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。

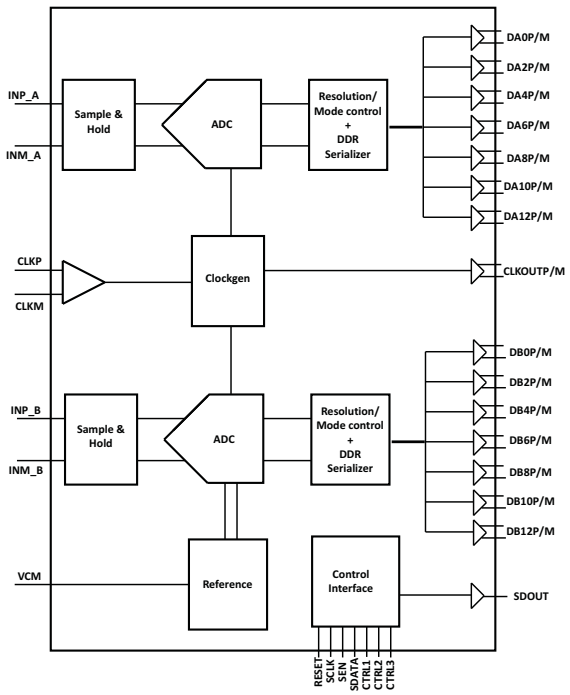
ADS62PF49 具有精细增益选项，可在较低满量程输出范围内提高 SFDR 性能。 它包括一个 DC 偏移校正环路，可用来消除模数转换 (ADC) 偏移。

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
SFDR，dBc	0dB 增益	75
	6dB 增益	82
SINAD，dBFS	0dB 增益	69.8
	6dB 增益	66.5

ADS62PF49 方框图



PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
ADS62PF49IRGCR	ACTIVE	VQFN	RGC	64	2000	RoHS & Green	NIPDAUAG	Level-3-260C-168 HR	-40 to 85	AZ62PF49	Samples
ADS62PF49IRGCT	ACTIVE	VQFN	RGC	64	250	RoHS & Green	NIPDAUAG	Level-3-260C-168 HR	-40 to 85	AZ62PF49	Samples

(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) **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".
RoHS Exempt: TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.
Green: TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of <=1000ppm threshold. Antimony trioxide based flame retardants must also meet the <=1000ppm threshold requirement.

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

(4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.

(5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

(6) Lead finish/Ball material - Orderable Devices may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

