



Product Selection Guide

June 2015



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SENSOR INTEGRATED CIRCUITS

The development of Allegro sensor ICs not only includes leading edge innovations in the area of integrated circuit design but also includes application specific innovation in the area of custom package design.

A small sampling of Allegro's custom packaging developments include:

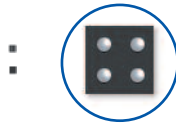
- Proprietary, integrated magnet packages that simplify magnetic system design in automotive speed sensing applications. See the SE, SG, SH and SJ packages.
- Revolutionary, integrated current sensing packages with high bandwidth magnetic design features. See the SOIC, QSOP, EX, and CA/CB packages with integrated, low resistance current conductors and the 1 mm thick KT package.
- Small footprint, low profile DFN packages for communications and consumer products. See the EW and CG packages.

Low Profile, Smallest Footprint Packages

CG (WLCSP)

Terminals: 4

Size: .96 x .96 mm body width



EW (DFN)

Terminals: 6

Size: 1.5 x 2 mm body width



Surface Mount Packages

LH (SOT23W)

Terminals: 3



L/LC (SOIC-8)

Terminals: 8



Current Sensing Packages with Integrated Conductors

EX (QFN)

Terminals: 12

Size: 3 x 3 mm body width



CA/CB

Terminals: 5



L/LC (SOIC-8 and SOIC-16)

Terminals: 8, 16



LF (QSOP-24)

Terminals: 24



Single In-Line Packages

UA (TO-92)

Terminals: 3



K

Terminals: 4



KE

Terminals: 4



KT

Terminals: 4



KN

Terminals: 4



Integrated Magnet Packages

SE

Terminals: 4



SG

Terminals: 4



SH

Terminals: 4



SJ

Terminals: 4



Please Note: Package sizes are photographed to show relative scale.

POWER INTEGRATED CIRCUITS

Allegro's power IC packages offer industry-leading thermal performance with limited board space.

TSSOP: Industry-standard TSSOP with optional exposed pad for enhanced thermal performance

QFP: Universal quad flat pack with exposed pad for enhanced thermal performance

QFN: Quad and dual, low-profile, surface-mount packages with exposed pad for enhanced thermal performance

TDFN

MSOP: Industry-standard miniature small outline package with optional exposed pad for enhanced thermal performance

SOIC: Small outline integrated circuit with optional exposed pad for enhanced thermal performance

CSP: Wafer level chip scale

Additional industry-standard packaging options are available to meet individual design requirements.

With Leads

JP (QFP with exposed pad)

Terminals: 32, 48

Size: 7 x 7 mm body width



LP (TSSOP with exposed pad)

Terminals: 16-38

Size: 4.4 mm body width



LB (SOIC)

Terminals: 16-28

Size: 7.5 mm body width



LJ (SOIC with exposed pad)

Terminals: 8-10

Size: 3.9 mm body width



LY/LZ (MSOP with exposed pad)

Terminals: 10

Size: 3 mm body width



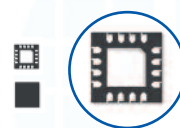
Without Leads

ES, EC, ET, EU, EV

(QFN with exposed pad)

Terminals: 16-48

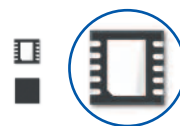
Size: 3 x 3 mm body width to 7 x 7 mm body width



EJ (TDFN with exposed pad)

Terminals: 3-16

Size: 2 x 2 mm body to 3 x 3 mm body width



Chip Scale

CG (Chip Scale)

Terminals: 4-12



Please Note: Package sizes are photographed to show relative scale.

MAGNETIC LINEAR AND ANGULAR POSITION SENSOR ICs

Angle Position Sensor ICs

Part Number	Supply Voltage (V)	Resolution	Output Type	Refresh Rate (usecs)	Temperature Ranges	Packages
A1331	4.5 to 14.5	12 bit	SPI	25	L	TSSOP-24
A1332	5 +/-10%	12 bit	I ² C	32	E	TSSOP-14
A1334	4.5 to 14.5	12 bit	SPI	25	L	TSSOP-14 (single die) TSSOP-24 (dual die)

Customer Programmable, Medium to High Accuracy Solutions

Part Number	Supply Voltage (V)	Quiescent Output (V)	Typical Sensitivity (mV/G)	Output Bandwidth (kHz)	Temperature Ranges	Packages
A1356	4.5 to 18	40% to 60% (programmable)	45 to 75 m% D/G (programmable)	0.4 (internal bandwidth)	L	KB
A1357	4.5 to 18	40% to 60% (programmable)	35 to 145 m% D/G (programmable)	0.4 (internal bandwidth)	L	KB
A1340	4.5 to 5.5	1.5 to 3.5 (programmable)	5 to 11.6 (programmable)	0.375 to 3 (programmable)	L	KT
A1341	4.5 to 5.5	+/-150 %FSO (Fact. Prog.)	0.025 to 0.18 %FSO/G (Fact. Prog.)	0.188 to 3 (programmable)	L	KT
A1343	4.5 to 5.5	+/-150 %FSO (Fact. Prog.)	0.2 to 0.3 %FSO/G (Fact. Prog.)	0.188 to 3 (programmable)	L	LE

Factory Programmed, Cost-Effective Solutions

Part Number	Supply Voltage (V)	Quiescent Output (V)	Typical Sensitivity (mV/G)	Output Bandwidth (kHz)	Temperature Ranges	Packages
A1301	4.5 to 6	Typ 50% Vcc	2.5	20	E, K	LH, UA
A1302	4.5 to 6	Typ 50% Vcc	1.3	20	E, K	LH, UA
A1304	3.0 to 3.6	Typ 50% Vcc	0.5 or 4	20	E	LH
A1318	3.00 to 3.63	Typ 50% Vcc	1.35 or 2.50	20	L	LH
A1319	3.00 to 3.63	Typ 50% Vcc	5	20	L	LH
A1324	4.5 to 5.5	Typ 50% Vcc	5	17	L	LH, UA
A1325	4.5 to 5.5	Typ 50% Vcc	3.125	17	L	LH, UA
A1326	4.5 to 5.5	Typ 50% Vcc	2.5	17	L	LH, UA
A1359	4.5 to 5.5	2.5 V/50%DC	9 or -9	2	L	LE
A1388	4.5 to 5.5	Typ 50% Vcc	2.5	20	L	LH, UA
A1389	4.5 to 5.5	Typ 50% Vcc	9 or -9	20	L	LH, UA
A1454	2.65 to 3.5	Code 2048	2LSB/G or 4LSB/G	2	K	LE

