

双通道 250MSPS 反馈接收器 IC

 查询样品: [ADS62PF49](#)

特性

- 最大输出采样速率: **250MSPS**
- 与 **ADS62P49** 引脚兼容
- 可变输出分辨率
 - 具有 **14 位** 输出的高分辨率猝发模式: 低 **IF** 时为 **73dB SNR**, **170MHz** 时为 **70.5dB SNR**
 - 具有 **9 位 250MSPS** 或 **11 位 125MSPS** 的低分辨率
- 双倍数据速率 (**DDR**) **LVDS** 输出
- 高达 **6dB** 的可编程增益支持 **SNR / SFDR** 平衡
- **90 dB** 串音
- **1.25W** 功耗
- **64 引脚 QFN 封装 (9 mm × 9 mm)**

应用

- 多载波、多模式蜂窝基础设施基站的反馈路径

说明

ADS62PF49 是一个采样速率高达 250MSPS 的双通道反馈接收器 IC 它在有限时间内实现高分辨率 14 位输出, 之后在最短 8 倍的时间内实现低分辨率模式。它与 ADS62P49 和 ADS62C17 双路 ADC 引脚兼容。

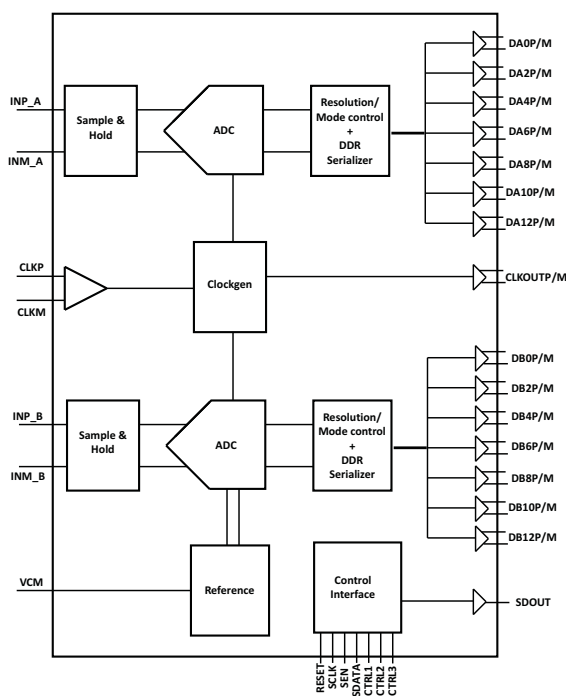
ADS62PF49 具有精细增益选项, 可在较低满量程输出范围内提高 SFDR 性能。它包括一个 DC 偏移校正环路, 可用来消除模数转换 (ADC) 偏移。

它包含内部参考, 并消除了传统参考引脚与相关去耦电容器。所有器件均适用于各种工业温度 (–40°C 至 85°C)。

表 1. 170MHz 输入时的

性能摘要	高分辨率模式下的性能	
	0dB 增益	6dB 增益
SFDR, dBc	75	82
SINAD, dBFS	69.8	66.5
	6dB 增益	66.5

ADS62PF49 方框图



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PACKAGING INFORMATION

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
ADS62PF49IRGCR	ACTIVE	VQFN	RGC	64	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-3-260C-168 HR	
ADS62PF49IRGCT	ACTIVE	VQFN	RGC	64	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-3-260C-168 HR	

⁽¹⁾ The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

OBSOLETE: TI has discontinued the production of the device.

⁽²⁾ Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check <http://www.ti.com/productcontent> for the latest availability information and additional product content details.

TBD: The Pb-Free/Green conversion plan has not been defined.

