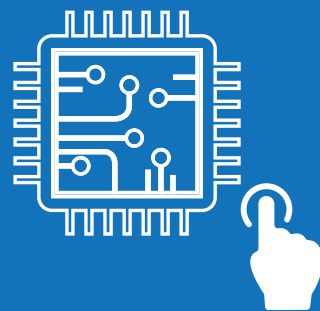


类比半导体

产/品/选/型/手/册

Product selection guide



3 月

2023

上海类比半导体技术有限公司

Analogy Semiconductor Technology Co., Ltd.

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公司简介

About us

类比半导体为一家模拟及数模混合芯片和解决方案供应商，公司成立于2018年，由一批来自于国际顶尖半导体公司的本土工程师创建。总部位于上海，在上海张江、临港、苏州、深圳、西安、北京分别设有研发和技术支持中心。公司专注于信号链、电源管理、MCU/DSP等领域的芯片设计，产品主要面向工业、通讯、医疗、汽车等市场，类比的愿景和使命是成为一家靠谱的芯片设计公司，为世界科技化智能化提供最底层的芯片支持。

AnalogySemi is a supplier of analog and digital-analog hybrid chips and solutions. Established in 2018 by a group of local engineers from top international semiconductor companies, the company is headquartered in Shanghai, and has R&D and technical support centers in Shanghai Zhangjiang, Shanghai Lingang, Suzhou, Shenzhen, Xi'an, and Beijing. The company is dedicated to chip design in the signal chain, power management, MCU/DSP, and other fields. The products aim for industrial, communication, medical, automotive, and other markets. AnalogySemi's vision and mission is to become a reliable chip design company and provides the lowest level chip support for the world technology and intelligence.



ECG

ECG

Overview

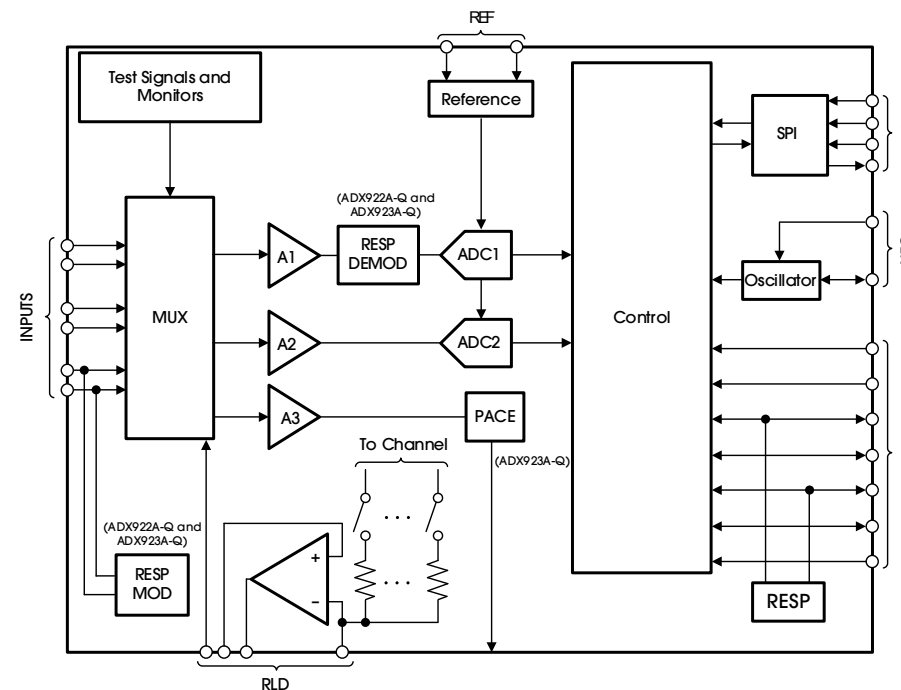
The ADX9xx are multichannel, simultaneous sampling, 24-bit, delta-sigma ($\Delta\Sigma$) analog-to-digital converters (ADCs) with a built-in programmable gain amplifier (PGA), internal reference, and an oscillator. The ADX9xx incorporate all features commonly required in auto-ECG, portable, low-power medical electrocardiogram (ECG), sports, and fitness applications. The ADX9xx version includes a fully integrated respiration impedance and analog PACE measurement function. The package size is 4mm x 4mm.

ADX9xx 是多通道、同步采样、24 位、Delta-Sigma ($\Delta\Sigma$)模数转换器(ADC)内置可编程增益放大器(PGA), 内部参考和振荡器。ADX9xx 包含自动心电图、便携式、低功耗医疗心电图(ECG)、运动和健身应用中通常需要的所有功能模块。ADX9xx 版本包括一个完全集成的呼吸阻抗和模拟起搏测量功能。封装尺寸为 4mm x 4mm。

Applications

- Medical treatment: Electrocardiogram
医疗: 心电图
- Wearable medicine: Electrocardiogram
可穿戴医疗: 心电检测
- Car: ECG monitoring
汽车: 心电监测

Block Diagram





ECG

ECG

Order Number 供货型号	CH (#) 通道	Resolution (Bit) 分辨率	Output Data Rate 数据输出速率	Respiration 呼吸	Analog Pace 模拟起搏器	AC Lead-Off 断线检测	PGA 可编程增益放大器	Noise 150Hz, G = 6 (μV _{PP}) 噪声	Features 特性	OP. Temp (°C) 工作温度范围	Package 封装	Rating 等级	Status 状态	Competitor ⁽¹⁾ 竞品 ⁽¹⁾
ADX923QAQFN32	2	24	125/16K	Y	Y		1/2/3/4/6/8/12	8.8	ERM, HPF, FIFO, CRC & ECC	-40-125	QFN-32	Auto	Production	
ADX923AQFN32	2	24	125/8K	Y	Y	Y	1/2/3/4/6/8/12	8.6	ERM, HPF, FIFO, CRC & ECC	-40-85	QFN-32	Industrial	Production	
ADX922QAQFN32	2	24	125/16K	Y	Y		1/2/3/4/6/8/12	8.8	CRC & ECC	-40-125	QFN-32	Auto	Production	
ADX922AQFN32	2	24	125/8K	Y	Y	Y	1/2/3/4/6/8/12	8.6	CRC & ECC	-40-85	QFN-32	Industrial	Production	ADS1292R
ADX921QAQFN32	2	24	125/16K		Y		1/2/3/4/6/8/12	8.8	CRC & ECC	-40-125	QFN-32	Auto	Production	
ADX921AQFN32	2	24	125/8K		Y	Y	1/2/3/4/6/8/12	8.6	CRC & ECC	-40-85	QFN-32	Industrial	Production	ADS1292
ADX920QAQFN32	1	24	125/8K				1/2/3/4/6/8/12	8.8	FIFO, CRC & ECC	-40-125	QFN-32	Auto	Production	
ADX920AQFN32	1	24	125/8K			Y	1/2/3/4/6/8/12	8.6	FIFO, CRC & ECC	-40-85	QFN-32	Industrial	Production	ADS1291
ADX912QAQFN32	2	16	125/16K				1/2/3/4/6/8/12	12	CRC & ECC	-40-125	QFN-32	Auto	Sample	
ADX912AQFN32	2	16	125/8K			Y	1/2/3/4/6/8/12	12		-40-85	QFN-32	Industrial	Sample	ADS1192
ADX911QAQFN32	1	16	125/8K				1/2/3/4/6/8/12	12	CRC & ECC	-40-125	QFN-32	Auto	Sample	
ADX911AQFN32	1	16	125/8K				1/2/3/4/6/8/12	12		-40-85	QFN-32	Industrial	Sample	ADS1191

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



ECG

ECG

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Respiration	Analog Pace	AC Lead-Off	PGA	Noise 150Hz, G = 6 (μV _{PP})	Features	OP. Temp (°C)	Package	Rating	Status	Competitor ⁽¹⁾
供货型号	通道	分辨率	数据输出速率	呼吸	模拟起搏器	交流断线检测	可编程增益放大器	噪声	特性	工作温度范围	封装	等级	状态	竞品 ⁽¹⁾
AFE944AQFP64	4	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	QFP-64	Industrial	Sample	ADS1294, ADAS1000-3
AFE946AQFP64	6	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	QFP-64	Industrial	Sample	ADS1296, ADAS1000-2, ADAS1000-1
AFE948AQFP64	8	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	QFP-64	Industrial	Sample	ADS1298
AFE949AQFP64	8	24	125/64k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	QFP-64	Industrial	Sample	
AFE944ABGA64	4	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Sample	ADS1294, ADAS1000-3
AFE946ABGA64	6	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Sample	ADS1296, ADAS1000-2, ADAS1000-1
AFE948ABGA64	8	24	250/32k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Sample	ADS1298
AFE949ABGA64	8	24	125/64k	N	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Sample	
AFE954ABGA64	4	24	250/32k	Y	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Develop	ADS1294R, ADAS1000-4
AFE956ABGA64	6	24	250/32k	Y	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Develop	ADS1296R, ADAS1000
AFE958ABGA64	8	24	250/32k	Y	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Develop	ADS1298R
AFE959ABGA64	8	24	125/64k	Y	Y	Y	1/2/3/4/6/8/12/24	4.9	WCT, DAC	-40-125	BGA-64	Industrial	Develop	
AFE964AQFP64	4	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	QFP-64	Industrial	Develop	ADS1299-4
AFE966AQFP64	6	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	QFP-64	Industrial	Develop	ADS1299-6
AFE968AQFP64	8	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	QFP-64	Industrial	Develop	ADS1299
AFE964ABGA64	4	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	BGA-64	Industrial	Develop	ADS1299-4
AFE966ABGA64	6	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	BGA-64	Industrial	Develop	ADS1299-6
AFE968ABGA64	8	24	250/16k	N	N	Y	1/2/3/4/6/8/12/24/48	1	DAC	-40-125	BGA-64	Industrial	Develop	ADS1299

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.