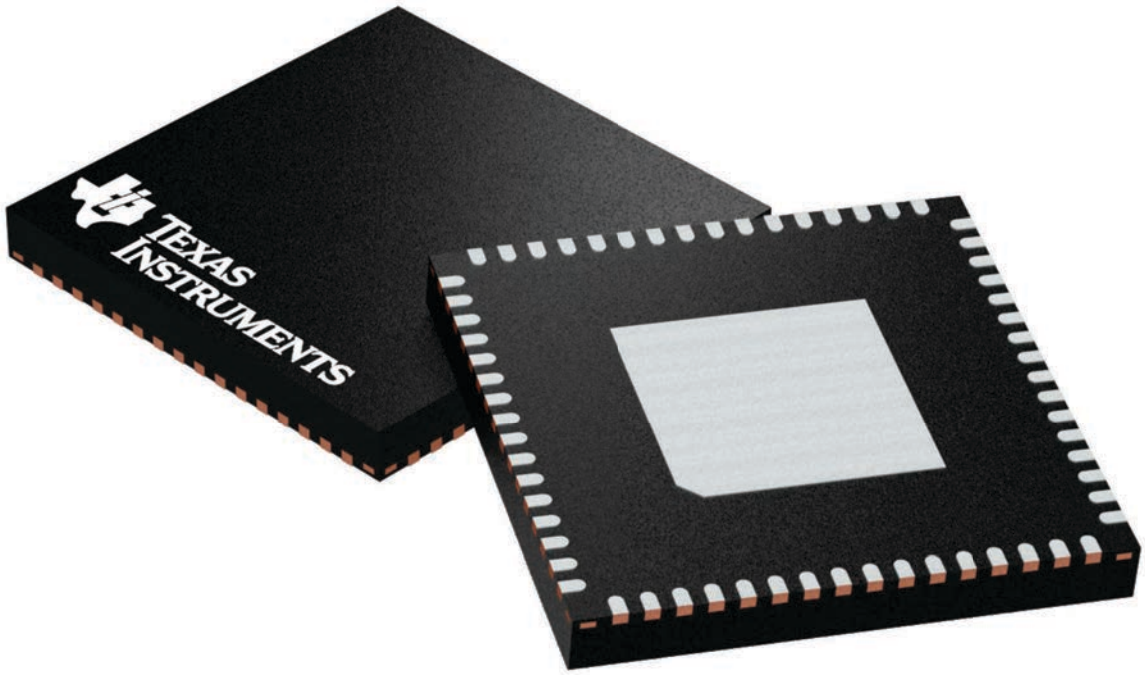
GENERIC PACKAGE VIEW

RGC 64

VQFN - 1 mm max height

9 x 9, 0.5 mm pitch

PLASTIC QUAD FLATPACK - NO LEAD



Images above are just a representation of the package family, actual package may vary.
Refer to the product data sheet for package details.

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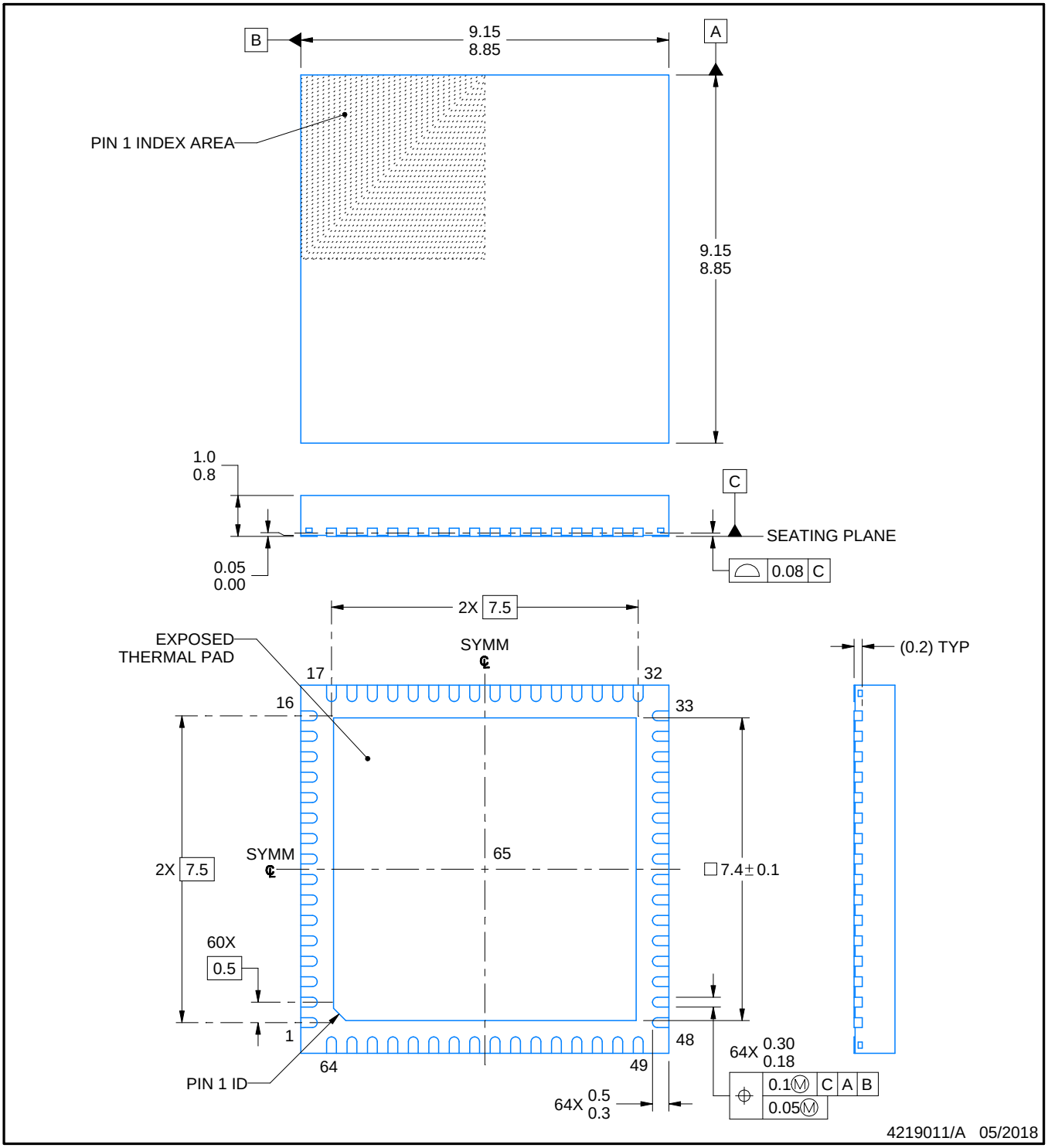
RGC0064H