Pb-Free (RoHS): TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

Pb-Free (RoHS Exempt): This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

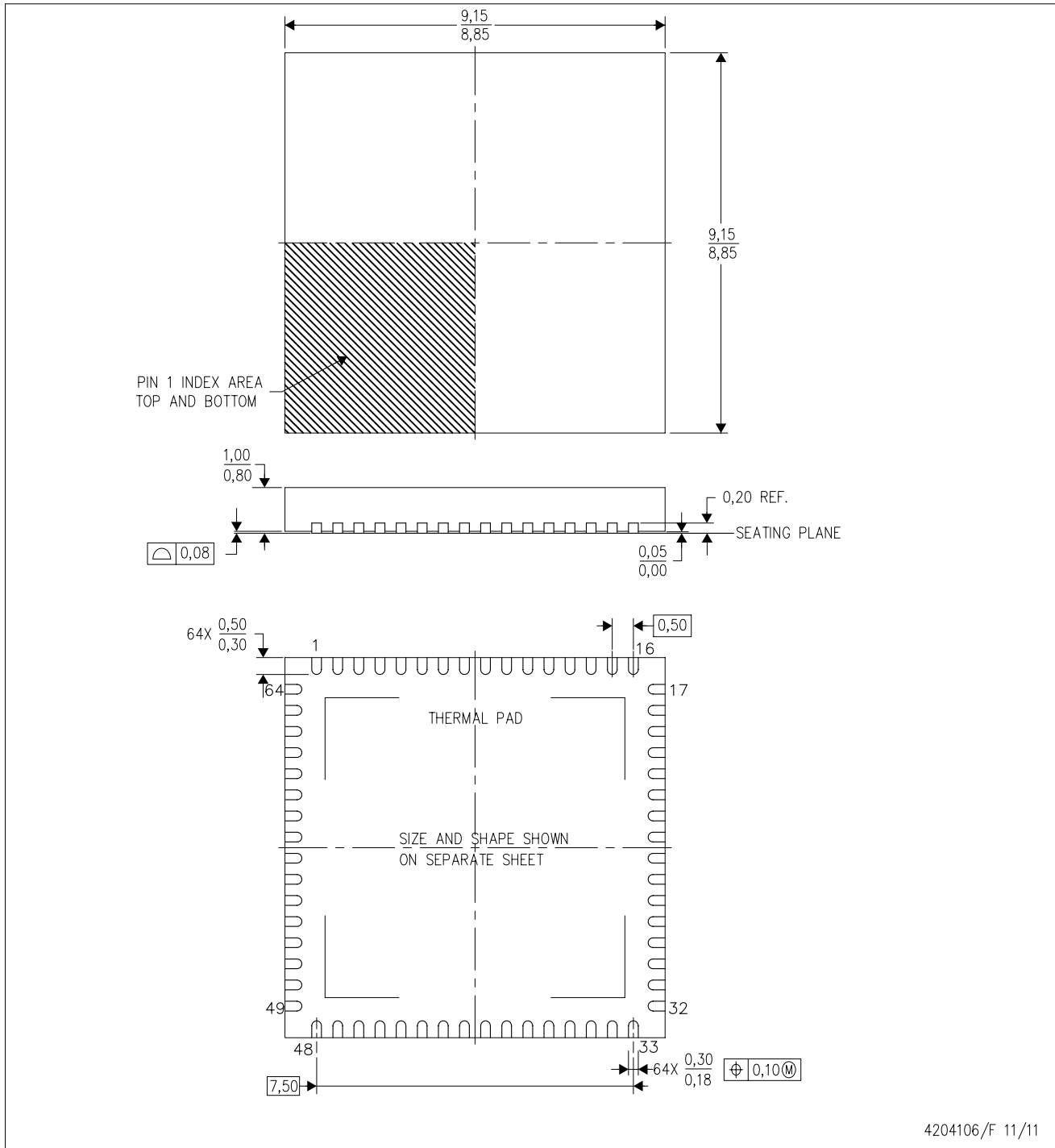
Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

⁽³⁾ MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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RGC(S-PVQFN-N64) CUSTOM DEVICE PLASTIC QUAD FLATPACK NO-LEAD



- NOTES:
- All linear dimensions are in millimeters. Dimensioning and tolerancing per ASME Y14.5-1994.
 - This drawing is subject to change without notice.
 - Quad Flatpack, No-leads (QFN) package configuration.
 - The package thermal pad must be soldered to the board for thermal and mechanical performance.
 - See the additional figure in the Product Data Sheet for details regarding the exposed thermal pad features and dimensions.