Factory Programmed, Micro Power 3 V Linears, Cost-Effective Solutions

Part Number	Supply Voltage (V)	Quiescent Output (V)	Typical Sensitivity (mV/G)	Output Bandwidth (kHz)	Temperature Ranges	Packages
A1391	2.5 to 3.5	Typ 50% Vref	1.25	10	S	EH
A1392	2.5 to 3.5	Typ 50% Vref	2.5	10	S	EH
A1393	2.5 to 3.5	Typ 50% Vref	5	10	S	EH
A1395	2.5 to 3.5	Typ 50% Vref	10	10	S	EH

Temperature range codes: S = -20°C to 85°C, E = -40°C to 85°C, K = -40°C to 125°C, L = -40°C to 150°C

CURRENT SENSOR ICs

50 to 200 A Integrated Current Sensor ICs

Type	Part Number	Measurement Range (A)	Isolation Voltage (V _{RMS})	Bandwidth (kHz)	V _{CC}	Temperature Ranges	Packages
Bidirectional	ACS756	±50 to 100	3000	120	5	S, K	CB
Uni/Bidirectional	ACS758	±50 to 200	4800	120	5	E, K, L	CB
Bidirectional	ACS759	±50 to 200	4800	120	3.3	E, K, L	CB
Uni/Bidirectional	ACS770*	±50 to 200	4800	120	5	E, K, L	CB

* Improved accuracy over temperature achieved with proprietary advanced digital gain and offset compensation.

SIP Package 0 to >1000 A Current Sensor ICs

Part Number	Supply Voltage (V)	Quiescent Output (V)	Typical Sensitivity (mV/G)	Output Bandwidth (kHz)	Temperature Ranges	Packages
A1363	4.5 to 5.5	Typ 50% V _{CC} User programmable	0.6 to 14 Programmable	120	L	LU, KT
A1365*	4.5 to 5.5 (nominal 5 V)	Typ 50% V _{CC} User programmable	0.6 to 14 Programmable	120	L	KT
A1366	4.5 to 5.5	Typ 50% V _{CC}	1, 2.5, 5, or 10	120	L	KT
A1369	4.5 to 5.5	Typ 50% V _{CC}	8.5 ~ 12.5 22 ~ 26	7	E	UA

* A1365 has new integrated Fault output and self-test diagnostics

0 to 50 A Integrated Current Sensor ICs

Type	Part Number	Measurement Range (A)	Isolation Voltage (V _{RMS})	Bandwidth (kHz)	V _{CC}	Temperature Ranges	Packages
Bidirectional	ACS709	±12 to 75	2100	120	3.3, 5	L	QSOP-24
Bidirectional	ACS710	±12 to 75	3000	120	5	K	SOIC-16
Bidirectional	ACS711	±12.5 to 25	<100 VDC	100	3.3	E, K	SOIC-8, QFN-8
Bidirectional	ACS712	±5 to 30	2100	80	5	E	SOIC-8
Unidirectional	ACS713	20 to 30	2100	80	5	E	SOIC-8
Bidirectional	ACS714	±5 to 30	2100	80	5	E, L	SOIC-8
Unidirectional	ACS715	20 to 30	2100	80	5	E, L	SOIC-8
Bidirectional	ACS716	±12.5 to 75	3000	120	3.3	K	SOICW-16
Bidirectional	ACS717	±10 to 20	4800	40	3.3	K	SOICW-16
Bidirectional	ACS718	±10 to 20	4800	40	5	K	SOICW-16
Unidirectional	ACS764	16 or 32	<100 VDC	2	3.3	X	QSOP-24
Unidirectional	ACS722	10 to 40	2400	80	3.3	L	SOIC-8
Bidirectional		±5 to 40					
Bidirectional		±10 to 40				K	SOICW-16
Unidirectional	ACS723	10 to 40	2400	80	5	L	SOIC-8
Bidirectional		±5 to 40					
Bidirectional		±10 to 40				K	SOICW-16
Unidirectional	ACS724	10 to 30	2400	120	5	L	SOIC-8
Bidirectional		±10 to 30					
Unidirectional	ACS725	10	2400	120	3.3	L	SOIC-8
Bidirectional		±20 to 40					
Bidirectional	ACS726	±20 to 40	2100	120	3.3	L	QSOP-24

MAGNETIC SPEED SENSOR ICs

Camshaft Sensor ICs

Part Number	Supply Voltage (V)	Output Type	Power-On State	Specified Air Gap Range (>20 Hz)	Key Spec	Minimum Speed	Packages
ATS601	3.3 to 24	3-wire	High (off)	0.5 to 2.5 mm	Timing accuracy	Zero speed	SG
ATS617	4.5 to 24	3-wire	High (off)	0.4 to 2.5 mm	Timing accuracy	10 Hz	SG
ATS128	4.2 to 24	3-wire	TPO	2.5 mm max	User programmable switch point	Zero speed	SE
ATS675	3.3 to 26.5	3-wire	TPO	0.5 to 3 mm	Timing accuracy	Zero speed	SE

Crankshaft Sensor ICs - Highly-Accurate Analog Speed Sensor ICs

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Minimum Speed	Packages
A1421	0 to 27.5	-12.5 to 7.5	Typ 15	20 Hz	K
A1422	5 to 35	-35 to -5	Typ 30	20 Hz	K
A1423	10 to 100	-100 to -10	Typ 130	20 Hz	K
A1425	-11 to 11	-11 to 11	Typ 8.5	20 Hz	K

Crankshaft Sensor ICs - Gear-Tooth Hall-Effect Speed Sensor ICs (Includes IC and Magnet)

Part Number	Supply Voltage (V)	Output Type	Power-On State	Specified Air Gap Range (>20 Hz)	Key Spec	Minimum Speed	Packages
ATS616	3.5 to 24	3-wire	High (off)	0.4 to 2.5 mm	Timing accuracy	10 Hz	SG
ATS617	4.5 to 24	3-wire	High (off)	0.4 to 2.5 mm	Timing accuracy	10 Hz	SG
ATS627	4 to 24	3-wire	High (off)	0.5 to 3 mm	Repeatability	Zero speed	SG

Transmission Sensor ICs (Includes IC and Magnet)

Part Number	Supply Voltage (V)	Output Type	Power-On State	Specified Air Gap/ Operating Signal Range	Key Spec	Minimum Speed	Packages
ATS667	4 to 24	3-wire	High (output off)	0.5 to 3.1 mm	Duty cycle	Zero speed	SG
ATS693	4 to 24	3-wire PWN	High (output off)	0.5 to 2.75 mm	Direction Detection	Zero speed	SG
ATS685	4 to 24	2-wire	High (current)	0.5 to 3 mm	Duty cycle	Zero speed	SH
ATS692	4 to 24	2-wire PWM	Low (current)	0.5 to 2.75 mm	Direction Detection	Zero speed	SH
A1684	4 to 24	2-wire	High (current)	30 - 1500 G	Duty cycle	Zero speed	UB
A1699	4 to 24	2-wire PWM	Low (current)	30 - 1200 G	Direction Detection	Zero speed	UB

