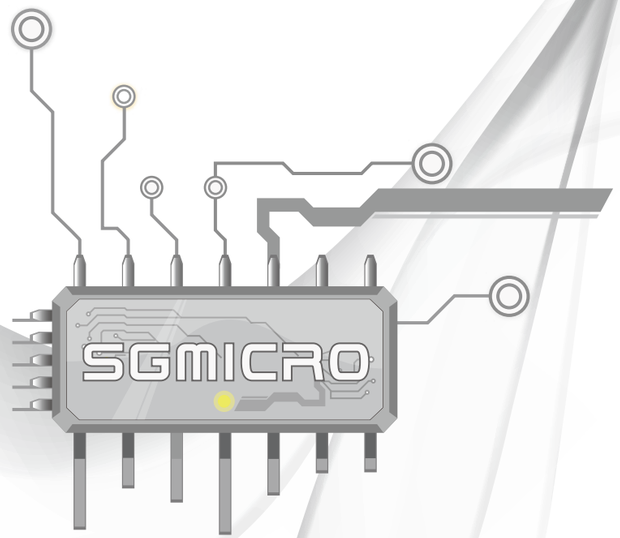
Product Selection Guide

Jun 2017



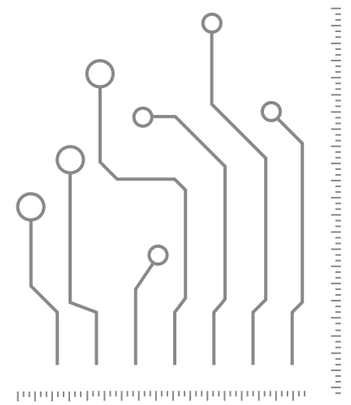
SGMICRO

www.sg-micro.de

SG Micro Corp
No.87 North Xisanhuan Road, IFEC, Suite C-1301,
Haidian District, Beijing, 100089
China
Tel: +86-10-8882 5716/17
Fax: +86-10-8882 5736

SGMICRO

Operational Amplifier
Audio Amplifier
Video Buffer
Switch Complex
Analog Switch
High Performance LDO
Over-Voltage Protection IC
Li-Ion Battery Charger
Load Switch
DC/DC Converter
MOSFET Driver
White and Flash LED Driver
µP Supervisory Circuit
Level Translator
Small Logic IC



SGMICRO OVERVIEW

SG Micro Corp (SGMICRO) specializes in high performance, high quality analog IC design, marketing and sales, and offers innovative solutions for a broad range of applications in wireless communication, consumer, medical, automotive and industrial markets.

SGMICRO's close partnership with customers and technology expertise in analog IC are the driving forces for continuous improvements and innovations. Benefited from years of heavy investments in R&D and advanced technologies, SGMICRO has introduced more than 600 analog IC products with excellent reliability and consistency, including precision signal conditioning products such as amplifiers, buffers, comparators, switches and interface products, as well as the energy efficient power management ICs.

Our innovative analog IC solutions with an extensive portfolio allow our customers to target such diverse and fast growing markets as smart devices, mobile electronics and green energy technologies, and have resulted in improved performance such as longer battery life, less peripheral components, smaller PCB space and lower cost.

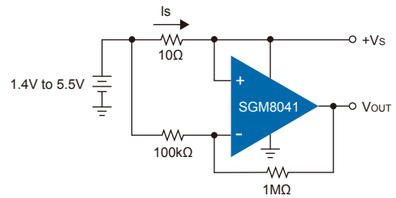
Quality and reliability are on top of the priority list at SGMICRO at all times. SGMICRO strives to become one of the world's leading analog IC solution providers by offering our customers with best-quality products and services. It is therefore the policy of SGMICRO to continually improve our technologies and systems in an ongoing effort to meet and exceed our customers' expectations. Through the strictest QA system, SGMICRO assures each chip it produced of excellent quality and reliability.

SGMICRO is committed to improve our life & environment in every possible way through technology & innovations. We strive to bring more value to our customers and pursue the leading position in analog IC industry with advanced design, superior performance and excellent quality.

Bridge Real World with Analog Chips

Nano Power Operational Amplifiers

The Nano Power Operational Amplifier family is designed to support rail-to-rail input and output operation and has as low as 350nA quiescent current. These specifications make these operational amplifiers extremely appropriate for low frequency low power applications, such as battery current monitoring and sensor conditioning.



High Side Battery Current Sensor

Amplifiers per Package	Part Number	I_Q/Amp Typ (μA)[1]	Shut-down	V_{CC} (V)	GBP Typ (kHz)	Slew Rate Typ (V/ms)	E_{NOISE} 0.1Hz ~ 10Hz (μV_{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
2	SGM8142	0.35	No	1.4 ~ 5.5	5	1.6	4	130	2.5	2	1	93	83	Yes	Yes	SOIC-8,MSOP-8	Ultra Low Quiescent Current, Rail-to-Rail Input and Output
1	SGM8141	0.38	No	1.4 ~ 5.5	5	1.5	4.9	125	2.5	2	1	90	80	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Ultra Low Quiescent Current, Rail-to-Rail Input and Output
2	SGM8042	0.67	No	1.4 ~ 5.5	14.5	4.2	3.2	180	2.5	2.5	1	93	84	Yes	Yes	SOIC-8,MSOP-8	Very Low Quiescent Current, Rail-to-Rail Input and Output
4	SGM8044	0.67	No	1.4 ~ 5.5	15	3.4	3.2	190	2.5	2.5	1	93	83	Yes	Yes	SOIC-14,TSSOP-14,TQFN-3×3-16L	Very Low Quiescent Current, Rail-to-Rail Input and Output
2	SGM8046	0.67	No	1.4 ~ 5.5	100	14.5	3	190	2.5	2.5	1	92	82	Yes	Yes	SOIC-8,MSOP-8	Stable for Gain of 10, 100kHz, Very Low I_Q, RRIO
4	SGM8048	0.69	No	1.4 ~ 5.5	100	14.5	3.5	205	2.5	2.5	1	92	83	Yes	Yes	SOIC-14,TSSOP-14	Stable for Gain of 10, 100kHz, Very Low I_Q, RRIO
1	SGM8041	0.71	No	1.4 ~ 5.5	14.5	3.3	3.4	135	2.5	2.5	1	93	84	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Very Low Quiescent Current, Rail-to-Rail Input and Output
1	SGM8045	0.71	No	1.4 ~ 5.5	100	16	3.2	160	2.5	2.5	1	93	84	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Stable for Gain of 10, 100kHz, Very Low I_Q, RRIO

Micro Power Operational Amplifiers

The Micro Power Operational Amplifier family is designed to support rail-to-rail input and output operation and has as low as 2.5μA quiescent current. These specifications make these operational amplifiers extremely appropriate for low frequency low power applications, such as battery current monitoring and sensor conditioning.

Amplifiers per Package	Part Number	I_Q/Amp Typ (μA)[1]	Shut-down	V_{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/ms)	E_{NOISE} 0.1Hz ~ 10Hz (μV_{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8049-1	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	SOT-23-5,SC70-5,TDFN-2×2-6L	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
2	SGM8049-2	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	SOT-23-8,SOIC-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
4	SGM8049-4	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	TSSOP-14	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8240-1	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	SC70-5,SOT-23-5	High Voltage, Micro Power, Precision
2	SGM8240-2	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	TDFN-2×3-8L,SOIC-8,MSOP-8	High Voltage, Micro Power, Precision
4	SGM8240-4	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	SOIC-14	High Voltage, Micro Power, Precision
1	SGM8521	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOT-23-5,SOIC-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
2	SGM8522	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOIC-8,MSOP-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
4	SGM8524	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOIC-14,TSSOP-14	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8531	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOT-23-5,SOIC-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
2	SGM8532	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOIC-8,MSOP-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
4	SGM8534	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOIC-14,TSSOP-14	Low Bias Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8541	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOT-23-5,SOIC-8,SC70-5	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
2	SGM8542	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOIC-8,MSOP-8,TSSOP-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
4	SGM8544	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOIC-14,TSSOP-14	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8543	48	Yes	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	76	Yes	Yes	SOT-23-6,SOIC-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8545	48	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	76	Yes	Yes	SOT-23-5	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output

Note: † Typical Values @25°C

Micro Power Operational Amplifiers

Amplifiers per Package	Part Number	I_Q/Amp Typ (μA) [1▲]	Shut-down	V_{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/ms)	E_{NOISE} 0.1Hz ~ 10Hz (μV_{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8210-1	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOT-23-5,SC70-5	High Voltage, Micro Power, Precision
2	SGM8210-2	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOIC-8,MSOP-8,TDFN-2×3-8L	High Voltage, Micro Power, Precision
4	SGM8210-4	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOIC-14	High Voltage, Micro Power, Precision
1	SGM321	60	No	2.1 ~ 5.5	1	520		27	5	2.7	10	84	68	Yes	Yes	SC70-5,SOT-23-5	General Purpose Low Power Amp
4	SGM324	60	No	2.1 ~ 5.5	1	520		27	5	2.7	10	84	68	Yes	Yes	SOIC-14,TSSOP-14	General Purpose Low Power Amp
2	SGM358	60	No	2.1 ~ 5.5	1	520		27	5	2.7	10	84	68	Yes	Yes	SOIC-8,MSOP-8,DIP-8	General Purpose Low Power Amp
1	SGM8535	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	1.5MHz/1.8V, Unity Gain Stable, Rail-to-Rail Output
2	SGM8536	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOIC-8,MSOP-8	1.5MHz/1.8V, Unity Gain Stable, Rail-to-Rail Output
1	SGM8537	80	Yes	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOT-23-6,SOIC-8,MSOP-8	1.5MHz/1.8V, Unity Gain Stable, Rail-to-Rail Output
4	SGM8538	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOIC-14,TSSOP-14	1.5MHz/1.8V, Unity Gain Stable, Rail-to-Rail Output
1	SGM8271	144	No	4.5 ~ 36	1.4	5000		45	3	3	20	86	84	No	Yes	SOT-23-5,SOIC-8,MSOP-8	1.4MHz/5V/μs, Low Power, Rail-to-Rail Output
2	SGM8272	144	No	4.5 ~ 36	1.4	5000		45	3	3	20	86	84	No	Yes	SOIC-8,MSOP-8	1.4MHz/5V/μs, Low Power, Rail-to-Rail Output
4	SGM8274	144	No	4.5 ~ 36	1.4	5000		45	3	3	20	86	84	No	Yes	SOIC-14,TSSOP-14	1.4MHz/5V/μs, Low Power, Rail-to-Rail Output

