具有 SNRBoost 功能的双通道 IF 接收器3G+ 信号处理

查询样品：ADS58C20 , ADS58C23

特性

- 差分模拟 **IF** 输入，**DDR LVDS** 数字 **IF** 输出
- 每个接收器具有高达 **125-MHz** 的信号带宽
  - 采用 **40 MHz** 和 **75 MHz** 优化频段
- 高动态性能
- 高阻抗输入
- **80** 引脚 **TQFP** 封装，具有 **PowerPAD™**

应用

- **ADS58C20**：多载波 **GSM/3G/LTE/TDS-CDMA** 蜂窝基站接收器
- **ADS58C23**：多载波 **3G/LTE/TDS-CDMA** 蜂窝基站接收器

说明

ADS58C20 和 ADS58C23 是适用于宽带、多模式蜂窝基础设施基站的双通道 IF 接收器。 每个通道可提供高达 125 MHz 带宽的高动态性能，并采用 40 MHz 及 75 MHz 的优化频段。 IF 接收器架构简化了针对大带宽接收器的前端滤波器设计。 接收器在其模拟输入端上内置了集成型缓冲器，并具有跨宽频率范围的恒量性能和输入阻抗优势。

ADS58C20 是一款拥有出色规格指标的高性能器件，适合于单模式/多模式蜂窝基站接收机（包括多载波 GSM）。另外，该器件还能处理其他的蜂窝协议，如 TDS-CDMA/3G/LTE 及前一代的系统。

ADS58C23 提供了与 ADS58C20 相同的功能与引出脚配置，但最小性能指标有所下降，旨在满足成本和性能较低的系统，如 TDS-CDMA/3G/LTE 单模式/多模式接收机（当不需要 GSM 时）。 此外，它还能处理前一代的协议。

这些器件采用 80 引脚 TQFP 封装，而且其技术规格是针对完整的工业温度范围（–40°C 至 85°C）拟订的。

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
ADS58C20IPFP	ACTIVE	HTQFP	PFP	80	96	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I	Samples
ADS58C20IPFPR	ACTIVE	HTQFP	PFP	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I	Samples
ADS58C23IPFP	ACTIVE	HTQFP	PFP	80	96	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I	Samples
ADS58C23IPFPR	ACTIVE	HTQFP	PFP	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I	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.

continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals.
TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

