

PRODUCT SUMMARY

CX20460 Power Management Integrated Circuit for GSM and GPRS Applications

Applications

- GSM and GPRS handsets/data modules

Features

- Power on/off control
- Generation of system voltages from a single power source
- Eight regulators
- Built-in linear battery charger
- Analog multiplexer
- Generation of system power on reset
- Overcurrent limiting
- Step-up DC/DC converter
- 48-pin LGA 7.0x7.0 mm package
- 3 V and 5 V Subscriber Identity Module (SIM) support including level shifting

Description

Skyworks Power Management Integrated Circuit (PMIC) integrates all the power supply and battery charging functions of a low power wireless system into one package. The device is designed for Global System for Mobile communications (GSM) and General Packet Radio Service (GPRS) cellular handset applications. The CX20460 PMIC is easily programmable using a two-wire serial interface to ensure maximum flexibility for a wide variety of designs.

The device provides the following functions:

- Voltage switching, conversion, and regulation
- Power management control logic
- Charging and monitoring of system battery
- SIM interface

The device is packaged in a 48-pin 7.0 x 7.0 mm Land Grid Array (LGA). The LGA includes a downset paddle, which should be connected to the board ground plane.

- CX20460-11 with a 1.20 mm chip height (For previous designs).
- CX20460-12 with a 1.00 mm chip height
- CX20460-32 with a 1.00 mm chip height

The CX20460 PMIC block diagram is shown in Figure 1. The device package is shown in Figure 2 through Figure 4.