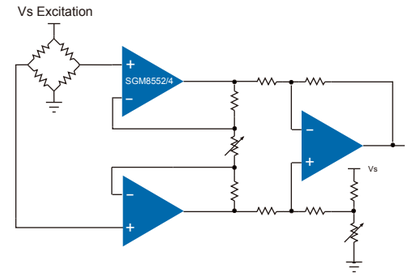
High Speed Operational Amplifiers

Amplifiers per Package	Part Number	GBP Typ (MHz) [1▲]	Bandwidth @-3dB (MHz)	Shut-down	V_{CC} (V)	Slew Rate Typ (V/μs)	E_{NOISE} Typ @1MHz (nV/√Hz)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	I_Q/Amp Typ (mA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8965-1	50		No	2.2 ~ 5.5	30	4.5†	0.25	1.2	0.5	5.3	115	100	Yes	Yes	SOT-23-5,SOIC-8	50MHz, High Precision Amp
2	SGM8965-2	50		No	2.2 ~ 5.5	30	4.5†	0.25	1.2	0.5	5.3	115	100	Yes	Yes	SOIC-8,MSOP-8	50MHz, High Precision Amp
1	SGM8301	57	110	No	4.5 ~ 12	140	65††	18	12		7.5	105	75	No	Yes	SOT-23-5,SOIC-8,MSOP-8	110MHz High Voltage Rail-to-Rail Output Amp
2	SGM8302	57	110	No	4.5 ~ 12	140	65††	18	12		7.5	105	75	No	Yes	SOIC-8,MSOP-8	110MHz High Voltage Rail-to-Rail Output Amp
4	SGM8304	57	110	No	4.5 ~ 12	140	65††	18	12		7.5	105	75	No	Yes	SOIC-14,TSSOP-14	110MHz High Voltage Rail-to-Rail Output Amp
1	SGM80581	100	220	No	2.5 ~ 5.5	160	7	3		2	4.5	109	71	Yes	Yes	SOT-23-5,SOIC-8	220MHz Rail-to-Rail Input and Output Amp
2	SGM80582	100	220	No	2.5 ~ 5.5	160	7	3		2	4.5	109	71	Yes	Yes	SOIC-8,MSOP-8	220MHz Rail-to-Rail Input and Output Amp
4	SGM80584	100	220	No	2.5 ~ 5.5	160	7	3		2	4.5	109	71	Yes	Yes	SOIC-14	220MHz Rail-to-Rail Input and Output Amp

Notes: † Typical Values @100kHz
†† Typical Values @10kHz

High Precision Operational Amplifiers

The High Precision Operational Amplifier family provides high precision, low noise, low drift, rail-to-rail input and output, and single/dual/quad channel operational amplifiers. The internal auto-zero circuit cancels the input offset voltage and drift over time and temperature, and eliminates the 1/f noise as well. The combination of these characteristics makes them good choices for temperature, position and pressure sensors, medical equipment, strain gauge amplifiers, or any other industrial applications requiring high precision, low noise and long term stability.



Amplifiers per Package	Part Number	V_{OS} Max @25°C (mV) [1]	TC of V_{OS} Typ (μV/°C) [2]	I_B Typ (pA)	Shut-down	V_{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	E_{NOISE} 0.1Hz ~ 10Hz (μV_{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	I_Q/Amp Typ (μA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8557-1	0.005	0.027	100	No	2.7 ~ 5.5	15	7	0.5	22	1150	144	120	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8557-2	0.005	0.027	100	No	2.7 ~ 5.5	15	7	0.5	22	1150	144	120	Yes	Yes	SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8557-3	0.005	0.027	100	Yes	2.7 ~ 5.5	15	7	0.5	22	1150	144	120	Yes	Yes	SOT-23-6,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
1	SGM8557-5	0.005	0.027	100	Yes	2.7 ~ 5.5	15	7	0.5	22	1150	144	120	Yes	Yes	MSOP-10	Ultra High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
1	SGM8958-1	0.01	0.03	500	No	1.8 ~ 5.5	1.8	0.7	0.3	12	165	136	125	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8958-2	0.01	0.03	500	No	1.8 ~ 5.5	1.8	0.7	0.3	12	165	136	125	Yes	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8959-1	0.01	0.032	350	No	1.8 ~ 5.5	4	1		8	380	127	123	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8959-2	0.01	0.032	350	No	1.8 ~ 5.5	4	1		8	380	127	123	Yes	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8551	0.02	0.02	10	No	2.5 ~ 5.5	1.53	0.9	0.8	47.5	930	145	105	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8552	0.02	0.02	10	No	2.5 ~ 5.5	1.53	0.9	0.8	47.5	465	145	105	Yes	Yes	SOIC-8,MSOP-8	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8255-1	0.02	0.028	200	No	4.5 ~ 36	9	5	0.48	25	800	133	112	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	High Voltage, Ultra High Precision, Low Noise
2	SGM8255-2	0.02	0.028	200	No	4.5 ~ 36	9	5	0.48	25	800	133	112	No	Yes	SOIC-8,MSOP-8	High Voltage, Ultra High Precision, Low Noise
4	SGM8255-4	0.02	0.028	200	No	4.5 ~ 36	9	5	0.48	25	800	133	112	No	Yes	SOIC-14	High Voltage, Ultra High Precision, Low Noise
4	SGM8554	0.02	0.07	10	No	2.5 ~ 5.5	1.5	1	1.6	63	465	145	105	Yes	Yes	SOIC-14,TSSOP-14	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8251	0.024	0.075	100	No	4.5 ~ 36	3.1	1.7	1	56	450	135	125	No	Yes	SOT-23-5,SOIC-8,MSOP-8	High Voltage, Very High Precision, Low Noise
2	SGM8252	0.024	0.075	100	No	4.5 ~ 36	3.1	1.7	1	56	450	135	125	No	Yes	SOIC-8,MSOP-8	High Voltage, Very High Precision, Low Noise
1	SGM8957-1	0.025	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	Very High Precision, Low Noise, Micro Power, RRIO
2	SGM8957-2	0.025	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOIC-8,TDFN-3×3-8L,MSOP-8	Very High Precision, Low Noise, Micro Power, RRIO
1	SGM8955	0.05	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	Very High Precision, Low Noise, Micro Power, RRIO
2	SGM8956	0.05	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOIC-8,MSOP-8,TDFN-3×3-8L	Very High Precision, Low Noise, Micro Power, RRIO
1	SGM8555	0.09	0.05	30	No	2.5 ~ 5.5	3.5	3	0.6	21	950	133	98	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	3.5MHz, 3V/μs, High Precision, Low Noise, RRIO
2	SGM8556	0.09	0.05	30	No	2.5 ~ 5.5	3.5	3	0.6	21	950	133	98	Yes	Yes	SOIC-8,MSOP-8	3.5MHz, 3V/μs, High Precision, Low Noise, RRIO
1	SGM8581	0.1	0.1	15	No	2.5 ~ 5.5	1.45	0.75	0.85	47.5	445	145	90	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
2	SGM8582	0.1	0.1	15	No	2.5 ~ 5.5	1.5	0.9	0.8	49	430	145	95	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
4	SGM8584	0.1	0.15	60	No	2.5 ~ 5.5	1.5	0.9	1.4	78	430	135	92	Yes	Yes	SOIC-14,TSSOP-14	High Precision, Low Noise, Zero-Drift
1	SGMOP17C	0.12	0.3	0.1	No	4.5 ~ 36	1.5	1.7	1	56	450	135	125	No	Yes	SOT-23-5,SOIC-8	
1	SGM8965-1	0.25	1.2	0.5	No	2.2 ~ 5.5	50	30	5	4.5††	5300	115	100	Yes	Yes	SOT-23-5,SOIC-8	50MHz, High Precision Amp
2	SGM8965-2	0.25	1.2	0.5	No	2.2 ~ 5.5	50	30	5	4.5††	5300	115	100	Yes	Yes	SOIC-8,MSOP-8	50MHz, High Precision Amp
1	SGM8925	0.6	2.5	1	No	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low Side Current Sense
1	SGM8927	0.6	2.5	1	Yes	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOT-23-6,SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low Side Current Sense
1	SGM8951	0.8			No	1.8 ~ 5.5	0.11	0.045	3.5	115	26	92	92	Yes	Yes	SOT-23-5,SOIC-8	High Precision, Low Noise, Micro Power, RRIO
2	SGM8952	0.8			No	1.8 ~ 5.5	0.11	0.045	3.5	115	17	92	92	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Micro Power, RRIO

Note: †† Typical Values @100kHz

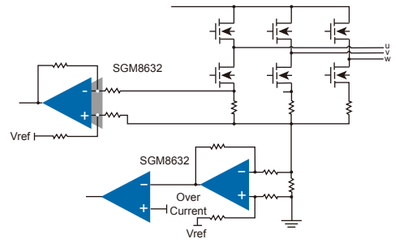
High Precision Operational Amplifiers

Amplifiers per Package	Part Number	1▲ V_{OS} Max @25°C (mV)	2▲ TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	Shut-down	V_{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	E_{NOISE} 0.1Hz ~ 10Hz (μV_{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	I_Q/Amp Typ (μA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8931	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
2	SGM8932	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
1	SGM8933	0.9	1.5	3	Yes	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOT-23-6,SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
4	SGM8934	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOIC-14,TSSOP-14	High Precision, Low Power, Low Noise, Rail-to-Rail Output
2	SGM8922A	0.9	1.6		No	3.0 ~ 5.5	12.7	6.8		6	3000	104	108	No	Yes	SOIC-8,MSOP-8,TSSOP-8	High Precision, 300mA Output Short Circuit Current, Rail-to-Rail Output
2	SGM8926	0.9	2.5	1	No	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low Side Current Sense
2	SGM8924A	1	1.5		No	3.0 ~ 5.5	8.9	5.1		6	5500	105	102	No	Yes	MSOP-10	High Precision, 300mA Output Short Circuit Current, Rail-to-Rail Output
1	SGM8558-1	0.005†		40	No	2.7 ~ 5.5	14	8.5		7.5	850	120	100	Yes	Yes	SOT-23-5,SOIC-8	High Precision, Low Noise, Zero-Drift
2	SGM8558-2	0.005†		40	No	2.7 ~ 5.5	14	8.5		7.5	850	120	100	Yes	Yes	TDFN-3×3-8L,SOIC-8,WLCSP-1.45×1.45-8B	High Precision, Low Noise, Zero-Drift
1	SGM8558-3	0.005†		40	Yes	2.7 ~ 5.5	14	8.5		7.5	850	120	100	Yes	Yes	SOT-23-6	High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
4	SGM8558-4	0.005†		40	No	2.7 ~ 5.5	14	8.5		7.5	850	120	100	Yes	Yes	SOIC-14	High Precision, Low Noise, Zero-Drift
1	SGM8263-1	0.008†	0.1	60000	No	4.5 ~ 36	9	10	0.35	6.5	3000	130	120	No	Yes	SOIC-8	9MHz, Ultra Low Noise, Ultra Low Offset
2	SGM8263-2	0.008†	0.1	60000	No	4.5 ~ 36	9	10	0.35	6.5	3000	130	120	No	Yes	SOIC-8	9MHz, Ultra Low Noise, Ultra Low Offset
1	SGM8275-1	0.05†	0.8	1000	No	3.6 ~ 36	3	4	0.3	8.5	900	120	140	No	Yes	SOT-23-5,SOIC-8	High Voltage, High Precision, Low Noise
2	SGM8275-2	0.05†	0.8	1000	No	3.6 ~ 36	3	4	0.3	8.5	900	120	140	No	Yes	SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise
1	SGM8275-3	0.05†	0.8	1000	Yes	3.6 ~ 36	3	4	0.3	8.5	900	120	140	No	Yes	SOT-23-6	High Voltage, High Precision, Low Noise, Single Amp with Shutdown
1	SGM8295-1	0.06†	1	2000	No	3.6 ~ 36	9	8	0.2	4.5	1500	120	120	No	Yes	SOIC-8,SOT-23-5	High Voltage, High Precision, Low Noise
2	SGM8295-2	0.06†	1	2000	No	3.6 ~ 36	9	8	0.2	4.5	1500	120	120	No	Yes	SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise
4	SGM8295-4	0.06†	1	2000	No	3.6 ~ 36	9	8	0.2	4.5	1500	120	120	No	Yes	SOIC-14	High Voltage, High Precision, Low Noise
2	SGM8262-2	0.1†	1	40000	No	4.5 ~ 36	50	35		3.5	8000	110	125	No	Yes	SOIC-8,TDFN-3×3-8BL	30MHz, Ultra Low Noise, HiFi High Output Current Audio Amp
2	SGM8261-2	0.35	1	40000	No	3.6 ~ 36	16	16	0.1	1.6	3800	140	120	No	Yes	TDFN-3×3-8AL,TDFN-3×3-8BL,SOIC-8,MSOP-8	High Voltage, High Precision, Ultra Low Noise, HiFi Audio Amp
1	SGM8273-1	0.4†	2	5	No	3.3 ~ 36	4	6	1.5	9	600	110	100	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Low Noise, High Precision, High Voltage RRIO
2	SGM8273-2	0.4†	2	5	No	3.3 ~ 36	4	6	1.5	9	600	110	100	Yes	Yes	SOIC-8	Low Noise, High Precision, High Voltage RRIO
4	SGM8273-4	0.4†	2	5	No	3.3 ~ 36	4	6	1.5	9	600	110	100	Yes	Yes	SOIC-14	Low Noise, High Precision, High Voltage RRIO

Note: † Typical Values @25°C

Low Noise Operational Amplifiers

The Low Noise Operational Amplifier family provides rail-to-rail input and output with an excellent speed/power consumption ratio. They are designed to provide optimal performance in low noise systems, providing rail-to-rail output swing into heavy loads. The combination of these characteristics makes them extremely suitable for sensor interfaces, high speed current sensing and active filtering.