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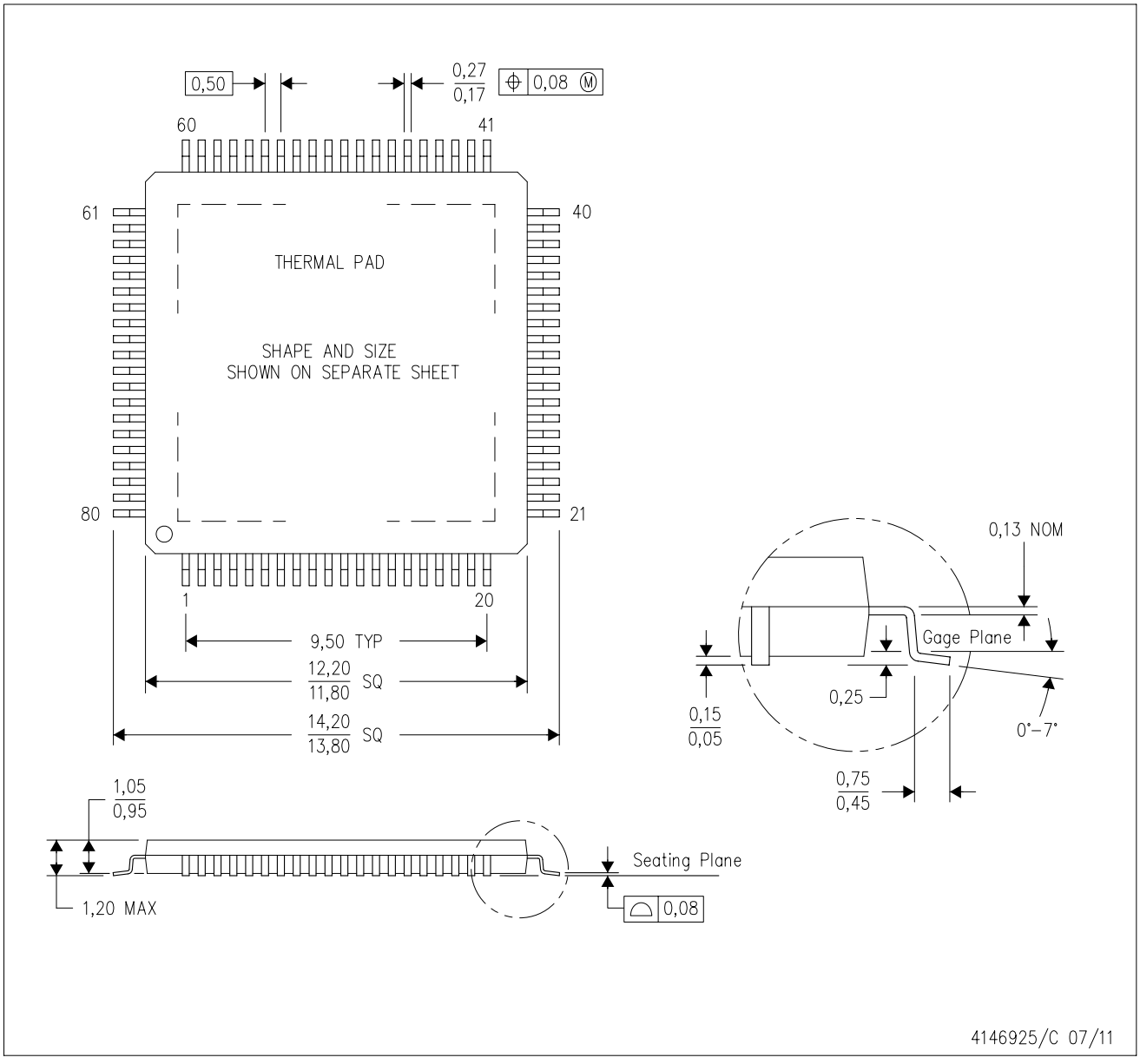
PFP (S–PQFP–G80) PowerPAD™ PLASTIC QUAD FLATPACK



NOTES:
A. All linear dimensions are in millimeters.
B. This drawing is subject to change without notice.
C. Body dimensions do not include mold flash or protrusion
D. This package is designed to be soldered to a thermal pad on the board. Refer to Technical Brief, PowerPad Thermally Enhanced Package, Texas Instruments Literature No. SLMA002 for information regarding recommended board layout. This document is available at www.ti.com <http://www.ti.com>.
E. See the additional figure in the Product Data Sheet for details regarding the exposed thermal pad features and dimensions.
F. Falls within JEDEC MS–026

PowerPAD is a trademark of Texas Instruments.