ECG

ECG

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Respiration	Analog Pace	AC Lead-Off	PGA	Noise 150Hz, G = 6 (μV _{PP})	Features	OP. Temp (°C)	Package	Rating	Status	Competitor ⁽¹⁾
供货型号	通道	分辨率	数据输出速率	呼吸	模拟起搏器	交流断线检测	可编程增益放大器	噪声	特性	工作温度范围	封装	等级	状态	竞品 ⁽¹⁾
AFE934AQFP64	4	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	QFP-64	Industrial	Develop	ADS1194
AFE936AQFP64	6	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	QFP-64	Industrial	Develop	ADS1196
AFE938AQFP64	8	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	QFP-64	Industrial	Develop	ADS1198, ADS130E08
AFE934ABGA64	4	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	BGA-64	Industrial	Develop	ADS1194
AFE936ABGA64	6	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	BGA-64	Industrial	Develop	ADS1196
AFE938ABGA64	8	16	125/8k	N	Y	N	1/2/3/4/6/8/12	12	WCT	0-85	BGA-64	Industrial	Develop	ADS1198, ADS130E08
AFE924AQFP64	4	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	QFP-64	Industrial	Develop	ADS1192
AFE926AQFP64	6	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	QFP-64	Industrial	Develop	ADS1192
AFE928AQFP64	8	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	QFP-64	Industrial	Develop	ADS1192
AFE924ABGA64	4	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192
AFE926ABGA64	6	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192
AFE928ABGA64	8	24	8k	N	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192
AFE925ABGA64	4	24	8k	Y	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192R
AFE927ABGA64	6	24	8k	Y	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192R
AFE929ABGA64	8	24	8k	Y	Y	N	1/2/3/4/6/8/12	8	WCT, DAC	-40-85	BGA-64	Industrial	Develop	ADS1192R

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



HOD

HOD

Overview

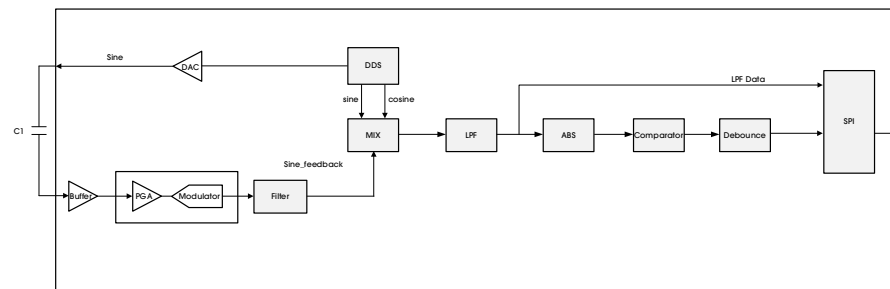
AnalogySemi's AFE portfolio of Hands-Off-Detection (HODs) provide solutions for automotive system which needs to measure capacitance, with applications including car steering wheel offhand detection, gesture sensing, approach wakeup, humidity detection, deformation detection, position detection, and proximity sensing, etc.

Our HOD products provide single-chip solutions, with members of this portfolio providing high resolution, high linearity, high accuracy, fast response times, high input sensitivity, single and dual channels, and throughput rates up to 8kSPS.

类比半导体模拟前端系列产品中的离手检测(HOD)产品针对汽车领域需要测量电容的系统提供适用的解决方案，包括汽车方向盘离手检测、手势传感、接近唤醒、湿度检测、形变检测、位置检测和近程传感应用等。

我们的离手检测产品提供了单芯片解决方案，这些产品具有高分辨率、高线性度和高精度，响应时间快速，输入灵敏度高，支持单双通道，且吞吐速率大于8kSPS。

Block Diagram





HOD

HOD

Order Number 供货型号	CH (#) 通道	Resolution (Bit) 分辨率	Range (F) 量程	Signal Frequency (Hz) 信号频率	FIFO 缓冲器	Functional Safety 功能安全	CRC/ECC 冗余校验	OP. Temp (°C) 工作温度范围	Package 封装	Rating 等级	Status 状态	Competitor ⁽²⁾ 竞品 ⁽²⁾
AFE102QAQFN32	2	24	TBD	8K	Y	Y	Y	-40-125	QFN-32	Auto	Sample* ⁽¹⁾	
AFE102AQFN32	2	24	TBD	8K	Y	Y	Y	-40-85	QFN-32	Industrial	Sample* ⁽¹⁾	
AFE101QAQFN32	1	24	TBD	8K	Y	Y	Y	-40-125	QFN-32	Auto	Sample* ⁽¹⁾	
AFE101AQFN32	1	24	TBD	8K	Y	Y	Y	-40-85	QFN-32	Industrial	Sample* ⁽¹⁾	

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymsemi.com.

(2) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.



模拟监测控制

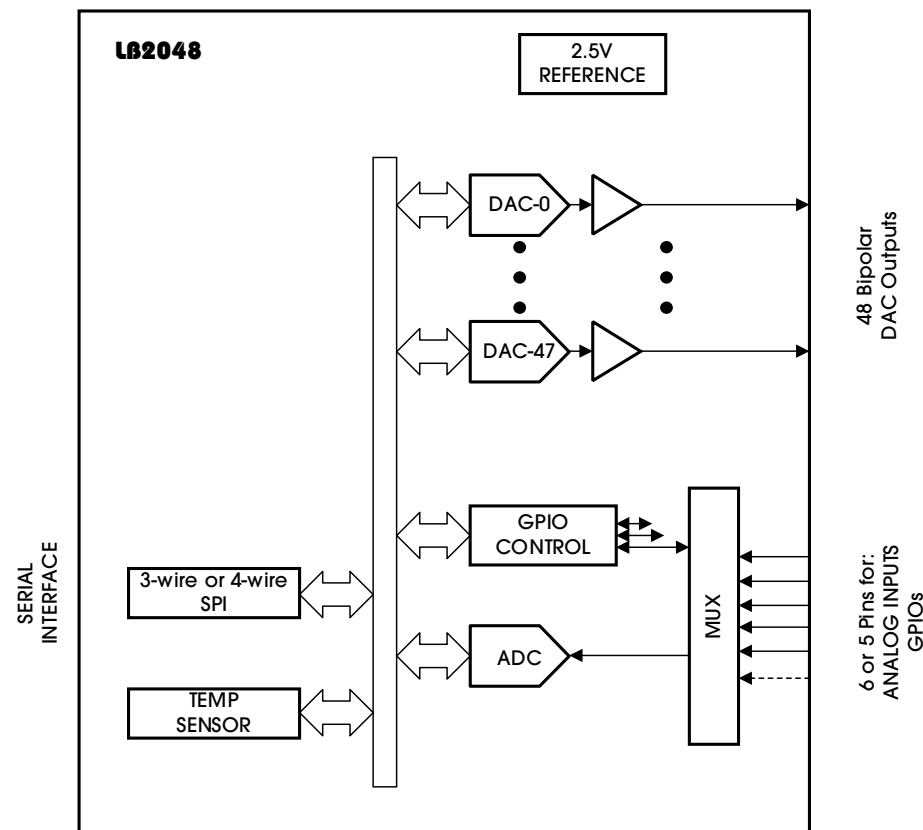


Overview

AnalogSemi's ADC and DAC combine with other technologies in a wide range of configurations to create a comprehensive portfolio of software configurable inputs/outputs (SWIO), integrated monitoring, and control components. Combined with temperature sensors, GPIOs, and system monitor technologies, AnalogSemi's integrated solutions save space over discrete implementations, simplify operations, and provide the configurability, reliability, and predictability that your system requires. The integrated ADC and DAC products are ideal for configurable input/output stages or for general system monitoring of peripherals like power supplies or system voltages and currents. These products can be used in wireless base stations, optical transceivers, transponders, data acquisition, and industrial I/O module applications, as well as systems such as programmable logic controllers, control systems, and building control due to their versatility and flexibility, and software configurable I/Os.

类比的模数和数模转换器与其他各种配置的技术相结合，创建一个全面的软件配置输入/输出组合、集成监控和控制组件。通过与温度传感器、通用输入输出和系统监控技术相结合，类比的集成解决方案对比离散器件节省了空间，简化了操作，并提供系统所需的可配置性、可靠性和可预测性，非常适合可配置的输入/输出阶段或一般系统监控外围设备，如电源或系统电压和电流。因为它们的通用性和灵活性以及软件可配置输入输出，这些模数和数模转换器解决方案可用于无线基站、光收发器、应答器、数据采集器和工业输入输出模块应用，以及可编程逻辑控制器、控制系统和建筑控制等系统。

Block Diagram





模拟监测控制

Order Number	DAC CH (#)	DAC Resolution (Bit)	DAC Range (V)	ADC CH (#)	ADC Resolution (Bit)	ADC Range (V)	Sample Rate (SPS)	Reference	INL (Typ) (LSB)	Temp. Sensor	Interface	GPIO	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	DAC 通道	DAC 分辨率	DAC 输出量程	ADC 通道	ADC 分辨率	ADC 输入量程	采样速率	基准	积分非线性	温度传感器	接口	通用输入输出	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
LB2032BQFP48	32	12	-10, -5, 5, 10	6	12	5, 2.5	500K	Internal 2.5V	0.5	Yes	3-Wire SPI	6	-40-150	Industrial	TQFP-48	Sample	AMC7932, TPAFE0534
LB2032SQFP48	32	12	-10, -5, 5, 10	5	12	5, 2.5	500K	Internal 2.5V	0.5	Yes	4-Wire SPI	5	-40-150	Industrial	TQFP-48	Sample	AMC7932, TPAFE0534
LB2048CQFP64	48	12	-10, -5, 5, 10	6	12	5, 2.5	500K	Internal 2.5V	0.5	Yes	3-Wire SPI	6	-40-150	Industrial	TQFP-64	Sample	AMC7948
LB2048RQFP64	48	12	-10, -5, 5, 10	5	12	5, 2.5	500K	Internal 2.5V	0.5	Yes	4-Wire SPI	5	-40-150	Industrial	TQFP-64	Sample	AMC7948

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymicro.com.



Sigma-Delta ADC

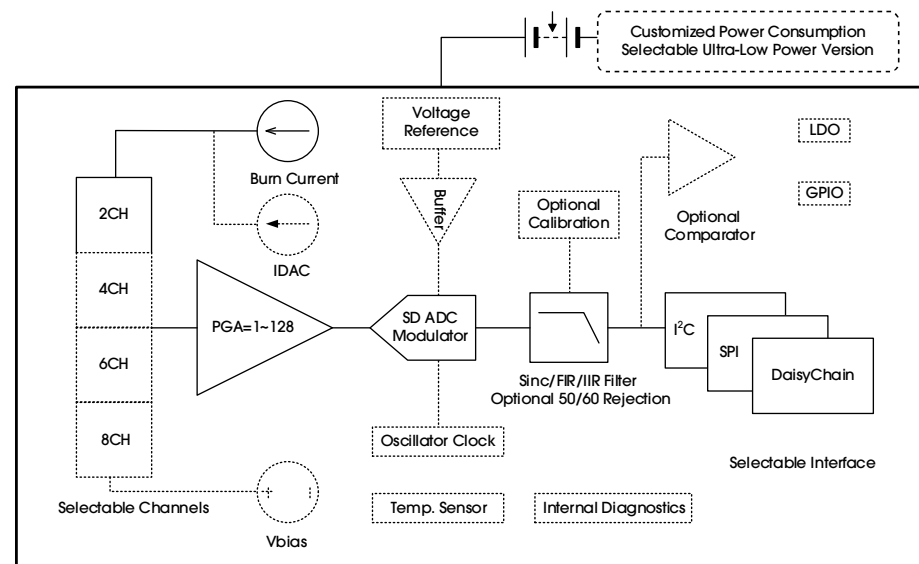
Overview

AnalogySemi provides an unrivalled portfolio for precision Sigma-Delta analog-to-digital converters. These converters make industry-leading combinations in performance, power, size, and resolution with 8-32 bits. All Sigma-Delta converters are easy to use. Usually an RC filter is good enough to be configured as an anti-aliasing filter, which means it is easier for engineer. Many of the combinations have reference and PGA inside, simplifying the circuits.

