



## Product/Process Change Notice - PCN 24\_0198 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

|                              |   |
|------------------------------|---|
| <b>PCN Title:</b>            | AD8410A/AD8411A Data Sheet Revision   |
| <b>Publication Date:</b>     | 23-Sep-2024   |
| <b>Effectivity Date:</b>     | 26-Dec-2024 <i>(the earliest date that a customer could expect to receive changed material)</i> |
| <b>Revision Description:</b> | Initial Release.  |

### Description Of Change:

Data Sheet correction on Table 1. Electrical Specifications:

1. Input Bias Current Line Specification changed to 350uA. See attached Data Sheet comparison document in the Supporting Documents section of this PCN.

### Reason For Change:

Data sheet indicates Total Input-Bias Current which is the sum of two input bias current values. Currently, the data sheet reflects ibias current per pin.

### Impact of the change (positive or negative) on fit, form, function & reliability:

No impact on fit, form, function and reliability when operated within data sheet specifications. There are no changes to bond pad locations and bonding diagram.

### Summary of Supporting Information:

Data Sheet specification change will be reflected in revision B of the Product Data Sheet. See attached Data Sheet Comparison.

### Supporting Documents

**Attachment 1: Type:** Datasheet Specification Comparison

[ADI PCN 24\\_0198 Rev. - AD8410A-AD8411A Datasheet Change \(Ibias Line Spe...](#)

Note: If applicable, the device material declaration will be updated due to material change.

### ADI Contact Information:

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

| Americas:               | Europe:               | Japan:               | Korea:               | Rest of Asia:      |
|-------------------------|-----------------------|----------------------|----------------------|--------------------|
| PCN_Americas@analog.com | PCN_Europe@analog.com | PCN_Japan@analog.com | PCN_Korea@analog.com | PCN_ROA@analog.com |

## Appendix A - Affected ADI Models:

### Added Parts On This Revision - Product Family / Model Number (8)

|                           |                           |                          |                          |                        |
|---------------------------|---------------------------|--------------------------|--------------------------|------------------------|
| AD8410A / AD8410AWBRMZ    | AD8410A / AD8410AWBRMZ-RL | AD8410A / AD8410AWBRZ    | AD8410A / AD8410AWBRZ-RL | AD8411A / AD8411AWBRMZ |
| AD8411A / AD8411AWBRMZ-RL | AD8411A / AD8411AWBRZ     | AD8411A / AD8411AWBRZ-RL |                          |                        |

**Appendix B - Revision History:**

| <b>Rev</b> | <b>Publish Date</b> | <b>Effectivity Date</b> | <b>Rev Description</b> |
|------------|---------------------|-------------------------|------------------------|
| Rev. -     | 23-Sep-2024         | 26-Dec-2024             | Initial Release.       |

# AD8410A-AD8411A

## Datasheet Change (Ibias Line Spec)

August 2024

# AD8410A DS Change on Ibias Line Spec

## Data Sheet

## AD8410A

### SPECIFICATIONS

$T_A = -40^\circ\text{C}$  to  $+125^\circ\text{C}$  (operating temperature range), supply voltage ( $V_S$ ) = 5 V, ground (GND) = 0 V, Input Common-Mode Voltage ( $V_{CM}$ ) =  $-IN$ ,  $+IN = 12$  V, and  $V_{REF1} = V_{REF2} = 2.5$  V, unless otherwise noted.