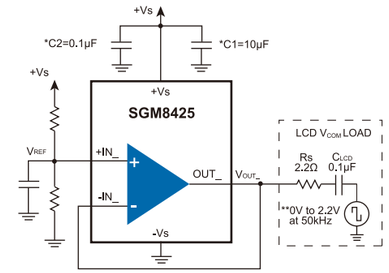
Amplifiers per Package	Part Number	E_{NOISE} 1kHz (nV/√Hz)	I_{NOISE} Typ @1kHz (pA/√Hz)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	I_{OUT} Min @25°C (mA)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (mA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
1	SGM8261-1	1.6	6	16	16	60†	0.35	1	40000	3.6 ~ 36	3.8	140	120	Output	SOIC-8	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8261-2	1.6	6	16	16	60†	0.35	1	40000	3.6 ~ 36	3.8	140	120	Output	TDFN-3×3-8AL,TDFN-3×3-8BL,SOIC-8,MSOP-8	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8261-5	1.6	6	16	16	120†	0.35	1	40000	3.6 ~ 36	4.1	150	130	Output	TDFN-3×3-10L,MSOP-10	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8262-2	3.5	4	50	35	150†	0.1†	1	40000	4.5 ~ 36	8	110	125	Output	SOIC-8,TDFN-3×3-8BL	20MHz, Ultra Low Noise, HiFi High Output Current Audio Amp
1	SGM8295-1	4.5	2	9	8	50†	0.06†	1	2000	3.6 ~ 36	1.5	120	120	Output	SOIC-8,SOT-23-5	9MHz, Low Noise, High Voltage Amp
2	SGM8295-2	4.5	2	9	8	50†	0.06†	1	2000	3.6 ~ 36	1.5	120	120	Output	SOIC-8,MSOP-8	9MHz, Low Noise, High Voltage Amp
4	SGM8295-4	4.5	2	9	8	50†	0.06†	1	2000	3.6 ~ 36	1.5	120	120	Output	SOIC-14	9MHz, Low Noise, High Voltage Amp
1	SGM8263-1	6.5	5	9	10	60†	0.008†	0.1	60000	4.5 ~ 36	3	130	120	Output	SOIC-8	9MHz, Ultra Low Noise, Ultra Low Offset
2	SGM8263-2	6.5	5	9	10	60†	0.008†	0.1	60000	4.5 ~ 36	3	130	120	Output	SOIC-8	9MHz, Ultra Low Noise, Ultra Low Offset
1	SGM8959-1	8		4	1		0.01	0.032	350	1.8 ~ 5.5	380	127	123	Yes	SOT-23-5,SC70-5,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8959-2	8		4	1		0.01	0.032	350	1.8 ~ 5.5	380	127	123	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8275-1	8.5	1.5	3	4	35†	0.05†	0.8	1000	3.6 ~ 36	0.9	120	140	Output	SOT-23-5,SOIC-8	3MHz, Low Noise, High Voltage Amp
1	SGM8275-3	8.5	1.5	3	4	35†	0.05†	0.8	1000	3.6 ~ 36	0.9	120	140	Output	SOT-23-6	3MHz, Low Noise, High Voltage, Single Amp with Shutdown
2	SGM8275-2	8.5	1.5	3	4	35†	0.05†	0.8	1000	3.6 ~ 36	0.9	120	140	Output	SOIC-8,MSOP-8	3MHz, Low Noise, High Voltage Amp
1	SGM8958-1	12		1.8	0.7		0.01	0.03	500	1.8 ~ 5.5	165	136	125	Yes	SOT-23-5,SC70-5,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8958-2	12		1.8	0.7		0.01	0.03	500	1.8 ~ 5.5	165	136	125	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
4	SGM8634	12	0.003	6	3.7	49	3.5	2.4	1	2.5 ~ 5.5	0.47	97	83	Yes	SOIC-14,TSSOP-14	6MHz/3.7V/μs, Low Noise, RRIO
1	SGM721	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.2	89	75	Yes	SOT-23-5,SOIC-8,SC70-5	11MHz/8.5V/μs, Low Noise, RRIO
1	SGM723	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.2	89	75	Yes	SOT-23-6,SOIC-8	11MHz/8.5V/μs, Low Noise, Single Amp with Shutdown, RRIO
2	SGM722	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.1	89	75	Yes	SOIC-8,MSOP-8,TSSOP-8	11MHz/8.5V/μs, Low Noise, RRIO
4	SGM724	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.1	89	75	Yes	SOIC-14,TSSOP-14	11MHz/8.5V/μs, Low Noise, RRIO
1	SGM8631	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.57	86	76	Yes	SOT-23-5,SOIC-8,SC70-5	6MHz/3.7V/μs, Low Noise, RRIO
1	SGM8633	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.57	86	76	Yes	SOT-23-6,SOIC-8	6MHz/3.7V/μs, Low Noise, Single Amp with Shutdown, RRIO
2	SGM8632	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.48	86	76	Yes	MSOP-8,SOIC-8	6MHz/3.7V/μs, Low Noise, RRIO
1	SGM8621	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.27	90	71	Yes	SOT-23-5,SOIC-8,SC70-5	3MHz/1.7V/μs, Low Noise, RRIO
1	SGM8623	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.27	90	71	Yes	SOT-23-6,SOIC-8	3MHz/1.7V/μs, Low Noise, Single Amp with Shutdown, RRIO
2	SGM8622	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.21	90	71	Yes	SOIC-8,MSOP-8	3MHz/1.7V/μs, Low Noise, RRIO
4	SGM8624	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.21	90	71	Yes	SOIC-14,TSSOP-14	3MHz/1.7V/μs, Low Noise, RRIO
1	SGM8965-1	4.5†††		50	30		0.25	1.2	0.5	2.2 ~ 5.5	5.3	115	100	Yes	SOT-23-5,SOIC-8	50MHz, High Precision Amp
2	SGM8965-2	4.5†††		50	30		0.25	1.2	0.5	2.2 ~ 5.5	5.3	115	100	Yes	SOIC-8,MSOP-8	50MHz, High Precision Amp
1	SGM8651	8.7††		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOT-23-5,SOIC-8	50MHz/66V/μs, Low Noise, Rail-to-Rail Output
1	SGM8653	8.7††		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOT-23-6,SOIC-8	50MHz/66V/μs, Low Noise, Single Amp with Shutdown, Rail-to-Rail Output
2	SGM8652	8.7††		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOIC-8,MSOP-8	50MHz/66V/μs, Low Noise, Rail-to-Rail Output
2	SGM8655	8.7††		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	MSOP-10	50MHz/66V/μs, Low Noise, Dual Amps with Shutdown, Rail-to-Rail Output
4	SGM8654	8.7††		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOIC-14,TSSOP-14	50MHz/66V/μs, Low Noise, Rail-to-Rail Output

Notes: † Typical Values @25°C
†† Typical Values @1MHz
††† Typical Values @ 100kHz

Special Function Operational Amplifiers

Amplifiers per Package	Part Number [1]	Features	Settling Time to 0.1% (μs)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	I_{OUT} Typ (mA)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (μA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail I/O	Package
2	SGM4822	Tiny, Low-Cost, Single Input, Fixed-Gain Microphone Amplifier with Integrated Bias		2.6 @-3dB	4.8	96				2.7 ~ 5.5	4.8	20			SOT-23-8
2	SGM4823	Tiny, Low-Cost, Dual Input, Fixed-Gain Microphone Amplifier with Integrated Bias		2.6 @-3dB	4.8	96				2.7 ~ 5.5	4.8	20			MSOP-10
1	SGM8139	Low Power, Low Voltage PIR and Vibration Sensor AFE		0.011	0.0058	24	1.6			1.4 ~ 5.5	6.5	92	78		SOIC-16,TQFN-2.5×2.5-16L
3	SGM8140	Low Power, Vibration Sensor and PIR Sensor Analog Front End (AFE)		5	0.0016	24	2.5	2	1	1.4 ~ 5.5	1.1	93	83	Yes	TQFN-4×4-16L
1	SGM8477-1	1.8V, Low Noise, Zero-Drift Operational Amplifier		0.15 @-3dB	0.15	50	0.01	0.02		1.8 ~ 5.5	380		108	Yes	SC70-6,UTQFN-1.8×1.4-10L
1	SGM8478-1C	High Voltage, High Precision, Low Noise, Over the Rail Difference Amplifier		0.2 @-3dB	3.5	55	0.003†		8×10^7	4.5 ~ 36	1500		110	Yes	SOIC-8,TDFN-3×3-8L
1	SGM8478-1H	High Voltage, High Precision, Low Noise, Over the Rail Difference Amplifier		0.04 @-3dB	1	40	0.01†		8×10^6	4.5 ~ 36	5000		102	Yes	SOIC-8,TDFN-3×3-8L
2	SGM8480-2	+15V Single-Supply, Dual Operation Amplifier with ±10V Output Range	1	8	8	50	0.02†			4.5 ~ 15.5	4500	120	120		
1	SGM8941	Crossover Distortion Free, 0.9mV V_{OS}, Low Bias Current	2	1.5	0.8		0.9	3	3	1.8 ~ 5.5	120	90	90	Yes	SOT-23-5,SOIC-8
2	SGM8942	Crossover Distortion Free, 0.9mV V_{OS}, Low Bias Current	2	1.5	0.8		0.9	3	3	1.8 ~ 5.5	120	90	90	Yes	SOIC-8,MSOP-8