Wheel Speed Sensor ICs

Part Number	Supply Voltage (V)	Output Type	Power-On State	Specified Air Gap/ Operating Signal Range	Key Spec	Minimum Speed	Applications	Packages
A1642	4 to 24	2-wire	High (current)	20 to 1000 G	Duty cycle	Zero speed	ABS Speed Sensor	KN
A1688	4 to 24	2-wire	High (current)	20 to 1200 G	Total Pitch Deviation	Zero speed	ABS	UB
A1698	4 to 24	2-wire	High (current)	20 to 1200 G	Duty cycle	Zero speed	ABS Direction Sensor	UB

General Purpose Speed Sensor ICs

Part Number	Supply Voltage (V)	Output Type	Power-On State	Specified Air Gap/ Operating Signal Range	Key Spec	Minimum Speed	Packages
A1425	4 to 26.5	3-wire	High (output off)	50 G to 1250 G	Repeatability	20 Hz	K
A1468	4 to 26.5	3-wire	High (output off)	20 G to 1200 G	Small Signal, Robustness to Magnetic Signal Anomalies	Zero speed	K
A1469	4 to 26.5	3-wire	High (output off)	20 G to 1200 G	Small Signal, Robustness to Magnetic Signal Anomalies, Robust EMC	Zero speed	K
A1688	4 to 24	2-wire	High (current)	20 G to 1200 G	Total Pitch Deviation	Zero speed	UB
ATS601	3.3 to 24	3-wire	High (off)	0.5 to 2.5 mm	Timing accuracy, Orientation Independent	Zero speed	SG
ATS605	4 to 24	3-wire (x2)	High (output off)	0.5 to 2.75 mm	High Frequency, Dual Output Direction Detection	Zero speed	SG
ATS667	4 to 24	3-wire	High (output off)	0.5 to 3.1 mm	Duty cycle	Zero speed	SG

Temperature range code: L = -40°C to 150°C

MAGNETIC DIGITAL POSITION SENSOR ICs

STANDARD DEVICES

General Purpose Chopper Stabilized Latches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1220	5 to 40	-40 to -5	Typ 45	E, L	LH, UA	Open Drain	Replaces A3280
A1221	15 to 90	-90 to -15	Typ 100	E, L	LH, UA	Open Drain	Replaces A3281
A1222	70 to 150	-150 to -70	Typ 220	E, L	LH, UA	Open Drain	—
A1223	100 to 180	-180 to -100	Typ 300	E, L	LH, UA	Open Drain	Replaces A3283
A1260	5 to 50	-50 to -5	Typ 50	E, L	LH, UA	Open Drain	Vertical Hall

Two-Wire Chopper Stabilized Latches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1244	5 to 80	-80 to -5	40 to 110	L	LH, UA	Current Source	—
A1245	5 to 40	-40 to -5	15 to 65	L	LH, UA	Current Source	—

Chopper Stabilized Bipolar Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1250	-10 to 25	-25 to 10	5 to 25	L	LH, UA	Open Drain	Replaces A3230

Commercial-Grade Chopper Stabilized Latches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A3290	5 to 50	-50 to -5	10 to 100	K	LH, UA	Open Drain	—
A3291	10 to 100	-100 to -10	20 to 100	K	LH, UH	Open Drain	—

Dual-Channel (Quadrature) Switches and Speed & Direction Sensors

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output Pins
A1230	30 max	-30 min	Typ 14	L	K, L	Dual Channel Quadrature
A1232	30 max	-30 min	Typ 10	L	LE	Speed and Direction
A1233	55 max	-55 min	Typ 30	L	K, L	Speed and Direction

General Purpose Chopper Stabilized Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1120	<50 (typ 35)	>5 (typ 25)	Typ 10	E, L	LH, UA	Open Drain	Replaces A3240
A1121	<120	>40	>10 Typ 25	E, L	LH, UA	Open Drain	Replaces A3241
A1122	<205	>105	>10 Typ 25	E, L	LH, UA	Open Drain	Replaces A3242
A1123	<355	>150	>30 Typ 55	E, L	LH, UA	Open Drain	—
A1125	<50 (typ 35)	>5 (typ 25)	Typ 10	E, L	LH, UA	Open Drain	Replaces A3340
A1126	< 55 G	< 50 G	5 to 30	L	LH, UA	Open Drain	Replaces A3245

Temperature range codes: S = -20°C to 85°C, E = -40°C to 85°C, K = -40°C to 125°C, L = -40°C to 150°C

MAGNETIC DIGITAL POSITION SENSOR ICs

Chopper Stabilized Switches with Integrated Diagnostics

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Key Features
A1160	<245	>60	Typ 55	L	LH	Open Drain	User Enabled Self Diagnostics

Fixed Switch Point Two-Wire Chopper Stabilized Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1150	<110	>45	5 to 30	L	LH, UA	Current Source	Replaces A1140
A1152	<110	>45	5 to 30	L	LH, UA, UB	Current Source	Replaces A3361, A1142
A1152-F	<120	>20	5 to 30	L	UB	Current Source	Ferrite T _c Option
A1153	<110	>45	5 to 30	L	LH, UA, UB	Current Source	Replaces A3163, A3362, A1143
A1153-F	<120	>20	5 to 30	L	UB	Current Source	Ferrite T _c Option
A1155	20 to 60	10 to 55	5 to 30	L	LH, UA, UB	Current Source	Replaces A1145
A1155-F	<75	>4	5 to 30	L	UB	Current Source	Ferrite T _c Option
A1156	20 to 60	10 to 55	5 to 30	L	LH, UA, UB	Current Source	Replaces A1146
A1156-F	<75	>4	5 to 30	L	UB	Current Source	Ferrite T _c Option
A1157	20 to 80	10 to 60	5 to 30	L	LH, UA	Current Source	Replaces A1147
A1158	20 to 80	10 to 60	5 to 30	L	LH, UA	Current Source	Replaces A1148

User Programmable, Chopper Stabilized Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1128	+20 to +650 -650 to -20	—	5 to 30	L	UA	3-wire	—
A1190	10 to 200	—	5 to 30	L	LH, UA	Current Source	Replaces A1180
A1192	10 to 200	—	5 to 30	L	LH, UA	Current Source	Replaces A1182, A1185
A1193	10 to 200	—	5 to 30	L	LH, UA	Current Source	Replaces A1183, A1186

Commercial Grade Unipolar Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A3295	<75	>5	Typ 10	K	LH, UA	Open Drain	—

Micropower Switches (1D)

