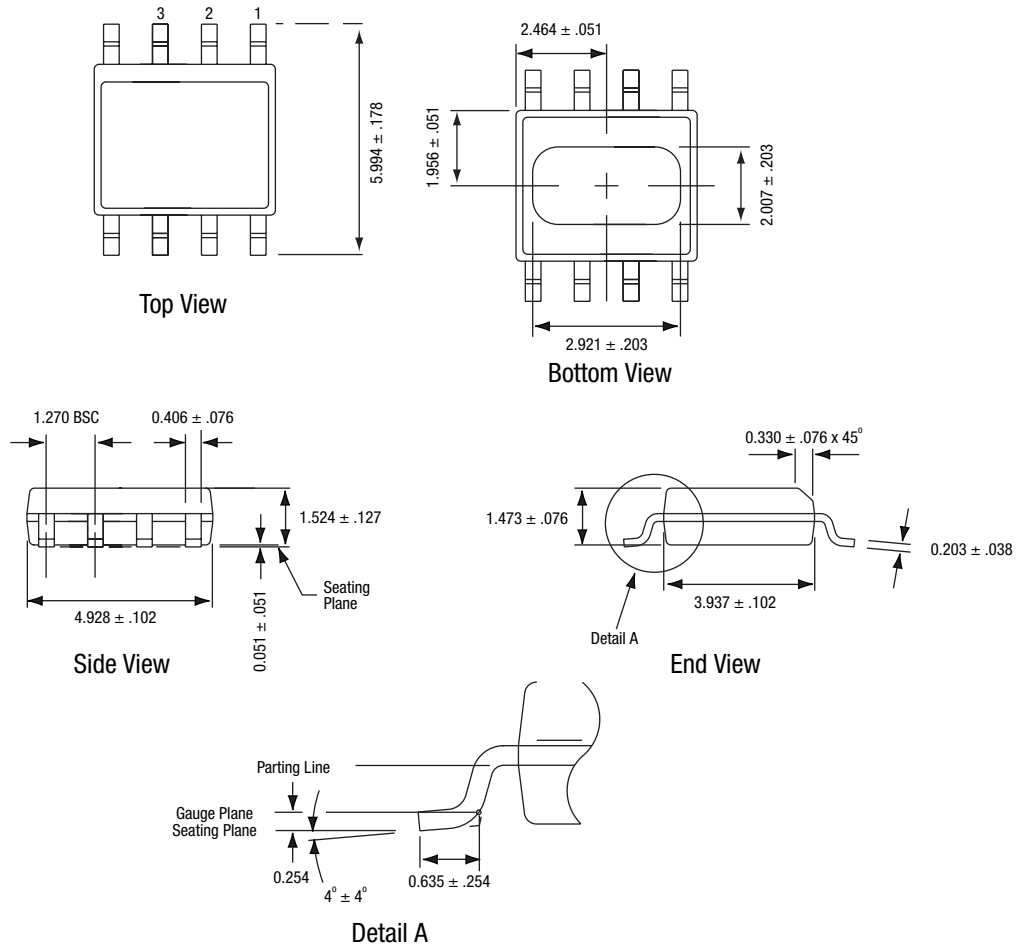


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Figure 1. CX65003 Functional Block Diagram

Table 1. CX65003 Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Units
Supply voltage (V_{CC1} and V_{CC2} pins)	V_{CC}		5		V
Operating frequency	F_0	1400		2500	MHz
Junction temperature	T_J			140	°C
Maximum bias condition	$(V_{CC} \times I_D) < (T_{J_RECOMMENDED} - T_C)/R_{TH,J-C}$				



All measurements are in millimeters

C1444

Figure 2. CX65003 8-Pin SOIC Package Dimensions

Ordering Information

Model Name	Manufacturing Part Number	Evaluation Kit Part Number
CX65003 1400-2500 MHz Linear Power Amplifier Driver	CX65003-12	TW10-D292 (tuned for optimum OIP3 @ 1.96 GHz) TW10-D293 (tuned for optimum ACPR @ 2.14 GHz and 1.96 GHz)