类比半导体提供了一系列无与伦比的高精度西格玛德尔塔模拟到数字转换器。这些转换器在 8-32 位的性能、功率、尺寸和分辨率方面的组合都是业界领先的。所有的西格玛德尔塔转换器都很容易使用。通常，一阶电阻电容滤波器可以配置为抗混叠滤波器，这意味着它对工程师来说更容易。许多组合有内部参考和可编程增益放大器，简化了电路。

Σ-Δ ADC

Block Diagram



12-Bit to 32-Bit Sigma-Delta ADC Diagram



Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Interface Data Rate	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾	
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾	
ADX111AMSOP10	2(4)	16	860	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	-40-125	Industrial	MSOP-10	Production	ADS1115, SGM58031	
ADX111QAMSOP10	2(4)	16	860	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	-40-125	Auto	MSOP-10	Sample	ADS1115, SGM58032	
ADX111AQFN10	2(4)	16	860	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	-40-125	Industrial	QFN-10	Production	ADS1115, SGM58033	
ADX112AMSOP10	2(4)	16	860	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	-40-125	Industrial	MSOP-10	Production	ADS1118	
ADX112QAMSOP10	2(4)	16	860	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	-40-125	Auto	MSOP-10	Sample	ADS1118	
ADX112AQFN10	2(4)	16	860	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	-40-125	Industrial	QFN-10	Production	ADS1118	
ADX113AMSOP10	2(4)	16	860	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	
ADX114AMSOP10	2(4)	16	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	
ADX121AMSOP10	2(4)	20	3571	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	
ADX121AQFN10	2(4)	20	3571	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	QFN-10	Sample	
ADX122AMSOP10	2(4)	20	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	ADS1230
ADX122QAMSOP10	2(4)	20	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Auto	MSOP-10	Sample	ADS1230
ADX122AQFN10	2(4)	20	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	QFN-10	Sample	AD7781

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Interface Data Rate	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽²⁾	
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	特性	工作温度范围	等级	封装	状态	竞品 ⁽²⁾	
ADX128AMSOP10	2(4)	20	7143	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	MSOP-10	Develop	AD7703
ADX128AQFN10	2(4)	20	7143	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	QFN-10	Develop	MAX11205/6/7/8/9
ADX125AMSOP10	2(4)	20	3571	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	
ADX126AMSOP10	2(4)	20	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	MSOP-10	Production	AD7785
ADX125AQFN10	2(4)	20	3571	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	QFN-10	Develop	
ADX126AQFN10	2(4)	20	3571	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	QFN-10	Develop	
ADX131AQFN10	2(4)	20	440	I ² C	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	QFN-10	Sample	
ADX132AQFN10	2(4)	20	440	SPI	Differential/Single-Ended	8/4/2/1/0.5/0.33	No	50/60 Rejection	-40-125	Industrial	QFN-10	Sample	
ADX123AMSOP10	2(4)	20	3571	Daisy Chain	Differential/Single-Ended	8/4/2/1/0.5/0.33	Yes	50/60 Rejection	-40-125	Industrial	MSOP-10	Sample* ⁽¹⁾	

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Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Interface	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	温度传感器	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
ADX512AQFN20	3(6)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes		-40-125	Industrial	QFN-20	Develop	
ADX513AQFN20	3(5)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes		-40-125	Industrial	QFN-20	Develop	
ADX514ASOP20	4(4)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	No		-40-85	Industrial	SOP-20	Develop	ADS1254E
ADX515ASOP20	1(2)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	No		-40-105	Industrial	SOP-20	Develop	ADS1255, SG58600SOP
ADX516ASOP28	4(8)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	No		-40-105	Industrial	SOP-28	Sample	ADS1256, SG58601SOP
ADX517AQFN20	2(4)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	No		-40-105	Industrial	QFN-20	Develop	ADS1257, SG58602QFN
ADX520AQFN28	4(8)	24	60K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	No		-40-125	Industrial	QFN-28	Develop	SG58601, SG58601QFN
ADX521AQFN20	2(4)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes	50/60 Rejection	-40-125	Industrial	QFN-20	Develop	SG58600QFN
ADX522AQFN20	2(4)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes	50/60 Rejection	-40-125	Industrial	QFN-20	Develop	
ADX523AQFN28	4(8)	24	30K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes	50/60 Rejection	-40-125	Industrial	QFN-28	Develop	
ADX524AQFN20	2(4)	24	60K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes	50/60 Rejection	-40-125	Industrial	QFN-20	Develop	
ADX525AQFN28	4(8)	24	60K	SPI	Differential/Single-Ended	1/2/4/8/16/32/64	Yes	50/60 Rejection	-40-125	Industrial	QFN-28	Develop	

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Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Interface	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽²⁾
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	温度传感器	特性	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
ADX3202QAQFN32	2	24	8K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-125	Auto	QFN-32	Production	
ADX3202AQFN32	2	24	8K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-85	Industrial	QFN-32	Production	
ADX320QAQFN32	1	24	4K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-125	Auto	QFN-32	Production	
ADX320AQFN32	1	24	4K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-85	Industrial	QFN-32	Production	
ADX3102QAQFN32	2	16	8K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-125	Auto	QFN-32	Sample* ⁽¹⁾	
ADX3102AQFN32	2	16	8K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-85	Industrial	QFN-32	Sample* ⁽¹⁾	
ADX310QAQFN32	1	16	4K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-125	Auto	QFN-32	Sample* ⁽¹⁾	
ADX310AQFN32	1	16	4K	SPI	Differential/Single-Ended	1/2/3/4/5/6/8/12	Yes	Synchronous Sampling	-40-85	Industrial	QFN-32	Sample* ⁽¹⁾	

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymsemi.com.

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Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Interface	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	温度传感器	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
ADX3204AQFP64	4	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	ADS131E04
ADX3206AQFP64	6	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	ADS131E06
ADX3208AQFP64	8	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	ADS131E08
ADX3204ABGA64	4	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	ADS131E04
ADX3206ABGA64	6	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	ADS131E06
ADX3208ABGA64	8	24	1K/64K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	ADS131E08
ADX3214AQFP64	4	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	
ADX3216AQFP64	6	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	
ADX3218AQFP64	8	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	QFP-64	Develop	
ADX3214ABGA64	4	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	
ADX3216ABGA64	6	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	
ADX3218ABGA64	8	24	125/8K	SPI	Differential	1/2/4/8/12/24	Yes	Synchronous Sampling	-40-125	Industrial	BGA-64	Develop	

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Sigma-Delta ADC

Σ-Δ ADC

Order Number	CH (#)	Resolution (Bit)	Output Data Rate	Interface	Input Type	PGA	Temp. Sensor	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	分辨率	数据输出速率	接口	输入类型	可编程增益放大器	温度传感器	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
ADX820AQFN24	2	32	125	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-40-125	Industrial	QFN-24	Sample	
ADX821ASSOP24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-40-125	Industrial	SSOP-24	Develop	ADS1281
ADX822ASSOP28	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-40-125	Industrial	SSOP-28	Develop	ADS1282
ADX823AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Industrial	QFN-24	Develop	ADS1283
ADX824AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Industrial	QFN-24	Production	
ADX825AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-40-85	Industrial	QFN-24	Develop	
ADX826AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-40-85	Industrial	QFN-24	Production	
ADX827AQFN24	1	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Industrial	QFN-24	Develop	ADS1287
ADX828AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-40-85	Industrial	QFN-24	Develop	
ADX829AQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-40-85	Industrial	QFN-24	Production	
ADX823QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Auto	QFN-24	Develop	ADS1283
ADX824QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Auto	QFN-24	Develop	ADS1284
ADX825QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-50-125	Auto	QFN-24	Develop	
ADX826QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-50-125	Auto	QFN-24	Develop	
ADX827QAQFN24	1	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes		-50-125	Auto	QFN-24	Develop	ADS1287
ADX828QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-50-125	Auto	QFN-24	Develop	
ADX829QAQFN24	2	32	4000	SPI	Differential	1/2/4/8/16/32/64	Yes	ALLCOM	-50-125	Auto	QFN-24	Sample	

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电流采样放大器

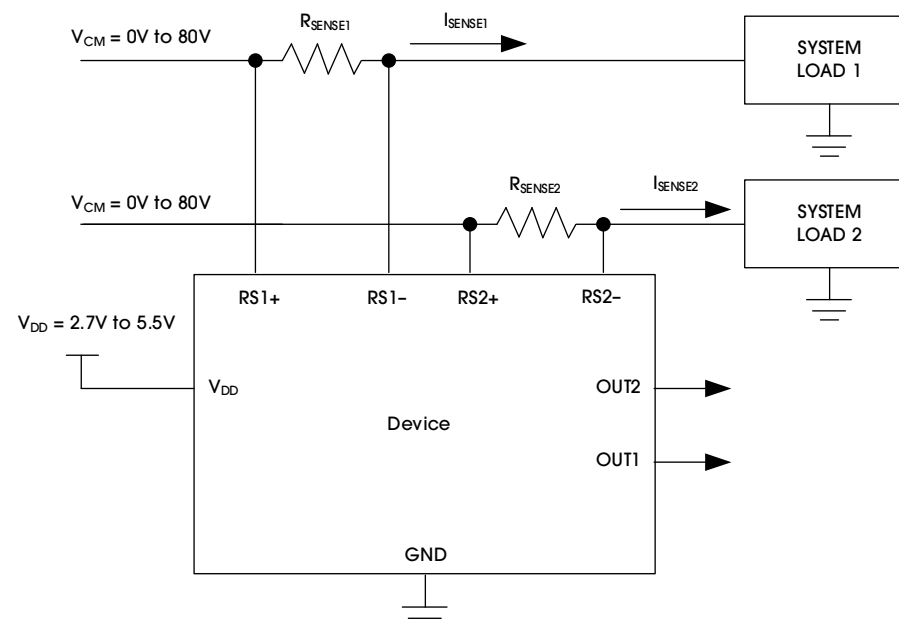
Current Sense Amplifier

Overview

Current sense amplifier (CSA) has precision accuracy specifications of V_{OS} less than $10\mu V$ (typ) and gain error less than 0.1% (max). Varied between both single and dual channels, the CSA features a wide input common-mode voltage range from 0V to 80V, sensing both directional and bidirectional current with 90kHz of small signal bandwidth, which makes it ideal for interfacing with a SAR ADC for multichannel multiplexed data acquisition systems.

