12500 TI Boulevard, MS 8640, Dallas, Texas 75243

Notification# 20240619002.0
Datasheet for OPA656, TPS62901, TCA9617B
Information Only

Date: June 20, 2024
To: MOUSER PCN

Dear Customer:

This is an information-only announcement of a change to a device that is currently offered by Texas Instruments.

The changes discussed within this notification are for your information only.

Any negotiated alternative change requirements will be provided via the customer's defined process. Customers with previously negotiated, special requirements will be handled separately. Any inquiries should be directed to your local Field Sales Representative.

For questions regarding this notice, contact your local Field Sales Representative or the Change Management team.

Sincerely,

Change Management Team
SC Business Services

20240619002.0
Information Only Datasheet
Attachments

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records**,** you have recently purchased these devices**.** The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
OPA656NB/250	NULL
OPA656UB/2K5	NULL
TCA9617BDGKR	NULL
TPS62901RPJR	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	20240619002.0	PCN Date:	June 20, 2024
Title:	Datasheet for OPA656, TPS62901, TCA9617B		
Customer Contact:	Change Management team	Dept:	Quality Services
Change Type:	Electrical Specification		

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing an information only notification.
The product datasheet(s) is being updated as summarized below.
The following change history provides further details.

TEXAS INSTRUMENTS

OPA656

SBOS196I – DECEMBER 2001 – REVISED FEBRUARY 2024

Changes from Revision H (April 2015) to Revision I (February 2024) **Page**

- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1
- Updated *Features*, *Applications*, *Description*, *Device Comparison Table*, *Feature Description*, *Device Functional Modes*, *Application and Implementation*, *Power Supply Recommendations*, *Layout*, *Device and Documentation Support*, and *Mechanical, Packaging, and Orderable Information* sections.....1
- Added Supply turn-on and turn-off rate, continuous input and output current specifications to *Absolute Maximum Ratings* Table..... 4
- Updated footnote on *Absolute Maximum Ratings* table to add additional clarification.....4
- Deleted Machine Model (MM) specification from *ESD Ratings Table* 4
- Updated thermal specifications for D and DBV package in *Thermal Information* table.....4

- Updated the test conditions to add additional clarity, updated the table format and deleted the Test Level column on *Electrical Characteristics* table.....5
- Changed the test condition from T_J = 25°C to T_A ≡ 25°C across *Electrical Characteristics* section..... 5
- Updated the *Electrical Characteristics AC performance* section with improved typical small-signal bandwidth, 0.1 dB flatness, large-signal bandwidth, slew rate, voltage noise, and distortion parameters..... 5
- Deleted differential gain and differential phase parameter from *Electrical Charactiristics* section..... 5
- Changed the input current noise at f = 100 kHz from 1.3 fA/√Hz to 5 fA/√Hz..... 5
- Updated the *Electrical Characteristics DC Performance, Input, Output, and Power supply* sections with improved typical open loop gain, CMRR and PSRR parameters.....5
- Deleted 0°C to +70°C conditions across *Electrical Characteristics* section..... 5
- Changed input offset current maximum from ±10 pA to ±20 pA.....5
- Changed typical and maximum most negative input voltage for CMRR > 77 dB from –4.5 V and –4 V to –4.3 V and –3.9 V respectively.....5
- Changed maximum most negative input voltage at –40°C to +85°C for CMRR > 77 dB from –3.8 V to –3.7 V 5
- Changed the typical common mode input impedance from 10^{12} || 0.7 to 10^{12} || 0.4.....5
- Changed the typical differential mode input impedance from 10^{12} || 2.8 to 10^{10} || 2.6.....5
- Changed minimum sourcing output current over –40°C to +85°C from 46 mA to 45 mA..... 5
- Changed maximum sinking output current over –40°C to +85°C from –46 mA to –45 mA.....5
- Changed typical and maximum quiescent current from 14 mA to 15 mA and 16 mA to 16.7 mA respectively..5
- Changed maximum quiescent current over –40°C to +85°C from 16.3 mA to 16.8 mA.....5
- Updated the *High Grade DC Specifications* section with improved typical CMRR and PSRR parameters..... 6
- Changed input bias current and input offset current maximum in *High Grade DC Specifications* section from ±5 pA to ±20 pA.....6
- Changed CMRR minimum in *High Grade DC Specifications* section from 88 dB to 84 dB..... 6
- Changed CMRR minimum in *High Grade DC specifications* over –40°C to +85°C from 84 dB to 83 dB..... 6
- Updated *Typical Characteristics: V_S = ±5 V* section.....7
- Changed the continuous current rating of the input protection diodes from 30 mA to 10 mA..... 12

