

23mm 低频玻璃封装应答器，只读

查询样片: [TRPGR30ATGA](#)

特性

- 由获专利的半双工 (HDX) 技术提供的同类产品中最佳性能
- 获专利的应答器调谐提供稳定的和高读取性能
- 80 位只读类型**
- 64 位芯片 ID**
- 对几乎所有非金属物质不敏感

说明

德州仪器 (TI) 23mm 低频 (LF) 玻璃应答器提供出色性能并可在 134.2kHz 的共振频率上运行。此产品兼容 ISO/IEC 11784/11785 全球开放式标准。德州仪器 (TI) LF 玻璃应答器使用 TI 获专利的调谐制造工艺生产以提供持续的读取性能。送货前，将对此应答器进行全面的功能和参数测试，为用户提供他们所期望从 TI 获得的高质量产品。

应用范围

- 车辆识别
- 集装箱跟踪
- 资产管理



绝对最大额定值⁽¹⁾

在自然通风温度范围内运行（除非另有说明）

| | | TRPGR30ATGA |
|------------------|------|--------------|
| T _A | 工作温度 | -25°C 至 70°C |
| T _{STG} | 存储温度 | -40°C 至 85°C |

(1) 超出 绝对最大额定值 下列出的值的应力可能会对器件造成永久损坏。这些只是应力额定值，在这些额定值或者任何其它超过 技术规格 下所标明条件下的器件功能运行在此并未说明。长时间运行在绝对最大额定条件下会影响设备的可靠性。

技术规格

| 参数 | TRPGR30ATGA |
|-------------|--|
| 功能 | 只读 |
| 存储器（位） | 80（64 位唯一 ID + 16 位 BCC） |
| 存储器（页） | 1 |
| 共振频率 | 134.6kHz |
| 调制 | FSK（频移键控）134.2kHz 和 124.2kHz |
| 发射原理 | HDX（半双工） |
| 电源 | 由读取器信号供电（无电池） |
| 典型读取范围 | ≤ 110cm ⁽¹⁾ |
| 典型读取时间 | 70ms |
| 外壳材料 | 玻璃 |
| 保护玻璃 | 密封 |
| 电磁兼容性 (EMC) | 已编辑代码不受自然电磁干扰或 X 射线的影响。 |
| 信号渗透率 | 应答器能透过几乎全部非金属物质进行读取。 |
| 机械冲击 | IEC 60068-2-32, 自由落体测试, 高度 1.5m, 测试 20 次 |
| 尺寸 | Ø 3.85 ± 0.05mm x 23.1 ± 0.5mm |
| 重量 | 0.8g |

(1) 取决于使用所在国家的 RF 管理规定，读取器天线配置和环境条件。



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 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) |
|-----------------------------|---------------|----------------------|-----------------|-----------------------|-------------|--------------------------------------|-----------------------------------|--------------|---------------------|
| TRPGR30ATGA | Active | Production | RFIDT (TGA) 0 | 2000 LARGE T&R | Yes | Call TI | N/A for Pkg Type | -25 to 70 | |
| TRPGR30ATGA.B | Active | Production | RFIDT (TGA) 0 | 2000 LARGE T&R | Yes | Call TI | N/A for Pkg Type | -25 to 70 | |

⁽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.

Important Information and Disclaimer:The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and 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.

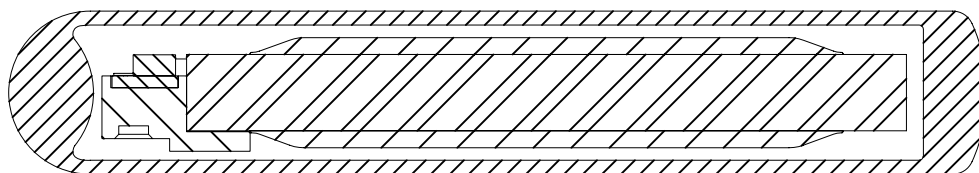
In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.

TGA (R-RFID-N0)

RFIDT



A-A



4211903/A 06/11

- NOTES:
- A. All linear dimensions are in millimeters. Dimensioning and tolerancing per ASME Y14.5-1994.
 - B. This drawing is subject to change without notice.
 - C. HDX+ 23mm Glass TRP Cap on Die.

重要通知和免责声明

TI“按原样”提供技术和可靠性数据（包括数据表）、设计资源（包括参考设计）、应用或其他设计建议、网络工具、安全信息和其他资源，不保证没有瑕疵且不做任何明示或暗示的担保，包括但不限于对适销性、与某特定用途的适用性或不侵犯任何第三方知识产权的暗示担保。

这些资源可供使用 TI 产品进行设计的熟练开发人员使用。您将自行承担以下全部责任：(1) 针对您的应用选择合适的 TI 产品，(2) 设计、验证并测试您的应用，(3) 确保您的应用满足相应标准以及任何其他安全、安保法规或其他要求。

这些资源如有变更，恕不另行通知。TI 授权您仅可将这些资源用于研发本资源所述的 TI 产品的相关应用。严禁以其他方式对这些资源进行复制或展示。您无权使用任何其他 TI 知识产权或任何第三方知识产权。对于因您对这些资源的使用而对 TI 及其代表造成的任何索赔、损害、成本、损失和债务，您将全额赔偿，TI 对此概不负责。

TI 提供的产品受 [TI 销售条款](#)、[TI 通用质量指南](#) 或 [ti.com](#) 上其他适用条款或 TI 产品随附的其他适用条款的约束。TI 提供这些资源并不会扩展或以其他方式更改 TI 针对 TI 产品发布的适用的担保或担保免责声明。除非德州仪器 (TI) 明确将某产品指定为定制产品或客户特定产品，否则其产品均为按确定价格收入目录的标准通用器件。

TI 反对并拒绝您可能提出的任何其他或不同的条款。

版权所有 © 2025，德州仪器 (TI) 公司

最后更新日期：2025 年 10 月