Part Number	Operate Voltage (V)	Operating Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Supply Current (μA)
A1171	1.65 to 3.5	±55	±6	Typ 6	E	EW	4 (typ) (VDD=1.8 V)
A3211	2.5 to 3.5	±55	±10	Typ 7.7	E	LH	6 (typ)
A3212	2.5 to 3.5	±55	±10	Typ 7.7	E, L	LH, UA	6 (typ)
A3213	2.4 to 5.5	±70	±10	Typ 7.7	E, L	LH, UA	850 (max)
A3214	2.4 to 5.5	±70	±10	Typ 7.7	E, L	LH, UA	22 (max)

Micropower Switches (3D)

Part Number	Operate Voltage (V)	Operating Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Supply Current (μA)
A1266	2.5 to 5.5	±25	±17.5	7.5	E	LH	7.5 (typ) @ 2.5 V

Temperature range codes: S = -20°C to 85°C, E = -40°C to 85°C, K = -40°C to 125°C, L = -40°C to 150°C

SPECIAL-PURPOSE DEVICES

Continuous Time Latches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1210	25 to 150	-150 to -25	>50 (typ 180)	E, L	LH, UA	Open Drain	Replaces UGN3177
A1211	15 to 180	-180 to -15	>80 (typ 180)	L	UA	Open Drain	Replaces UGN3175
A1212	50 to 175	-175 to -50	100 to 350	L	LH, UA	Open Drain	Replaces A3187
A1213	80 to 200	-200 to -80	160 to 400	L	LH, UA	Open Drain	Replaces A3188, A3189
A1214	140 to 300	-300 to -140	280 to 600	L	LH, UA	Open Drain	Replaces A3185

EMC Robust Chopper Stabilized Latches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1225	140 to 300	-300 to -140	340 to 540	L	LT, UA	Open Drain	—
A1227	50 to 175	-175 to -50	100 to 350	L	LT, UA	Open Drain	—
A1229	80 to 200	-80 to -200	160 to 400	L	LT, UA	Open Drain	—

Continuous Time Unipolar Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1101	30 to 175	10 to 140	20 to 80	E, L	LH, UA	Open Drain	Replaces A3141
A1102	115 to 245	60 to 190	30 to 80	E, L	LH, UA	Open Drain	Replaces A3142
A1103	205 to 355	150 to 300	30 to 80	E, L	LH, UA	Open Drain	Replaces A3143
A1104	35 to 450	25 to 430	>20	E, L	LH, UA	Open Drain	Replaces A3144
A1106	260 to 430	160 to 330	70 to 140	E, L	LH, UA	Open Drain	Replaces A3122, A3121, A3123

Continuous-Time Bipolar Switches

Part Number	Operate Point (G)	Release Point (G)	Hysteresis (G)	Temperature Ranges	Packages	Output	Notes
A1202	<75	>-75	>30	L	UA	Open Drain	Replaces UGx3133
A1203	<95	>-95	>30	E, L	LH, UA	Open Drain	Replaces UGx3132
A1205	-40 to 50	-50 to 40	5 to 55	L	LH, UA	Open Drain	Replaces A3134

Temperature range codes: S = -20°C to 85°C, E = -40°C to 85°C, K = -40°C to 125°C, L = -40°C to 150°C

For switch interface ICs, please see the "High Side Drivers" section on page 13.

MOTOR DRIVERS AND INTERFACE ICs

Brushless DC Motor Drivers - MOSFET Gate Driver ICs

Part Number	Output Voltage Range (V)	Output Current	Number of Bridges	Key Spec	Interface	Packages
A4900	600	>10 A Typical	Three half bridges	Vds Monitors, Diagnostics	Parallel	QSOP-44
A4937K	5.5 to 50	>10 A Typical	Three half bridges	Serial interface, Extensive serial diagnostic, Sleep mode	Serial	eTSSOP-28
A3946K	7 to 60	>10 A Typical	Half bridge	Diagnostics, High current gate drive, Top off charge pump	Parallel	eTSSOP-16
A3938	12 to 50	<25 A Typical	Three half bridges	A3932 w/ selectable coast or brake on power-down	Parallel	TSSOP-38
A3930/31K	7 to 50	>10 A Typical	Three half bridges	Hall commutation logic, PWM current control, diagnostics	Parallel	eLQFP-48
A4933K	7 to 50	>10 A Typical	Three half bridges	Diagnostics and sense amplifier, Pin compatible to A4935, Higher current gate drive	Parallel	eLQFP-48
A4935K	7 to 50	>10 A Typical	Three half bridges	Diagnostics and sense amplifier Top off charge pump	Parallel	eLQFP-48
A4939K	5.5 to 50	>10 A Typical	Three half bridges	Diagnostics, 165C operation, and on-board linear regulator (3 V and 5 V)	Parallel	eTSSOP-28
A4960K	7 to 50	>10 A Typical	Three half bridges	Sensorless commutation, Programmable startup and run parameters and diagnostics	Parallel and SPI	eLQFP-32
A4910K	5.5 to 50	>10 A Typical	Three half bridges	Programmable parameters Diagnostics, 3x Sense amplifiers	Parallel and SPI	eLQFP-48
A4915	5 to 50	>10 A Typical	Three half bridges	Hall commutation logic, Analog speed input, Center aligned PWM	Parallel	eTSSOP-28, 5 x 5 mm QFN-28
A4931	8 to 38	<10 A Typical	Three half bridges	Hall commutation logic, PWM current control, Lock detect, FG output	Parallel	5 x 5 mm QFN-28
A4936	8 to 38	<10 A Typical	Three half bridges	A4931 with FG amplifier	Parallel	5 x 5 mm QFN-32
A4923	10 to 32	<10 A Typical	Three half bridges	Hall commutation logic, Single wire start-up, Brake and Direction inputs and FG output	Parallel	5 x 5 mm QFN-32
A4938	8 to 38	<10 A Typical	Three half bridges	A4931 with over voltage select, 5 V Hall bias	Parallel	5 x 5 mm QFN-28
A4930	8 to 36	<10 A Typical	Single full bridge	Single phase Hall commutation logic, PWM current control, Soft-start	Parallel	5 x 5 mm QFN-28
A4963	4.2 to 50	<20 A Typical	Three half bridges	Sensorless commutation, Programmable startup and run parameters and diagnostics, closed loop speed control	Parallel and SPI	eTSSOP-20
A4962K	4.2 to 50	<20 A Typical	Three half bridges	Sensorless commutation, Programmable startup and run parameters and diagnostics, closed loop speed control	Parallel and SPI	eTSSOP-20

Note: Please see the A6861 in "High Side Drivers" for the three phase isolator solution, page 13

Brushless DC Motor Drivers - Integrated MOSFET ICs

Part Number	Output Voltage Range (V)	Output Current	Number of Bridges	Key Spec	Interface	Packages
A4941 /41-A	4.5 to 20	1.25 A	Three half bridges	Sensorless commutation, Integrated DMOS, OCP, Soft-switching, -A is AEC-Q100	Parallel	eTSSOP-16