电流采样放大器具有高精度，典型失调 10 微伏，最大增益误差 0.1%。提供单通道或者双通道产品，宽共模范围达 0-80 伏，能测量单向和双向电流，小信号带宽 90 千赫兹，是多通道逐次转换型数模转换器构成的数据采集系统理想的选择。

Block Diagram





电流采样放大器

Current Sense Amplifier

Order Number	CH (#)	Input Bias (Max) (μA)	V _{OS} (Typ) (μV)	Common-Mode Range (V)	CMRR (Min) (dB)	V _{CC} (V)	I _Q /CH (Typ) (μA)	BW (kHz)	Gain (Typ)	Gain Error (Max) (%)	OP. Temp (°C)	Bidirectional	Package	Rating	Status	Competitor ⁽¹⁾
供货型号	通道	输入偏置电流	失调电压	共模电压输入范围	共模抑制比	供电电压	每通道静态电流	带宽	增益	增益误差	工作温度范围	双向电流检测	封装	等级	状态	竞品 ⁽¹⁾
CSA2102LAMSOP8	2	0.2	10	0-80	125	2.7-5.5	300	60	10	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2102MAMSOP8	2	0.2	10	0-80	125	2.7-5.5	300	60	20	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2102NAMSOP8	2	0.2	10	0-80	125	2.7-5.5	300	60	50	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2102PAMSOP8	2	0.2	10	0-80	125	2.7-5.5	300	60	100	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2202LAMSOP8	2	0.2	10	0-76	125	2.7-5.5	300	60	10	0.1	-40-125	No	MSOP-8	Industrial	Sample	
CSA2202MAMSOP8	2	0.2	10	0-76	125	2.7-5.5	300	60	20	0.1	-40-125	No	MSOP-8	Industrial	Production	
CSA2202NAMSOP8	2	0.2	10	0-76	125	2.7-5.5	300	60	50	0.1	-40-125	No	MSOP-8	Industrial	Production	
CSA2202PAMSOP8	2	0.2	10	0-76	125	2.7-5.5	300	60	100	0.1	-40-125	No	MSOP-8	Industrial	Sample	
CSA2302LAMSOP8	2	0.2	10	0-76	125	2.7-5.5	500	90	10	0.1	-40-125	No	MSOP-8	Industrial	Production	MAX44285/40201
CSA2302MAMSOP8	2	0.2	10	0-76	125	2.7-5.5	500	90	20	0.1	-40-125	No	MSOP-8	Industrial	Production	MAX44285/40201
CSA2302NAMSOP8	2	0.2	10	0-76	125	2.7-5.5	500	90	50	0.1	-40-125	No	MSOP-8	Industrial	Production	MAX44285/40201
CSA2302PAMSOP8	2	0.2	10	0-76	125	2.7-5.5	500	90	100	0.1	-40-125	No	MSOP-8	Industrial	Sample	MAX44285/40201
CSA2402LAMSOP8	2	0.2	10	0-80	125	2.7-5.5	500	90	10	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2402MAMSOP8	2	0.2	10	0-80	125	2.7-5.5	500	90	20	0.1	-40-125	No	MSOP-8	Industrial	Sample	
CSA2402NAMSOP8	2	0.2	10	0-80	125	2.7-5.5	500	90	50	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA2402PAMSOP8	2	0.2	10	0-80	125	2.7-5.5	500	90	100	0.1	-40-125	No	MSOP-8	Industrial	Develop	
CSA220LASOT235	1	0.04	5	0-76	130	2.7-5.5	300	50	10	0.1	-40-125	No	SOT23-5	Industrial	Sample	
CSA220MASOT235	1	0.04	5	0-76	130	2.7-5.5	300	50	20	0.1	-40-125	No	SOT23-5	Industrial	Production	
CSA220NASOT235	1	0.04	5	0-76	130	2.7-5.5	300	50	50	0.1	-40-125	No	SOT23-5	Industrial	Production	
CSA220PASOT235	1	0.04	5	0-76	130	2.7-5.5	300	50	100	0.1	-40-125	No	SOT23-5	Industrial	Sample	

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电流采样放大器

Current Sense Amplifier

Order Number	CH (#)	Input Bias (Max) (µA)	V _{OS} (Typ) (µV)	Common-Mode Range (V)	CMRR (Min) (dB)	V _{CC} (V)	I _Q /CH (Typ) (µA)	BW (kHz)	Gain (Typ)	Gain Error (Max) (%)	OP. Temp (°C)	Bidirectional	Package	Rating	Status	Competitor ⁽¹⁾
供货型号	通道	输入偏置电流	失调电压	共模电压输入范围	共模抑制比	供电电压	每通道静态电流	带宽	增益	增益误差	工作温度范围	双向电流检测	封装	等级	状态	竞品 ⁽¹⁾
CSA221LASOIC8	1	0.04	5	0-76	130	2.7-5.5	300	50	10	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA221MASOIC8	1	0.04	5	0-76	130	2.7-5.5	300	50	20	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA221NASOIC8	1	0.04	5	0-76	130	2.7-5.5	300	50	50	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA221PASOIC8	1	0.04	5	0-76	130	2.7-5.5	300	50	100	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA221LATSSOP8	1	0.04	5	0-76	130	2.7-5.5	300	50	10	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA221MATSSOP8	1	0.04	5	0-76	130	2.7-5.5	300	50	20	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA221NATSSOP8	1	0.04	5	0-76	130	2.7-5.5	300	50	50	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA221PATSSOP8	1	0.04	5	0-76	130	2.7-5.5	300	50	100	0.1	-40-125	Yes	TSSOP-8	Industrial	Sample	INA240
CSA230LASOT235	1	0.1	8	0-76	130	2.7-5.5	560	90	10	0.1	-40-125	No	SOT23-5	Industrial	Sample	INA180/293
CSA230MASOT235	1	0.1	8	0-76	130	2.7-5.5	560	90	20	0.1	-40-125	No	SOT23-5	Industrial	Production	INA180/293
CSA230NASOT235	1	0.1	8	0-76	130	2.7-5.5	560	90	50	0.1	-40-125	No	SOT23-5	Industrial	Production	INA180/293
CSA230PASOT235	1	0.1	8	0-76	130	2.7-5.5	560	90	100	0.1	-40-125	No	SOT23-5	Industrial	Sample	INA180/293
CSA231LASOIC8	1	0.1	8	0-76	130	2.7-5.5	560	90	10	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA231MASOIC8	1	0.1	8	0-76	130	2.7-5.5	560	90	20	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA231NASOIC8	1	0.1	8	0-76	130	2.7-5.5	560	90	50	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA231PASOIC8	1	0.1	8	0-76	130	2.7-5.5	560	90	100	0.1	-40-125	Yes	SOIC-8	Industrial	Production	INA240
CSA231LATSSOP8	1	0.1	8	0-76	130	2.7-5.5	560	90	10	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA231MATSSOP8	1	0.1	8	0-76	130	2.7-5.5	560	90	20	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA231NATSSOP8	1	0.1	8	0-76	130	2.7-5.5	560	90	50	0.1	-40-125	Yes	TSSOP-8	Industrial	Production	INA240
CSA231PATSSOP8	1	0.1	8	0-76	130	2.7-5.5	560	90	100	0.1	-40-125	Yes	TSSOP-8	Industrial	Sample	INA240

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



电流采样放大器

Current Sense Amplifier

Order Number	Channel (#)	V _{CM} (V)	V _{DD} (V)	I _Q (Typ) (mA)	Gain (V/V)	Gain Error Drift (Typ) (ppm/°C)	Offset Error (Max) (μV)	CMRR (Typ) (dB)	Bandwidth (kHz)	Enhanced PWM Rejection	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道数	输入共模电压	供电电压	静态电流	增益	Shunt 增益误差温漂	最大输入偏置电压	共模抑制比	带宽	增强 PWM 抑制	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
CSA240LCSOIC8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Industrial	SOIC-8	Production	INA240, AD8418, NCS7041, TSC2010
CSA240MCSOIC8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Industrial	SOIC-8	Production	INA240, AD8418, NCS7041, TSC2010
CSA240NCSOIC8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Industrial	SOIC-8	Production	INA240, AD8418, NCS7041, TSC2010
CSA240LCMSOP8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Industrial	MSOP-8	Production	AD8418, MAX40056, NCS7041, TSC2010
CSA240MCMSOP8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Industrial	MSOP-8	Production	AD8418, MAX40056, NCS7041, TSC2010
CSA240NCMSOP8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Industrial	MSOP-8	Production	AD8418, MAX40056, NCS7041, TSC2010
CSA240LTSSOP8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Industrial	TSSOP-8	Production	INA240
CSA240MCTSSOP8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Industrial	TSSOP-8	Production	INA240
CSA240NCTSSOP8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Industrial	TSSOP-8	Production	INA240

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



电流采样放大器

Current Sense Amplifier

Order Number	Channel (#)	V _{CM} (V)	V _{DD} (V)	I _Q (Typ) (mA)	Gain (V/V)	Gain Error Drift (Typ) (ppm/°C)	Offset Error (Max) (μV)	CMRR (Typ) (dB)	Bandwidth (kHz)	Enhanced PWM Rejection	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道数	输入共模电压	供电电压	静态电流	增益	Shunt 增益误差温漂	最大输入偏置电压	共模抑制比	带宽	增强 PWM 抑制	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
CSA241LCSOIC8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Industrial	SOIC-8	Develop	
CSA241MCSOIC8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Industrial	SOIC-8	Develop	
CSA241NCSOIC8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Industrial	SOIC-8	Develop	
CSA241LCMSOP8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Industrial	MSOP-8	Develop	INA241
CSA241MCMSOP8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Industrial	MSOP-8	Develop	INA241
CSA241NCMSOP8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Industrial	MSOP-8	Develop	INA241
CSA241LCTSSOP8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Industrial	TSSOP-8	Develop	
CSA241MCTSSOP8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Industrial	TSSOP-8	Develop	
CSA241NCTSSOP8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Industrial	TSSOP-8	Develop	
CSA240LQCSOIC8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Auto	SOIC-8	Develop	INA240-Q1
CSA240MQCSOIC8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Auto	SOIC-8	Develop	INA240-Q1
CSA240NQCSOIC8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Auto	SOIC-8	Develop	INA240-Q1
CSA240LQCMSOP8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Auto	MSOP-8	Develop	
CSA240MQCMSOP8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Auto	MSOP-8	Develop	
CSA240NQCMSOP8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Auto	MSOP-8	Develop	
CSA240LQCTSSOP8	1	-6-80	2.7-5.5	1.4	20	±6	±15	160	550	Y	-40-125	Auto	TSSOP-8	Develop	INA240-Q1
CSA240MQCTSSOP8	1	-6-80	2.7-5.5	1.4	50	±6	±15	160	550	Y	-40-125	Auto	TSSOP-8	Develop	INA240-Q1
CSA240NQCTSSOP8	1	-6-80	2.7-5.5	1.4	100	±6	±15	160	550	Y	-40-125	Auto	TSSOP-8	Develop	INA240-Q1

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



电流采样放大器

Current Sense Amplifier

Order Number	Channel (#)	V _{CM} (V)	V _{DD} (V)	I _Q (Typ) (mA)	Gain (V/V)	Gain Error Drift (Typ) (ppm/°C)	Offset Error (Max) (μV)	CMRR (Typ) (dB)	Bandwidth (kHz)	Enhanced PWM Rejection	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道数	输入共模电压	供电电压	静态电流	增益	Shunt 增益误差温漂	最大输入偏置电压	共模抑制比	带宽	增强 PWM 抑制	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
CSA241LQCSOIC8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Auto	SOIC-8	Develop	
CSA241MQCSOIC8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Auto	SOIC-8	Develop	
CSA241NQCSOIC8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Auto	SOIC-8	Develop	
CSA241LQCMSOP8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Auto	MSOP-8	Develop	
CSA241MQCMSOP8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Auto	MSOP-8	Develop	
CSA241NQCMSOP8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Auto	MSOP-8	Develop	
CSA241LQCTSSOP8	1	-6-80	2.7-5.5	0.8	20	±6	±15	160	250	Y	-40-125	Auto	TSSOP-8	Develop	
CSA241MQCTSSOP8	1	-6-80	2.7-5.5	0.8	50	±6	±15	160	250	Y	-40-125	Auto	TSSOP-8	Develop	
CSA241NQCTSSOP8	1	-6-80	2.7-5.5	0.8	100	±6	±15	160	250	Y	-40-125	Auto	TSSOP-8	Develop	

