PRODUCT SUMMARY

SKY77732 Power Amplifier Module for CDMA PCS (1850 MHz–1910 MHz)

Applications

- CDMA handsets

Features

- Low voltage positive bias supply 3.2 V to 4.2 V
- Good linearity
- High efficiency
  - 40% @ 28 dBm
- Large dynamic range
- Small, low profile package
  - 3 mm x 3 mm x 0.9 mm
  - 10-pad configuration
- Power down control
- InGaP
- Supports low collector voltage operation
- Digital Enable
- No V_{REF} required
- CMOS compatible control signals
- Integrated Directional Coupler

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Description

The SKY77732 Power Amplifier Module (PAM) is a fully matched 10-pad surface mount module developed for Code Division Multiple Access (CDMA) applications. This small and efficient module packs full coverage of bandwidth for 1850–1910 MHz into a single compact package. Because of high efficiencies attained throughout the entire power range, the SKY77732 delivers unsurpassed talk-time advantages. A directional coupler is integrated into the module thus eliminating the need for any external coupler.

The single Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry in the module. The MMIC contains on-board bias circuitry, as well as input and interstage matching circuits. Output match into a 50-ohm load is realized off-chip within the module package to optimize efficiency and power performance.

The SKY77732 PAM is manufactured with Skyworks' InGaP GaAs Heterojunction Bipolar Transistor (HBT) BiFET process that provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity. Primary bias to the SKY77732 is supplied directly from any suitable battery with an output in the 3.2 to 4.2 volt range. No VREF voltage is required. Power down is accomplished by setting the voltage on VENABLE to zero volts. No external supply side switch is needed as typical "off" leakage is a few microamperes with full primary voltage supplied from the battery.

Figure 1 is a functional block diagram of the SKY77732. Figure 2 shows the pad layout and pad names. Figure 3 is a mechanical diagram of the SKY77732 package dimensions.

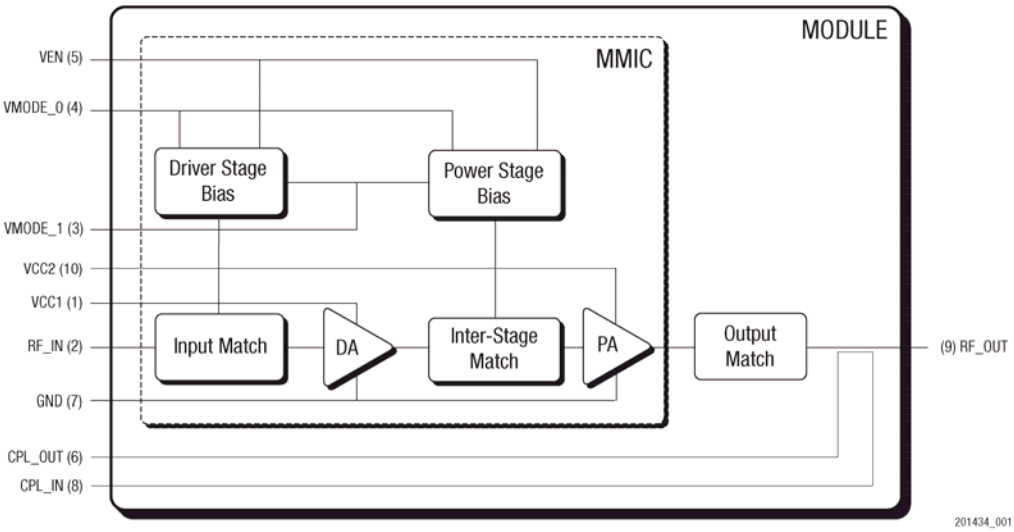

Figure 1. SKY77732 Functional Block Diagram

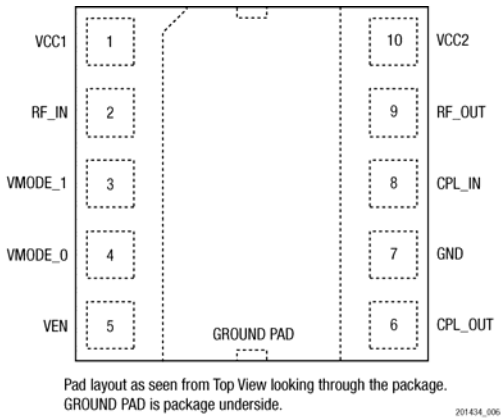

Figure 2. SKY77732 Pad Names and Configuration (Top View)