Brush DC Motor Drivers - Low-Voltage Motor Drivers (Integrated MOSFET ICs)

Part Number	Output Voltage Range (V)	Output Current Range	Number of Bridges	Logic Supply Voltage Range	Packages
A3909	4 to 18	1 A	Dual full	Internally generated	SSOP-10, MSOP-10
A3906	2.5 to 9	1 A	Dual full	Internally generated	QFN-20
A3918	2.5 to 9	1 A	Single full	Internally generated	QFN-16
A3901	2.5 to 5.5	400 mA	Dual full	Internally generated	DFN-10
A3903	2.5 to 5.5	500 mA	Single full	Internally generated	DFN-8
A3908	2.5 to 5.5	500 mA	Single full	Internally generated	DFN-8
A3910	2.5 to 5.5	500 mA	Dual half	Internally generated	DFN-8

Note: "K" suffix denotes automotive grade product (AEC-Q100 qualified)

MOTOR DRIVERS AND INTERFACE ICs

Brush DC Motor Drivers - MOSFET Gate Driver ICs with Parallel Interface

Part Number	Output Voltage Range (V)	Output Current Range	Number of Bridges	Logic Supply Voltage Range	Packages
A3946K	7 to 60	>10 A Typical	Half bridge	Internally generated	SOIC-16, eTSSOP-16
A3921K	7 to 50	> 10 A Typical	Single full	Internally generated	eTSSOP-28
A3922K	5.5 to 50	>10 A Typical	Single full	Internally generated	eTSSOP-28
A3924K	5.5 to 50	>10 A Typical	Single full	Internally generated	eTSSOP-38
A3941K	7 to 50	>10 A Typical	Single full	Internally generated	eTSSOP-28
A4940K	5.5 to 50	>10 A Typical	Single full	3 V to 5.5 V	eTSSOP-24
A4957	4.5 to 50	>10 A Typical	Single full	3 V to 5.5 V	QFN-16
A4955	5.5 to 50	<20 A Typical	Single full	Internally generated	eTSSOP-20, QFN-20
A4956	5.5 to 50	<20 A Typical	Single full	Internally generated	eTSSOP-20, QFN-20
A5929K	5.5 to 50	>10 A Typical	Single full	Internally generated	eTSSOP-24
A5957	5.5 to 50	<20 A Typical	Single full	Internally generated	eTSSOP-20, QFN-20

Brush DC Motor Drivers - Integrated MOSFET ICs with Parallel Interface

Part Number	Output Voltage Range (V)	Output Current Range	Number of Bridges	Logic Supply Voltage Range	Packages
A3959	9.5 to 50	3 A	Single full	4.5 V to 5.5 V	DIP-24, SOIC-24, eTSSOP-28
A3998	9 to 50	1.5 A	Dual full with dual regulators	3 V to 5.5 V	QFN-32
A4973	5 to 50	1.5 A	Single full	3 V to 5.5 V	DIP-16, SOIC-16
A4950 / A4950K	8 to 40	3.5 A	Single full	Internally generated	eSOIC-8
A4952	8 to 40	2 A	Single full	Internally generated	eMSOP-10
A4953	8 to 40	2 A	Single full	Internally generated	eSOIC-8
A4954	8 to 40	2 A	Dual full	Internally generated	eTSSOP-16
A3950	8 to 36	2.8 A	Single full	Internally generated	eTSSOP-16, QFN-16
A3968	Vcc to 30	650 mA	Dual full	4.75 V to 5.5 V	SOIC-16

Bipolar Stepper Motor Drivers - Parallel Interface (I_O, I_I)

Part Number	Output Voltage Range (V)	Output Current Range	Interface	Packages
A4975	5 to 50	1.5 A	Parallel (I _O , I _I)	DIP-16, SOIC-16
A4970	10 to 45	750 mA	Parallel (I _O , I _I)	DIP-34, SOIC-24
A4990K	7 to 50	1.4 A	Parallel (IN ₂ , IN ₄)	eTSSOP-20
A3988	8 to 36	1.2 A	Parallel (I _O , I _I)	QFN-36, eLQFP-48
A3989	8 to 35	1.2 A (Step), 2.4 A (DC)	Parallel (I _O , I _I)	QFN-36
A3995	8 to 35	2.4 A	Parallel (I _O , I _I)	QFN-36
A4986	8 to 35	2 A	Parallel (I _O , I _I)	eTSSOP-24
A4987	8 to 35	1 A	Parallel (I _O , I _I)	QFN-24, eTSSOP-24
A3966	4.5 to 30	650 mA	Parallel (I _O , I _I)	SOIC-16
A3906	2.5 to 9	1 A	Parallel (I _O , I _I)	QFN-20
A3901	2.5 to 5.5	400 mA	Parallel (I _O , I _I)	DFN-10

Bipolar Stepper Motor Drivers - Serial Interface

Part Number	Output Voltage Range (V)	Output Current Range	Interface	Packages
A3992	15 to 50	1.5 A	Serial	DIP-24, eTSSOP-24
A3985	12 to 50	<10 A Typical (MOSFET gate driver IC)	Serial	TSSOP-38
A3998	9 to 50	1.5 A	Serial	QFN-32
A3981K	7 to 50	1.4 A	SPI / Parallel (Translator)	eTSSOP-28
A4979	7 to 50	1.5 A	SPI / Parallel (Translator)	eTSSOP-28
A4980K	3.3 to 50	1.4 A	SPI / Parallel (Translator)	eTSSOP-28
A4993K	3.8 to 50	1.4 A	SPI / Parallel (Translator)	eTSSOP-28

Note: "K" suffix denotes automotive grade product (AEC-Q100 qualified)

MOTOR DRIVERS AND INTERFACE ICs

Bipolar Stepper Motor Drivers - Step / Direction Interface

Part Number	Output Voltage Range (V)	Output Current Range	Interface	Packages
A4989	12 to 50	<10 A Typical (MOSFET gate driver IC)	Parallel (Translator)	TSSOP-38
A3987	8 to 50	1.5 A	Parallel (Translator)	eTSSOP-24
A3981K	7 to 50	1.4 A	Parallel / SPI (Translator)	eTSSOP-28
A4979	7 to 50	1.5 A	SPI / Parallel (Translator)	eTSSOP-28
A4980K	3.3 to 50	1.4 A	Parallel / SPI (Translator)	eTSSOP-28
A4992K	7 to 50	1.4 A	Parallel / SPI (Translator)	eTSSOP-20
A3977	8 to 35	2.5 A	Parallel (Translator)	eTSSOP-28
A3979	8 to 35	2.5 A	Parallel (Translator)	eTSSOP-28
A3982	8 to 35	1.5 A	Parallel (Translator)	SOIC-24
A3983	8 to 35	1.5 A	Parallel (Translator)	eTSSOP-24
A3984	8 to 35	1.5 A	Parallel (Translator)	eTSSOP-24
A4982	8 to 35	2.0 A	Parallel (Translator)	QFN-32, eTSSOP-24
A4983	8 to 35	2.0 A	Parallel (Translator)	QFN-28
A4984	8 to 35	2.0 A	Parallel (Translator)	QFN-24, QFN-32, eTSSOP-24
A4985	8 to 35	1.0 A	Parallel (Translator)	QFN-24, QFN-32, eTSSOP-24
A4988	8 to 35	2.0 A	Parallel (Translator)	QFN-28
A3967	4.75 to 30	750 mA	Parallel (Translator)	SOIC-24