TEXAS INSTRUMENTS

TPS62901

SLVSFS7A – MARCH 2021 – REVISED JANUARY 2024

Changes from Revision * (March 2021) to Revision A (January 2024)	Page
• Updated trademark information	1
• Updated ESD ratings to show CDM testing was per JS-002	4
• Updated typical soft-start time with equation 14	20
• Updated the definition of VREF	20
• Added notice "Generally, TI does not recommend to configure soft-start time lower than 1ms for inrush current consideration"	20
• Added maximum and minimum soft-start time calculation with equation 15, equation 16	20
• Deleted *Precise Soft-Start Timing* section	39

TEXAS INSTRUMENTS

TCA9617B

SCPS259C – DECEMBER 2014 – REVISED JANUARY 2024

Changes from Revision B (December 2018) to Revision C (January 2024)	Page
• Changed all instances of legacy terminology to controller and target where mentioned	1
• Added weak pull-up resistor information on pin EN	3
• Changed abs max voltages from 7V to 6.5V	4
• Changed the Thermal Information for 8 DGK	5
• Changed V_{IK} MAX value of -1.2V to a MIN value	5
• Changed T_{PLH} (B to A) by removing typical value	7
• Changed T_{PLH} (A to B) for VCCB ≤ 3V by changing min value from 59ns to 50ns and removing typical value	7
• Changed T_{PLH} (A to B) for VCCB > 3V by removing typical value	7
• Changed T_{PHL} (B to A) by changing min value from 69ns to 32ns and removing typical value	7
• Changed T_{PHL} (A to B) by changing min value from 68ns to 28ns and removing typical value	7
• Changed T_{THL} (B side) by changing max value from 13.8ns to 32ns and removing typical value	7
• Changed T_{THL} (B side) by changing max value from 11.3ns to 40ns and removing typical value	7
• Changed $0.3V_{CCA}$ to: *30% of* V_{CCA} in the *Overview*	10
• Changed A side falling below $0.7V_{CCA}$ to: *A side falling below 30% of* V_{CCA}	10
• Changed goes below $0.7V_{CCB}$ to: *goes below 0.4V*	10
• Changed $0.3V_{CCA}$ to: *30% of* V_{CCA} in the *Low to High Transition Characteristics*	11
• Deleted *Since the A-side does not have a static offset low voltage, no pedestal is seen on the A-side as shown in Figure 6-1*	11
• Changed $0.7V_{CCA}$ to *30% of* V_{CCA} in the *High-to-Low Transition Characteristics*	12
• Changed *isolate a badly behaved* to *separate a misbehaving* in the *Device Functional Modes*	12
• Changed $0.7V_{CCA}$ to *30% of* V_{CCA} in the *Application Information*	13
• Changed falls below 0.45V to: falls below 0.4Vt	13
• Changed (0.45V) to: *(0.4V)* in the *Pullup Resistor Sizing*	14

The datasheet number will be changing.

Device Family	Change From:	Change To:
OPA656	SBOS196H	**SBOS196I**
TPS62901	SLVSFS7	**SLVSFS7A**
TCA9617B	SCPS259B	**SCPS259C**

These changes may be reviewed at the datasheet links provided.
http://www.ti.com/product/OPA656
http://www.ti.com/product/TPS62901
http://www.ti.com/product/TCA9617B

Reason for Change:

To accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):			
No anticipated impact. There are no changes to the actual device.			
Changes to product identification resulting from this PCN:			
None.			
Product Affected:			
OPA656NB/250	OPA656UB/2K5	TPS62901RPJR	TCA9617BDGKR

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.