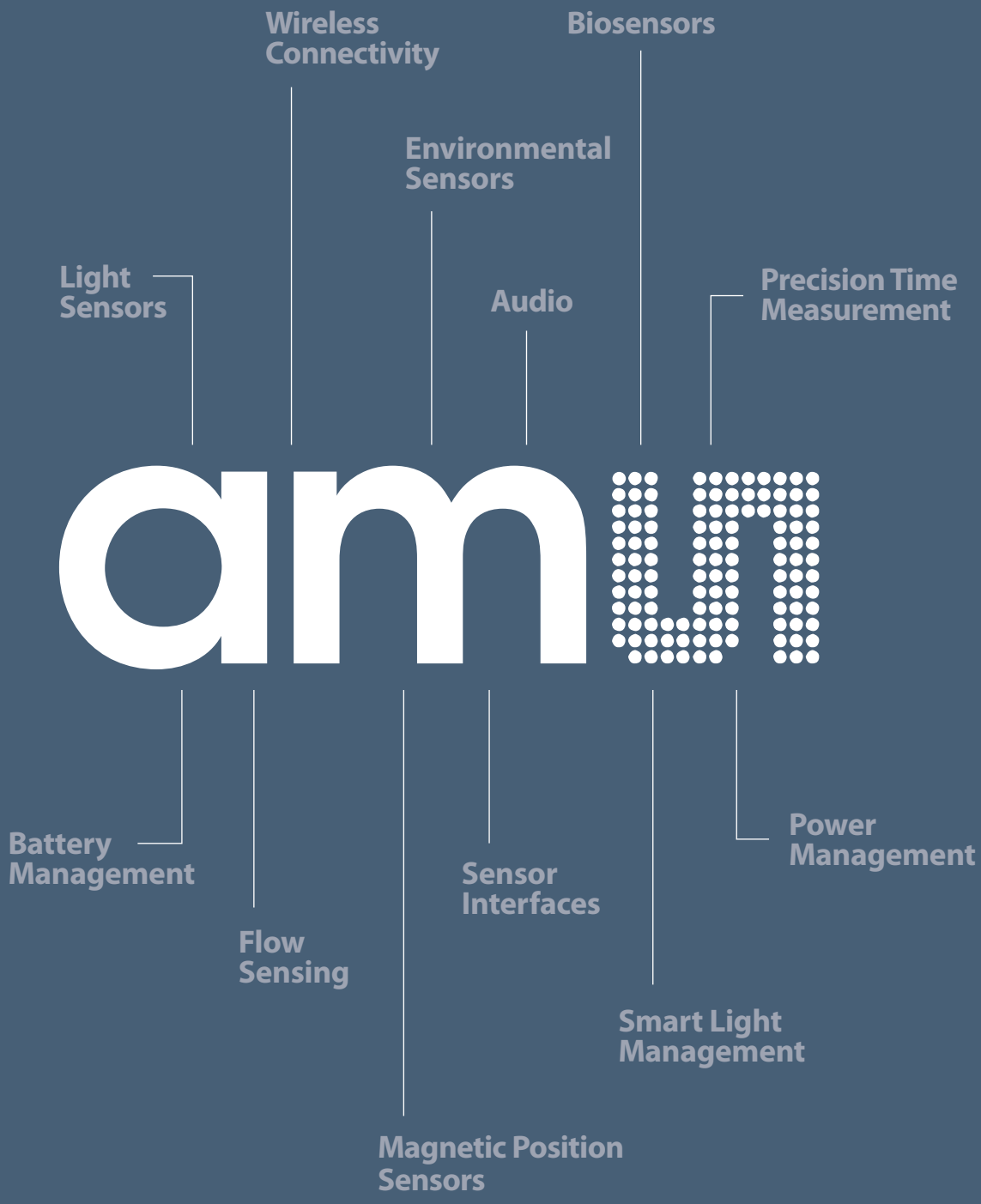


Shaping the world with sensor solutions

We are a global leader in the design and manufacture of high performance analog sensor solutions.

ams is leading the way by shaping the world with sensor solutions and forging a seamless connection between people and technology. We enable our customers to create differentiated products that are smarter, safer, easier-to-use and more environmentally friendly.

Our core expertise includes design and system know-how for the most challenging applications in sensors/sensor interfaces, power management and wireless solutions. In short we do the "tough stuff" in analog. Our target markets include communications, consumer, computing, industry, smart homes/buildings, health/fitness/medical, and automotive.

Our scalable manufacturing model combines in-house capabilities and partnerships with global contract manufacturers allowing us to push the limits of analog performance, assuring customers a dedicated supply and providing the highest quality standards.