Note: † Typical Values @25°C



High Output Operational Amplifiers

Amplifiers per Package	Part Number [1]	Transient Output Peak Current (mA)	Settling Time to 0.1% (μs)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	I_{OUT} Typ (mA)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (μA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
2	SGM8422			2.4	2	80	5.9		10	4.5 ~ 30	660	113	73	Yes	SOIC-8,MSOP-8	Low Power, 30V_{CC}, Dual V_{COM} Buffer for Small Panel
4	SGM8424			2.4	2	80	5.9		10	4.5 ~ 30	660	113	73	Yes	SOIC-14,TSSOP-14	Low Power, 30V_{CC}, Quad V_{COM} Buffer for Small Panel
1	SGM8557-1	240		15	7		0.005	0.027	100	2.7 ~ 5.5	1150	144	120	Yes	SOT-23-5,SOIC-8,MSOP-8	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8557-2	240		15	7		0.005	0.027	100	2.7 ~ 5.5	1150	144	120	Yes	SOIC-8	Ultra High Precision, Low Noise, Zero-Drift
1	SGM8557-3	240		15	7		0.005	0.027	100	2.7 ~ 5.5	1150	144	120	Yes	SOT-23-6,SOIC-8	Ultra High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
1	SGM8557-5	240		15	7		0.005	0.027	100	2.7 ~ 5.5	1150	144	120	Yes	MSOP-10	Ultra High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
1	SGM8425	336	0.34	9	14	80	6.5	4.9		4.5 ~ 30	1600	92	71	Yes	SOT-23-5,SOIC-8,MSOP-8	336mA Peak Output Current, 14V/μs, 30V_{CC}, Single V_{COM} Buffer
2	SGM8426	336	0.34	9	14	80	6.5	4.9		4.5 ~ 30	1600	92	71	Yes	SOIC-8,MSOP-8	336mA Peak Output Current, 14V/μs, 30V_{CC}, Dual V_{COM} Buffer
4	SGM8428	336	0.34	9	14	80	6.5	4.9		4.5 ~ 30	1600	92	71	Yes	SOIC-14,TSSOP-14	336mA Peak Output Current, 14V/μs, 30V_{CC}, Quad V_{COM} Buffer
1	SGM8416-1	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600	120	72	Yes	TDFN-3×3-8L	0.8A Peak Output Current, 65V/μs, 26.5V_{CC}, Single V_{COM}Buffer
2	SGM8416-2	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600	120	72	Yes	MSOP-8 (Exposed Pad)	0.8A Peak Output Current, 65V/μs, 26.5V_{CC}, Dual V_{COM} Buffer
4	SGM8416-4	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600	120	72	Yes	TSSOP-14 (Exposed Pad)	0.8A Peak Output Current, 65V/μs, 26.5V_{CC}, Quad V_{COM} Buffer
1	SGM8417-1	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300	120	72	Yes	TDFN-3×3-8L	1.5A Peak Output Current, 65V/μs, 26.5V_{CC}, Single V_{COM} Buffer
2	SGM8417-2	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300	120	72	Yes	MSOP-8 (Exposed Pad)	1.5A Peak Output Current, 65V/μs, 26.5V_{CC}, Dual V_{COM} Buffer
4	SGM8417-4	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300	120	72	Yes	TSSOP-14 (Exposed Pad)	1.5A Peak Output Current, 65V/μs, 26.5V_{CC}, Quad V_{COM} Buffer
2	SGM8423-2	2000		63/60	100/60	200	1.78†/1†		4/8	5 ~ 24	4000/16000	104/85	100/100	No	TQFN-4×4-20L	High Speed, Low Noise, 2A PLC Driver
1	SGM8418-1	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800	120	72	Yes	TDFN-3×3-8L	3A Peak Output Current, 65V/μs, 26.5V_{CC}, Single V_{COM} Buffer
2	SGM8418-2	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800	120	72	Yes	MSOP-8 (Exposed Pad)	3A Peak Output Current, 65V/μs, 26.5V_{CC}, Dual V_{COM} Buffer
4	SGM8418-4	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800	120	72	Yes	TSSOP-14 (Exposed Pad)	3A Peak Output Current, 65V/μs, 26.5V_{CC}, Quad V_{COM} Buffer
1	SGM8421-1	3000	0.13	25	65	400	1†	3.6	1000	4.5 ~ 26.5	4500	120	72	Yes	TO-263-A	High Speed, Low Noise, 400mA Continuous Output Current Resolver Driver

Note: † Typical Values @25°C

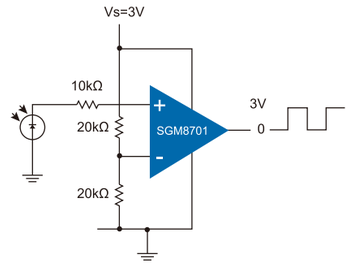
Tiny Package Operational Amplifiers

Amplifiers per Package	Part Number	Estimated Package Size (W×L) (mm²)[1]	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	GBP Typ (MHz)	A_{VO} Typ (dB)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (μA)	Settling Time to 0.1% (μs)	Slew Rate Typ (V/μs)	I_{OUT} Typ (mA)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
1	SGM8604-1	1.45	0.01	0.017	15	145	200	2.7 ~ 5.5	1200		7	232	120	Yes	UTDFN-1.45×1-6L	15MHz, 7V/μs, High-Output-Drive, RRIO, High Precision, Low Noise, Single Amp
1	SGM8604-3	1.45	0.01	0.017	15	145	200	2.7 ~ 5.5	1200		7	232	120	Yes	UTDFN-1.45×1-6L	15MHz, 7V/μs, High-Output-Drive, RRIO, High Precision, Low Noise, Single Amp with Shutdown
1	SGM8605-1	1.45	4.5		12.5	88	2	2.1 ~ 5.5	1200	0.21	8.5	78	79	Yes	UTDFN-1.45×1-6L	Ultra Tiny Package, Low Noise
2	SGM8558-2	2.1	0.005†		14	120	40	2.7 ~ 5.5	850		8.5		100	Yes	TDFN-3×3-8L,WLCSP-1.45×1.45-8B,SOIC-8	High Precision, Low Noise, Zero-Drift
1	SGM8049-1	4	0.85	0.6	0.12	118	1	1.8 ~ 5.5	2.5		0.08	20	100	Yes	SC70-5,SOT-23-5,TDFN-2×2-6L	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output
1	SGM8601	4	4	8.7	11	92	1	2.1 ~ 5.5	1100	0.21	8.5	63	82	Yes	TDFN-2×2-8L	Tiny Package, Low Noise
1	SGM8603	4	4.9	2.7	11	91	1	2.1 ~ 5.5	1100	0.21	8.5	64	83	Yes	TDFN-2×2-6L	Tiny Package, Low Noise
2	SGM4832	4	3.5	2.7	1.1	105	0.5	2.1 ~ 5.5	46	5.3	0.52	75	80	Yes	TDFN-2×2-8L	
2	SGM8600	4	4	8.7	11	92	1	2.1 ~ 5.5	1100	0.21	8.5	63	82	Yes	TDFN-2×2-8L,SOIC-8	Tiny Package, Positive Offset, Low Noise
2	SGM8210-2	6	1	1	1	120	5	3.3 ~ 24	50		0.3		115	Yes	TDFN-2×3-8L,SOIC-8,MSOP-8	High Voltage, Micro Power, Precision
2	SGM8240-2	6	1	3	0.1	120	5	2.7 ~ 24	2.8		0.05	20	110	Yes	TDFN-2×3-8L,SOIC-8,MSOP-8	High Voltage, Micro Power, Precision
2	SGM8602	6	5.1	4.7	12	92	1	2.1 ~ 5.5	1100	0.2	9	65	75	Yes	SOT-23-8,TDFN-2×3-8L	Tiny Package, Low Noise
2	SGM8604-2	6	0.01	0.017	15	145	200	2.7 ~ 5.5	1200		7	232	120	Yes	TDFN-2×3-8L	15MHz, 7V/μs, High-Output-Drive, RRIO, High Precision, Low Noise, Dual Amps
1	SGM8606	9	0.05	0.08	0.35	121	130	1.8 ~ 5.5	20		0.18	18	100	Yes	TDFN-3×3-10L	Current Sensing AFE
2	SGM4834	9	2.6	1.7	10	109		3 ~ 5.5	5500		5.4	212	103	No	TDFN-3×3-10L	
2	SGM4835	9	5.3	2.7	1.5	84	10	2.1 ~ 5.5	60	3.6	0.63	21	70	Yes	TDFN-3×3-8L	
2	SGM8261-2	9	0.35	1	16	140	40000	3.6 ~ 36	3800		16	65	120	No	SOIC-8,MSOP-8,TDFN-3×3-8AL,TDFN-3×3-8BL	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8261-5	9	0.35	1	16	150	40000	3.6 ~ 36	4100		16	110	130	No	MSOP-10,TDFN-3×3-10L	20MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8263-2	9	0.008†	0.1	9	130	60000	4.5 ~ 36	3000		10	60	120	No	SOIC-8	9MHz, Ultra Low Noise, Ultra Low Offset
2	SGM8604-5	9	0.01	0.017	15	145	200	2.7 ~ 5.5	1200		7	232	120	Yes	TDFN-3×3-10L	15MHz, 7V/μs, High-Output-Drive, RRIO, High Precision, Low Noise, Dual Amps with Shutdown
2	SGM8956	9	0.05	0.08	0.35	121	130	1.8 ~ 5.5	20		0.18	60	100	Yes	SOIC-8,MSOP-8,TDFN-3×3-8L	Very High Precision, Low Noise, Micro Power, RRIO
2	SGM8957-2	9	0.025	0.08	0.35	121	130	1.8 ~ 5.5	20		0.18	60	100	Yes	SOIC-8,MSOP-8,TDFN-3×3-8L	Very High Precision, Low Noise, Micro Power, RRIO
2	SGM8958-2	9	0.01	0.03	1.8	136	500	1.8 ~ 5.5	165		0.7		125	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
2	SGM8959-2	9	0.01	0.032	4	127	350	1.8 ~ 5.5	380	5.3	1		123	Yes	SOIC-8,TDFN-3×3-8L	Ultra High Precision, Low Noise, Zero-Drift
4	SGM3130	9	5	2.7	1	84	10	2.1 ~ 5.5	60		0.52	75	68	Yes	TQFN-3×3-16L	
4	SGM8044	9	2.5	2.5	0.015	93	1	1.4 ~ 5.5	0.67		0.0034	23	83	Yes	SOIC-14,TSSOP-14,TQFN-3×3-16L	Very Low Quiescent Current, Rail-to-Rail Input and Output
3	SGM8140	16	2.5	2	0.005	93	1	1.4 ~ 5.5	1.1		0.0016	24	83	Yes	TQFN-4×4-16L	PIR Sensor AFE Integrate 2 Operational Amplifiers and 1 Comparator

Note: † Typical Values @25°C

Nano Power Comparators

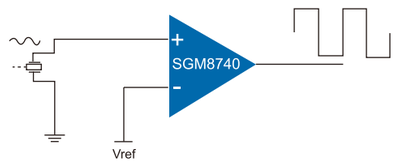
The Nano Power Comparator family provides a typical power supply current as low as 350nA. They have the best-in-class power supply current versus propagation delay performance. The propagation delay is as low as 6μs with 100mV overdrive at 1.4V supply. The Nano Power Comparator family also provides different options featuring push-pull output stage, PFET/NFET open-drain output stage, latch enable, reference output and ultra small DFN packages.



