

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。



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.

PowerPAD is a trademark of Texas Instruments.

PRODUCTION DATA information is current as of publication date.
Products conform to specifications per the terms of the Texas
Instruments standard warranty. Production processing does not
necessarily include testing of all parameters.

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English Data Sheet: [SLAS783](#)

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
ADS58C20IPFP	Active	Production	HTQFP (PFP) 80	96 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C20IPFP.A	Active	Production	HTQFP (PFP) 80	96 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C20IPFPR	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C20IPFPR.A	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C20IPFPRG4	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C20IPFPRG4.A	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C20I
ADS58C23IPFP	Active	Production	HTQFP (PFP) 80	96 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I
ADS58C23IPFP.A	Active	Production	HTQFP (PFP) 80	96 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I
ADS58C23IPFPR	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I
ADS58C23IPFPR.A	Active	Production	HTQFP (PFP) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	ADS58C23I

⁽¹⁾ **Status:** For more details on status, see our [product life cycle](#).

⁽²⁾ **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

⁽³⁾ **RoHS values:** Yes, No, RoHS Exempt. See the [TI RoHS Statement](#) for additional information and value definition.

⁽⁴⁾ **Lead finish/Ball material:** Parts 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.

⁽⁵⁾ **MSL rating/Peak reflow:** The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

⁽⁶⁾ **Part marking:** There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

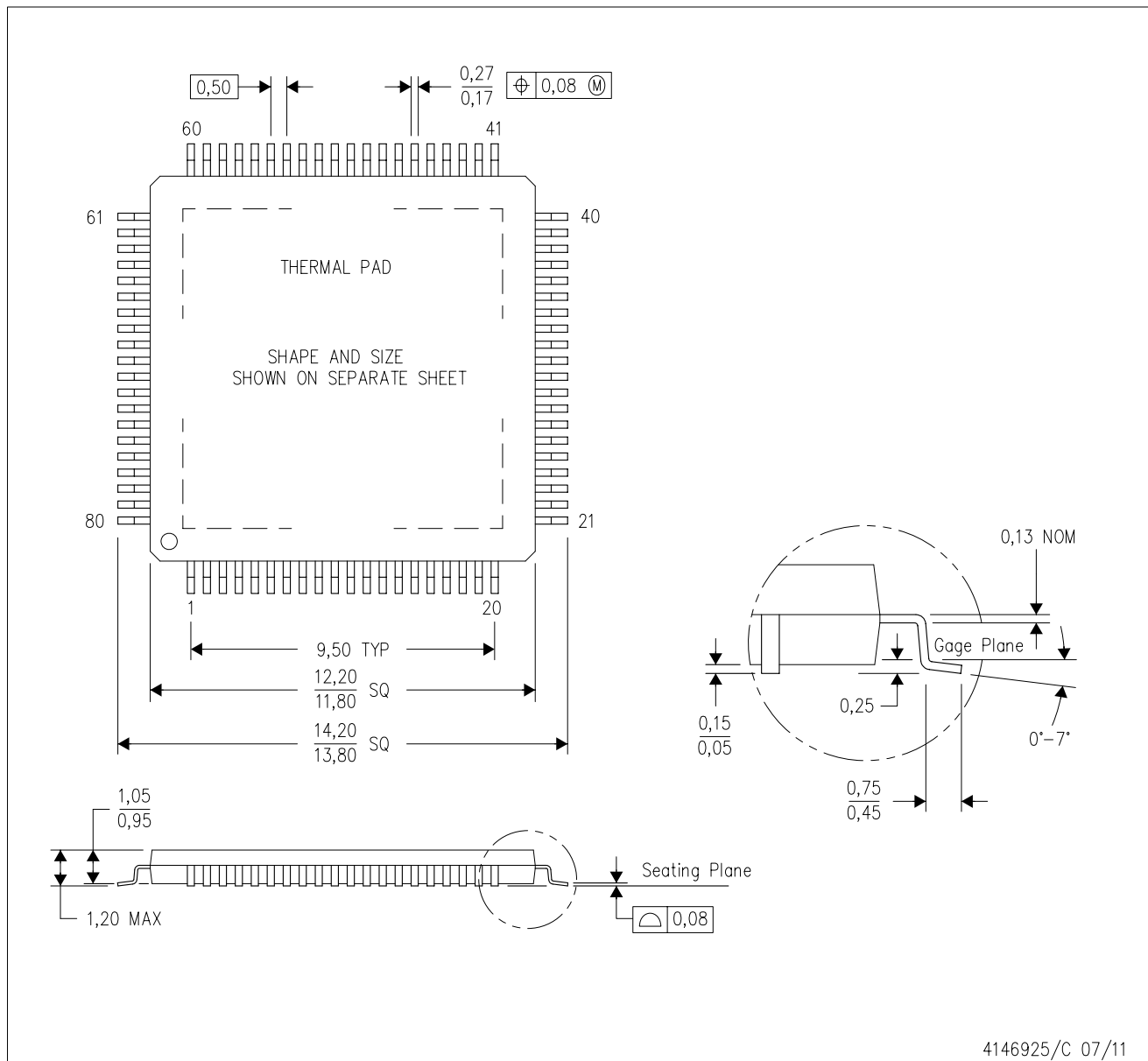
Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "~" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