Contents

Audio

Active Noise Cancellation

Part No.	Function	Topology	Output Type	Max. Output Power	SNR, THD	ANC Performance	Supply Voltage	Package
				BTL, 1.8 V, 32 Ohm	SE, 34 mW, 32 Ohm		V	(mm)
AS3400	Accessories	Receive Path Feedforward/ Feedback	Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-24 (4×4)
AS3410	Accessories	Receive Path Feedforward	Stereo SE/ Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-24 (4×4)
AS3415	Accessories	Receive Path Feedforward	Stereo SE/ Mono BTL w. Bypass	125mW	>108dB, <0.1%	>25dB	1.0 - 1.8	QFN-32 (5×5)
AS3420	BT Accessories	Receive Path Feedforward/ Feedback	Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-20 (4×4)
AS3421	BT Accessories	Receive Path Feedforward	Stereo SE	SE : 35mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-24 (4×4)
AS3422	BT Accessories	Receive Path Feedback	Stereo SE	SE : 35mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-32 (5×5)
AS3430	Accessories	Receive Path Feedback	Stereo SE/ Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-32 (5×5)
AS3435	Accessories	Receive Path Feedback	Stereo SE/ Mono BTL w. Bypass	125mW	>108dB, <0.1%	>25dB	1.0 - 1.8	QFN-36 (5×5)
AS3501	Embedded	Receive Path Feedforward	Stereo SE/ Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-24 (4×4)
AS3502	Embedded	Receive Path Feedback	Stereo SE/ Mono BTL	125mW	>100dB, <0.1%	>20dB	1.0 - 1.8	QFN-32 (5×5)

Audio Amplifiers

Part No.	Topology	Power	PSRR	Output Type	Shutdown	Supply Current	Supply Voltage	Package
		mW	dB			mA	V	(mm)
AS3560	Class G	30	>90	Stereo SE	via I²C	0.9	2.3 - 5.5	WL-CSP-16
AS3561	Class H	30	>90	Stereo SE	via I²C	0.9	2.3 - 5.5	WL-CSP-16

Audio

Audio Codecs

Part No.	Power Management	Main Audio Features	Audio Codec SNR	Speaker Amplifier	Main Interfaces and Control	USB Charger with Temp. Supervision	Boot ROM for Start-Up Sequences	RTC	Package
									(mm)
AS3510	DC-DC StepUp: 1×150mA @ 3.6V DC-DC StepDown: - LDO: 2×50mA, 1×200mA Charge: - Current Sink: -	Headphone Amp: 1× Line Out: - Line In: - Microphone In: 1× Audio Mix: yes	DAC: 91dB ADC: 83dB	•	Gen. Purpose ADC: - I²C & I²S: yes SPDIF: - RES & WDT: RES only DRM Enabled (UID): -	-	-	-	BGA-49 (7×7)
AS3515	DC-DC StepUp: 1×60mA @ 12V DC-DC StepDown: - LDO: 5×200mA, 1×2mA, 2× MIC Charge Pump: 1× for Core Current Sink: 1×40mA (progr.)	Headphone Amp: 1× Line Out: 1× Line In: 2× Microphone In: 2× Audio Mix: yes	DAC: 94dB ADC: 83dB	•	Gen. Purpose ADC: 10bit I²C & I²S: yes SPDIF: - RES & WDT: yes DRM Enabled (UID): 64bit	•	25	•	BGA-64 (7×7)
AS3517	DC-DC StepUp: 1×60mA @ 12V, 1×500mA (USB) DC-DC StepDown: 1×500mA, 2×250mA LDO: 4×200mA, 1×2mA, 2× MIC Charge Pump: 1×10mA (for USB OTG) Current Sink: 1×40mA (prog., log. Dimming)	Headphone Amp: 1× Line Out: 2× Line In: 2× Microphone In: 2× Audio Mix: yes	DAC: 96dB ADC: 90dB	-	Gen. Purpose ADC: 10bit I²C & I²S: yes SPDIF: yes RES & WDT: yes DRM Enabled (UID): 64bit	•	25	•	BGA-81 (9×9)
AS3543	DC-DC StepUp: 1×60mA @ 12V DC-DC StepDown: 2×250mA with DVM LDO: 3×100mA, 1×50mA, 1× MIC Charge Pump: - Current Sink: 2×36mA (prog., log. Dimming)	Headphone Amp: 1× Line Out: 1×* Line In: 2× Microphone In: 1× Audio Mix: yes	DAC: 102/96dB ADC: 85dB	-	Gen. Purpose ADC: 10bit I²C & I²S: yes SPDIF: - RES & WDT: yes DRM Enabled (UID): 64bit	+ Current Limitation + Battery Switch	5 (25 voltage combinations each)	•	BGA-64 (6×6)