High Side Drivers

Part Number	Output Voltage	Output Current (per channel)	Number of Outputs	Description	Serial Input	Parallel Input	High Side / Low Side	Packages
A3942K	60	4 x pre-drive	4	Four channel high side MOSFET gate driver IC	Y	Y	High Side	TSSOP-38
A2982	50	8 x 350 mA	8	Eight channel high side driver IC	N	Y	High Side	SOIC-20
A6850K	40	2 x 25 mA	2	Two channel high side protected switch with current monitor outputs	N	Y	High Side	SOIC-8
UDN2987-6	35	8 x 350 mA	8	Eight channel high side driver IC with over-current protection	N	Y	High Side	SOIC-20
A6861K	50	3 x pre-drive	3	3 channel high side MOSFET gate driver	N	Y	High Side	TSSOP-16

Low Side Drivers

Part Number	Output Voltage	Output Current (per channel)	Number of Outputs	Description	Serial Input	Parallel Input	High Side / Low Side	Packages
A2550K	50	3 x 250 mA	3 x low side 1 x LDO	3 channel low side relay driver / 5V regulator, POR, and watchdog	N	Y	Low Side	eTSSOP-16
A3944K	50	N/A	6	Six channel low side MOSFET Pre-driver IC	Yes	N/A	N/A	eTSSOP-28

Photoelectric Smoke Detector ICs

Part Number	Sensor Type	Reduced Sensitivity Timer	Horn Pattern	Supply Voltage (VDC)	Temperature Range (°C)	Packages
A5303	Photo	Yes	Temporal (T3)	2.3 to 5.5	-20 to 85	TSSOP-20
A5366	Photo	Yes	Temporal (T3)	6 to 12	-25 to 75	DIP-16, SOIC-16
A5358	Photo	Yes	Continuous Pulsing	6 to 12	-25 to 75	DIP-16, SOIC-16

Ionization Smoke Detector ICs

Part Number	Sensor Type	Reduced Sensitivity Timer	Horn Pattern	Supply Voltage (VDC)	Temperature Range (°C)	Packages
A5348	Ion	Yes	Continuous Pulsing	6 to 12	-10 to 60	DIP-16
A5367	Ion	Yes	Temporal (T3)	6 to 12	-10 to 60	DIP-16

Note: "K" suffix denotes automotive grade product (AEC-Q100 qualified)

REGULATORS AND LIGHTING

LED Driver ICs - Automotive Lighting

Part Number	Topology	Number of Channels	I _{OUT} Max (mA)	V _{IN} (V)	WLEDs per Channel	Total WLEDs	Packages
A6213	Buck	1	3000	6 to 48	2 to 12	12	eSOIC-8
A6213-1	Buck	1	1500	6 to 48	2 to 12	12	eSOIC-8
A6260	Linear	1	350	6 to 40	2 to 3	3	eSOIC-8
A6261	Linear	4	400	6 to 50	2 to 3	12	eMSOP-10, eTSSOP-16
A6262	Linear	4	400	6 to 50	2 to 3	12	eMSOP-10, eTSSOP-16
A6263	Linear	4	400	6 to 50	2 to 3	12	eSOIC-8
A6264	Linear	4	400	6 to 50	2 to 3	12	eMSOP-10, eTSSOP-16
A6265	Buck-Boost / Boost Controller	1	Scalable 1 A+	6.5 to 50	2 to 15	15	eTSSOP-16
A6266	Boost Controller	1	Scalable 1 A+	5 to 50	5 to 15	15	eTSSOP-16
A6267	Buck-Boost / Boost Controller	1	Scalable 1 A+	6.5 to 50	2 to 15	15	eTSSOP-16
A6268	Buck-Boost / Boost Controller	1	Scalable 1 A+	5 to 50	2 to 15	15	eTSSOP-16
A6269	Linear	2	400	6 to 50	2 to 3	6	eSOIC-8
A6271	Buck-Boost / Boost Controller	1	Scalable 1 A+	4.5 to 50	2 to 15	15	eTSSOP-16

LED Driver ICs - Automotive Backlighting

Part Number	Topology	V _{IN} (V)	Max OVP (V)	I _{OUT} Per Channel (mA)	Number of Channels	I _{OUT} Total (mA)	LEDs/ Channel	Total LEDs	Frequency (MHz)	Packages
A8501	Boost	6.8 to 40	38	100	4	400	9	36	0.6 to 2.2	eTSSOP-28
A8502	Boost	5 to 40	55	120	2	240	12	24	0.6 to 2.2	eTSSOP-16
A8510	Boost	5 to 40	55	40	8	320	12	96	0.6 to 2.2	5 x 5 QFN-26
A8511	Boost	6.8 to 40	38	150	4	600	9	36	0.6 to 2.2	eTSSOP-28
A8513	Boost	4.5 to 40	55	150	1	150	14	14	0.25 to 2	eMSOP-10, eTSSOP-16
A8514	Boost	5 to 40	55	80	4	320	12	48	0.6 to 2.2	eTSSOP-20
A8517	Boost	4.5 to 40	40	60	10	600	10	100	0.4 to 2.3	eTSSOP-28
A8522	Boost	4.5 to 40	40	60	8	480	11	88	0.4 to 2.3	eTSSOP-28
A8521	Boost	5 to 40	55	80	4	320	12	48	0.6 to 2.2	eTSSOP-20
A8518	Boost	5 to 40	45	200	2	400	11	22	2.15 MHz	eTSSOP-16
A8519	Boost	5 to 40	45	100	4	400	11	44	0.2 to 2.3 MHz	eTSSOP-20 5 x 5 QFN-28

