

DATA SHEET

CX65105: 1700–2200 MHz Linear Power Amplifier

Applications

- PCS/DCS/UMTS
- Repeaters
- WLL and ISM bands
- Mobile radio
- Telematics

Features

- Typical P_{OUT} of 28.5 dBm
- High linearity
- Low power consumption
- Single 5 V supply
- LCC (8-pin, 8 x 8 mm) package

Description

Skyworks CX65105 Power Amplifier (PA) is a fully matched, 8 pin Leadless Chip Carrier (LCC) surface mount module, developed for Personal Communications System (PCS), Digital Communications System (DCS), and Universal Mobile Telephone System (UMTS) applications. Wireless Local Loop (WLL) and Industrial, Scientific, Medical (ISM) applications are also supported.

This small, power-efficient PA has a full 1700 to 2200 MHz bandwidth coverage packed into a single compact package. All active circuitry in the module is contained in a single Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC). The CX65105 is manufactured with Skyworks Aluminum (Al) GaAs Heterojunction Bipolar Transistor (HBT) process, which allows for single supply operation while maintaining high efficiency and good linearity.

A functional block diagram for the CX65105 is shown in Figure 1. Recommended operating conditions are provided in Table 1. Package dimensions for the 8 x 8 Leadless Chip Carrier (LCC) are shown in Figure 2.

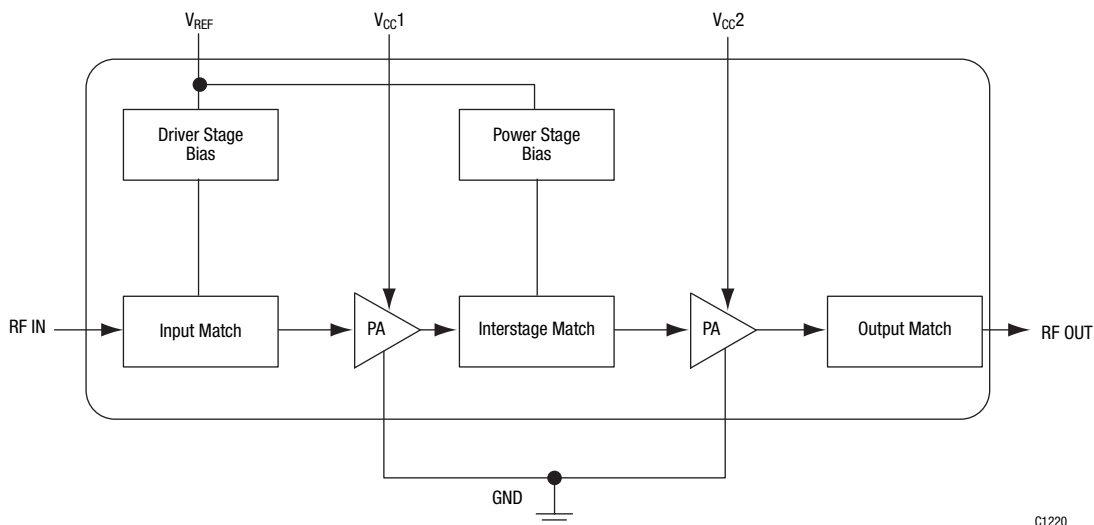


Figure 1. CX65105 Functional Block Diagram

Table 1. CX65105 Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Units
Supply voltage	V_{CC}		5		V
Reference voltage	V_{REF}		3.6		V
Operating frequency	F_0	1700	1900	2200	MHz

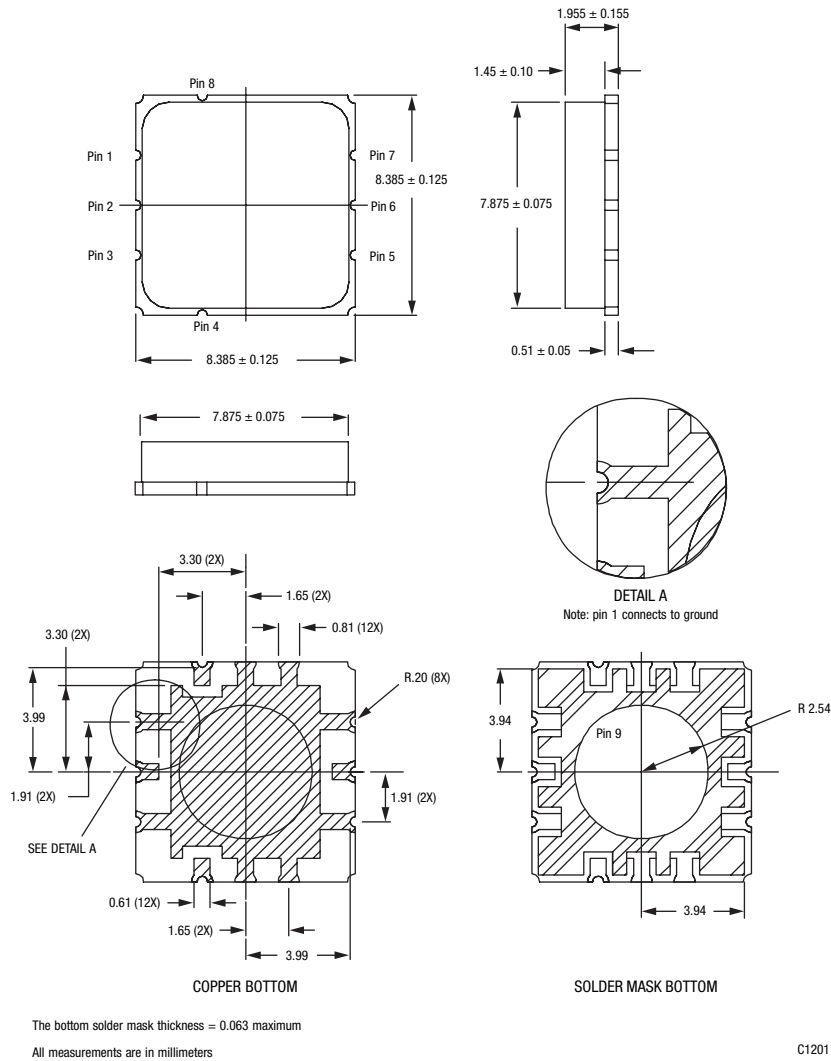


Figure 2. CX65105 8-Pin LCC Package Dimensions

Ordering Information

Model Name	Manufacturing Part Number	Evaluation Kit Part Number
CX65105 1700-2200 MHz Linear Power Amplifier	CX65105-11	TW10-D842