*) with ground noise cancellation

Feature Phones

Part No.	Description	Supply Voltage	Operating Range	Temperature Range	Last Number & Memory Dialing	Tone Ringer	Handsfree Function	Package
		V	mA	°C				
AS2522B	Speakerphone IC with a serial interface to standard CPU	3.0 - 5.0	15 - 150	-25 to 70	0	•	•	TQFP-32, Die on Foil
AS2523/24	Speakerphone IC with a serial and parallel interface	3.0 - 5.0	15 - 150	-25 to 70	0	-	•	SOIC-28, Die on Foil
AS2525	Single-chip speakerphone IC with a serial interface to a EEPROM	3.0 - 5.0	15 - 100	-25 to 70	29	•	•	TQFP-44, Die on Foil
AS2533	Single-chip telephone IC with line interface, speech circuit, dialler and ringer	3.8 - 5.0	13 - 100	-25 to 70	15	•	-	SOIC-28, Die on Foil
AS2534	Single-chip telephone IC with line interface, speech circuit, dialler and ringer	3.8 - 5.0	13 - 100	-25 to 70	1	•	-	SOIC-28, Die on Foil
AS2535	Single-chip telephone IC with line interface, speech circuit, dialler and ringer	3.8 - 5.0	13 - 100	-25 to 70	12	•	-	SOIC-28, Die on Foil
AS2536	Single-chip telephone IC with line interface, speech circuit, dialler and ringer	3.8 - 5.0	13 - 100	-25 to 70	15	•	-	SOIC-28, Die on Foil
AS2540	Remote controlled single-chip telephone IC with a 2-wire serial interface	3.6 - 5.0	15 - 100	-15 to 60	0	•	-	SOIC-28, Die on Foil

Environmental Sensors

Air Quality Sensors

Part No.	Description	Interface	Supply Voltage	Power Consumption	Dimension	Ambient Temp. Range	Ambient Humidity Range	Measurement Range
			V	mW	mm	°C	% r.h.	
iAM	USB indoor air monitor	USB	5	150	57 × 19 × 10	0 to 50	5 to 95% r.h., non-condensing	450 to 2000 ppm CO_2 equivalents*
iAQ-core C	Indoor air quality module, I²C interface, continuous operation mode	I²C	3.3 ±0.1, max. 20 mV ripple	67	17.78 × 15.24 × 4.3	0 to 50	5 to 95% r.h., non-condensing	450 to 2000 ppm CO_2 equivalents and 125 to 600 ppb TVOC equivalents*
iAQ-core P	Indoor air quality module, I²C interface, pulsed operation mode	I²C	3.3 ±0.1, max. 20 mV ripple	9	17.78 × 15.24 × 4.3	0 to 50	5 to 95% r.h., non-condensing	450 to 2000 ppm CO_2 equivalents and 125 to 600 ppb TVOC equivalents*

*) Values above the defined sensing range are provided as well

Gas Sensors

Part No.	Description	Interface	Supply Voltage	Power Consumption	Dimension	Ambient Temp. Range	Ambient Humidity Range
			V	mW	mm	°C	% r.h.
NEW ▸ AS-MLV-P2	MEMS MOS gas sensor component for VOC detection	Analog (Resistance)	~2.7 for 320°C	34 mW at 320°C	9.1 x 9.1 x 4.5	0 to 50	5 to 95% r.h., non-condensing