Comparators per Package	Part Number	I_Q/Comp Typ (nA) [1]	Latch Enable	V_{CC} (V)	V_{OS} Max @25°C (mV)	t_{PD}, H to L @V_{CC} = 5V (μs)	t_{PD}, L to H @V_{CC} = 5V (μs)	Logic Output	Reference Output (V)	Rise Time @V_{CC} = 5V (ns)	Fall Time @V_{CC} = 5V (ns)	Package	Features
1	SGM8701	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-5,SC70-5	Ultra Low Power, Push-Pull, Small Package
1	SGM8702	350	No	1.4 ~ 5.5	3	6	33	Open-Drain (PFET)	NA	85	NA	SOT-23-5,SC70-5	Ultra Low Power, PFET Open-Drain, Small Package
1	SGM8703	350	Yes	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-6	Latch Enable, Ultra Low Power, Push-Pull, Small Package
1	SGM8704	350	Yes	1.4 ~ 5.5	3	6	33	Push-Pull & Invert	NA	85	60	SOIC-8,MSOP-8	Latch Enable, Ultra Low Power, Push-Pull and Inverter
2	SGM8705	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOIC-8,MSOP-8	Ultra Low Power, Push-Pull
1	SGM8707	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-5,SC70-5	Ultra Low Power, Push-Pull, Small Package
1	SGM8709	350	No	1.4 ~ 5.5	3	5		Open-Drain (NFET)	NA	NA	36	SOT-23-5,SC70-5	Ultra Low Power, NFET Open-Drain, Small Package
2	SGM8712	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	MSOP-8	Ultra Low Power, Push-Pull
1	SGM8706	2300	Yes	1.8 ~ 5.5	3	5.6	30	Push-Pull	1.2	40	30	SOIC-8,SOT-23-8,SOT-23-6	Internal Reference, Latch Enable, Ultra Low Power, Push-Pull
1	SGM8708	2300	Yes	1.8 ~ 5.5	3	5.6	30	Push-Pull & Invert	1.2	40	30	SOT-23-8,SOIC-8	Internal Reference, Latch Enable, Ultra Low Power, Push-Pull and Inverter
1	SGM8710	2300	Yes	1.8 ~ 5.5	3	5.6		Open-Drain (NFET)	1.2	NA	30	SOT-23-8,SOT-23-6	Internal Reference, Latch Enable, Ultra Low Power, NFET Open-Drain
1	SGM8711	2300	No	1.8 ~ 5.5	3	5.6	30	Push-Pull	1.2	40	30	UTDFN-1.6×1.6-6L	Tiny Package, Internal Reference, Ultra Low Power, Push-Pull

High Speed Comparators

The High Speed Comparator family provides the smallest propagation delay as short as 6ns, while input common mode range of the devices extends beyond both power supply rails. The output pulls to within 0.1V of either supply rail without external pull-up circuitry, making the devices ideal for interface with both CMOS and TTL logics. All input and output pins can tolerate a continuous short-circuit fault condition to either rail. Internal hysteresis ensures a clean output switching, even with slow-moving input signals.



Comparators per Package	Part Number	t_{PD}, H to L @V_{CC} = 5V (ns) [1]	t_{PD}, L to H @V_{CC} = 5V (ns)	Rise Time @V_{CC} = 5V (ns)	Fall Time @V_{CC} = 5V (ns)	V_{OS} Max @25°C (mV)	V_{CC} (V)	Input Common Mode Voltage Range (V)	I_Q/Comp Typ (μA)	Logic Output	Rail-to-Rail Output	Package	Features
1	SGM8743	6	6	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOT-23-5,SC70-5	Ultra High Speed, Small Package, Single, Rail-to-Rail Input
1	SGM8744	6	6	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOT-23-5,SC70-5	Ultra High Speed, Small Package, Single, Rail-to-Rail Input
2	SGM8745	6	6	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOIC-8,MSOP-8	Ultra High Speed, Small Package, Dual, Rail-to-Rail Input
1	SGM8740	20	25	8	5	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOT-23-5,SC70-5	High Speed, Small Package, Single, Rail-to-Rail Input
1	SGM8741	20	25	8	5	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOT-23-5,SC70-5	High Speed, Small Package, Single, Rail-to-Rail Input
2	SGM8742	20	25	8	5	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOIC-8,MSOP-8	High Speed, Small Package, Dual, Rail-to-Rail Input
1	SGM8751	30	22	11	8	5	2.7 ~ 5.5	-0.1 ~ Vs-1.2	150	Push-Pull	Yes	SOT-23-5	Low Power, Small Package, Single, Rail-to-Rail Output
1	SGM8746	95	120	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOT-23-5,SC70-5	Low Power, Small Package, Single, Rail-to-Rail Input
1	SGM8747	95	120	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOT-23-5,SC70-5	Low Power, Small Package, Single, Rail-to-Rail Input
2	SGM8748	95	120	8	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOIC-8,MSOP-8	Low Power, Small Package, Dual, Rail-to-Rail Input
1	SGM8749	97	NA	NA	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Open-Drain	No	SOT-23-5,SC70-5	Low Power, Small Package, Single, Open-Drain Output
2	SGM8750	97	NA	NA	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Open-Drain	No	SOIC-8,MSOP-8	Low Power, Small Package, Dual, Open-Drain Output

High Performance Video Buffers

The High Performance, High Reliability Video Buffer family provides industry's broadest products of driving Standard Definition and High Definition analog video signals, including 1080p. These comprehensive filtering solutions provide the designers flexibility to easily filter and drive various video signals, including high definition video, DVD and set-top box applications.

1▲

Part Number	Standard Definition Channels	High Definition Channels	1080p Support	Shut-down	V_{CC} (V)	Internal Gain (dB)	-3dB Bandwidth Typ (MHz)	-0.1dB Bandwidth Typ (MHz)	Rail-to-Rail Output	Internal Filter	Quiescent Current (mA)	Slew Rate Typ (V/μs)	Group Delay (ns)	Package	Features
SGM9111	1			No	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOIC-8,SC70-5	Single Channel, Standard Definition, Small Package
SGM9113	1			No	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOIC-8,SC70-5	Single Channel, Standard Definition, Small Package
SGM9114	1			Yes	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOT-23-6	Single Channel, Standard Definition, Small Package with Shutdown
SGM9115	3			No	3.3 ~ 5.5	6	9	5.5	Yes	Yes	21	44	31	SOIC-8	Triple Channels, Standard Definition
SGM9116		3		No	3.3 ~ 5.5	6	38.5	30.5	Yes	Yes	30	165	3	SOIC-8	Triple Channels, High Definition, 1080i Supported
SGM9117		3	Yes	No	2.5 ~ 5.5	6	200	92	Yes	No	27.5	300	3	SOIC-8	Triple Channels, High Definition, 1080p Supported
SGM9119	3			No	3.3 ~ 5.5	6	8	5.56	Yes	Yes	21	31.5	31.2	SOIC-8,MSOP-8	Triple Channels, Standard Definition
SGM9121	1			Yes	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SC70-6	Single Channel, Standard Definition, Small Package with Shutdown
SGM9122	2			No	3.0 ~ 5.5	6	15	8.9	Yes	Yes	5.8			WSOP-8,TSSOP-8	Dual Channels, Standard Definition
SGM9124	4			No	3.3 ~ 5.5	6	8	5.9	Yes	Yes	30	35	28	MSOP-10	Quad Channels, Standard Definition
SGM9125	5			No	3.3 ~ 5.5	6	8	5.8	Yes	Yes	44	35	30.4	TSSOP-14	Five Channels, Standard Definition
SGM9126	6			No	3.3 ~ 5.5	6	8	5.7	Yes	Yes	44	35	30.5	TSSOP-14	Six Channels, Standard Definition
SGM9127	4			No	3.3 ~ 5.5	6	8	5.9	Yes	Yes	30	35	28	TSSOP-14	Quad Channels, Standard Definition
SGM9128YP	1	3		No	3.1 ~ 5.5	6	8.5/46	6.4/32	Yes	Yes	65	34/190	30/2.5	MSOP-10 (Exposed Pad)	Single SD Channel, Triple HD Channels, 1080i Supported, Exposed Pad
SGM9131		3		No	3.1 ~ 5.5	6	46	32	Yes	Yes	55	190	3.5	SOIC-8	Triple Channels, High Definition, 1080i Supported
SGM9132		3	Yes	No	3.1 ~ 5.5	6	98	78	Yes	Yes	75	340	5.3	SOIC-8 (Exposed Pad)	Triple Channels, High Definition, 1080p Supported
SGM9133	1	3	Yes	Yes	3.1 ~ 5.5	6	8.5/46/98	6.4/32/78	Yes	Yes	75	34/190/340	35/3.5/7	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i/1080p Supported with Shutdown
SGM9134	1	3		No	3.1 ~ 5.5	6	8.5/46	6.4/32	Yes	Yes	58	34/190	35/3.5	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i Supported
SGM9135	1	3	Yes	No	3.1 ~ 5.5	6	8.5/98	6.4/78	Yes	Yes	88	34/340	35/5.3	MSOP-10 (Exposed Pad)	Single SD Channel, Triple HD Channels, 1080p Supported
SGM9136	1	3	Yes	Yes	3.1 ~ 5.5	6	8.5/46/98	6.4/33/78	Yes	Yes	75	34/190/340	35/3.5/5.3	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i/1080p Supported with Shutdown
SGM9137	1	3		No	3.1 ~ 5.5	6	8.5/46	6.4/32	Yes	Yes	58	34/190	35/3.5	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i Supported
SGM9144	1			Yes	2.5 ~ 4.0	6/12	14/14		Yes	Yes	11.8	60		MSOP-8,TDFN-2×2-8L	Single SD Channel, Capless Output Coupling
SGM9152		1	Yes	Yes	3.1 ~ 5.5	6	79	64	Yes	Yes	15	300	3.5	MSOP-8	Single HD Channel, 1080p Supported
SGM9153		1	Yes	Yes	2.5 ~ 4.0	6	82	62	Yes	Yes	36	305	6.2	MSOP-10,TDFN-3×3-10L	Single HD Channel, 1080p Supported, Capless Output Coupling
SGM9155		1		Yes	3.1 ~ 5.5	6	40		Yes	Yes	12.5	175	3.8	SOT-23-6,SC70-5	Single HD Channel, 720p Supported
SGM9203	3	3	Yes	Yes	3.3 ~ 5.5	6/0	8/18/38/75	5.4/12/30/40	Yes	Yes	40	40/78/155/311	22/13.5/9.5/NA	TSSOP-14	Triple Channels, Selectable SD/PS/HD(1080i)/HD(1080p) with Shutdown
SGM9346	3	3		No	3.3 ~ 5.5	6	8/35	5.36/28.2	Yes	Yes	64.5	39.5/140	10.5/4.9	TSSOP-20	Triple SD Channels, Triple HD Channels

High Performance Audio Line Drivers

The Audio Line Driver family provides pop & click free stereo line drivers designed to allow the removal of the output DC-blocking capacitors for reduced component count and cost. The products are ideal for single supply electronics where size and cost are critical design parameters. The use of external gain resistors also allows the implementation of a 2nd order low pass filter to complement DAC's and SoC converters.

1▲

Part Number	Output Voltage R_L = 600Ω THD ≤ 0.1%, Vcc = 5.0V	Output Power R_L = 32Ω THD ≤ 0.1%, Vcc = 5.0V	Stereo or Mono	V_{CC} (V)	Differential Input	Shutdown Logic	Shutdown Current Typ (μA)	Pop & Click Suppression	Package	Features
SGM4916		88mW/CH	Stereo	2.7 ~ 5.5	No	Active Low	0.01	Yes	TQFN-3×3-12L	OCL Headphone Driver
SGM4917		80mW/CH	Stereo	2.7 ~ 5.5	Yes	Active Low	0.01	Yes	TQFN-3×3-16L	OCL Headphone Driver with Differential Input
SGM4918		80mW/CH	Stereo	2.7 ~ 5.1	No	Active Low	0.01	Yes	TDFN-3×3-10L	OCL Headphone Driver
SGM89000	2.05Vrms @V_{CC} = 3.3V		Stereo	3.0 ~ 3.6	Yes	Active Low	130	Yes	TSSOP-14	600Ω Audio Line Driver with UVP Function
SGM8903	3.05Vrms		Stereo	3.0 ~ 5.5	Yes	Active Low	130	Yes	TSSOP-14	600Ω Audio Line Driver with UVP Function
SGM8904	3.05Vrms		Stereo	3.0 ~ 5.5	No	Active Low	130	Yes	MSOP-10	600Ω Audio Line Driver with UVP Function
SGM8905	3.05Vrms		Stereo	3.0 ~ 5.5	No	Active Low	130	Yes	MSOP-10 (Exposed Pad)	600Ω Audio Line Driver with UVP Function

Analog Switches

The Analog Switch family provides industry's broadest analog switches covering the requirements of low on-resistance (as low as 0.4Ω), high speed (up to 600MHz), multi-channel selection and high voltage operation (up to 40V).