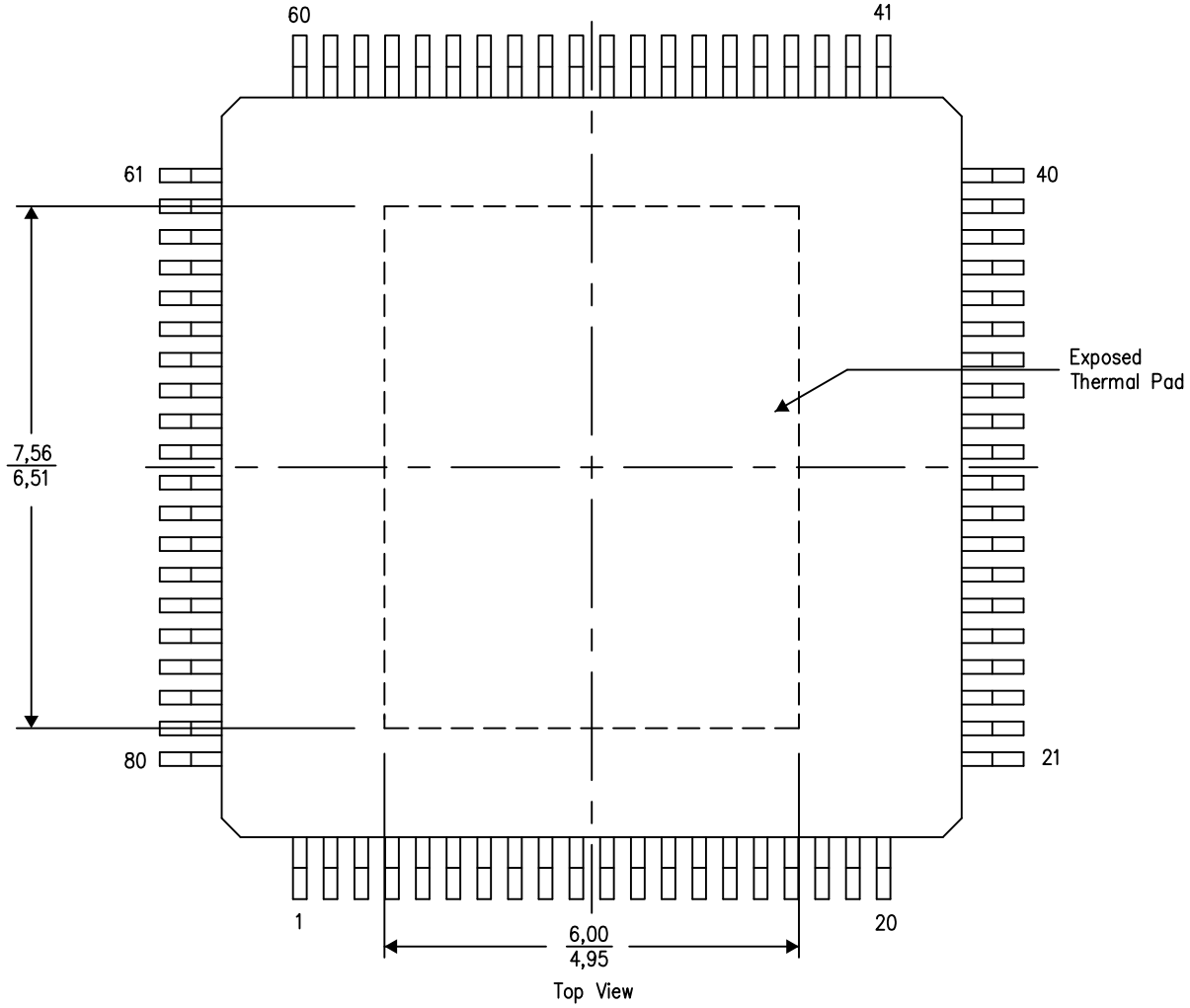
PFP (S–PQFP–G80) PowerPAD™ PLASTIC QUAD FLATPACK

THERMAL INFORMATION

This PowerPAD™ package incorporates an exposed thermal pad that is designed to be attached to a printed circuit board (PCB). The thermal pad must be soldered directly to the 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 additional information on the PowerPAD package and how to take advantage of its heat dissipating abilities, refer to Technical Brief, PowerPAD Thermally Enhanced Package, Texas Instruments Literature No. SLMA002 and Application Brief, PowerPAD Made Easy, Texas Instruments Literature No. SLMA004. Both documents are available at www.ti.com.

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



Exposed Thermal Pad Dimensions

4206327–14/P 05/14

NOTE: A. All linear dimensions are in millimeters

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