PACKAGE OUTLINE

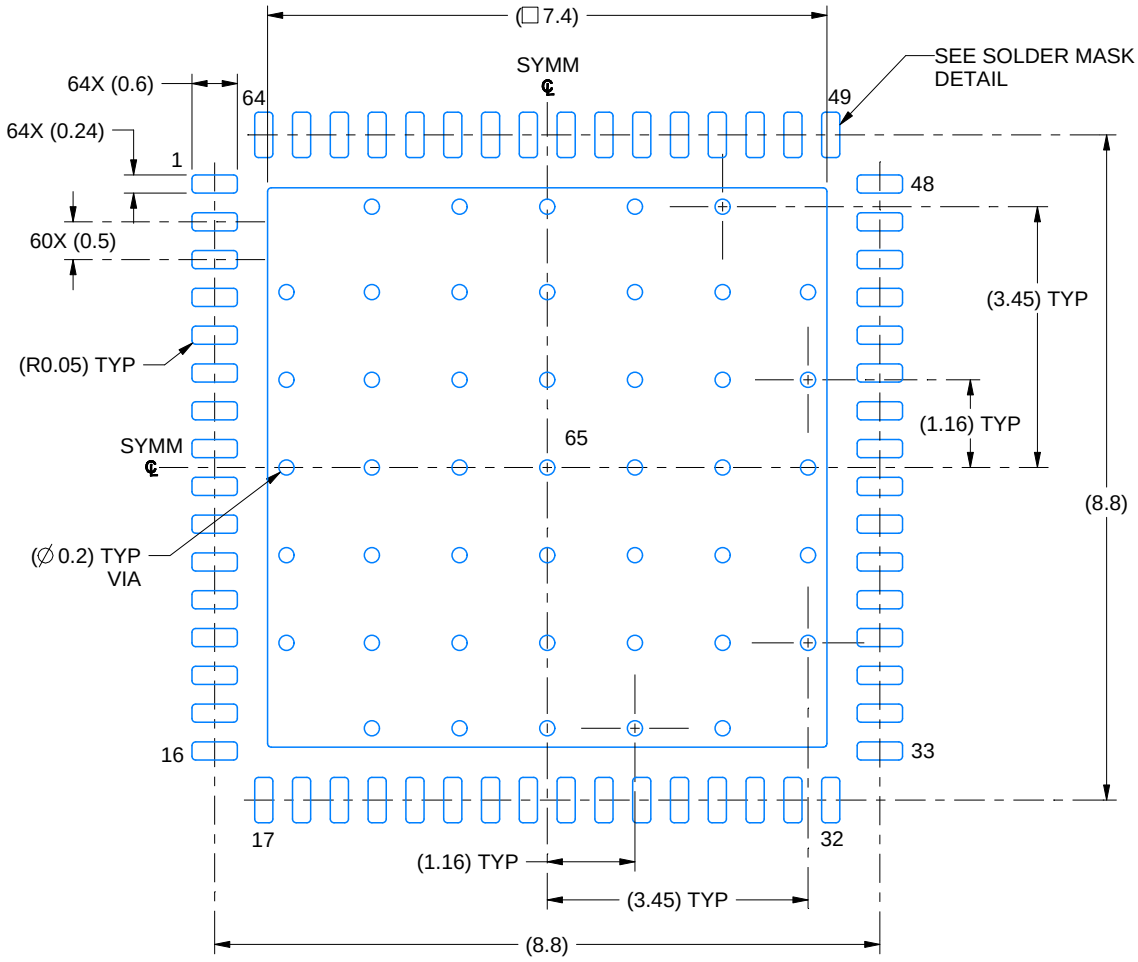
VQFN - 1 mm max height

PLASTIC QUAD FLATPACK - NO LEAD

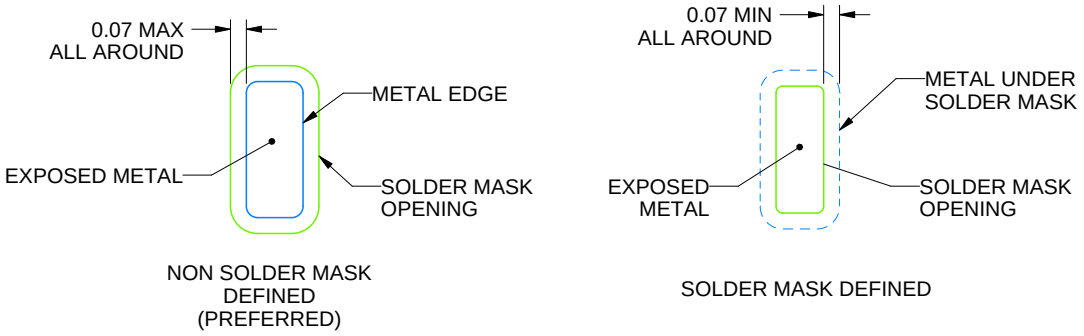


NOTES:

1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. The package thermal pad must be soldered to the printed circuit board for thermal and mechanical performance.