Hydrogen Sensors

Part No.	Description	Interface	Supply Voltage	Power Consumption	Dimension	Ambient Temp. Range	Ambient Humidity Range	Measurement Range	Accuracy
					mm	°C	% r.h.		ppm
HLS-440P A	Hydrogen leak sensor, 0-10% H_2, CAN interface, baud rate 500k, with termination resistor	CAN 2.0B 500kbit/s (default) 250kbit/s PWM	8.5 - 16VDC nominal 13.8V	70mA start-up (<1s, <200mA)	Ø 29.9 × 93.4	-40 to 90	5 to 100% r.h., incl. condensing	0 to 10% H_2, resolution 500ppm	5000
HLS-440P B	Hydrogen leak sensor, 0-10% H_2, CAN interface, baud rate 500k, without termination resistor	CAN 2.0B 500kbit/s (default) 250kbit/s PWM	8.5 - 16VDC nominal 13.8V	70mA start-up (<1s, <200mA)	Ø 29.9 × 93.4	-40 to 90	5 to 100% r.h., incl. condensing typical ambient humidity conditions	0 to 10% H_2, resolution 500ppm	5000
HLS-442	Hydrogen leak sensor, 0-4.4% H_2, CAN interface, baud rate 500k	CAN 2.0B 500kbit/s (default) 250kbit/s 125kbit/s PWM	9 - 16VDC nominal 13.8V	average 75mA start-up (<1s, <200mA)	82.2 × 9.4 × 46.2	-40 to 85	5 to 95% r.h., non-condensing	0 to 4.4% H_2, resolution 200ppm	3000
HPS-100	Hydrogen process sensor, 0-100% H_2, CAN interface, baud rate 500k	CAN 2.0B 500kbit/s (default) 250kbit/s PWM	8.5 - 16VDC nominal 13.8V	70mA start-up (<1s, <200mA)	Ø 29.9 × 93.4	-40 to 90	5 to 100% r.h., incl. condensing	0 to 100% H_2, resolution 5000ppm	20000

Light Sensors

Ambient Light Sensors

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	Programmable			Flexible Timing	Package		
		V			Gain	Integration Time	Interrupts		CL	FL	TSV
TSL25721	Light-to-Digital	2.4 - 3.6	VDD	•	•	•	•	•	-	•	-
TSL25723	Light-to-Digital	2.7 - 3.6	1.8V	•	•	•	•	•	-	•	-
NEW ▸ TSL2584TSV	Light-to-Digital	2.7 - 3.6	1.8V	-	•	•	•	•	-	-	•
TSL25911	Light-to-Digital	2.7 - 3.6	VDD	•	•	100 - 600 ms, 100 ms intervals	•	•	-	•	-
TSL45311	Light-to-Digital	2.3 - 3.3	VDD	•	Automatic	100, 200, 400 ms	-	•	•	-	-
TSL45313	Light-to-Digital	2.3 - 3.3	1.8V	•	Automatic	100, 200, 400 ms	-	•	•	-	-
TSL45315	Light-to-Digital	2.3 - 3.3	VDD	•	Automatic	100, 200, 400 ms	-	•	•	-	-
TSL45317	Light-to-Digital	2.3 - 3.3	1.8V	•	Automatic	100, 200, 400 ms	-	•	•	-	-

Ambient Light Sensors and Proximity Detection

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Recommended Operating Distance			Package
		V				Short: < 15 cm	Medium: < 46 cm	Long: > 46 cm	
TSL27721	Light-to-Digital	2.4 - 3.6	VDD	•	-	•	•	-	FN
TSL27723	Light-to-Digital	2.4 - 3.6	1.8V	•	-	•	•	-	FN

Ambient Light Sensors and Proximity Modules

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Recommended Operating Distance			Package
		V				Short: < 15 cm	Medium: < 46 cm	Long: > 46 cm	
TMD27721	Light-to-Digital	2.2 - 3.6	VDD	•	•	•	-	-	Module
TMD27721WA	Light-to-Digital	2.2 - 3.6	VDD	•	•	•	-	-	Module
TMD27723	Light-to-Digital	2.2 - 3.6	1.8V	•	•	•	-	-	Module
TMD27723WA	Light-to-Digital	2.2 - 3.6	1.8V	•	•	•	-	-	Module

Light Sensors

Color Sensors

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	Color Sensor	IR Filter	Color Filter Array Configuration	Ambient Light Sensing	Sync Input	Package		
		V								FN	CS	SOIC
TCS3103/4	Light-to-Voltage	4.5 - 5.5	-	-	RGB	-	3 × 3	-	-	•	-	-
TCS3200	Light-to-Frequency	2.7 - 5.5	-	-	RGBC	-	8 × 8	-	-	-	-	•
TCS3210	Light-to-Frequency	2.7 - 5.5	-	-	RGBC	-	4 × 6	-	-	-	-	•
TCS3414	Light-to-Digital	2.7 - 3.6	VDD	•	RGBC	•	2 × 8	-	•	•	•	-
TCS34715	Light-to-Digital	2.7 - 3.3	VDD	•	RGBC	-	4 × 4	•	-	•	-	-
TCS34717	Light-to-Digital	2.7 - 3.3	1.8V	•	RGBC	-	4 × 4	•	-	•	-	-
TCS34725	Light-to-Digital	2.7 - 3.6	VDD	•	RGBC	•	4 × 4	•	-	•	-	-
TCS34727	Light-to-Digital	2.7 - 3.3	1.8V	•	RGBC	•	4 × 4	•	-	•	-	-

