

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 (VCM) = -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		V/V	
	Error Over Temperature	Specified temperature range		0.13	%	
	Gain vs. Temperature			±6	ppm/°C	
VOLTAGE-OFFSET	Over Temperature	Referred to input (RTI) Specified temperature range ¹		±200	μV	
	Offset Drift	Box method (see Figure 56)	±0.21	±0.71	μV/°C	
		Bowtie method (-40°C to 25°C) (see Figure 57)		±1.84	μV/°C	
		Bowtie method (25°C to 125°C) (see Figure 57)		±1.51	μV/°C	
INPUT	Total Input-Bias Current ²	+IN = -IN = 0 V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V	-10.0		μA	
		+IN = -IN = 12 V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$		44	μA	
		+IN = -IN = 12 V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V			175	μA
		+IN = -IN = 48 V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$		178	μA	
	Input Offset Current		+IN = -IN = 48 V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V		484	μA
			+IN = -IN = 0 V		1.0	μA
		+IN = -IN = 12 V		2.5	μA	
		+IN = -IN = 48 V		2.7	μA	
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 350uA

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	Initial		50		V/V	
	Error Over Temperature	Specified temperature range		0.15	%	
	Gain vs. Temperature			±6	ppm/°C	
VOLTAGE-OFFSET	Over Temperature	Referred to input (RTI) Specified temperature range ¹		±200	μV	
	Offset Drift	Box method (see Figure 56)	±0.26	±0.75	μV/°C	
		Bowtie method (-40°C to 25°C) (see Figure 57)		±2.03	μV/°C	
		Bowtie method (25°C to 125°C) (see Figure 57)		±1.65	μV/°C	
INPUT	Total Input-Bias Current ²	+IN = -IN = 0 V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V	-11.0		μA	
		+IN = -IN = 12 V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$		44	μA	
				175	μA	
		+IN = -IN = 48 V, $V_S = V_{REF1} = V_{REF2} = 0$ V, $T_A = 25^\circ\text{C}$		178	μA	
	Input Offset Current	+IN = -IN = 48 V, $V_S = V_{REF1} = 5$ V, $V_{REF2} = 0$ V			484	μA
		+IN = -IN = 0 V			1.0	μA
		+IN = -IN = 12 V			2.5	μA
+IN = -IN = 48 V				2.7	μA	
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 350uA