THERMAL PAD MECHANICAL DATA

RGC (S-PVQFN-N64)

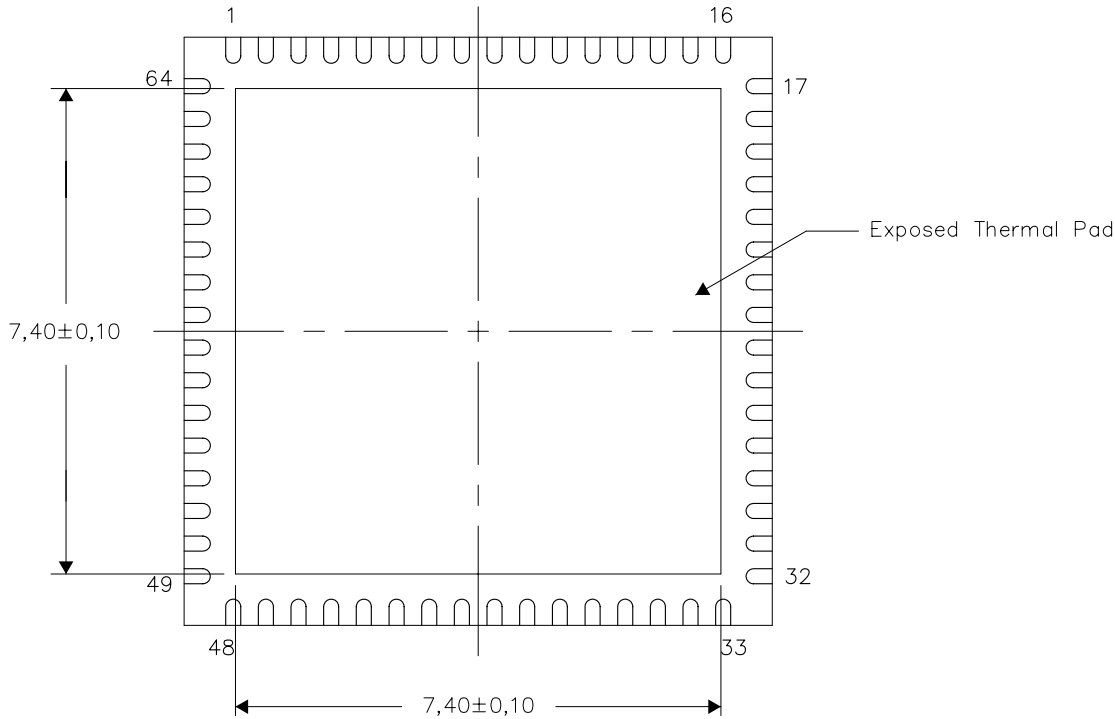
PLASTIC QUAD FLATPACK NO-LEAD

THERMAL INFORMATION

This package incorporates an exposed thermal pad that is designed to be attached directly to an external heatsink. The thermal pad must be soldered directly to the printed circuit board (PCB). After soldering, the PCB can be used as a heatsink. In addition, through the use of thermal vias, the thermal pad can be attached directly to the appropriate copper plane shown in the electrical schematic for the device, or alternatively, can be attached to a special heatsink structure designed into the PCB. This design optimizes the heat transfer from the integrated circuit (IC).

For information on the Quad Flatpack No-Lead (QFN) package and its advantages, refer to Application Report, QFN/SON PCB Attachment, Texas Instruments Literature No. SLUA271. This document is available at www.ti.com.

The exposed thermal pad dimensions for this package are shown in the following illustration.