Color Sensors and Proximity Detection

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Color Sensor	IR Filter	Ambient Light Sensing	Proximity Detection	Package
		V								
TCS37715	Light-to-Digital	2.7 - 3.3	VDD	•	-	RGBC	-	•	•	FN
TCS37717	Light-to-Digital	2.7 - 3.3	1.8V	•	-	RGBC	-	•	•	FN
TCS37725	Light-to-Digital	2.7 - 3.6	VDD	•	-	RGBC	•	•	•	FN
TCS37727	Light-to-Digital	2.7 - 3.3	1.8V	•	-	RGBC	•	•	•	FN

Color Sensors and Proximity Modules

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Color Sensor	IR Filter	Ambient Light Sensing	Proximity Detection	Package
		V								
TMD37821	Light-to-Digital	2.7 - 3.3	VDD	-	•	RGBC	•	•	•	Module
TMD37823	Light-to-Digital	2.7 - 3.3	1.8V	-	•	RGBC	•	•	•	Module
NEW ▸ TMD49033	Light-to-Digital	1.7 - 2.0	1.8V	•	•	RGBC	•	•	•	Module

Light Sensors

Gesture, Color and Proximity Modules

Part No.	Operating Voltage	I²C Bus	I²C Address	Gesture	Color Sensor	IR Filter	Ambient Light Sensing	Package
	V							
NEW ▸ TMG49033	1.7 - 2.0	1.8V	0x39	•	•	•	•	Module
TMG39923	2.4 - 3.8	1.8V	0x39	•	•	•	•	Module

Light-to-Frequency

Part No.	Operating Voltage	Responsivity	Fout (Max)	IR Only	Package				
	V	Hz/µW/cm²			Sidelooker	DIP	SOIC	T	CL
TSL230	2.7 - 5.5	790 @ 640nm	1.1 MHz	-	-	•	•	-	-
TSL235	2.7 - 5.5	625 @ 635nm	500 KHz	-	•	-	-	-	-
TSL237	2.7 - 5.5	1200 @ 640nm	1 MHz	-	•	-	-	•	-
TSL238	2.7 - 5.5	3400 @ 640nm	1 MHz	-	-	-	•	•	-
TSL245	2.7 - 5.5	500 @ 940nm	500 KHz	•	•	-	-	-	-

Light-to-Voltage

Part No.	Operating Voltage	Responsivity				Fast Response	Low Noise	IR Only	Package			
	V	Low	Medium	High	Ultra				Sidelooker	SOIC	SM	T
TSL12	2.7 - 5.5	-	-	•	-	•	-	-	•	-	•	•
TSL13	2.7 - 5.5	-	•	-	-	•	-	-	•	-	•	•
TSL14	2.7 - 5.5	•	-	-	-	•	-	-	•	-	•	-
TSL250/60	2.7 - 5.5	-	•	-	-	-	•	TSL260	•	•	•	-
TSL251/61	2.7 - 5.5	-	•	-	-	-	•	TSL261	•	•	•	-
TSL252/62	2.7 - 5.5	•	-	-	-	•	•	TSL262	•	-	•	-
TSL253	2.7 - 5.5	-	•	-	-	•	-	-	•	-	•	-
TSL254	2.7 - 5.5	•	-	-	-	•	-	-	•	-	•	-
TSL257/67	2.7 - 5.5	-	-	-	•	-	-	TSL267	•	-	•	•

Light Sensors

Linear Array

Part No.	Operating Voltage	DPI	Pixels	Integration	Clock MHz (Max)	Package			
	V					CS	CL	P	PCB
TSL201CL	4.5 - 5.5	200	64	Start/Stop per Pixel	5	-	•	-	-
TSL202R	4.5 - 5.5	200	128	Start/Stop per Pixel	5	-	-	•	-
TSL208R	4.5 - 5.5	200	512	Start/Stop per Pixel	5	-	-	-	•
TSL210	4.5 - 5.5	200	640	Start/Stop per Pixel	5	-	-	-	•
TSL2014	4.5 - 5.5	200	896	Start/Stop per Pixel	5	-	-	-	•
TSL1401	3.0 - 5.5	400	128	Frame by Frame	8	•	•	-	-
TSL1402R	3.0 - 5.5	400	256	Frame by Frame	8	-	-	•	-
TSL1406R	3.0 - 5.5	400	768	Frame by Frame	8	-	-	-	•
TSL1410R	3.0 - 5.5	400	1280	Frame by Frame	8	-	-	-	•
TSL1412S	3.0 - 5.5	400	1536	Frame by Frame	8	-	-	-	•
TSL3301	3.0 - 5.5	300	102	Frame by Frame	10	-	•	-	-