**Table 1. Electrical Specifications**

| Parameter                             | Test Conditions/Comments   | Min   | Typ        | Max        | Unit                         |
|---------------------------------------|--|-------|------------|------------|------------------------------|
| GAIN                                  |  |       |            |            |                              |
| Initial                               |  | 20    |            | 0.13       | V/V                          |
| Error Over Temperature                | Specified temperature range  |       |            | $\pm 6$    | %                            |
| Gain vs. Temperature                  |  |       |            |            | ppm/ $^\circ\text{C}$        |
| VOLTAGE-OFFSET                        | Referred to input (RTI)  |       |            |            |                              |
| Over Temperature                      | Specified temperature range <sup>1</sup>   |       |            | $\pm 200$  | $\mu\text{V}$                |
| Offset Drift                          | Box method (see <a href="#">Figure 56</a> )  |       | $\pm 0.21$ | $\pm 0.71$ | $\mu\text{V}/^\circ\text{C}$ |
|                                       | Bowtie method ( $-40^\circ\text{C}$ to $25^\circ\text{C}$ ) (see <a href="#">Figure 57</a> ) |       |            | $\pm 1.84$ | $\mu\text{V}/^\circ\text{C}$ |
|                                       | Bowtie method ( $25^\circ\text{C}$ to $125^\circ\text{C}$ ) (see <a href="#">Figure 57</a> ) |       |            | $\pm 1.51$ | $\mu\text{V}/^\circ\text{C}$ |
| INPUT                                 |  |       |            |            |                              |
| Total Input-Bias Current <sup>2</sup> | $+IN = -IN = 0$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V                                  | -10.0 |            |            | $\mu\text{A}$                |
|                                       | $+IN = -IN = 12$ V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$              |       | 44         |            | $\mu\text{A}$                |
|                                       | $+IN = -IN = 12$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V                                 |       |            | 175        | $\mu\text{A}$                |
|                                       | $+IN = -IN = 48$ V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$              | 178   |            |            | $\mu\text{A}$                |
|                                       | $+IN = -IN = 48$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V                                 |       | 484        |            | $\mu\text{A}$                |
| Input Offset Current                  | $+IN = -IN = 0$ V  |       |            | 1.0        | $\mu\text{A}$                |
|                                       | $+IN = -IN = 12$ V   |       |            | 2.5        | $\mu\text{A}$                |
|                                       | $+IN = -IN = 48$ V   |       |            | 2.7        | $\mu\text{A}$                |
| Input Voltage Range                   | Common mode, continuous  | -2    |            | +70        | V                            |
| Common-Mode Rejection Ratio (CMRR)    | Specified temperature range, DC, $V_{CM} = -2$ V to $+70$ V                                  | 123   | 142        |            | dB                           |
|                                       | $T_A = 25^\circ\text{C}$ , frequency = 10 kHz  |       | 110        |            | dB                           |
|                                       | $T_A = 25^\circ\text{C}$ , frequency = 50 kHz  |       | 96         |            | dB                           |

Change to 350 $\mu\text{A}$

# AD8411A DS Change on Ibias Line Spec

## Data Sheet

## AD8411A

### SPECIFICATIONS

$T_A = -40^\circ\text{C}$  to  $+125^\circ\text{C}$  (Operating Temperature Range), supply voltage ( $V_S$ ) = 5 V, ground (GND) = 0 V, Input Common-Mode Voltage ( $V_{CM}$ ) =  $-IN$ ,  $+IN$  = 12 V, and  $V_{REF1} = V_{REF2} = 2.5$  V, unless otherwise noted.

**Table 1. Electrical Specifications**

| Parameter   | Test Conditions/Comments  | Min   | Typ | Max   | Unit  |
|---|---|-------|-----|---|---|
| GAIN<br>Initial<br>Error Over Temperature<br>Gain vs. Temperature | Specified temperature range   |       | 50  | 0.15<br>$\pm 6$   | V/V<br>%  |
| VOLTAGE-OFFSET<br>Over Temperature<br>Offset Drift                | Referred to input (RTI)<br>Specified temperature range <sup>1</sup><br>Box method (see Figure 56)<br>Bowtie method ( $-40^\circ\text{C}$ to $25^\circ\text{C}$ ) (see Figure 57)<br>Bowtie method ( $25^\circ\text{C}$ to $125^\circ\text{C}$ ) (see Figure 57)   |       |     | $\pm 200$<br>$\pm 0.26$<br>$\pm 0.75$<br>$\pm 2.03$<br>$\pm 1.65$ | $\mu\text{V}$<br>$\mu\text{V}/^\circ\text{C}$<br>$\mu\text{V}/^\circ\text{C}$<br>$\mu\text{V}/^\circ\text{C}$ |
| INPUT<br>Total Input-Bias Current <sup>2</sup>                    | $+IN = -IN = 0$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V<br>$+IN = -IN = 12$ V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$<br>$+IN = -IN = 12$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V<br>$+IN = -IN = 48$ V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$<br>$+IN = -IN = 48$ V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V | -11.0 | 44  | 175   | $\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$                             |
| Input Offset Current  | $+IN = -IN = 0$ V<br>$+IN = -IN = 12$ V<br>$+IN = -IN = 48$ V   |       | 178 | 484<br>1.0<br>2.5<br>2.7  | $\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$  |
| Input Voltage Range   | Common mode, continuous   | -2    |     | +70   | V   |
| Common-Mode Rejection Ratio (CMRR)                                | Specified temperature range, DC, $V_{CM} = -2$ V to $+70$ V<br>$T_A = 25^\circ\text{C}$ , frequency = 10 kHz<br>$T_A = 25^\circ\text{C}$ , frequency = 50 kHz   | 123   | 142 | 110<br>96   | dB  |

Change to 350uA