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



仪表放大器

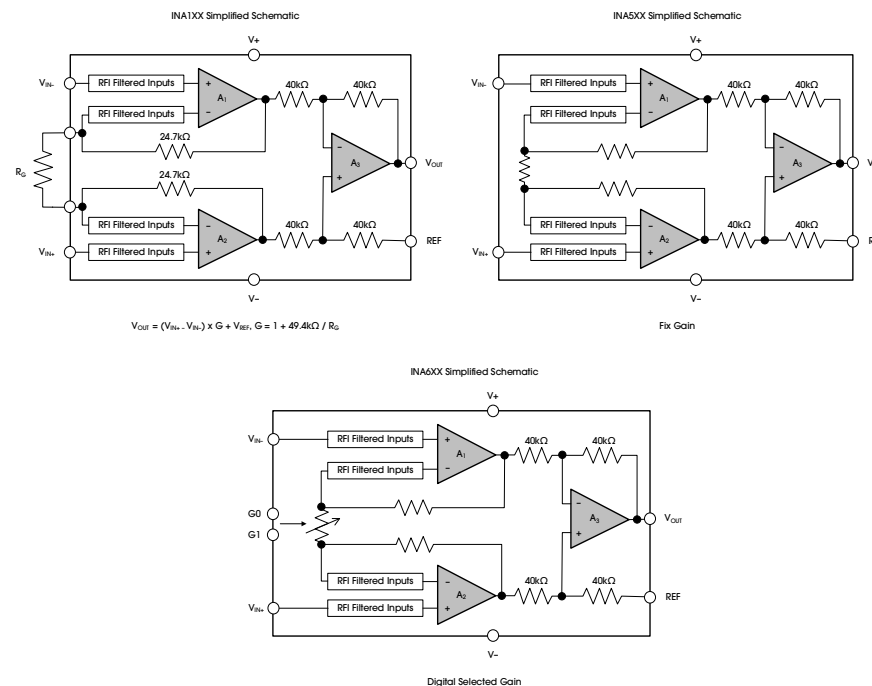
Instrumentation Amplifier

Overview

仪表放大器是高精密增益模块，输入为差分式，输出可以是差分式，也可以是相对于参考端的单端式。输入端具备高阻抗，可以直接连接传感器。这些器件能够放大两个输入信号电压之间的差值，同时抑制两个输入端共有的任何信号。仪表放大器广泛用于许多工业、测量、数据采集和医疗应用，这些应用要求在高噪声环境下保持直流精度和增益精度，抑制其中存在大共模信号，比如交流电力线频率。此系列仪表放大器 INA 包含传统外部增益设置，同时创新的提供固定增益，进一步节省系统空间，并由内部电阻网络提供更加出色的匹配性能，更好的温度同步以及更强的共模抑制。

Instrumentation amplifiers are high-precision gain modules with differential input and either differential or single-ended output relative to the reference end. The input has high impedance and can be directly connected to the sensor. These devices are capable of amplifying the difference between the voltages of the two input signals while suppressing any signal shared by the two inputs. Instrumentation amplifiers are widely used in many industrial, measurement, data acquisition, and medical applications that require DC accuracy and gain accuracy in high-noise environments, suppressing the presence of large common-mode signals, such as AC power line frequencies. This series of instrumentation amplifiers INA incorporates traditional external gain settings while innovatively providing fixed gain, further saving system space, and an internal resistor network for better matching performance, better temperature synchronization, and stronger common-mode rejection.

Block Diagram





仪表放大器

Instrumentation Amplifier

Order Number	CH (#)	I _e /CH (Typ) (μA)	Input Bias (Typ) (nA)	V _{OS1} (Type) (μV)	V _{OS1} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	BW (kHz)	Gain Type	Gain (Typ) (V/V)	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽²⁾
供货型号	通道	静态电流/通道	输入偏置电流	失调电压	失调电压漂移	共模抑制比	供电电压	带宽	增益类型	增益	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
INA101ASOIC8	1	1560	1	±2.5	0.02	104@Gain = 1	4-38	1300	R _E	1-10000	-40-85	Industrial	SOIC-8	Production	AD620, INA188
INA102ASOIC8	1	1560	1	±2.5	0.02	104@Gain = 1	4-38	1300	R _E	1-10000	-55-125	Industrial	SOIC-8	Production	AD620, INA188
INA111ASOIC8	1	350	1	±3.5	0.05	114@Gain = 1	4-38	130	R _E	1-10000	-40-85	Industrial	SOIC-8	Sample	AD620, INA188
INA112ASOIC8	1	350	1	±3.5	0.05	114@Gain = 1	4-38	130	R _E	1-10000	-55-125	Industrial	SOIC-8	Sample	AD620, INA188
INA201ASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	R _E and OS	10-100	-40-85	Industrial	SOIC-8	Sample	AD621
INA202ASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	R _E and OS	10-100	-55-125	Industrial	SOIC-8	Sample	AD621
INA211ASOIC8	1	350	1	±3.5	0.05	110	4-38	130	R _E and OS	10-100	-40-85	Industrial	SOIC-8	Sample ^{*(1)}	AD621
INA212ASOIC8	1	350	1	±3.5	0.05	110	4-38	130	R _E and OS	10-100	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	AD621
INA501LASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	2	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501MASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	5	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501HASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	10	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501NASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	20	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501PASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	25	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501RASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	50	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501SASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	75	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501TASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	100	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501KASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	125	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501JASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	200	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501GASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	250	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	
INA501FASOIC8	1	1560	1	±3.5	0.05	110	4-38	1300	Fixed	500	-55-125	Industrial	SOIC-8	Sample ^{*(1)}	

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogyssemi.com.

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仪表放大器

Instrumentation Amplifier

Order Number	CH (#)	I _Q /CH (Typ) (μA)	Input Bias (Typ) (nA)	V _{OSI} (Type) (μV)	V _{OSI} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	BW (kHz)	Gain Type	Gain (Typ) (V/V)	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽²⁾
供货型号	通道	静态电流/通道	输入偏置电流	失调电压	失调电压漂移	共模抑制比	供电电压	带宽	增益类型	增益	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
INA511LASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	2	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511MASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	5	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511HASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	10	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511NASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	20	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511PASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	25	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511RASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	50	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511SASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	75	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511TASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	100	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511KASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	125	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511JASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	200	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511GASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	250	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA511FASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Fixed	500	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA601ASOIC8	1	1560	1	±3.5	0.05	110	4-38	1100	Digital	2/5/10/20	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA602ASOIC8	1	1560	1	±3.5	0.05	110	4-38	1100	Digital	25/50/75/100	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA603ASOIC8	1	1560	1	±3.5	0.05	110	4-38	1100	Digital	125/200/250/500	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA611ASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Digital	2/5/10/20	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA612ASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Digital	25/50/75/100	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	
INA613ASOIC8	1	350	1	±3.5	0.05	110	4-38	130	Digital	125/200/250/500	-55-125	Industrial	SOIC-8	Sample* ⁽¹⁾	

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymsemi.com.

(2) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.



电流功率监视器

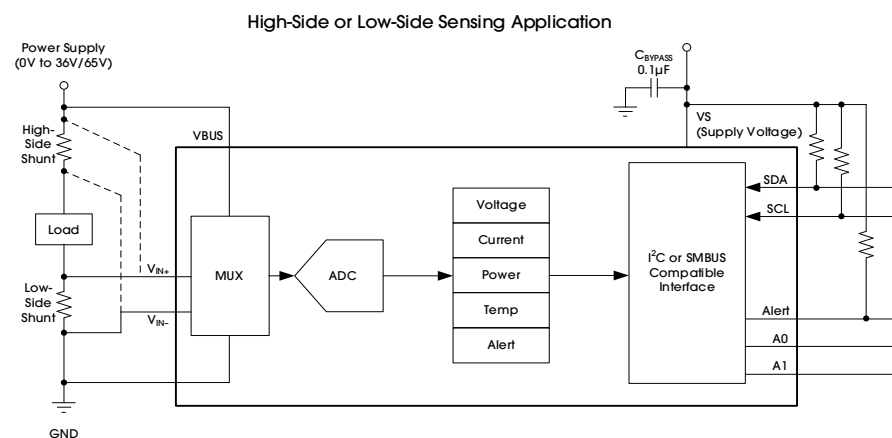
Current Power Monitor

Overview

The CSD20x senses the bi-directional current on a high common-mode bus and monitors the bus voltage with an I²C™-, SMBUS-, or SPI-compatible digital interface. The programmable calibration value, conversion times, averaging, and an internal multiplier make it easy to read out current, bus voltage, and power values directly from registers. All these features make it perfect for applications like servers, telecom equipment, and test equipment, etc.

CSD20x 是一款同时监控高共模电压总线上的双向电流和总线电压的数字型 (I²C™、SMBUS 或 SPI) 监控器。其可编程的校准值、转换时间、平均值和内部乘法器可以轻松地从寄存器中读出电流、总线电压和功率值。所有这些特性使其非常适合服务器、电信设备和测试设备等应用。

Block Diagram





电流功率监视器

Current Power Monitor

Order Number	Bits (#)	Bus Width (Bits)	Conversion Time (µs)	Interface	V _{CM} (V)	V _S (V)	Resolution (Typ) (Bits)	V _{BUS} LSB (Typ) (mV)	Shunt Range (Typ) (mV)	Shunt LSB (Typ) (µV)	Temp Sensor	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	分辨率	总线电压位宽	转换时间	接口	输入共模电压	供电电压	分辨率	BUS LSB 电压	Shunt 电压范围	Shunt LSB 电压	温度传感器	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
CSD201CMSOP10	12	11	84-532	I ² C or SMBus	0-26	2.7-5.5	12	4	±40/±80/±160/±320	10	N	-40-125	Industrial	MSOP-10	Sample	INA220, TPA620
CSD202CMSOP10	16	15	140-8244	I ² C or SMBus	0-36	2.7-5.5	16	1.25	±81.69	2.5	N	-40-125	Industrial	MSOP-10	Production	INA226, SQ52201, TPA626
CSD203LDMSOP10	16	15	140-8261	I ² C or SMBus	0-36	2.7-5.5	16	1.25	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Production	INA226+
CSD203MDMSOP10	20	19	148-8276	I ² C or SMBus	0-36	2.7-5.5	20	0.078	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Production	INA226+
CSD203HDMSOP10	16	15	140-8261	I ² C or SMBus	0-65	2.7-5.5	16	2	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Sample	INA226+
CSD203PDMSOP10	20	19	148-8276	I ² C or SMBus	0-65	2.7-5.5	20	0.125	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Production	INA226+
CSD204LDMSOP10	16	15	140-8261	I ² C or SMBus	-5-65	2.7-5.5	16	2	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Production	
CSD204MDMSOP10	20	19	148-8276	I ² C or SMBus	-5-65	2.7-5.5	20	0.125	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Sample	

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



电流功率监视器

Current Power Monitor

Order Number	Bits (#)	Bus Width (Bits)	Conversion Time (μs)	Interface	V _{CM} (V)	V _s (V)	Resolution (Typ) (Bits)	V _{BUS} LSB (Typ) (mV)	Shunt Range (Typ) (mV)	Shunt LSB (Typ) (μV)	Temp Sensor	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	分辨率	总线电压位宽	转换时间	接口	输入共模电压	供电电压	分辨率	BUS LSB 电压	Shunt 电压范围	Shunt LSB 电压	温度传感器	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
CSD205KDMSOP10	16	15	140-8244	SPI	0-36	2.7-5.5	16	1.25	±81.69/±163.37	2.5	N	-40-125	Industrial	MSOP-10	Sample	INA226+
CSD205LDMSOP10	16	15	140-8261	SPI	0-36	2.7-5.5	16	1.25	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Production	INA226+
CSD205MDMSOP10	20	19	148-8276	SPI	0-36	2.7-5.5	20	0.078	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Production	INA226+
CSD205HDMSOP10	16	15	140-8261	SPI	0-65	2.7-5.5	16	2	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Sample	INA226+
CSD205PDMSOP10	20	19	148-8276	SPI	0-65	2.7-5.5	20	0.125	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Sample	INA226+
CSD206LDMSOP10	16	15	140-8261	SPI	-5-65	2.7-5.5	16	2	±81.69/±163.37	2.5/5	Y	-40-125	Industrial	MSOP-10	Sample	
CSD206MDMSOP10	20	19	148-8276	SPI	-5-65	2.7-5.5	20	0.125	±81.69/±163.37	0.156/0.3125	Y	-40-125	Industrial	MSOP-10	Sample	

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低功耗放大器

Low-Power Amplifier

Overview

Ultra-low power operational amplifiers!