2▲ Channels per Package	Part Number	1▲ Type	V_{CC} (V)	Quiescent Current (μA)	R_{ON} (Ω)	Charge Injection (pC)	3▲ Bandwidth @-3dB (MHz)	Digital I/O V_{INH} Min (V)	Digital I/O V_{INL} Max (V)	t_{ON} (ns)	t_{OFF} (ns)	Package	Features
1	SGM3003	1:2	1.8 ~ 5.5	<1	0.5	5	30	2.4	0.8	21	9	MSOP-8	Small Package, 30MHz, Ultra Low On-Resistance, Single SPDT
1	SGM4157YC	1:2	1.8 ~ 5.5	0.1	0.8		90	1.6	0.4	56	32	SC70-6	Low R_{ON}, Small Package, Single SPDT
1	SGM3001	1:2	1.8 ~ 5.5	<1	2.5	3	120	2.4	0.8	11	30	SC70-6	Small Package, 120MHz, Low On-Resistance, Single SPDT
1	SGM3157	1:2	1.8 ~ 5.5	<5	4.5		300	1.5	0.6	20	15	SC70-6	300MHz, Small Package, Single SPDT
1	SGM3719	1:2	2.5 ~ 5.0	<8	4	16	400	1.65	0.6	15	11	SOT-23-6	400MHz, Negative Signal Passing, Single SPDT
1	SGM3167	1:2	1.8 ~ 5.5	<5	9		600	1.5	0.6	20	15	SC70-6	600MHz, Small Package, Single SPDT
2	SGM4684	1:2	1.8 ~ 5.5	<1	0.4	3	13	2.4	0.8	25	28	WLCSP-2.0×1.5-10B	Ultra Low R_{ON}, Tiny Package, Dual SPDT
2	SGM3005	1:2	1.8 ~ 5.5	<1	0.5	20	15	2.4	0.8	50	15	TDFN-3×3-10L,MSOP-10	Tiny Package, 15MHz, Ultra Low On-Resistance, Dual SPDT
2	SGM2267	1:2	1.8 ~ 4.2	<1	0.4	4	40	1.6	0.5	96	16	TQFN-2.1×1.6-10L	Ultra Low R_{ON}, Tiny Package, Dual SPDT
2	SGM2268	1:2	1.8 ~ 4.2	<1	0.4	4	40	1.6	0.5	88	16	TQFN-1.8×1.4-10L	Ultra Low R_{ON}, Tiny Package, Dual SPDT
2	SGM5223	1:2	1.8 ~ 4.2	<1	0.5	13	55	1.6	0.5	17	27.5	TQFN-1.8×1.4-10L	Ultra Low R_{ON}, Dual, SPDT
2	SGM3718	1:2	2.5 ~ 5.0	<3.5	0.6	85	80	1.5	0.6	17	24	UTQFN-1.8×1.4-10L	80MHz, Negative Signal Passing, Tiny Package, Dual SPDT
2	SGM3712	1:2	2.7 ~ 12	600	1	500	100	1.6	0.3	400	100	WLCSP-1.27×2.13-15B,SOIC-14	1Ω, High Voltage, Rail-to-Rail Negative Signal Passing
2	SGM3715	1:2	2.7 ~ 12	500	0.8	1000	100	1.6	0.3	880	190	WLCSP-1.27×2.13-15B	0.8Ω, High Voltage, Rail-to-Rail Negative Signal Passing
2	SGM3002	1:2	1.8 ~ 5.5	<1	2.5	3	120	2.4	0.8	11	8	MSOP-10	Small Package, 120MHz, Low On-Resistance, Dual SPDT
2	SGM3158	1:2	1.8 ~ 5.5	<5	4.5		270	1.5	0.6	20	15	TDFN-3×1-12L	270MHz, Tiny Package, Dual SPDT
2	SGM2258	1:2	1.8 ~ 5.5	<1	4.5	6	300	1.6	0.5	70	20	TQFN-2.1×1.6-10L	USB2.0 Full Speed Analog Switch
2	SGM2260	1:2	1.8 ~ 4.3	<1	6	10	300	1.6	0.5	20	20	UTQFN-1.8×1.4-10L	6Ω, 300MHz, Low-Power Full-Speed USB (12Mbps) Switch
2	SGM4717	1:2	1.8 ~ 5.5	<5	4.5		300	1.5	0.6	26	20	WLCSP-2.0×1.5-10B,MSOP-10,TDFN-3×3-10L,TQFN-1.8×1.4-10L	300MHz, WLCSP, Tiny Package, Dual SPDT
2	SGM3717	1:2	2.5 ~ 5.0	<6	4	16	400	1.5	0.6	15	11	UTQFN-1.8×1.4-10L,MSOP-10	400MHz, Negative Signal Passing, Tiny Package, Dual SPDT
2	SGM7223	1:2	1.8 ~ 4.3	<1	4.5	9.8	500	1.6	0.5	11	20	TQFN-2.1×1.6-10L	USB2.0 High Speed, Dual SPDT
2	SGM7222	1:2	1.8 ~ 4.3	<1	4.5	11	550	1.6	0.5	10	22	TQFN-1.8×1.4-10L,MSOP-10,UTQFN-1.8×1.4-10L	USB2.0 High Speed, Dual SPDT
2	SGM7226	1:2	1.8 ~ 5.5	<30	5	10	550	1.5	0.35	15	20	TQFN-2.6×1.8-16L	5.5V, USB2.0 High Speed, Dual SPDT
2	SGM7227	1:2	1.8 ~ 4.3	<1	5	10	550	1.6	0.5	15	20	MSOP-10,UTQFN-1.8×1.4-10L	550MHz, USB2.0 Certified, Tiny Package, Dual SPDT
2	SGM7228	1:2	1.8 ~ 4.3	<1	6	11	550	1.6	0.5	10	22	TQFN-1.8×1.4-10L	Low Cost, High Speed USB 2.0 (480Mbps) DPDT Analog Switch
2	SGM3710	1:2	2.7 ~ 12	300	1/11	600	160/130	1.4	0.4	200	100	TQFN-2.6×1.8-16L,SOIC-16	1Ω/11Ω, High Voltage, Rail-to-Rail Negative Signal Passing
3	SGM4583	1:2	3.6 ~ 11	<20	36	10	140	2.4	0.8	60	70	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	High Voltage, Triple 1:2 Mux
3	SGM48753	1:2	2.5 ~ 5.5	<6	48	3	180	1.7	0.5	60	70	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	Low On-Resistance, Low Charge Injection, Triple 1:2 Mux
4	SGM3699	1:2	1.8 ~ 4.35	<1	0.5	30	70	1.6	0.5	52	25	TQFN-3×3-16L	70MHz, Low Voltage, Low I_Q, Ultra Low R_{ON}, Quad SPDT
4	SGM3799	1:2	1.8 ~ 4.35	<1	0.5	30	70	1.6	0.5	52	25	TQFN-2.6×1.8-16L	70MHz, Low Voltage, Low I_Q, Ultra Low R_{ON}, Quad SPDT
4	SGM44599	1:2	1.8 ~ 5.5	<1	4	3.5	300	1.6	0.5	31.5	30	TQFN-3×3-16L,TQFN-2.5×2.5-16L	300MHz, Small Package, Quad SPDT
4	SGM44600	1:2	1.8 ~ 5.5	<1	4	4.8	300	1.6	0.5	29.5	29.5	TQFN-3×3-16L	300MHz, Small Package, Quad SPDT
4	SGM44601	1:2	1.8 ~ 5.5	<1	4	3.5	300	1.6	0.5	36	30	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Quad SPDT
4	SGM44602	1:2	1.8 ~ 5.5	<1	4	4.8	300	1.6	0.5	32	26	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Quad SPDT
4	SGM44603	1:2	1.8 ~ 5.5	<1	4.5	20	300	1.6	0.5	40	30	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Quad SPDT
4	SGM5018	1:2	1.8 ~ 5.5	<1	4.5	20	300	1.6	0.5	40	30	TSSOP-16	300MHz, Quad SPDT
4	SGM3700	1:2	2.5 ~ 5.5	<15	4	21	380	1.5	0.5	15	9	TQFN-3×3-16L	380MHz, Negative Signal Passing, Quad SPDT, Tiny Package
4	SGM330A	1:2	2.7 ~ 5.5	<20	12		500	2	0.6	25	13	SOIC-16,TSSOP-16,SSOP-16	Quad, SPDT Video Analog Switch
4	SGM331A	1:2	5	<20	12		500	2	0.6	25	13	SOIC-16,TSSOP-16,SSOP-16	Quad, SPDT Video Analog Switch with 1.2V Self Bias
1	SGM48780	1:4	1.8 ~ 4.2	<1	4	10	150	1.4	0.3	35	9	TDFN-3×3-10L,MSOP-10	Single SPQT

Analog Switches

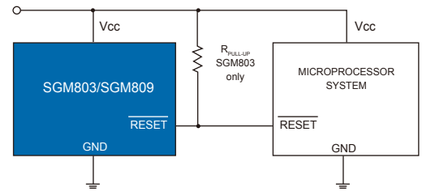
Channels per Package [2]	Part Number	Type [1]	V_{CC} (V)	Quiescent Current (μA)	R_{ON} (Ω)	Charge Injection (pC)	Bandwidth @-3dB (MHz) [3]	Digital I/O V_{INH} Min (V)	Digital I/O V_{INL} Max (V)	t_{ON} (ns)	t_{OFF} (ns)	Package	Features
1	SGM48755	1:4	2.5 ~ 5.5	<6	24	3	180	1.7	0.5	50	85	MSOP-10	Low On-Resistance, Low Charge Injection, Single 1:4 Mux
2	SGM4782	1:4	1.8 ~ 4.2	<1	0.5	-18	30	1.6	0.5	20	20	TQFN-3×3-16L,TSSOP-16	Ultra Low R_{ON}, Dual, SPQT
2	SGM4582	1:4	3.6 ~ 11	<20	36	15	120	2.4	0.8	60	60	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	High Voltage, Dual 1:4 Mux
2	SGM84782	1:4	1.8 ~ 4.2	<1	4	-18	150	1.6	0.5	17	9	TQFN-3×3-16L,TSSOP-16	Dual SPQT
2	SGM48752	1:4	2.5 ~ 5.5	<6	48	3	180	1.7	0.5	60	70	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	Low On-Resistance, Low Charge Injection, Dual 1:4 Mux
2	SGM4589	1:4	4.5 ~ 40		23	18	300	1.6	0.5	50	180	TSSOP-16,SOIC-16	40V, 300MHz, Dual 1:4 Mux in One Package, GPIO Control
1	SGM4581	1:8	3.6 ~ 11	<20	36	15	90	2.4	0.8	60	60	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	High Voltage, Single 1:8 Mux
1	SGM4588	1:8	4.5 ~ 40		23	18	160	1.6	0.5	50	180	TSSOP-16,SOIC-16	40V, 160MHz, Single 1:8 Mux in One Package, GPIO Control
1	SGM48751	1:8	2.5 ~ 5.5	<6	48	6	180	1.7	0.5	60	70	SSOP-16,TSSOP-16,SOIC-16,TQFN-3×3-16L	Low On-Resistance, Low Charge Injection, Single 1:8 Mux
4	SGM48754	SPST	2.5 ~ 5.5	<6	24	7	180	1.7	0.5	40	100	TSSOP-14,SOIC-14	Low On-Resistance, Low Charge Injection, Quad SPST
4	SGM4511	SPST	4.5 ~ 40		23	18	300	1.6	0.5	40	120	TSSOP-16,SOIC-16	40V, 300MHz, Quad SPST, Fast Turn-On Time
4	SGM4512	SPST	4.5 ~ 40		23	18	300	1.6	0.5	40	120	TSSOP-16,SOIC-16	40V, 300MHz, Quad SPST, Fast Turn-On Time

