



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**Notification# 20230306001.1
Datasheet for OPAx277
Change Notification**

Date: March 08, 2023
To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

This is a notice of change to a product data sheet for a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice.

The proposed first ship date is indicated on page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Team ([PCN ww admin team@list.ti.com](mailto:PCN_admin_team@list.ti.com)).

Sincerely,

PCN Team
SC Business Services


Data Sheet Change Notification Attachments

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
OPA2277U	null
OPA2277UA	null
OPA2277UA/2K5	null
OPA277U/2K5	null
OPA2277PA	null
OPA277U	null
OPA277UA	null
OPA277UA/2K5	null
OPA4277PA	null
OPA4277UA	null
OPA2277U/2K5	null
OPA2277UA/2K5E4	null
OPA277AIDRMT	null
OPA4277UA/2K5	null
OPA277AIDRMR	null
OPA277P	null
OPA277PA	null
OPA277UAG4	null
OPA2277AIDRMT	null

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

PCN Number:	20230306001.1	PCN Date:	March 08, 2023																																								
Title:	Datasheet for OPAx277																																										
Customer Contact:	PCN Manager	Dept:	Quality Services																																								
Proposed 1st Ship Date:	June 8, 2023																																										
Change Type:																																											
<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Design	<input type="checkbox"/> Wafer Bump Site																																									
<input type="checkbox"/> Assembly Process	<input checked="" type="checkbox"/> Data Sheet	<input type="checkbox"/> Wafer Bump Material																																									
<input type="checkbox"/> Assembly Materials	<input type="checkbox"/> Part number change	<input type="checkbox"/> Wafer Bump Process																																									
<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Site	<input type="checkbox"/> Wafer Fab Site																																									
<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process	<input type="checkbox"/> Wafer Fab Materials																																									
		<input type="checkbox"/> Wafer Fab Process																																									
Notification Details																																											
Description of Change:																																											
<p>Texas Instruments Incorporated is announcing an information only notification. The product datasheet(s) is being updated as summarized below.</p>																																											
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">  <p>TEXAS INSTRUMENTS</p> </div> <div style="text-align: right;"> <p>OPA277, OPA2277, OPA4277 SBOS079C – MARCH 1999 – REVISED FEBRUARY 2023</p> </div> </div>																																											
<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Changes from Revision B (April 2015) to Revision C (February 2023)</th> <th style="text-align: right;">Page</th> </tr> </thead> <tbody> <tr><td>• Updated the numbering format for tables, figures, and cross-references throughout the document.....</td><td style="text-align: right;">1</td></tr> <tr><td>• Changed <i>Applications</i> bullets to include links.....</td><td style="text-align: right;">1</td></tr> <tr><td>• Deleted text regarding identical specification for the single, dual, and quad versions.....</td><td style="text-align: right;">1</td></tr> <tr><td>• Changed Offset Trim pin type from "Input" to "—"......</td><td style="text-align: right;">3</td></tr> <tr><td>• Changed "DFN" to "DRM (VSON)" in <i>OPA2277 Pin Functions</i> table.....</td><td style="text-align: right;">3</td></tr> <tr><td>• Added table note for 10-mA current limit on input pins in <i>Absolute Maximum Ratings</i></td><td style="text-align: right;">6</td></tr> <tr><td>• Deleted operating temperature from <i>Absolute Maximum Ratings</i></td><td style="text-align: right;">6</td></tr> <tr><td>• Deleted lead temperature from <i>Absolute Maximum Ratings</i></td><td style="text-align: right;">6</td></tr> <tr><td>• Changed <i>Thermal Information</i> values for OPA2277 and OPA4277 SOIC packages.....</td><td style="text-align: right;">7</td></tr> <tr><td>• Added test conditions to <i>Electrical Characteristics</i> header.....</td><td style="text-align: right;">8</td></tr> <tr><td>• Changed format of <i>Electrical Characteristics</i> for readability.....</td><td style="text-align: right;">8</td></tr> <tr><td>• Changed input offset voltage vs. time to long-term drift in <i>Electrical Characteristics</i></td><td style="text-align: right;">8</td></tr> <tr><td>• Changed input bias current test condition to separate over temperature specification.....</td><td style="text-align: right;">8</td></tr> <tr><td>• Deleted redundant row in <i>open-loop gain</i> parameter.....</td><td style="text-align: right;">8</td></tr> <tr><td>• Changed C_{LOAD} to C_L for consistency.....</td><td style="text-align: right;">8</td></tr> <tr><td>• Changed Figure 6-14, <i>Change in Input Bias Current vs Common-Mode Voltage</i>, to correct typo in note.....</td><td style="text-align: right;">10</td></tr> <tr><td>• Changed "DFN package" to "DRM package (8-pin VSON)".....</td><td style="text-align: right;">21</td></tr> <tr><td>• Changed "DFN package" to "DRM Package" and added "8-Pin VSON".....</td><td style="text-align: right;">21</td></tr> <tr><td>• Changed <i>Development Support</i> section to show updated links and resources.....</td><td style="text-align: right;">23</td></tr> </tbody> </table>				Changes from Revision B (April 2015) to Revision C (February 2023)	Page	• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1	• Changed <i>Applications</i> bullets to include links.....	1	• Deleted text regarding identical specification for the single, dual, and quad versions.....	1	• Changed Offset Trim pin type from "Input" to "—"......	3	• Changed "DFN" to "DRM (VSON)" in <i>OPA2277 Pin Functions</i> table.....	3	• Added table note for 10-mA current limit on input pins in <i>Absolute Maximum Ratings</i>	6	• Deleted operating temperature from <i>Absolute Maximum Ratings</i>	6	• Deleted lead temperature from <i>Absolute Maximum Ratings</i>	6	• Changed <i>Thermal Information</i> values for OPA2277 and OPA4277 SOIC packages.....	7	• Added test conditions to <i>Electrical Characteristics</i> header.....	8	• Changed format of <i>Electrical Characteristics</i> for readability.....	8	• Changed input offset voltage vs. time to long-term drift in <i>Electrical Characteristics</i>	8	• Changed input bias current test condition to separate over temperature specification.....	8	• Deleted redundant row in <i>open-loop gain</i> parameter.....	8	• Changed C _{LOAD} to C _L for consistency.....	8	• Changed Figure 6-14, <i>Change in Input Bias Current vs Common-Mode Voltage</i> , to correct typo in note.....	10	• Changed "DFN package" to "DRM package (8-pin VSON)".....	21	• Changed "DFN package" to "DRM Package" and added "8-Pin VSON".....	21	• Changed <i>Development Support</i> section to show updated links and resources.....	23
Changes from Revision B (April 2015) to Revision C (February 2023)	Page																																										
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1																																										
• Changed <i>Applications</i> bullets to include links.....	1																																										
• Deleted text regarding identical specification for the single, dual, and quad versions.....	1																																										
• Changed Offset Trim pin type from "Input" to "—"......	3																																										
• Changed "DFN" to "DRM (VSON)" in <i>OPA2277 Pin Functions</i> table.....	3																																										
• Added table note for 10-mA current limit on input pins in <i>Absolute Maximum Ratings</i>	6																																										
• Deleted operating temperature from <i>Absolute Maximum Ratings</i>	6																																										
• Deleted lead temperature from <i>Absolute Maximum Ratings</i>	6																																										
• Changed <i>Thermal Information</i> values for OPA2277 and OPA4277 SOIC packages.....	7																																										
• Added test conditions to <i>Electrical Characteristics</i> header.....	8																																										
• Changed format of <i>Electrical Characteristics</i> for readability.....	8																																										
• Changed input offset voltage vs. time to long-term drift in <i>Electrical Characteristics</i>	8																																										
• Changed input bias current test condition to separate over temperature specification.....	8																																										
• Deleted redundant row in <i>open-loop gain</i> parameter.....	8																																										
• Changed C _{LOAD} to C _L for consistency.....	8																																										
• Changed Figure 6-14, <i>Change in Input Bias Current vs Common-Mode Voltage</i> , to correct typo in note.....	10																																										
• Changed "DFN package" to "DRM package (8-pin VSON)".....	21																																										
• Changed "DFN package" to "DRM Package" and added "8-Pin VSON".....	21																																										
• Changed <i>Development Support</i> section to show updated links and resources.....	23																																										