LED Driver ICs - General Lighting and Display Backlighting

Part Number	Topology	V _{IN} (V)	Max OVP (V)	I _{OUT} Per Channel (mA)	Number of Channels	I _{OUT} Total (mA)	LEDs/ Channel	Total LEDs	Frequency (MHz)	Packages
A6211	Buck	6 to 48	—	3000	1	3000	12	12	0.3 to 2	eSOIC-8
A8500	Boost and Current Sink	5 to 27	47	25	8	200	12	96	0.2 to 2	4 x 4 mm TQFN-26
A8503	Boost and Current Sink	5 to 27	47	35	6	210	12	72	0.6 to 2.2	4 x 4 mm TQFN-26
A8509	Boost Controller and Current Sink	9 to 40	Scalable	240	4	960	15	60	0.3 to 0.8	eTSSOP-24, SOIC-24
A8510	Boost and Current Sink	5 to 40	55	40	8	320	12	96	0.6 to 2.2	5 x 5 QFN-26
A8512	Boost Controller and Current Sink	8 to 24	Scalable	120	6	720	32	192	0.3 to 1	SOIC-24
A8515	Boost and Current Sink	5 to 40	55	120	2	240	12	24	0.6 to 2.2	eTSSOP-16
A8516	Boost Controller and Current Sink	8 to 24	Scalable	120	6	720	32	192	0.3 to 1	eTSSOP-24, SOIC-24

REGULATORS AND LIGHTING

Automotive Control Unit and Infotainment PMICs

Part Number	Key Features	V _{IN} Range (V)	Output	Topology	Output Voltage	Output Current	Package	Frequency (kHz)
A8450K	Buck Regulator + 2 x LDO + 2 LDO Controllers	6 to 45	V _{MAIN} V _{SD} V _{SA} V ₃₃ V _{ADJ}	Buck Linear Linear Linear Linear Controller Linear Controller	5.7 V @ 1.0 A 5 V 5 V 3.3 V 1.2 to 3.3 V	1.0 A 200 mA 200 mA Adjustable Adjustable	eSOIC-24	–
A4402K	Automotive Buck Regulator With Integrated LDO Watchdog Timer And NPOR	6 to 50	V _{SW} V _{O2}	Buck Linear	Adjustable 6 V - 1.18 V	1.0 A 250 mA	eTSSOP-16	up to 2 MHz
A4405K	Automotive COT Buck Regulator With Two Integrated LDO, One LDO Controller, Extensive FMEA	6 to 36	V _{REG} V _{5P} V ₅ V ₃₃	Buck Linear Linear Linear Linear Controller	5.45 V 5.0 V 5.0 V 3.3 V	~1A 405 mA 315 mA Adjustable	eTSSOP-20	up to 2.2 MHz
A4406K	Automotive COT Buck Regulator With One Integrated LDO, One LDO Controller	6 to 36	V _{REG} V _{5P} V ₃₃	Buck LDO Linear Linear Controller	5.45 V 5.0 V 3.3 V	~1 A 405 mA Adjustable	eTSSOP-20	up to 2.2 MHz
A4407K	Automotive COT Buck Regulator With Two Integrated LDO, Two LDO Controllers	6 to 36	V _{REG} V _{5P} V ₅ V _{3V3} V _{1V2}	Buck Linear Linear Linear Linear Controller Linear Controller	5.45 V 5.0 V 5.0 V 3.3 V 1.2 V	~1.5 A 415 mA 310 mA Adjustable Adjustable	eTSSOP-24	up to 2.2 MHz
A4411K	Buck or Buck/Boost Pre-Regulator, Synch Buck, 3 LDOs with Pulse Width Window Watchdog Timer and NPOR	3.6 to 36	V _{REG} V _{adj} V _{5P} V _{5SNR} V _{5SCAN}	(Internal Buck or Buck-Boost)	5.35 V Adjustable 5.0 V 5.0 V 5.0 V	~1 A 1.0 A 120 mA 150 mA 200 mA	eTSSOP-38	250 KHz to 2.4 MHz
A4410K	Buck or Buck/Boost Pre-Regulator, Synch Buck, 3 LDOs with Period Window Watchdog Timer and NPOR	2.8 to 36	V _{REG} V _{1V2} V _{5P} V ₅ V _{3V3}	(Internal Buck or Buck-Boost)	5.35 V 1.25 V 5.0 V 5.0 V 3.3 V	~1 A 1.0 A 255 mA 155 mA 165 mA	eTSSOP-38	250 KHz to 2.4 MHz
A8600K	4 x Buck, Low I _{STANDBY} , Two High Side Switches, BU/ACC Detectors For Infotainment Systems	4.4 to 40	V _{SW1} V _{SW2} V _{SW3} V _{SW4}	Buck Buck Buck Buck Buck Controller	Adjustable Adjustable Adjustable Adjustable	1.0 A (2.5 A pk) 1.0 A (2.5 A pk) 2.0 A (2.5 A pk) Adjustable	LQFP-48	425
A8601K	Boost + 3 x LDO + 2 Charge Pumps. For LCD Panels Used In Infotainment Systems	4 to 5.5	V _{OUT} V _{DVDD} V _{AVDD} V _{COM} V _{GH} V _{GL}	Boost Linear Linear Linear Linear Charge Pump Charge Pump	22 V 5 V 5-14 V 2.9-6.8 V 2.4- 26 V -12.9 to -5 V	1.0 A 90 mA 350 mA 110 mA 32 mA 32 mA	eTSSOP-28	350 to 2250
A8603K	Boost + 2xLDO + 2 Charge Pumps with I ² C, low IQ	3 to 10	V _{OUT} V _{AVDD} V _{COM} V _{GH} V _{GL}	Boost Linear Linear Linear Charge Pump Charge Pump	19 V 5 to 15 V 2.5 to 7.5 V 10 to 30 V -12 to -4 V	1.5 A 200 mA 36 mA 11 mA 11 mA	QFN-24 eTSSOP-24	350 to 2250
A8651K	Dual Synch Buck, Adjustable Current Limit, 180° Phase Delay, Low V _{IN}	2.5 to 5.5	V _{OUT1} V _{OUT2}	Buck Buck	5 to 0.8 V 5 to 0.8 V	2.0 A 2.0 A	eTSSOP-20	350 to 2200
A4492	3 Independent Buck Regulators, Fixed Frequency, Multiphase Switching, POR	4.5 to 34	V _{REG1} V _{REG2} V _{REG3}	Buck Buck Buck Buck	V _{IN} to 0.8 V V _{IN} to 0.8 V V _{IN} to 0.8 V	1.5 A 1.5 A 1.5 A	QFN-20	550

General Purpose PMICs

Part Number	Key Features	V _{IN} Range (V)	Output	Topology	Output Voltage	Output Current	Package	Frequency (kHz)
A4490	3 Independent Buck Regulators, Fixed Frequency, Multiphase Switching, POR	4.5 to 34	V _{REG1} V _{REG2} V _{REG3}	Buck Buck Buck Buck	V _{IN} to 0.8 V V _{IN} to 0.8 V V _{IN} to 0.8 V	1.5 A 1.5 A 1.5 A	QFN-20	550
A4491	3 Independent Buck Regulators, Fixed Frequency, Multiphase Switching, POR	4.5 to 23	V _{REG1} V _{REG2} V _{REG3}	Buck Buck Buck Buck	V _{IN} to 0.8 V V _{IN} to 0.8 V V _{IN} to 0.8 V	1.5 A 1.5 A 1.5 A	QFN-20	550