LAND PATTERN EXAMPLE
EXPOSED METAL SHOWN
SCALE: 10X



SOLDER MASK DETAILS

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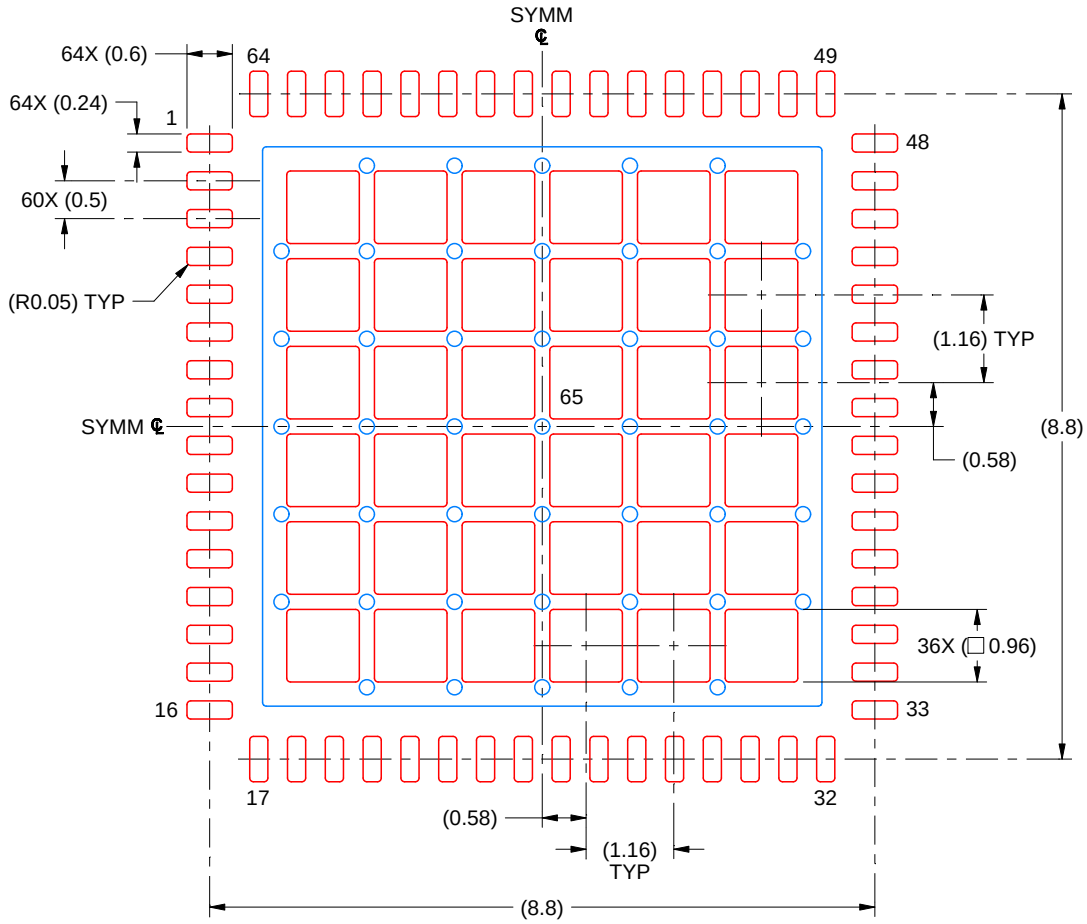
NOTES: (continued)

4. This package is designed to be soldered to a thermal pad on the board. For more information, see Texas Instruments literature number SLUA271 (www.ti.com/lit/slua271).
5. Vias are optional depending on application, refer to device data sheet. If any vias are implemented, refer to their locations shown on this view. It is recommended that vias under paste be filled, plugged or tented.



SOLDER PASTE EXAMPLE
BASED ON 0.125 MM THICK STENCIL
SCALE: 10X

EXPOSED PAD 65
61% PRINTED SOLDER COVERAGE BY AREA UNDER PACKAGE

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NOTES: (continued)

6. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release. IPC-7525 may have alternate design recommendations.

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