Switch Complexes

Part Number	Type	V_{CC} (V)	Bandwidth @-3dB (MHz) [1]	Control Interface	R_{ON} (Ω)	R_{ON} Flatness (Ω)	C_{ON} (pF)	C_{OFF} C_S/C_D (pF)	Crosstalk Typ (dB)	Charge Injection Typ (pC)	Package	Features
SGM6516	16×8	4.5 ~ 13.2	45	I/O	40		65	25	-47		LQFP-10×10-44L,PLCC-44L	16×8, Passive
SGM6512	1:16	3.3 ~ 13.2	80	I/O	24	12	75	8/70	-70	25	TQFN-5×5-32L,TSSOP-28	1:16, Multiplexer
SGM6515	1:8	3.3 ~ 13.2	80	I/O	24	12	75	8/70	-70	25	TSSOP-16	1:8, Multiplexer
SGM6501	12×9	3.1 ~ 5.5	84	I^2C					-74		SSOP-28,TSSOP-28	12×9, Buffered
SGM6502	8×6	3.1 ~ 5.5	88	I^2C					-77		TSSOP-24	8×6, Buffered
SGM65232	(1:2)×32	3.3 ~ 5	100	I/O	11		26	13	-60		LQFP-14×14-100L	High Speed, 2:1 32-Bit Bus Multiplexer
SGM6510	16×4	2.7 ~ 5.5	120	I^2C	30	8	40		-110	7	TSSOP-28,TQFN-4×4-28L	16×4, Passive
SGM6511	16×8	2.7 ~ 5.5	120	I^2C	30	8	50		-110	7	TQFN-5×5-32L,LQFP-7×7-32L	16×8, Passive
SGM6513	(1:8)×2	3.3 ~ 13.2	135	I/O	24	12	50	8/36	-70	25	TQFN-5×5-32L,TSSOP-28	Dual 1:8, Multiplexer
SGM6514	16×8	2.7 ~ 5.5	250	I^2C	30	8	50		-110	7	LQFP-7×7-32L	High Speed, 16×8, Passive, I^2C Interface
SGM6518	16×8	2.7 ~ 5.5	250	SPI	28	7	50	25	-55	6	LQFP-7×7-32L	High Speed, 16×8, Passive, Serial Digital Interface
SGM6533	(1:3)×3	2.5 ~ 5.5	350	I/O	7				-60		TQFN-3×3-20L,TSSOP-20	High Speed, 3-1:3 Multiplexer
SGM6503		1.8 ~ 5.5	400	I/O		3.5/0.45	12/185		-80	3/80	TQFN-3×3-20L	SIM I/F Swap
SGM6504	(2:2)×4	1.8 ~ 5.5	400	I/O	12	3.5	12		-80	2.5	TQFN-3×3-20L	4-2:2, Passive Swap
SGM6505	(1:2)×6	2 ~ 5	450	I/O	8.5	4.5	15	4/9	-55	1.2	TSSOP-24,TQFN-4×4-24L	Six Channels 1:2 Multiplexer
SGM7232	(1:3)×2	2.7 ~ 4.3	380/400	I/O	4/9		18	7	-90		UTQFN-2.2×1.4-12L	High Speed, 2-1:3 Multiplexer

Supervisory Circuits

The Supervisory Circuits family provides industry standard supervisory IC with high reliability and consistency, featuring low power supply, manual reset, up to 8 reset thresholds suitable for monitoring 1.8V, 2.5V, 3V, 3.3V and 5V supply voltages, adjustable reset time setup with output capacitance and watchdog.



Part Number	Supply Current (μA)	Manual Reset	V_{CC} (V)	Reset Threshold (V)	Watchdog Timer	V_{CC} to Reset Delay (μs)	Reset Active Timeout Period (ms)	Reset Output	Package	Features
SGM706	50	Yes	1.0 ~ 5.5	4.65,4.4,4.0,3.08,2.93,2.63	1.6s		200	Active Low/Push-Pull	SOIC-8	6 Selectable Thresholds, Watchdog, Debounced Manual-Reset Input
SGM708	20	Yes	1.0 ~ 5.5	4.65,4.4,4.0,3.08,2.93,2.63	No		200	Active Low/High/Push-Pull	SOIC-8	6 Selectable Thresholds, Debounced Manual-Reset Input, Dual Reset Outputs
SGM800	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	No	80	Programmable	Active Low/Open-Drain	SOT-23-5	Programmable Reset Timeout, Low Quiescent Current
SGM802	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	No	80	Programmable	Active High/Push-Pull	SC70-4 (R),SOT-143	Programmable Reset Timeout, Low Quiescent Current, Small Package
SGM803	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	No	20	240	Active Low/Open-Drain	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM804	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	No	80	Programmable	Active Low/Push-Pull	SOT-23-5	Programmable Reset Timeout, Low Quiescent Current
SGM809	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	No	20	240	Active Low/Push-Pull	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM810	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	No	20	240	Active High/Push-Pull	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM811	13	Yes	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	No	20	240	Active Low/Push-Pull	SOT-143,SOT-23-5	8 Selectable Thresholds, Low Power
SGM812	13	Yes	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32	No	20	240	Active High/Push-Pull	SOT-143,SOT-23-5	7 Selectable Thresholds, Low Power

Over-Voltage Protection ICs

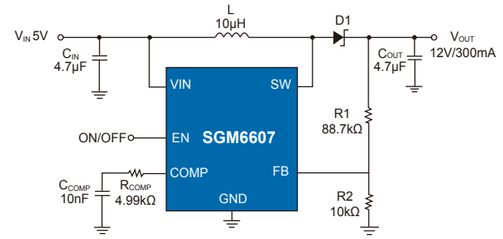
Part Number	Input Over-Voltage Protection Threshold (V)	Input Voltage Max (V)	Battery Over-Voltage Protection Threshold (V)	Maximum Start-Up Output Current (mA)	Shutdown Current (μA)	Soft-Start	Soft-Stop	LDO Mode Output Voltage (V)	Package	Features
SGM40653	Adj (Default 15.39V)	28	NA	4500/2500	NA	Yes	Yes	NA	WLCSP-1.30×1.83-12B,TDFN-3×3-12L	120V Surge/Inrush Immunity Function, Adj OVP, 4.5A/2.5A, Soft Start-Up, 28V Input
SGM40654	Adj (Default 6.8V)	28	NA	4500/2500	NA	Yes	Yes	NA	WLCSP-1.30×1.83-12B,TDFN-3×3-12L	120V Surge/Inrush Immunity Function, Adj OVP, 4.5A/2.5A, Soft Start-Up, 28V Input
SGM40655	Adj (Default 5.81V)	28	NA	4500/2500	NA	Yes	Yes	NA	WLCSP-1.30×1.83-12B,TDFN-3×3-12L	120V Surge/Inrush Immunity Function, Adj OVP, 4.5A/2.5A, Soft Start-Up, 28V Input
SGM41002	NA	24	4.45		<3	NA	NA	NA	UTDFN-2×2.5-8L	Battery Protection IC for 2-Serial to 4-Serial-Cell Pack (Secondary Protection)
SGM4062	6.8	18	4.35	1500	<2	Yes	Yes	5.1	TDFN-2×2-8L,MSOP-8 (Exposed Pad)	1.5A Fixed Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM4064	6.8	18	4.35	Adj (Max 1500)	<2	Yes	Yes	5.1	TDFN-2×2-8L	Adjustable Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM4065	7.1	18	4.35	1500	<2	Yes	Yes	5.1	TDFN-2×2-8L	1.5A Fixed Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM4066	7.1	18	4.35	Adj (Max 1500)	<2	Yes	Yes	5.1	TDFN-2×2-8L	Adjustable Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM41000	4.2,4.25,4.3,4.35,4.45	8		1130	<0.3	NA	NA	NA	UTDFN-1.5×2-6L,XTDFN-1.5×2-6L	Single Battery Protection IC, Ultra Thin Package

Li-Ion Battery Chargers

Part Number	Input Over-Voltage Protection Threshold (V)	Charge Voltage (V)	V_{IN} Min (V)	V_{IN} Max (V)	Programmable Current (mA)	Shutdown Current From V_{IN} (μA)	Status Indication	Foldback Current From Battery (μA)	Package	Features
SGM41504	5.5	4.25,4.35,4.4	2.7	5.5	500 ~ 4000		Yes		TQFN-4×4-24AL	Type-C 4A Quick Charger
SGM40565		4.2,4.35	4.55	26.5	5 ~ 400	175	Yes	<1	XTDFN-2×2-8L,TDFN-2×2-8L,WLCSP-1.3×0.7-6B	Ultra-Thin Package, 5mA ~ 400mA, 4.2V/4.35V Output Voltage for Long Battery Life Application
SGM40561	10.5	4.2, 4.3,4.35	4.55	26.5	5 ~ 200	180	Yes	<1	TDFN-2×2-8L	5mA ~ 200mA, 10.5V Over-Voltage Protection, Input Voltage up to 26.5V
SGM4056	6.8,10.5	4.2	4.55	26.5	100 ~ 900	200	Yes	<1	TDFN-3×3-8L,TDFN-2×3-8L,TDFN-2×2-8L,SOIC-8 (Exposed Pad)	100mA ~ 900mA, 6.8V/10.5V Over-Voltage Protection, Input Voltage up to 26.5V
SGM41000	4.2,4.25, 4.3,4.35,4.45		0	8		<0.3	Yes		UTDFN-1.5×2-6L,XTDFN-1.5×2-6L	Single Battery Protection IC, Ultra Thin Package
SGM41002	4.45		3.6	24		<3	Yes		UTDFN-2×2.5-8L	Battery Protection IC for 2-Serial to 4-Serial-Cell Pack (Secondary Protection)

DC/DC Converters

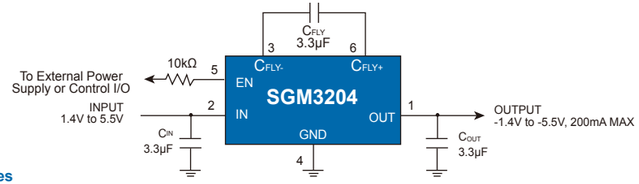
The DC/DC Converter family provides various DC/DC converters with high efficiency, high reliability in five different topologies, featuring high input voltage, low shutdown current, tiny DFN package, and SOIC-8 with exposed pad. All these features make the family extremely suitable for portable and industrial applications.