REGULATORS AND LIGHTING

High Efficiency Step Down Regulators - Wide V_{IN}

Part Number	Key Features	V_{IN} Range (V)	I_{OUT} (A)	AEC-Q100	R_{DSon} (m Ω)	Package	F_{SW} Range (kHz)
A8585K	Low I_Q , fixed 5.0 V_{OUT} , Selectable PFM, Dithering	3.5 to 35	2.0	Yes	115	eSOIC-10	300 to 550
A8585K-1	Low I_Q , fixed 3.3 V_{OUT} , Selectable PFM, Dithering	3.5 to 35	2.0	Yes	115	eSOIC-10	300 to 550
A8585K-2	Low I_Q , fixed 5.0 V_{OUT} , Sleep Mode, Dithering	3.5 to 35	2.0	Yes	115	eSOIC-10	300 to 550
A8585K-3	Low I_Q , fixed 3.3 V_{OUT} , Sleep Mode, Dithering	3.5 to 35	2.0	Yes	115	eSOIC-10	300 to 550
A8582K	Low V_{IN} Operation, 2.4 MHz Regulator	4.7 to 36	2.0	Yes	70	eTSSOP-16	250 to 2400
A4447	Wide Input Voltage Step-Down Regulator	8 to 50	2.0	No	450	eSOIC- 8	Fixed t_{OFF}
A8580K	Low I_Q , Adjustable Vout, Selectable PFM	3.5 to 35	2.5	Yes	110	eTSSOP-16	250 to 2400
A8589K	Low I_Q , Adjustable Vout, Selectable PFM, Low Dropout Operation	3.5 to 35	2.5	Yes	110	eTSSOP-16	250 to 2400
A8590K	Low I_Q , Adjustable Vout, Selectable PFM, Low Drop Out, Enhanced Idle/Stop/Start Recovery	3.5 to 35	3.0	Yes	110	eTSSOP-16	250 to 2400
A8584K	Low VIN Operation, 500 kHz Regulator	4.7 to 36	2.5	Yes	100	eTSSOP-16	250 to 500
A4403	Valley Current Mode Control Buck Regulator, Fixed t_{ON}	9 to 46	3.0	No	350	QFN 16	400 to 2000
A8498	Wide Input Voltage Step Down Regulator,	8 to 50	3.0	No	450	eSOIC-8	Fixed t_{OFF}
A8586K	Wide Input Voltage, Buck Regulator with Adjustable Dithered Frequency and PFM mode	3.8 to 40	3.5	Yes	150	DFN-10 eSOIC-8	250 to 4000
A8586-1K	Wide Input Voltage, Buck Regulator with Adjustable Frequency	3.8 to 40	3.5	Yes	150	eSOIC-8	250 to 4000
A8586-2K	Wide Input Voltage, Buck Regulator with Adjustable Frequency and PFM mode	3.8 to 40	3.5	Yes	150	eSOIC-8	250 to 4000
A8583K	Low V_{IN} Operation, 2.4 MHz Regulator	4.7 to 36	3.5	Yes	70	eTSSOP-16	250 to 2400

High Efficiency Step Down Regulators - Synchronous MOSFETs

Part Number	Key Features	V_{IN} Range (V)	I_{OUT} (A)	AEC-Q100	R_{DSon} (m Ω)	Package	F_{SW} Range (kHz)
A8650K	Synchronous, Low V_{IN} , P-Channel HS MOSFET, Pre-Bias	2.5 to 5.5	2.0	Yes	70 / 55	MSOP-10	250 to 2400
A8651K	Dual Synchronous, Low V_{IN} , P-Channel HS MOSFET	2.5 to 5.5	2.0/2.0	Yes	80 / 55 (x2)	eTSSOP-20	100 to 600
A8672	Synchronous Buck Regulator With Fault Warnings, POK	3 to 16	6.0	No	27 / 12	QFN-28	200 to 1000
A8652K	Synchronous Buck Regulator With Cable Drop (USB) Compensation	3 to 40	1	Yes	80 / 55	eTSSOP-16	100 to 2200
A8653K	Synchronous Buck Regulator With Cable Drop (USB) Compensation	3 to 40	2.6	Yes	80 / 55	eTSSOP-16	100 to 2200
A8654K	Synchronous Buck Regulator, Wide V_{IN}	3 to 40	2.6	Yes	80 / 55	eTSSOP-16	100 to 2200

Low Noise Block Regulators for Satellite Set-Top Boxes

Part Number	Number of Channels	Output Current	Packages	Notes
A8290	Single	900 mA	5 x 5 mm QFN-28	"Generation 3"
A8291	Single	600 mA	5 x 5 mm QFN-28	"Generation 3"
A8293	Single	700 mA	4 x 4 mm QFN-20	"Generation 3"
A8294	Single	850 mA	4 x 4 mm QFN-20	"Generation 3"
A8295	Single	Adjustable 250 to 950 mA	4 x 4 mm QFN-20	"Generation 4"
A8307	Single	Adjustable 0.5 to 1 A	4 x 4 mm QFN-20	For multiswitch power
A8296	Single	Adjustable 250 to 950 mA	3 x 3 mm QFN-16	"Generation 4"
A8298	Single	Adjustable 250 to 950 mA	4 x 4 mm QFN-20	"Generation 4" + Ceramics
A8303	Single	Adjustable 250 to 950 mA	4 x 4 mm QFN-20	"Generation 4" + Ceramics + 15.6 VOUT for Japan Market
A8305	Single	Adjustable 250 to 950 mA	3 x 3 mm QFN-16	"Generation 4" + Ceramics + 15.6 VOUT for Japan Market
A8300/-1	Single	Adjustable 250 to 950 mA	4 x 4 mm QFN-24	"Generation 5" (Ceramic or Electrolytic)
A8304	Single	Adjustable 250 to 950 mA	3 x 3 QFN-16	"Generation 5"
A8286	Dual	900 mA per channel	5 x 5 mm QFN-28	"Generation 3"
A8292	Dual	600 mA per channel	5 x 5 mm QFN-28	"Generation 3"
A8297	Dual	Adjustable 250 to 950 mA	5 x 5 mm QFN-28	"Generation 4"
A8299	Dual	Adjustable 250 to 950 mA	5 x 5 mm QFN-28	"Generation 4" + Ceramics
A8302	Dual	Adjustable 250 to 950 mA	5 x 5 mm QFN-28	"Generation 5" Universal

Note: "K" suffix denotes automotive grade product (AEC-Q100 qualified)



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