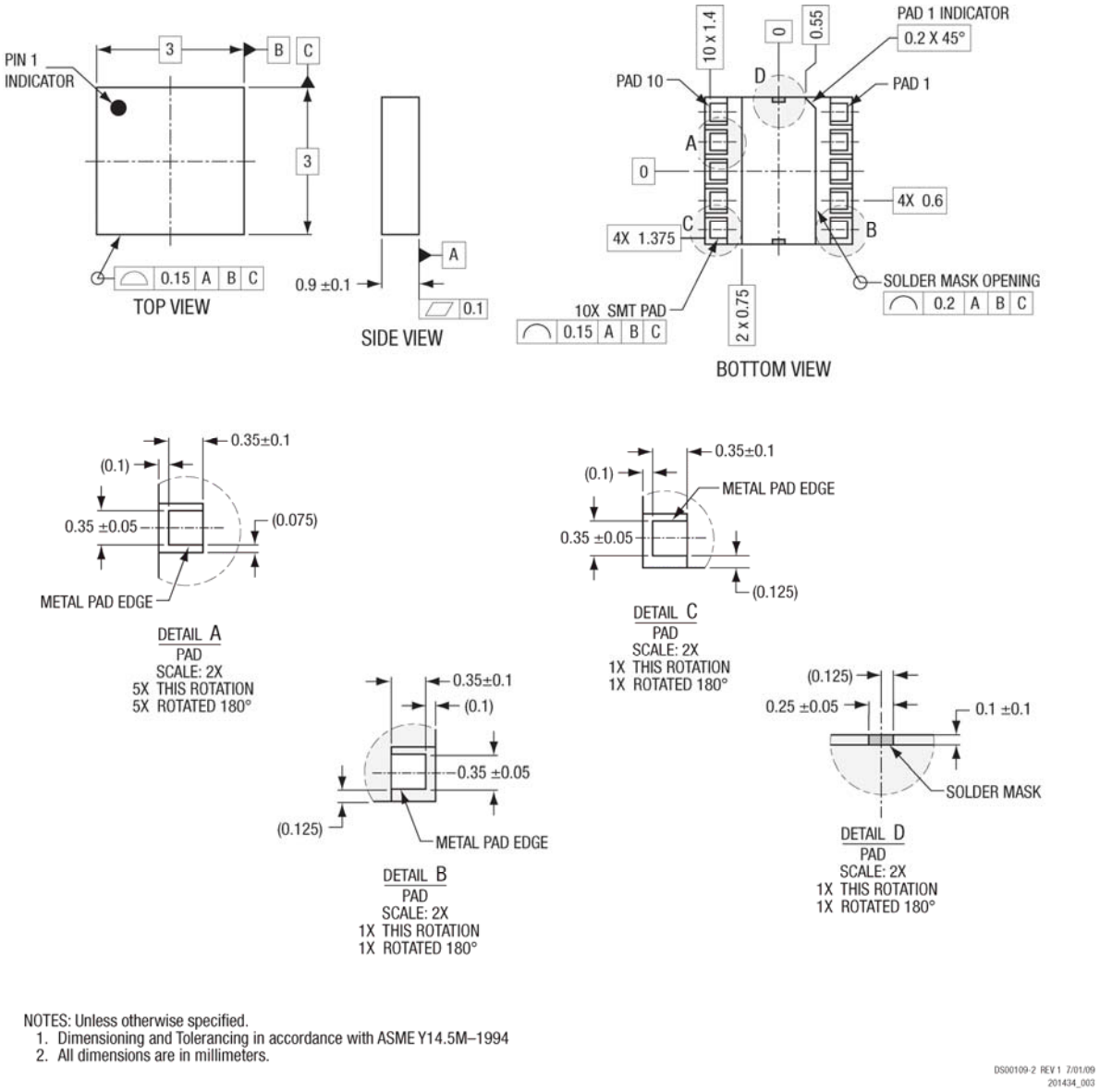

Figure 3. Dimensional Diagram for 3 mm x 3 mm x 0.9 mm Package – SKY77732 Specific

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