DC/DC Topology	Part Number	Output Current Max (mA)	V_{IN} Min (V)	V_{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μA)	Shutdown Current (μA)	Enable Logic	Efficiency Max	Package	Features
Sync Buck	SGM6022	600	2.5	5.5	Adj	6	22	<1	Active High	90%	TDFN-2×2-6L	
Sync Buck	SGM6032	600	2.5	5.5	0.6V, 1.1V, 1.2V, 1.5V, 1.8V, 2.5V, 2.8V, 3.0V and 3.3V	6	22	<1	Active High	90%	TDFN-2×2-6L	
LCM Bias Power Supply	SGM3803	200	2.7	5.5	Adj (up to 5.5)	1.2/0.95	30	<1	Active High	90%	TDFN-3×3-12L	P/N Voltage Output, 200mA Output Current Synchronous Boost
LCM Bias Power Supply	SGM3806	200	2.7	5.5	Adj (2.4 ~ 6.4)	1.6	400	0.4	Active High	84%	WLCSP-1.7×1.51-12B	P/N Voltage Output, 200mA Output Current Synchronous Boost
LCM Bias Power Supply	SGM3804	100	2.7	5.5	Adj (2.4 ~ 6.4)	1.6	400	0.4	Active High	84%	WLCSP-1.7×1.51-12B	P/N Voltage Output, 100mA Output Current Synchronous Boost
AMOLED Display Power Supply	SGM38042	100	2.7	5.5	Adj (2.4 ~ 6.4)	1.6	400	0.4	Active High	84%	WLCSP- 1.51×2.10-15B	P/N Voltage Output, 100mA Output Current Synchronous Boost with a 50mA LDO

Note: † Input Voltage = 5V, Output Voltage = 12V

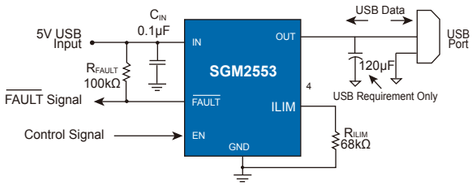
Charge Pump DC/DC Converters



Converters per Package	Part Number	Output Current Max (mA)	Shut-down	V_{IN} Min (V)	V_{IN} Max (V)	Output Voltage (V)	Switching Frequency (kHz)	Quiescent Current (μA)	Shutdown Current (μA)	Output Type	Package	Features
1	SGM3204	200	Yes	1.4	5.5	$-V_{IN}$	950	1500	<1	Unregulated	SOT-23-6	Unregulated Inverter, 950kHz, 200mA
1	SGM3110	100	Yes	2.7	5	5	750	60	<1	Regulated	SOT-23-6	Low Noise, Doubler/White LED Driver
1	SGM3209	100	Yes	4	18	$-V_{IN}$	120 ~ 1280	1200	0.5	Unregulated	SOIC-8,TDFN-2×2-8L	Unregulated Inverter, Programmable Frequency, 100mA
1	SGM3206	60	No	1.4	5.5	$-V_{IN}$	47	115	NA	Unregulated	SOT-23-5	Unregulated Inverter, 47kHz, 60mA
1	SGM3207	60	No	1.4	5.5	$-V_{IN}$	19	72	NA	Unregulated	SOT-23-5	Unregulated Inverter, 19kHz, 60mA

Load Switches

Load switches are integrated electronic relays used for turning on and off power rails, power distribution and power savings. Load switches can be used in telecommunication equipment, computer equipment & peripherals, TVs & STBs, small portable devices, and test equipments with the benefits of reducing overall BOM count and solution size, as well as adding additional protection features.



1 Switches per Package	Part Number	2 Continuous Output Current (mA)	Quiescent Current (μA)	V_{IN} Min (V)	V_{IN} Max (V)	Enable Logic	Shutdown Current (μA)	Current Limit (mA)	Soft-Start	Fault Flag	Package	Features
1	SGM2578	1000	5	1.0	5.0	Active High	<1.5	1600		No	WLCSP-0.9×0.9-4B	1A, Ultra Low Quiescent Current, WLCSP Package
1	SGM2581A	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5	1A Output Current, 1.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588A	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5	1A Output Current, 1.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588G	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5	1A Output Current, 1.1A Fixed Current Limit, Low Power, Default Disable /EN
1	SGM2554A	1100	19	2.2	5.5	Active High	<1	1850	Yes	No	SOT-23-5	1.1A Output Current, 1.85A Fixed Current Limit, Low Power
1	SGM2554B	1100	19	2.2	5.5	None	NA	1750	Yes	No	SOT-23-5	1.1A Output Current, 1.75A Fixed Current Limit, Low Power
1	SGM2555	1100	19	2.2	5.5	Active High	<1	1850	Yes	No	TDFN-2×2-6L	1.1A Output Current, 1.85A Fixed Current Limit, Low Power
1	SGM2556	1100	19	2.2	5.5	Active High	<1	1850	Yes	Yes	TDFN-2×2-6L	1.1A Output Current, 1.85A Fixed Current Limit, Low Power
1	SGM2553/D	1500	71	2.5	5.5	Active High	<1	Programmable (100~1700)	Yes	Yes	TDFN-2×2-6L,SOT-23-6	1.5A, Adjustable Current Limit, Soft-Start, Tiny Package
1	SGM2581C	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5	2A Output Current, 2.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588C	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5	2A Output Current, 2.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588I	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5	2A Output Current, 2.1A Fixed Current Limit, Low Power, Default Disable /EN
1	SGM2581E	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5	2.5A† Output Current, 2.6A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588E	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5	2.5A† Output Current, 2.6A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588K	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5	2.5A† Output Current, 2.6A Fixed Current Limit, Low Power, Default Disable /EN
1	SGM2541	±5000	127	3	20	Active Low	120	±5000	Yes	Yes	WLCSP-2.43×1.75-20B	28V/16V Bidirectional Load Switch with Wireless/Dual Input Capability
1	SGM4073	6000	1	1.5	5.5	None	<1.5		Yes	No	WLCSP-1.31x1.62-12B	6A, Ultra Low Quiescent Current, Programmable Reset Timer, WLCSP Package
1	SGM2576	Adj	23	2.5	5.5	Active High	<1	Programmable (400~2500)	Yes	No	SOT-23-5	Adjustable Current Limit, Soft-Start, Low Power
1	SGM2551A/C		71	2.5	5.5	Active High	<1	Programmable (100~1700)	Yes	No	TDFN-2×2-6L,SOT-23-5	1.5A, Adjustable Current Limit, Soft-Start, Tiny Package
2	SGM2540	2000/1500	88	2.5	20	Active High		2000	Yes	Yes	UTDFN-2×2-8AL	Autonomous 20V Charging Sources Selection and OTG Feeding Switch Combo
2	SGM2558A	600/CH	28	2.7	5.5	Active High	<1	1100	Yes	Yes	SOIC-8,TDFN-3×3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2558B	600/CH	28	2.7	5.5	Active Low	<1	1100	Yes	Yes	SOIC-8,TDFN-3×3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2560A	600/CH	28	2.7	5.5	Active High	<1	1100	Yes	Yes	SOIC-8,TDFN-3×3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2560B	600/CH	28	2.7	5.5	Active Low	<1	1100	Yes	Yes	SOIC-8,TDFN-3×3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels

Note: † This parameter is guaranteed by design and characterization.

Isolated Power

Drivers per Package	Part Number	Output Power (W)	V_{CC} Range (V)	External Resistance (kΩ)	Input Frequency (kHz)	Logic Low Input Voltage (V)	Logic High Input Voltage (V)	I_{CC} Typ (mA)	Package	Features
1	SGM46000	3	2.5 ~ 5.5	5 ~ 390	200 ~ 2000	0.3	2	0.6	SOIC-8 (Exposed Pad)	3W Output Power, Programmable Oscillator Frequency Isolated Power Supplies

High Voltage Linear Regulators

Part Number	V_{IN} Min (V) [1]	V_{IN} Max (V) [1]	Output Current (mA) [2]	Ground Current (No Load) (μA)	Dropout Voltage (mV)	PSRR @1kHz (dB)	V_{OUT} (V)	Package	Features
SGM2300	4	18	50	1.7	1750	47	1.5,1.8,2.5,2.8,3.0,3.3,3.6,5.0,Adj	SOT-23-5,SOT-23	High Voltage, Low I_Q, Small Package, Single
SGM2200	4	26.4	50	1.75	1750	47	1.5,1.8,2.5,2.8,3.0,3.3,3.6,4.4,5.0,Adj	SOT-89-3,TSOT-23-5,SOT-23,SC70-5	High Voltage, Low IQ, Small Package, Single
SGM2200H	2.7	36	60	2.2	1600	40	0.8V to 5V with 0.1V per step Adj	SOT-89-3,TSOT-23-5,SOT-23,SC70-5	High Voltage, Low I_Q, Small Package, Single
SGM2201	2.7	36	150	4.2	1300	40	Adj	TSOT-23-5,TDFN-2×3-8L	High Voltage, Low I_Q, Small Package, Single
SGM2202	2.7	36	150	4.2	1300	40	0.8V to 4.7V with 0.1V per step 5V to 12V with 0.25V per step Adj	SOT-23-5,SOT-23-6	High Voltage, Low I_Q, Small Package, Single
SGM2203	2.7	36	150	4.2	1300	40	0.8V to 4.7V with 0.1V per step 5V to 12V with 0.25V per step	SOT-89-3,SOT-23,SOT-23-5	High Voltage, Low I_Q, Small Package, Single

Level Translators

Translators per Package	Part Number	Data Rate (Mbps)	V_{CC} (V)	V_L Range (V)	V_{CCA} Range (V)	V_{CCB} Range (V)	Bidirectional	V_{CC} Shutdown I/O State	Shutdown I_{CC} Max (μA)	Logic Output	Package	Features
1	SGM4552	24/2			1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z	5.5	Open-Drain/Push-Pull	UTDFN-1.45×1-6L,SOT-23-6,SC70-6	GPIO Level Shifter
1	SGM4554	100			1.2 ~ 5.0	1.65 ~ 5.5	Yes	Hi-Z	10	Push-Pull	SC70-6,UTDFN-1.45×1-6L	GPIO Level Shifter
1	SGM4555		2.7 ~ 5.5	1.4 ~ 5.5			Yes	Low			TQFN-2×2-12L,TQFN-3×3-16L	Card Interface
1	SGM4560		3.3 ~ 5.5	1.6 ~ 5.5			Yes	Low	8		TSSOP-14	CA Card Interface
1	SGM4561		5.0 ~ 5.5	1.6 ~ 5.5			Yes	Low			MSOP-10	HDMI Interface
2	SGM4551				1.2 ~ 3.3	1.8 ~ 5.5	Yes	Hi-Z	8	Open-Drain	SOT-23-8,XTDFN-1.4×1-8L	I^2C Level Shifter
2	SGM4553	24/2			1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z	5.5	Open-Drain/Push-Pull	SOT-23-8,XTDFN-1.4×1-8L	GPIO Level Shifter
2	SGM4556	100			1.2 ~ 5.0	1.65 ~ 5.5	Yes	Hi-Z	10	Push-Pull	SOT-23-8,XTDFN-1.4×1-8L	GPIO Level Shifter
2	SGM4558		2.7 ~ 5.5	1.4 ~ 5.5			Yes	Low	2		TQFN-3×3-20L	SIM/Smart Card Interface
4	SGM4563	100			1.2 ~ 5.5	1.65 ~ 5.5	No	Hi-Z	5	Push-Pull	SOIC-14,UTQFN-1.8×1.8-12L	SPI Bus or UART Interface
4	SGM4564	100			1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	SOIC-14,UTQFN-1.8×1.8-12L,TQFN-2×2-12L	GPIO Level Shifter
6	SGM4566	100			1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	TSSOP-16,TQFN-2.6×1.8-16L	GPIO Level Shifter
8	SGM4568	100			1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	TSSOP-20,TQFN-3×3-20L	GPIO Level Shifter

MOSFET Drivers

Drivers per Package	Part Number	Output Peak Current (A)	V_{CC} (V)	Rise Time (ns)	Fall Time (ns)	Logic Low Input Voltage (V)	Logic High Input Voltage (V)	Input Hysteresis (V)	I_{CC} Typ (mA)	Package	Features
2	SGM48000	2	4.5 ~ 26.5	12	13	0.7	1.6	0.3	1.14	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Dual Non-Inverting
2	SGM48001	2	4.5 ~ 26.5	12	13	0.7	1.6	0.3	1.29	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Dual Inverting
2	SGM48002	2	4.5 ~ 26.5	12	13	0.7	1.6	0.3	1.19	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Inverting and Non-Inverting