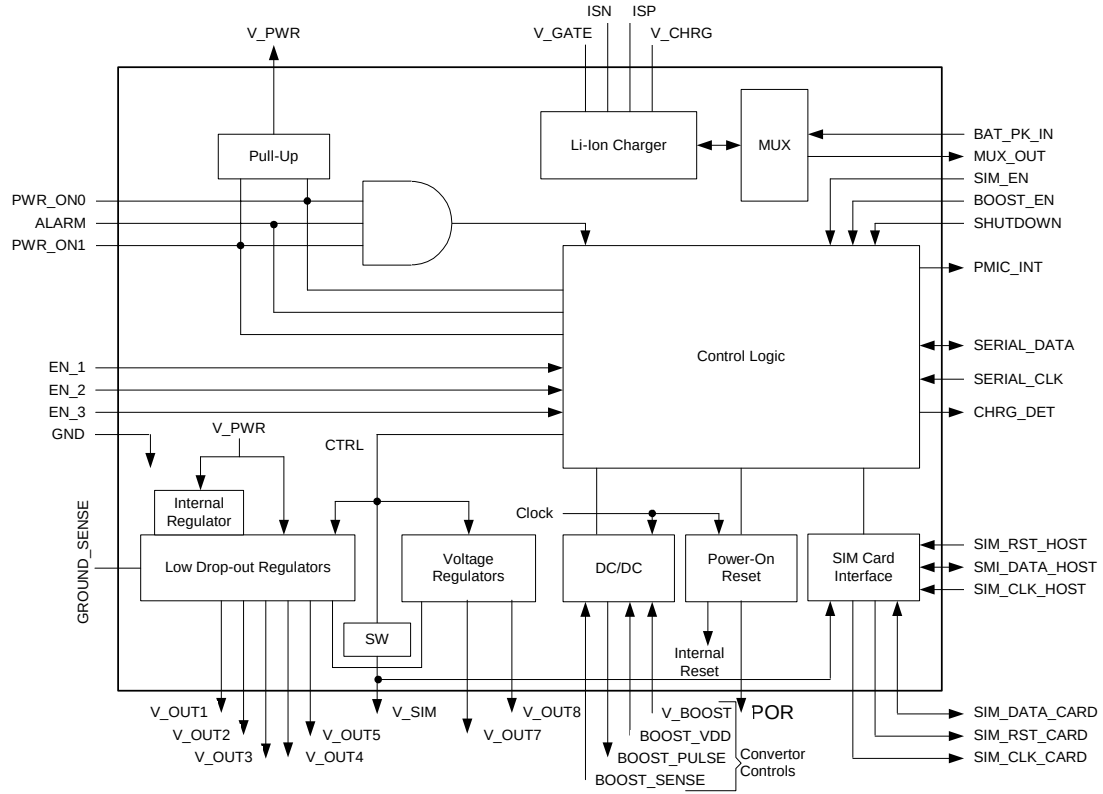


Figure 1. CX20460 PMIC Block Diagram

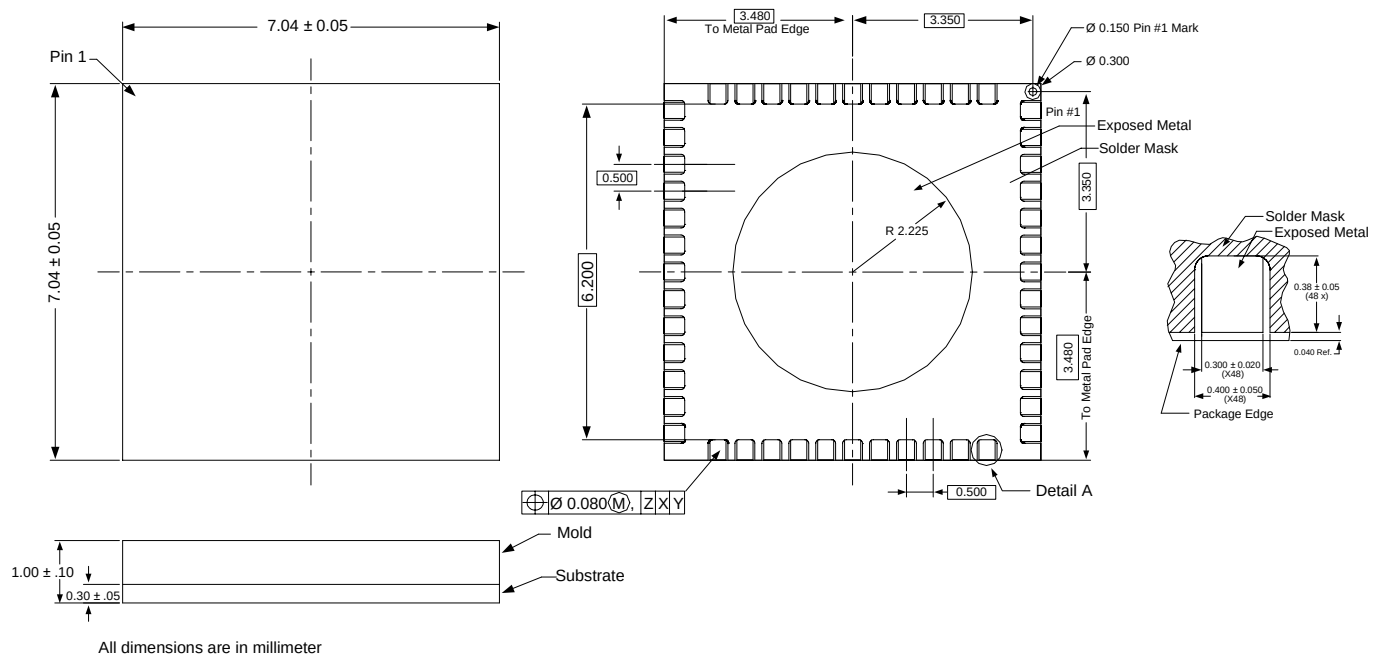
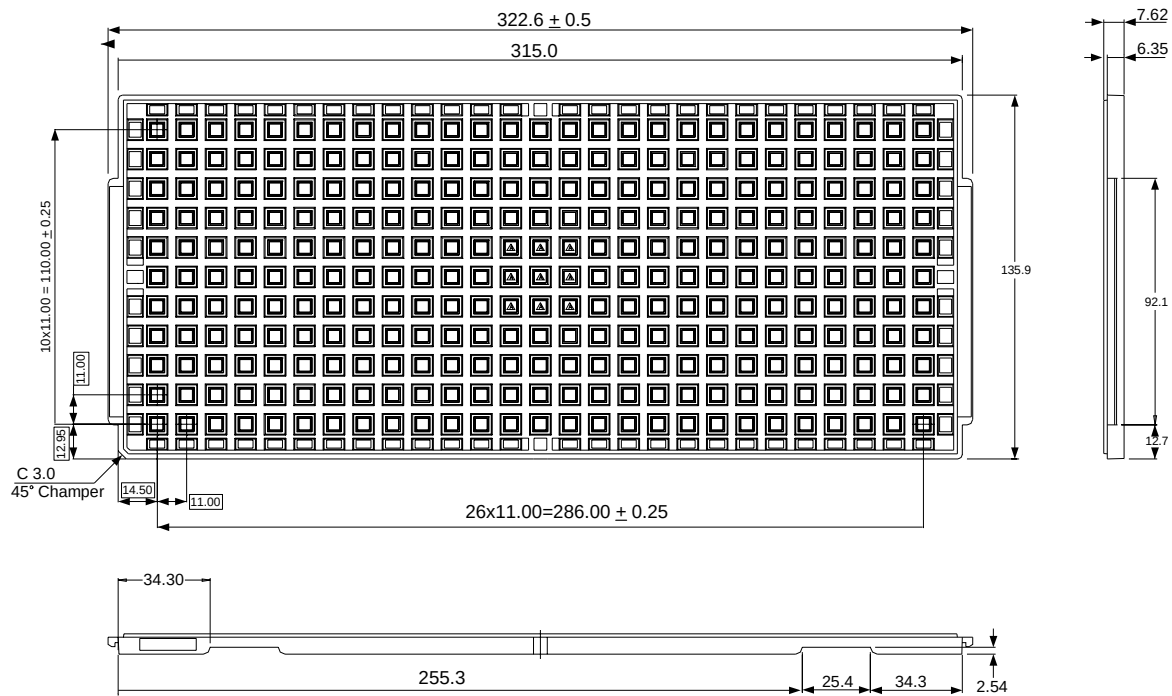