Proximity

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Recommended Operating Distance			Package
		V				Short: < 15 cm	Medium: < 46 cm	Long: > 46 cm	
TSL26721	Light-to-Digital	2.4 - 3.6	VDD	•	-	•	-	-	FN
TSL26723	Light-to-Digital	2.7 - 3.6	1.8V	•	-	•	-	-	FN

Proximity Modules

Part No.	Type	Operating Voltage	I²C Bus	Alternate Address Options	IR LED	Recommended Operating Distance			Package
		V				Short: < 15 cm	Medium: < 46 cm	Long: > 46 cm	
TMD26721	Light-to-Digital	2.4 - 3.6	VDD	•	•	•	-	-	Module
TMD26723	Light-to-Digital	2.7 - 3.6	1.8V	•	•	•	-	-	Module

Biosensors

Part No.	Type	Operating Voltage	Integrated ARM Core	Memory	AFE Channels	SkinTemp, GSR	LEDs	Package
		V						
NEW ▸ AS7000	SSOC	2.6 - 3.6	•	32kEE/4k RAM	1	•	G -- G	Module

Smart Light Management

Smart Lighting

	Part No.	Description	Sensor Type	Footprint	Calibrated	Inputs		Outputs		Sensor Hub	I²C	Ambient Light Sensing	Package
		V		mm		UART	0-10V	0-10V	PWMs				
NEW	AS7210	Standalone smart daylighting manager	Photopic ambient	4.7 × 4.5	Lux	-	•	•	3	Partial	Select devices	•	LGA/WLCSP
NEW	AS7211	IoT smart daylighting manager	Photopic ambient	4.7 × 4.5	Lux	•	•	•	3	Open via I²C	Master (Open)	•	LGA/WLCSP
	AS7220	Lumen & CCT maintenance manager	XYZ Chromatic	4.7 × 4.5	CCT/Lux	-	•	•	3	No	Select devices	-	LGA/WLCSP
	AS7221	IoT smart white color lighting manager	XYZ Chromatic	4.7 × 4.5	CCT/XYZ/u'v'	•	•	•	3	Open via I²C	Master (Open)	Add-on	LGA/WLCSP

ams sensors are all around you.

We provide light sensors, color sensors, position sensors, environmental sensors, ICs for metering, wireless transmission, and many other sensor solutions that make devices smarter, more intuitive, more energy efficient, and more connected.