The datasheet number will be changing.

Device Family	Change From:	Change To:
OPAx277	SBOS079B	SBOS079C

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/OPA2277>

Reason for Change:

To accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

Electrical specification performance changes as indicated above.

Changes to product identification resulting from this PCN:

None.

Product Affected:

OPA2277AIDRMT	OPA2277UA/2K5	OPA277PA	OPA277UAG4
OPA2277AIDRMTG4	OPA2277UA/2K5E4	OPA277PAG4	OPA277UG4
OPA2277P	OPA2277UAE4	OPA277U	OPA4277PA
OPA2277PA	OPA2277UAG4	OPA277U/2K5	OPA4277UA
OPA2277PAG4	OPA2277UG4	OPA277U/2K5G4	OPA4277UA/2K5
OPA2277U	OPA277AIDRMR	OPA277UA	OPA4277UA/2K5E4
OPA2277U/2K5	OPA277AIDRMT	OPA277UA/2K5	OPA4277UAE4
OPA2277U/2K5G4	OPA277AIDRMTG4	OPA277UA/2K5E4	OPA4277UAG4
OPA2277UA	OPA277P	OPA277UAE4	

For questions regarding this notice, e-mails can be sent to the contact shown below or your local Field Sales Representative.

Location	E-Mail
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you

permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.