Figure 2. CX20460 PMIC Package Dimension 48 Pin LGA

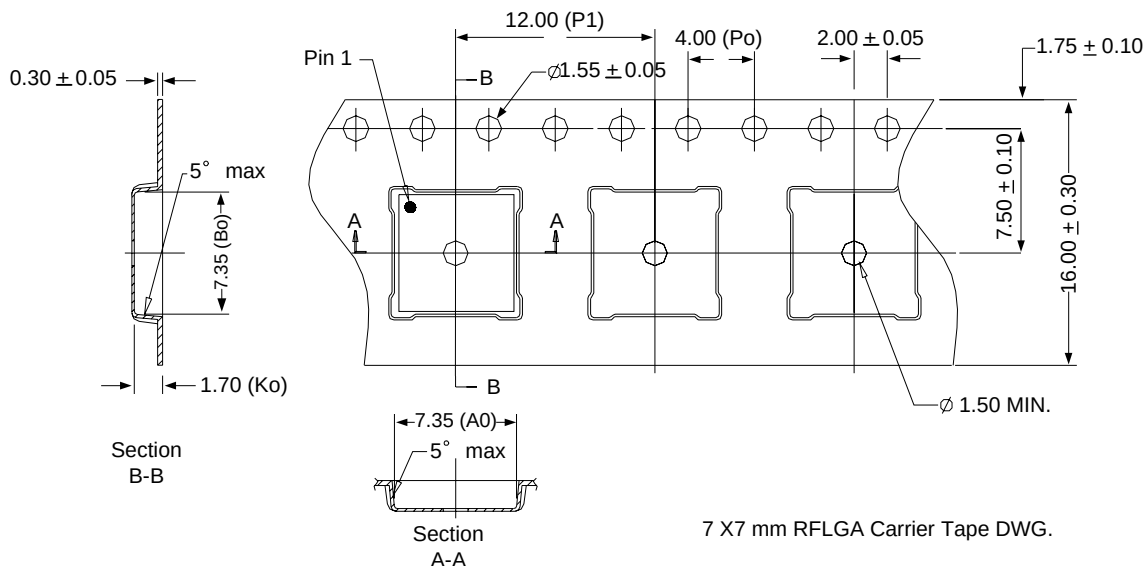
7x7mm RFLGA Shipping Tray



Note:

1. Trays must meet all requirements of Skyworks GP01-D228 procurement spec for shipping tray.
2. Material shall be bakeable carbon fiber/static dissipative w/ 140° C capability
3. All dimensions and tolerances in accordance with ASME Y4.5M-1994.
4. ESD-Surface resistivity shall be $\geq 1 \times 10^5 \sim \leq 1 \times 10^{12}$ Ohms/Square per EIA, JEDEC, ACH Tray specification
5. All dimensions are in millimeter

Figure 3. CX20460 Shipping Tray Dimensions



Ordering Information

Model Name	Ordering Part Number	Evaluation Kit Part Number
Power Management Integrated Circuit	CX20460-11 (1.2 mm height – for previous designs)	
	CX20460-12 (1.0 mm height)	
	CX20460-32 (1.0 mm height)	

Copyright © 2004. Skyworks Solutions, Inc. All Rights Reserved.

Information in this document is provided in connection with Skyworks Solutions, Inc. ("Skyworks") products. These materials are provided by Skyworks as a service to its customers and may be used for informational purposes only by the customer. Skyworks assumes no responsibility for errors or omissions in these materials. Skyworks may make changes to its documentation, products, specifications and product descriptions at any time, without notice. Skyworks makes no commitment to update the information and shall have no responsibility whatsoever for conflicts, incompatibilities, or other difficulties arising from future changes to its documentation, products, specifications and product descriptions.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by or under this document. Except as may be provided in Skyworks' Terms and Conditions of Sale for such products, Skyworks assumes no liability whatsoever in association with its documentation, products, specifications and product descriptions.

THESE MATERIALS ARE PROVIDED "AS IS WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED OR OTHERWISE, RELATING TO SALE AND/OR USE OF SKYWORKS PRODUCTS INCLUDING WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, PERFORMANCE, QUALITY OR NON-INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. SKYWORKS FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. SKYWORKS SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS THAT MAY RESULT FROM THE USE OF THESE MATERIALS WHETHER OR NOT THE RECIPIENT OF MATERIALS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Skyworks products are not intended for use in medical, lifesaving or life-sustaining applications. Skyworks' customers using or selling Skyworks products for use in such applications do so at their own risk and agree to fully indemnify Skyworks for any damages resulting from such improper use or sale.

The following are trademarks of Skyworks Solutions, Inc.: Skyworks™, the Skyworks logo, and Breakthrough Simplicity™. Product names or services listed in this publication are for identification purposes only, and may be trademarks of Skyworks or other third parties. Third-party brands and names are the property of their respective owners. Additional information, posted at www.skyworksinc.com, is incorporated by reference.