With just 240nA of quiescent current and operating voltage ranged between 1.6V and 5.5V, the AnalogSemi operational amplifiers are applicable to most battery-powered circumstances and stable even without additional boost topology. Additionally, the Enable feature allows greater power saving.

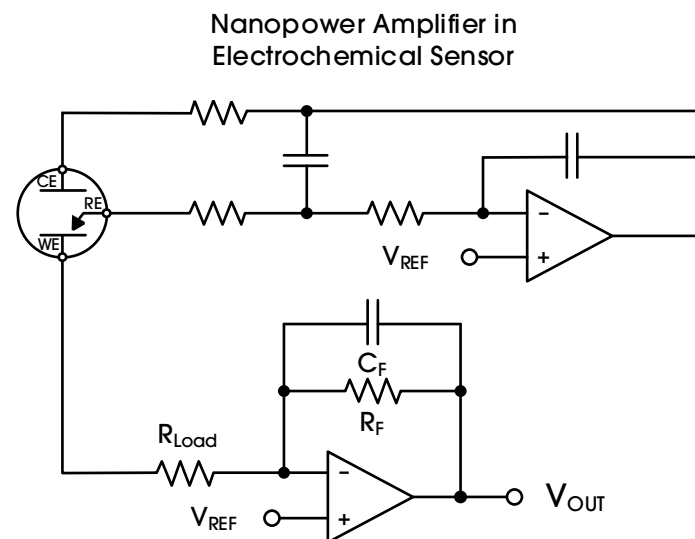
Keeping low power consumption and 4kHz of bandwidth, the amplifiers work rather well with equipment such as CO detectors, smoke detectors, and PIR motion detectors. In addition, the low power operational amplifiers have CMOS input stages with typically femto-amp bias currents.

超低功耗的运算放大器!

工作电压范围 1.6 伏到 5.5 伏，静态功耗仅 240 纳安，此运放可用在电池供电系统中且无需升压电路。同时提供使能功能，进一步节省电量。

在超低功耗的同时达到 4 千赫兹带宽，适用于一氧化碳检测、烟感检测、红外释热检测。此外，低功耗运放采用互补金属氧化物场效应晶体管作为输入级，具备飞安级输入偏置电流。

Block Diagram





低功耗放大器

Low-Power Amplifier

Order Number	CH (#)	I _Q /CH (Typ) (μA)	Input Bias (Typ) (ρA)	V _{OS} (Max) (μV)	V _{OS} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	GBW (MHz)	Slew Rate (Typ) (V/μs)	Gain (Typ) (dB)	V _n (Typ) (nV/rtHz)	Rail-to-Rail	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	静态电流/通道	输入偏置电流	失调电压	失调电压漂移	共模抑制比	供电电压	带宽	压摆率	增益	噪声谱密度	轨到轨	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
OPA501BSOT235	1	0.24	0.1	2200	3.5	95	1.6-5.5	0.004	0.0013	120	347	IN/OUT		-40-125	Industrial	SOT23-5	Production	LPV801, TP2111
OPA503ASOT235	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOT23-5	Production	LPV811, LPV821
OPA504ASOT236	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	SOT23-6	Production	LPV811, LPV821
OPA505ASOT235	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOT23-5	Production	MAX40023
OPA506ASOT236	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	SOT23-6	Production	MAX4036
OPA501BSOIC8	1	0.24	0.1	2200	3.5	95	1.6-5.5	0.004	0.0013	120	347	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPA503ASOIC8	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPA504ASOIC8	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	SOIC-8	Develop	
OPA505ASOIC8	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPA506ASOIC8	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	SOIC-8	Develop	
OPA501BMSOP8	1	0.24	0.1	2200	3.5	95	1.6-5.5	0.004	0.0013	120	347	IN/OUT		-40-125	Industrial	MSOP-8	Develop	
OPA503AMSOP8	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	MSOP-8	Develop	
OPA504AMSOP8	1	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	MSOP-8	Develop	
OPA505AMSOP8	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	MSOP-8	Develop	
OPA506AMSOP8	1	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	MSOP-8	Develop	

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低功耗放大器

Low-Power Amplifier

Order Number	CH (#)	I _Q /CH (Typ) (μA)	Input Bias (Typ) (pA)	V _{OS} (Max) (μV)	V _{OS} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	GBW (MHz)	Slew Rate (Typ) (V/μs)	Gain (Typ) (dB)	V _n (Typ) (nV/rtHz)	Rail-to-Rail	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	静态电流/通道	输入偏置电流	失调电压	失调电压漂移	共模抑制比	供电电压	带宽	压摆率	增益	噪声谱密度	轨到轨	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
OPL503ASOT235	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOT23-5	Sample	TP2121
OPL504ASOT236	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	SOT23-6	Sample	
OPL505ASOT235	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOT23-5	Sample	
OPL506ASOT236	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	SOT23-6	Sample	
OPL503ASOIC8	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPL504ASOIC8	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	SOIC-8	Develop	
OPL505ASOIC8	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPL506ASOIC8	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	SOIC-8	Develop	
OPL503AMSOP8	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	MSOP-8	Develop	
OPL504AMSOP8	1	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT	Power-Down	-40-125	Industrial	MSOP-8	Develop	
OPL505AMSOP8	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	MSOP-8	Develop	
OPL506AMSOP8	1	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT	Power-Down	-40-125	Industrial	MSOP-8	Develop	
OPA5012BSOIC8	2	0.24	0.1	2200	3.5	95	1.6-5.5	0.004	0.0013	120	347	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPA5032ASOIC8	2	0.57	0.1	210	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPA5052ASOIC8	2	3.2	0.1	260	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPL5032ASOIC8	2	0.57	0.1	2000	1.2	95	1.6-5.5	0.011	0.003	120	214	IN/OUT		-40-125	Industrial	SOIC-8	Develop	
OPL5052ASOIC8	2	3.2	0.1	2000	1	95	1.6-5.5	0.065	0.02	120	100	IN/OUT		-40-125	Industrial	SOIC-8	Develop	

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



零温漂放大器

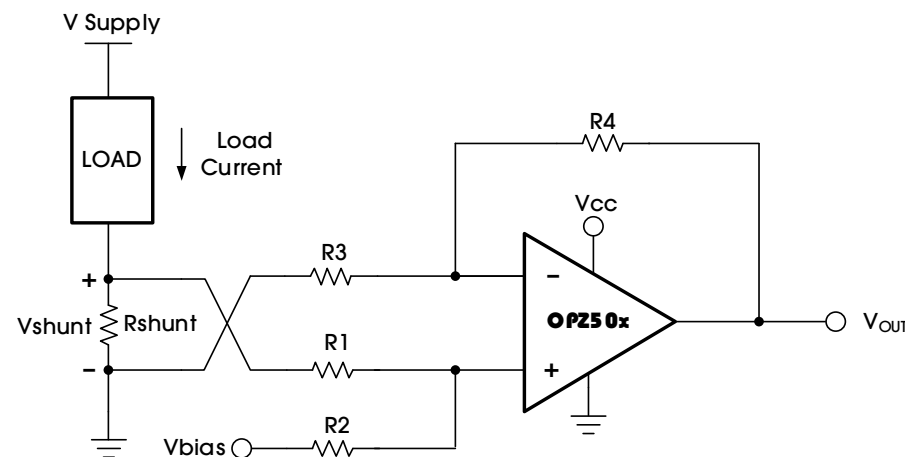
Zero-Drift Amplifier

Overview

AnalogSemi's zero-drift operational amplifier provides great combination of accuracy ($< 10\mu\text{V}$ offset voltage) and power consumption in the industry. It makes AnalogSemi's zero-drift operational amplifier ideal for high-precision, low-voltage sensor applications like gas detector, pressure sense, and current sense, etc.

类比半导体公司的零漂温运算放大器提供出色的精度($< 10\mu\text{V}$ 偏移电压)和功耗的组合。这使得类比半导体的零漂温运算放大器是高精度、低压传感器应用的理想选择, 例如气体检测、压力检测和电流检测等应用。

Block Diagram





零温漂放大器

Zero-Drift Amplifier

Order Number	CH (#)	EN Pin	V _{os} (Max) (μV)	V _{os} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{cc} (V)	I _q per CH (Typ) (μA)	GBW (kHz)	Slew Rate (Typ) (V/ms)	Noise (Typ) (nV/rtHz)	Rail-to-Rail	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	使能管脚	偏移电压	温漂	共模抑制比	供电电压	静态电流	带宽	压摆率	噪声谱密度	轨到轨	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
OPZ501ASOT235	1	No	±10	±0.03	120	1.7-5.5	0.68	15	3	213	IN/OUT	-40-125	Industrial	SOT23-5	Production	LPV821, LTC2063
OPZ502ASOT236	1	Yes	±10	±0.03	120	1.7-5.5	0.68	15	3	213	IN/OUT	-40-125	Industrial	SOT23-6	Production	LPV821
OPZ503ASOT235	1	No	±10	±0.03	133	1.7-5.5	3.9	83	30	93	IN/OUT	-40-125	Industrial	SOT23-5	Production	LPV821, MCP6V11, SGM8954
OPZ504ASOT236	1	Yes	±10	±0.03	133	1.7-5.5	3.9	83	30	93	IN/OUT	-40-125	Industrial	SOT23-6	Production	LPV821