Bottom View

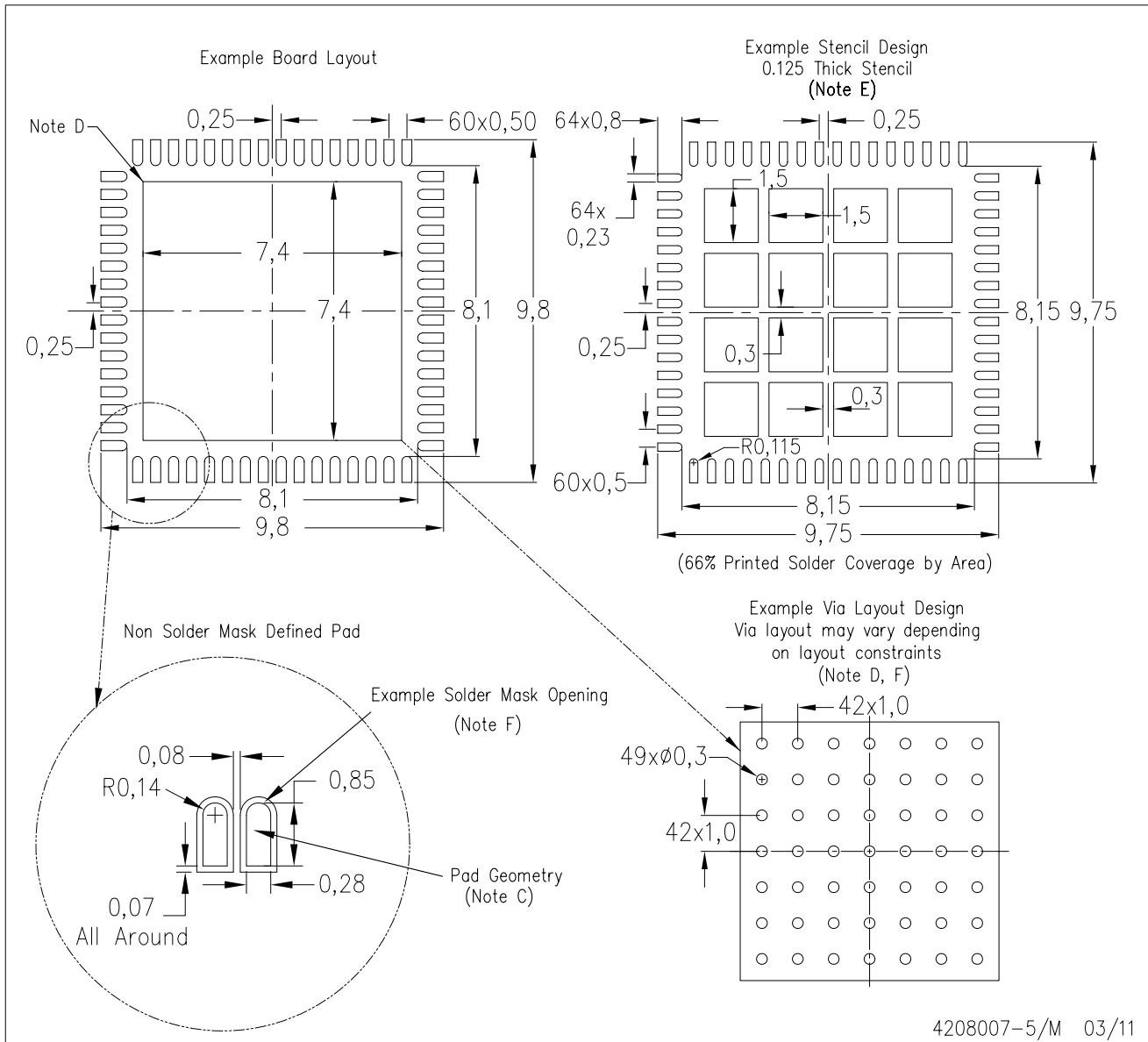
Exposed Thermal Pad Dimensions

4206192-4/0 04/11

NOTE: A. All linear dimensions are in millimeters

RGC (S-PVQFN-N64)

PLASTIC QUAD FLATPACK NO-LEAD



- NOTES:
- All linear dimensions are in millimeters.
 - This drawing is subject to change without notice.
 - Publication IPC-7351 is recommended for alternate designs.
 - This package is designed to be soldered to a thermal pad on the board. Refer to Application Note, Quad Flat-Pack Packages, Texas Instruments Literature No. SLUA271, and also the Product Data Sheets for specific thermal information, via requirements, and recommended board layout. These documents are available at www.ti.com <<http://www.ti.com>>.
 - Laser cutting apertures with trapezoidal walls and also rounding corners will offer better paste release. Customers should contact their board assembly site for stencil design recommendations. Refer to IPC 7525 for stencil design considerations.
 - Customers should contact their board fabrication site for recommended solder mask tolerances and via tenting recommendations for vias placed in thermal pad.

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