

宽频带、单位增益稳定、场效应晶体管 (FET) 输入运算放大器

 查询样品: [OPA656-DIE](#)

特性

- 单位增益带宽
- 低输入偏置电流
- 低偏移和漂移
- 低 **DL**
- 高输出电流
- 低输入电压噪声

应用范围

- 宽频带光电二极管放大器
- 采样保持缓冲器
- 电器耦合元件 (**CCD**) 输出缓冲器
- 模数转换器 (**ADC**) 输入缓冲器
- 宽频带精度放大器
- 测试和测量前端

说明

OPA656 结合有一个超宽频带、单位增益稳定、电压反馈运算放大器，此运算放大器有一个 FET 输入级以提供一个针对 ADC（模数转换器）缓冲和跨阻应用的超高动态范围放大器。极低的 DC 误差在光学应用中提供了很好的精度。

高单位增益稳定带宽和 JFET 输入可在高速、低噪声积分器中实现出色的性能。

ORDERING INFORMATION⁽¹⁾

PRODUCT	PACKAGE DESIGNATOR	PACKAGE ⁽²⁾	ORDERABLE PART NUMBER	PACKAGE QUANTITY
OPA656	TD	Bare die in waffle pack	OPA656TDB1	400
			OPA656TDB2	10

(1) For the most current package and ordering information, see the Package Option Addendum at the end of this document, or see the TI web site at www.ti.com.

(2) Processing is per the Texas Instruments commercial production baseline and is in compliance with the Texas Instruments Quality Control System in effect at the time of manufacture. Electrical screening consists of DC parametric and functional testing at room temperature only. Unless otherwise specified by Texas Instruments AC performance and performance over temperature is not warranted. Visual Inspection is performed in accordance with MIL-STD-883 Test Method 2010 Condition B at 75X minimum.



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This integrated circuit can be damaged by ESD. Texas Instruments recommends that all integrated circuits be handled with appropriate precautions. Failure to observe proper handling and installation procedures can cause damage.

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.

BARE DIE INFORMATION

DIE THICKNESS	BACKSIDE FINISH	BACKSIDE POTENTIAL	BOND PAD METALLIZATION COMPOSITION	BOND PAD THICKNESS
15 mils.	Silicon with backgrind	V _{S-}	TiW/AlCu (0.5%)	1100 nm

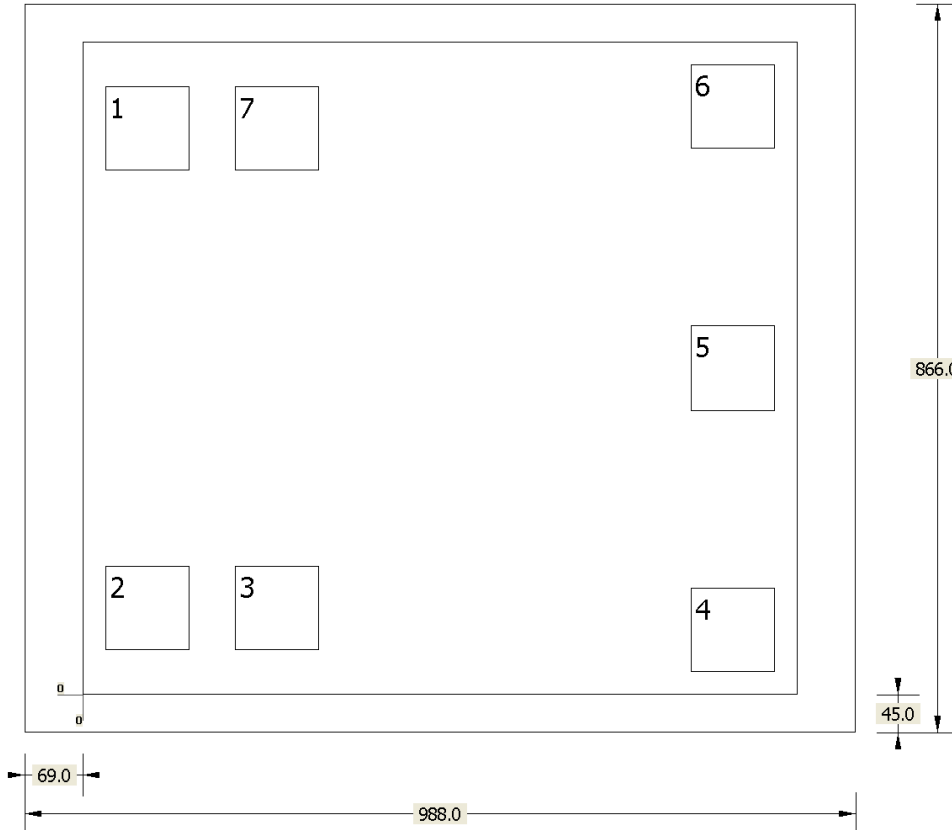


Table 1. Bond Pad Coordinates in Microns⁽¹⁾

DESCRIPTION	PAD NUMBER	X MIN	Y MIN	X MAX	Y MAX
Inverting Input	1	27	623	127	723
NonInverting Input	2	27	53	127	153
N/C	3	181	53	281	153
Output	4	723	27	823	127
V _{S-}	5	723	337	823	439
V _{S+}	6	723	649	823	749
N/C	7	181	623	281	723

(1) Substrate is V_{S-}.

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)
OPA656TDB1	ACTIVE			0	400	TBD	Call TI	N / A for Pkg Type	
OPA656TDB2	ACTIVE			0	10	TBD	Call TI	N / A for Pkg Type	

⁽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.

OBSELETE: 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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