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零温漂放大器

Zero-Drift Amplifier

Order Number	CH (#)	V _{OS} (Max) (μV)	V _{OS} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	I _q per CH (Typ) (μA)	GBW (kHz)	Slew Rate (Typ) (V/μs)	Noise (Typ) (nV/√Hz)	Rail-to-Rail	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	偏移电压	温漂	共模抑制比	供电电压	静态电流	带宽	压摆率	噪声谱密度	轨到轨	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
OPZ102BSOT235	1	±15	±0.03	154	4.5-40	150	300	0.8	35	IN/OUT	-40-125	Industrial	SOT23-5	Production	OPA187
OPZ102BSOIC8	1	±15	±0.03	154	4.5-40	150	300	0.8	35	IN/OUT	-40-125	Industrial	SOIC-8	Production	OPA187
OPZ1022BSOIC8	2	±15	±0.03	154	4.5-40	150	300	0.8	35	IN/OUT	-40-125	Industrial	SOIC-8	Production	OPA2187, RS8632
OPZ202BSOT235	1	±10	±0.03	153	4.5-40	300	1000	2.8	17.6	IN/OUT	-40-125	Industrial	SOT23-5	Production	OP07/D
OPZ202BSOIC8	1	±10	±0.03	153	4.5-40	300	1000	2.8	17.6	IN/OUT	-40-125	Industrial	SOIC-8	Production	OP07/D
OPZ2022BSOIC8	2	±10	±0.03	153	4.5-40	300	1000	2.8	17.6	IN/OUT	-40-125	Industrial	SOIC-8	Production	MS8228
OPZ302BSOT235	1	±10	±0.03	148	4.5-40	600	2200	3.8	11.6	IN/OUT	-40-125	Industrial	SOT23-5	Production	OPA188, SGM8251, TPA1861
OPZ302BSOIC8	1	±10	±0.03	148	4.5-40	600	2200	3.8	11.6	IN/OUT	-40-125	Industrial	SOIC-8	Production	OPA188, SGM8251, TPA1861
OPZ3022BSOIC8	2	±10	±0.03	148	4.5-40	600	2200	3.8	11.6	IN/OUT	-40-125	Industrial	SOIC-8	Production	OPA2188, SGM8252, TPA1862

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



精密放大器

Precision Amplifier

Order Number	CH (#)	V _{OS} (Max) (μV)	V _{OS} Drift (Typ) (μV/°C)	CMRR (Typ) (dB)	V _{CC} (V)	I _Q per CH (Typ) (μA)	GBW (kHz)	Slew Rate (Typ) (V/ms)	Noise (Typ) (nV/√Hz)	Rail-to-Rail	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	通道	偏移电压	温漂	共模抑制比	供电电压	静态电流	带宽	压摆率	噪声谱密度	轨到轨	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
OPA305ASOIC8	1	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	SOIC-8	Sample	
OPA305ASOT235	1	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	SOT23-5	Develop	
OPA305AMSOP8	1	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	MSOP-8	Sample	
OPA3052ASOIC8	2	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	SOIC-8	Sample	
OPA3052AMSOP8	2	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	MSOP-8	Sample	
OPA3052ATSSOP8	2	300	±800	133	4-36	550	2500	1.6	17	IN/OUT	-40-125	Industrial	TSSOP-8	Sample	
OPA201ASOT235	1	300	±800	133	4-36	300	1000	0.8	20	IN/OUT	-40-125	Industrial	SOT23-5	Develop	
OPA202ASOT235	1	300	±800	133	4-36	350	1500	1.1	21	IN/OUT	-40-125	Industrial	SOT23-5	Develop	
OPA101ASOIC8	1	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	SOIC-8	Develop	
OPA101ASOT235	1	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	SOT23-5	Develop	
OPA101AMOSP8	1	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	MSOP-8	Develop	
OPA1012ASOIC8	2	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	SOIC-8	Develop	
OPA1012AMSOP8	2	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	MSOP-8	Develop	
OPA1012ATSSOP8	2	300	±800	133	4-36	125	300	0.5	24	IN/OUT	-40-125	Industrial	TSSOP-8	Develop	

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高共模差分放大器

Special Amplifier

Order Number	Input Common-mode Voltage (V)	I _Q (μA)	Max Offset Voltage (mV)	Gain Drift (ppm/°C)	OP. Temp (°C)	Rating	Package Option	Status	Competitor ⁽²⁾
供货型号	输入共模电压	静态电流	最大偏置电压	增益温漂	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
IND901ASOIC8	±275V	550	0.5	10	-40-125	Industrial	SOIC-8	Sample* ⁽¹⁾	INA149, AD629, LT1990, AD8479, TPA9151
IND902ASOIC8	±275V	200	0.8	15	-40-125	Industrial	SOIC-8	Sample* ⁽¹⁾	INA149, AD629, LT1990, AD8479, TPA9151

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymsemi.com.

(2) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.



参考

Reference

Order Number	Voltage (Typ) (V)	I _q (Typ) (μA)	Initial Accuracy (Typ) (%)	Temp Drift 0-85°C (Typ) (ppm/°C)	Temp Drift -40 -125°C (Typ) (ppm/°C)	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	输出电压	静态电流	初始精度	温度漂移	温度漂移	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
REF112SOT233	1.25	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF118SOT233	1.8	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF120SOT233	2.048	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF125SOT233	2.5	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF130SOT233	3	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF133SOT233	3.3	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF140SOT233	4.096	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF145SOT233	4.5	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF150SOT233	5	3	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF33
REF312SOT233	1.25	50	0.05	10	15		-40-125	Industrial	SOT23-3	Develop	REF31
REF318SOT233	1.8	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	
REF320SOT233	2.048	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	REF31
REF325SOT233	2.5	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	REF31, MAX61, MAX6035

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



参考

Reference

Order Number	Voltage (Typ) (V)	I _q (Typ) (μA)	Initial Accuracy (Typ) (%)	Temp Drift 0-85°C (Typ) (ppm/°C)	Temp Drift -40 -125°C (Typ) (ppm/°C)	Features	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽¹⁾
供货型号	输出电压	静态电流	初始精度	温度漂移	温度漂移	特性	工作温度范围	等级	封装	状态	竞品 ⁽¹⁾
REF330SOT233	3	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	REF31, MAX6035
REF333SOT233	3.3	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	REF31
REF340SOT233	4.096	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	REF31, MAX61
REF345SOT233	4.5	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	MAX61
REF350SOT233	5	50	0.05	10	15		-40-125	Industrial	SOT23-3	Sample	MAX61, MAX6035
REF312QSOT233	1.25	50	0.05	10	15		-40-125	Auto	SOT23-3	Develop	
REF318QSOT233	1.8	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF320QSOT233	2.048	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF325QSOT233	2.5	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF330QSOT233	3	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF333QSOT233	3.3	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF340QSOT233	4.096	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF345QSOT233	4.5	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	
REF350QSOT233	5	50	0.05	10	15		-40-125	Auto	SOT23-3	Sample	

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



稳压器

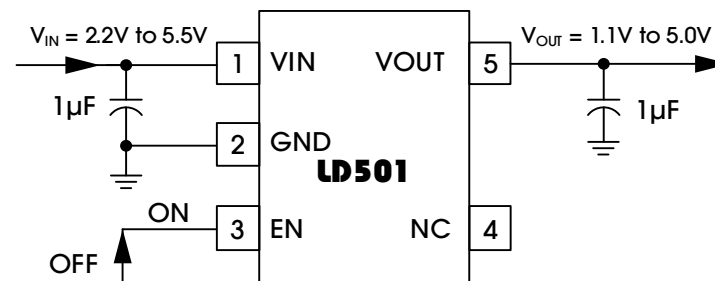
Regulator

Overview

The LD501 is an ultra-low noise (15µVrms), low dropout (LDO) linear regulator providing output current up to 250mA. The low quiescent current (160µA), high power supply rejection ratio (70dB PSRR), transient line and load performance make it perfectly suitable for image sensor, RF and low-power portable application.

LD501 是一款超低噪声(15µVrms)、低压差 (LDO) 线性稳压器，可提供高达 250mA 的输出电流。LD501 的低静态电流(160µA)、高电源抑制比 (70dB PSRR)、瞬态线路和负载性能使其非常适合图像传感器、射频和低功耗便携式应用。

Block Diagram





稳压器

Regulator

Order Number	Vin Range (V)	Vout_range (V)	Vdropout @Imax (mV)	Iout Max (mA)	PSRR (dB)	RMS Noise (μVrms)	Quiescent Current (μA)	OP. Temp (°C)	Rating	Package	Status	Competitor ⁽³⁾
供货型号	输入电压范围	输出电压	输出压差	最大输出电流	电源抑制比	均方根噪声	静态电流	工作温度范围	等级	封装	状态	竞品 ⁽³⁾
LD501PCSOT-12	2.2-5.5	1.2	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Production	ADP151, LP5907, TPL730
LD501PCSOT-18	2.2-5.5	1.8	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Production	ADP151, LP5907, TPL730
LD501PCSOT-25	2.2-5.5	2.5	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Production	ADP151, LP5907, TPL730
LD501PCSOT-30	2.2-5.5	3.0	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Production	ADP151, LP5907, TPL730
LD501PCSOT-33	2.2-5.5	3.3	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Production	ADP151, LP5907, TPL730
LD501LCSOT-11-50 ⁽²⁾	2.2-5.5	1.1-5.0	85	150	70	15.5	12	-40-125	Industrial	SOT23-5	Sample* ⁽¹⁾	ADP151, LP5907, TPL730
LD501MCSOT-11-50 ⁽²⁾	2.2-5.5	1.1-5.0	120	200	70	15.5	12	-40-125	Industrial	SOT23-5	Sample* ⁽¹⁾	ADP151, LP5907, TPL730
LD501PCSOT-11-50 ⁽²⁾	2.2-5.5	1.1-5.0	150	250	70	15.5	12	-40-125	Industrial	SOT23-5	Sample* ⁽¹⁾	ADP151, LP5907, TPL730

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymicro.com.

(2) 11-50 means 1.1V to 5.0V with a 0.1V increment. Besides, 2.75V and 2.85V are also supported.

(3) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymicro.com.



变压器驱动器

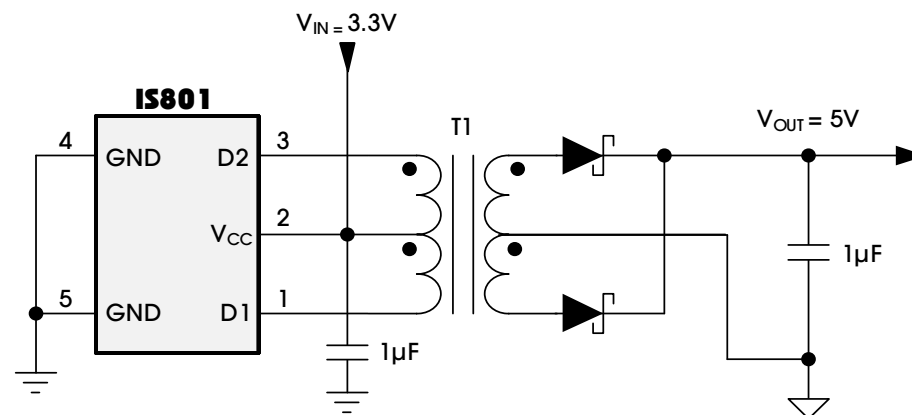
Transform Driver

Overview

The IS80x is a transformer driver designed for low-cost, small form-factor, isolated DC-DC converters utilizing the push-pull topology. The integrated break-before-make logic, V_{CC} undervoltage protect and thermal shutdown protection help to improve the system robustness. In addition, the spread spectrum scheme is also added in oscillator of IS80x to pass EMI tests easier. All these features make it perfect for isolated interface power supply and medical equipment applications.