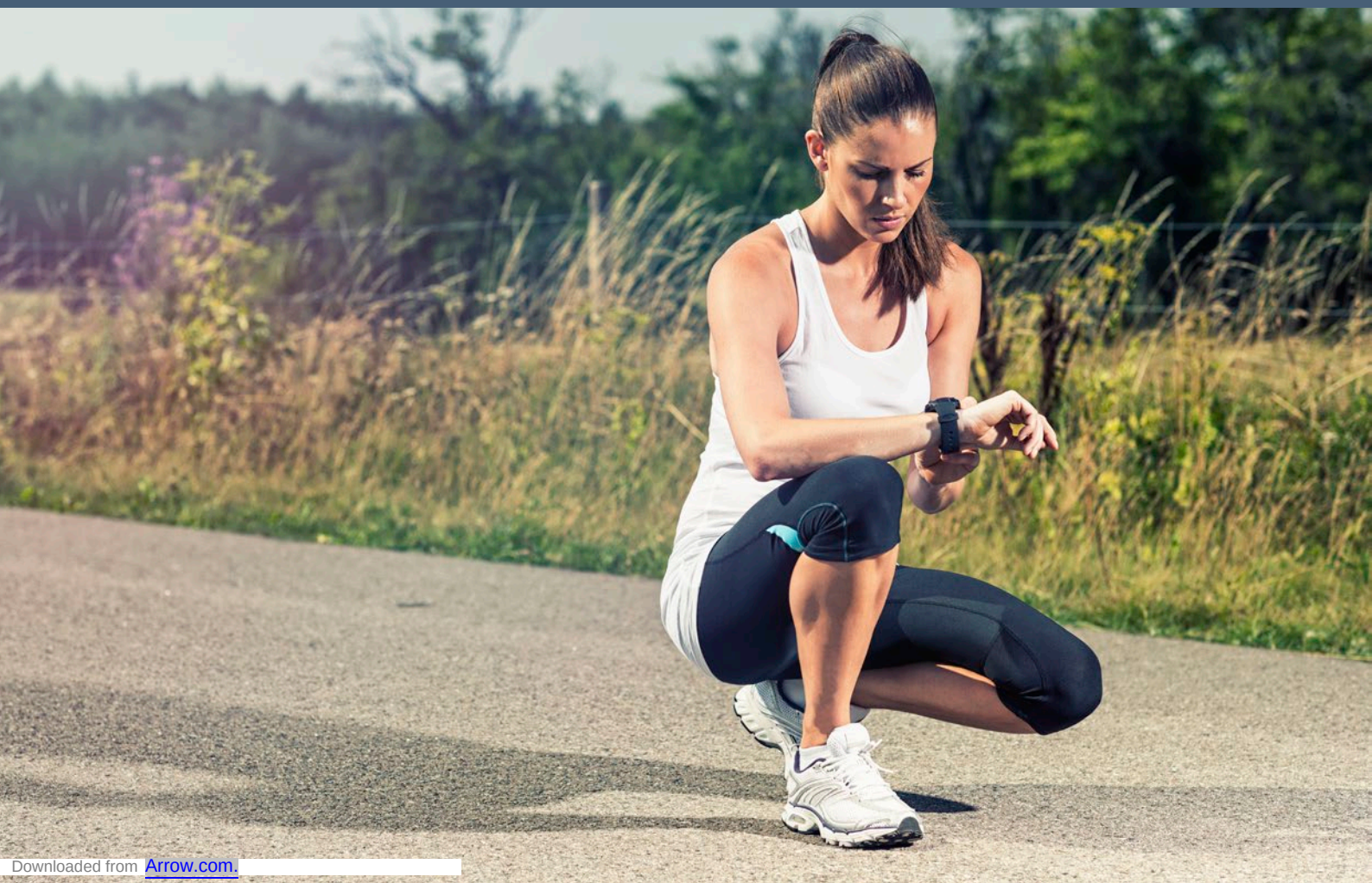
For example:

Color Sensors provide precise color measurement, determination, and discrimination. This generates highly accurate matching and rendering of camera and display color images in mobile devices in any lighting environment. Color sensors are found in smartphones, tablets, computers and many other consumer electronic products.

Audio and mobile communications. Active Noise Cancelling (ANC) technology enables crystal clear sound regardless of the noise levels from the surrounding environment, increasing the listening experience of mobile communications and multimedia applications. MEMS microphones in mobile devices like smartphones rely on ams sensor interface solutions to make it sound like the people talking are standing right next to each other.

Internet-connected environmental sensors replicate and enhance human responses by monitoring and measuring smell, pressure and temperature. By capturing the information electronically, feedback can be given automatically and data-driven decisions can be made easily and efficiently.

Connected car – breakthrough ams sensor technologies for connected cars make driving smarter, safer and more eco-friendly. Examples include LIDAR collision avoidance, Advanced and Automated Driver Assistance and intelligent position sensing to increase vehicle reliability.