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PFP (S-PQFP-G80)

PowerPAD™ PLASTIC QUAD FLATPACK



- NOTES:
- All linear dimensions are in millimeters.
 - This drawing is subject to change without notice.
 - Body dimensions do not include mold flash or protrusion.
 - 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>>.
 - See the additional figure in the Product Data Sheet for details regarding the exposed thermal pad features and dimensions.
 - Falls within JEDEC MS-026

PowerPAD is a trademark of Texas Instruments.

THERMAL PAD MECHANICAL DATA

PFP (S-PQFP-G80)

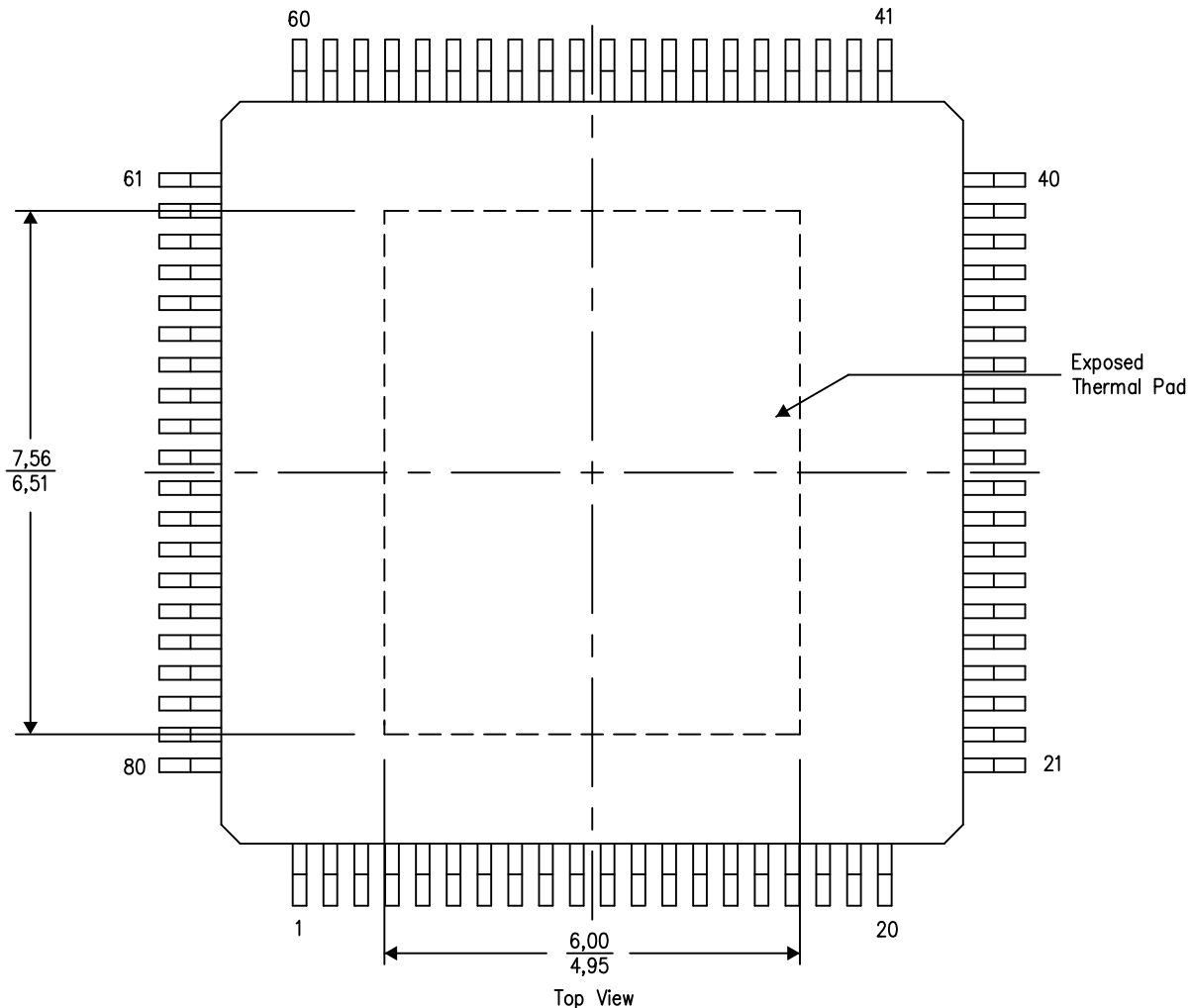
PowerPAD™ PLASTIC QUAD FLATPACK

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.



4206327-14/P 05/14

NOTE: A. All linear dimensions are in millimeters

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