IS80x 是一款专为采用推挽式拓扑的低成本、小尺寸、隔离式 DC-DC 转换器而设计的变压器驱动器。其内置的 break-before-make 逻辑、 V_{CC} 欠压保护和热关断保护有助于提高系统的鲁棒性。此外，IS80x 的振荡器还加入了扩频方案，可以更容易通过 EMI 测试。所有这些特性使其非常适合隔离接口电源和医疗设备应用。

Block Diagram





变压器驱动器

Transform Driver

Order Number	CH (#)	Vin (V)	EN	Soft-Start	High Primary-Side Current Drive (Max) (mA)	Switching Frequency (kHz)	EMI Improvement	External Clock	New Protection	OP. Temp (°C)	Rating	Package Option	Status	Competitor ⁽¹⁾
供货型号	通道	输入电压	使能	软启动	主边最大驱动电流	开关频率	EMI 提升	外部时钟	新保护功能	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
IS801BSOT235	1	2.5-5.5	No	Yes	500	300-500	Spread Spectrum	Support	UVLO OTP	-40-125	Industrial	SOT23-5	Production	SN6501, ZCC6501
IS802BSOT236	1	2.5-5.5	Yes	Yes	500	300-500	Spread Spectrum	Support	UVLO OTP	-40-125	Industrial	SOT23-6	Production	SN6505b, SGM46000, MAX13253, MAX256
IS801QBSOT235	1	2.5-5.5	No	Yes	500	300-500	Spread Spectrum	Support	UVLO OTP	-40-125	Auto	SOT23-5	Sample	SN6501, ZCC6501

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogsemi.com.



电机驱动

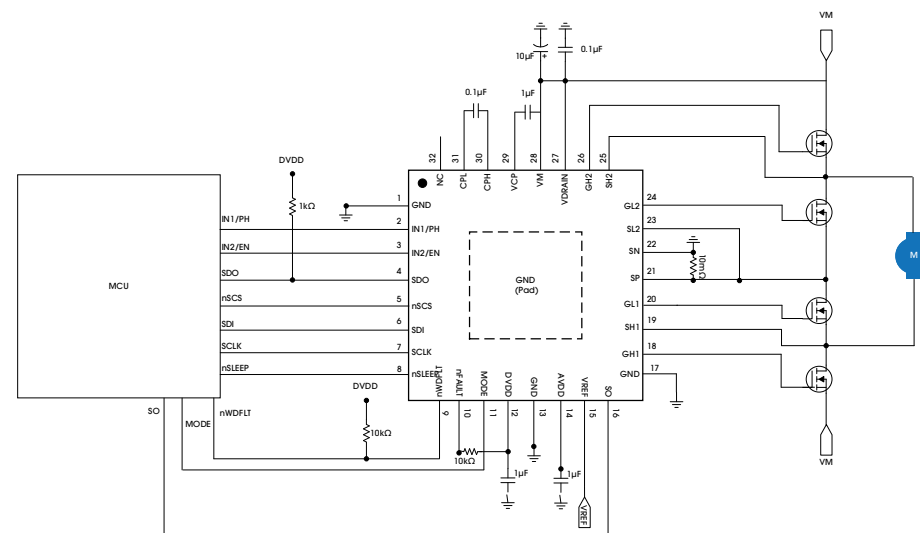
Motor Driver

Overview

The DR70xQ are automotive-grade H-bridge smart gate driver, which can realize bidirectional DC brush motor control with four external NMOSFETs. DR70xQ are widely used in automotive electric tailgate, sunroof, window, door, and EPB systems. The power rating is up to hundreds of Watts DC brushed motors. The DR70x series VM has a maximum withstand voltage of 55V, is equipped with system protection mechanisms including offline load detection, and has more flexible drive current control.

DR70xQ 系列是一款车规级 H 桥智能栅极驱动器，配合外部四个 MOSFET 可实现双向直流有刷电机控制，广泛应用于汽车电动尾门、天窗、车窗、车门以及 EPB 等系统中驱动几瓦特至几百瓦特直流有刷电机。DR70x 系列 VM 最大耐压 55V，配备离线负载检测等系统保护机制，并且具备更加灵活的驱动电流控制。

Block Diagram





电机驱动

Motor Driver

Order Number	Control Interface	VM Max (V)	ESD HBM (kV)	Quiescent Current at Sleep Mode Typ (µA)	Gate Drive Current Settings	Current-shunt Amp Drift Offset Typ (µV/°C)	Current-Shunt Amplifier Gains (V/V)	VM Over-Voltage Protection	Offline Diagnostic	OP. Temp (°C)	Rating	Package Option	Status	Competitor ⁽²⁾
供货型号	控制接口	最大输入电压	ESD HBM	睡眠模式典型静态电流	栅极驱动电流档位	电流采样运放温漂	电流采样运放增益	VM 过压保护	离线负载诊断	工作温度范围	等级	封装	状态	竞品 ⁽²⁾
DR702QAQFN32	Hardware	55	±4	3.4	6	7	19.8	No	No	-40-125	Auto	QFN-32	Sample	DRV8701-Q1, DRV8702-Q1, A3921
DR703QAQFN32	SPI	55	±4	3.4	8	7	10/19.8/39.4/78	No	No	-40-125	Auto	QFN-32	Sample	DRV8703-Q1, DRV8705-Q1, DRV8706-Q1
DR704QAQFN32	SPI	55	±4	3.4	8	7	9/18.8/38.4/77	Yes	Yes	-40-125	Auto	QFN-32	Sample	MLX83100, A3922, A3924, BD16952
DR702DQAQFN32	Hardware	55	±4	3.4	6	7	19.8	No	No	-40-125	Auto	QFN-32	Sample ^{*(1)}	DRV8703-Q1, DRV8705-Q1, DRV8706-Q1
DR703DQAQFN32	SPI	55	±4	3.4	8	7	10/19.8/39.4/78	No	No	-40-125	Auto	QFN-32	Sample ^{*(1)}	MLX83100, A3922, A3924, BD16952

(1) "Sample*": Special status and different from normal "Sample" status. For more information about devices with this status, contact our sales team by mailing to sales@analogymsemi.com.

(2) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.



Overview

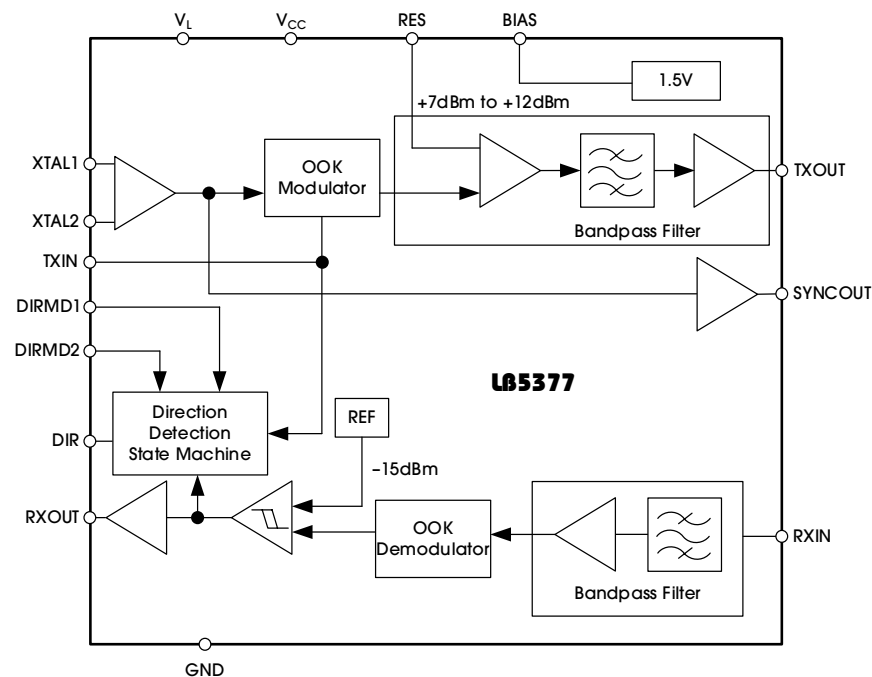
AnalogSemi provides fully-integrated transceiver compliant with AISG. Its receiver provides a 20dB typical dynamic range and integrates a bandpass filter operating in the 2.176MHz frequency with a narrow 200kHz bandwidth. Its transmitter integrates a bandpass filter compliant with the AISG spectrum emission profile. The transmitter can modulate OOK signals up to 115.2kbps. With external resistors, the output power can vary from +7dBm to +12dBm to compensate for loss in the external circuitry and cabling.

类比提供与电调天线设备标准组织兼容的全集成收发器。它的接收机提供 20 分贝的典型动态范围，并集成了一个工作在 2.176 兆赫兹频率和狭窄的 200 千赫兹带宽的带通滤波器。它的发射机集成了一个符合电调天线设备标准组织发射频谱的带通滤波器。发射机可调制的二进制启闭键控信号最高可达 115.2 千比特每秒。使用外部电阻，输出功率可以从+7 分贝毫瓦到+12 分贝毫瓦，以补偿外部电路和电缆的损失。

Applications

- Communication base station and antenna
通信基站与天线
- ATG airborne platform
ATG 机载台

Block Diagram





AISG

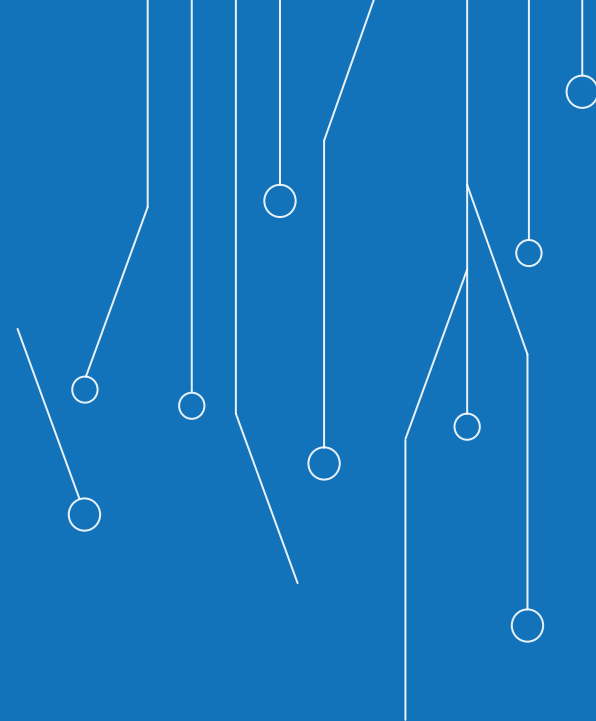
AISG

Order Number 供货型号	End Equipment 终端设备	TX ON Power (dBm) 发射机功率	RX Threshold (dBm) 接收机功率	V _{CC} (V) 供电范围	I _{supply} (Typ) (mA) 供电电流	OP. Temp (°C) 工作温度范围	Rating 等级	Package 封装	Status 状态	Competitor ⁽¹⁾ 竞品 ⁽¹⁾
LB5377AQFN16	AISG	7-12	-18 to -12	3-5.5	24.5	-40-120	Industrial	QFN-16	Production	SN65HVD62, SN65HVD63, SN65HVD64, MAX9947, CA-IF4023

(1) For more competitor information (package pin-to-pin, package & register pin-to-pin, or function compatibility), contact our sales team by mailing to sales@analogymsemi.com.

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