Magnetic Position Sensors

Angle Position On-Axis

	Part No.	Description	Resolution	Interfaces	Output	Max Speed	Overvoltage Protection	Redundant	Supply Voltage	Temp. Range	Package	AUT qualified
						rpm			V	°C		
	AS5030	8-bit Rotary Position Sensor with Digital Angle (Interface) and PWM output	8-bit	SSI	Digital Angle (Interface) / PWM	30000	-	-	5.0	-40 to 125	TSSOP-16	-
	AS5040	10-bit Rotary Position Sensor with Digital Angle (Interface), ABI, UVW and PWM output	10-bit	SSI	Digital Angle (Interface) / ABI / UVW / PWM	30000	-	-	3.3 or 5.0	-40 to 125	SSOP-16	-
	AS5043	10-bit Rotary Position Sensor with Digital Angle (Interface) and Linear analog output	10-bit	SSI	Digital Angle (Interface) / Linear analog	30000	-	-	3.3 or 5.0	-40 to 125	SSOP-16	-
	AS5045	12-bit Rotary Position Sensor with Digital Angle (Interface) and PWM output	12-bit	SSI	Digital Angle (Interface) / PWM	30000	-	-	3.3 or 5.0	-40 to 125	SSOP-16	-
	AS5045B	12-bit Rotary Position Sensor with Digital Angle (Interface) and PWM and ABI output	12-bit	SSI	Digital Angle (Interface) / ABI / PWM	30000	-	-	3.3 or 5.0	-40 to 125	SSOP-16	-
	AS5047D	Rotary Position Sensor with Digital Angle (Interface), PWM, UVW and ABI output	14 bit	SPI	Digital Angle (Interface)/ ABI / PWM / UVW	14500	-	-	3.3 or 5.0	-40 to 125	TSSOP-14	-
NEW	AS5047P	14-bit Rotary Position Sensor with Digital Angle (Interface), PWM, UVW and ABI output	14-bit	SPI	Digital Angle (Interface)/ ABI / PWM / UVW	28000	-	-	3.3 or 5.0	-40 to 125	TSSOP-14	-
	AS5048A	14-bit Rotary Position Sensor with Digital Angle (Interface) and PWM output	14-bit	SPI	Digital Angle (Interface) / PWM	-	-	-	3.3 or 5.0	-40 to 150	TSSOP-14	-
	AS5048B	14-bit Rotary Position Sensor with Digital Angle (Interface) and PWM output	14-bit	-	Digital Angle (Interface) / PWM	-	-	-	3.3 or 5.0	-40 to 150	TSSOP-14	-
	AS5050A	10-bit Rotary Position Sensor with Digital Angle (Interface) output	10-bit	SPI	Digital Angle (Interface)	-	-	-	3.3	-40 to 85	QFN-16	-
	AS5055A	12-bit Rotary Position Sensor with Digital Angle (Interface) output	12-bit	SPI	Digital Angle (Interface)	-	-	-	3.3	-40 to 85	QFN-16	-
	AS5115	Rotary Position Sensor with Sin/Cos signal output	-	SSI	sin/cos	30000	-	-	5.0	-40 to 150	SSOP-16	•
	AS5132	8.5-bit Rotary Position Sensor with Digital Angle (Interface), ABI, UVW (up to 6 Pole pairs) and PWM output	8.5-bit	SSI	Digital Angle (Interface) / ABI / UVW (up to 6 Pole Pairs) / PWM	72900	-	-	5.0	-40 to 150	SSOP-20	•
	AS5134	8.5-bit Rotary Position Sensor with Digital Angle (Interface), ABI, UVW and PWM output	8.5-bit	SSI	Digital Angle (Interface) / ABI / UVW (up to 6 Pole Pairs) / PWM	82000	-	-	5.0	-40 to 150	SSOP-20	•
	AS5145A	12-bit Rotary Position Sensor with Digital Angle (Interface), PWM and ABI output	12-bit	SSI	Digital Angle (Interface) / ABI / PWM	15000	-	-	3.3 or 5.0	-40 to 150	SSOP-16	•
	AS5145B	12-bit Rotary Position Sensor with Digital Angle (Interface), PWM and ABI output	12-bit	SSI	Digital Angle (Interface) / ABI / PWM	15000	-	-	3.3 or 5.0	-40 to 150	SSOP-16	•
	AS5145H	12-bit Rotary Position Sensor with Digital (Angle) Interface and PWM output	12-bit	SSI	Digital Angle (Interface) / PWM	15000	-	-	3.3 or 5.0	-40 to 150	SSOP-16	•
	AS5147	14-bit Rotary Positon Sensor with Digital Angle (Interface), PWM, UVW and ABI output	14-bit	SPI	Digital Angle (Interface) / ABI / PWM / UVW	14500	-	-	3.3 or 5.0	-40 to 150	TSSOP-14	•
NEW	AS5147P	14-bit Rotary Position Sensor with Digital Angle (Interface) , PWM, UVW and ABI output	14-bit	SPI	Digital Angle (Interface) / ABI / PWM / UVW	28000	-	-	3.3 or 5.0	-40 to 150	TSSOP-14	•

Magnetic Position Sensors

Angle Position On-Axis

Part No.	Description	Resolution	Interfaces	Output	Max Speed	Overvoltage Protection	Redundant	Supply Voltage	Temp. Range	Package	AUT qualified
					rpm			V	°C		
AS5161	12-bit Rotary Position Sensor with PWM Output and Overvoltage Protection	12-bit	-	PWM	-	•	-	5.0	-40 to 150	SOIC-8	•
AS5162	12-bit Rotary Position Sensor with Linear Analog Output and Overvoltage Protection	12-bit	-	Linear analog	-	•	-	5.0	-40 to 150	SOIC-8	•
AS5215	Redundant Rotary Position Sensor with Sin/Cos Output	-	SSI	sin/cos	30000	-	-	5.0	-40 to 150	MLF-32	•
AS5245	Redundant 12-bit Rotary Position Sensor with Digital Angle (Interface) and ABI Output	12-bit	SSI	Digital Angle (Interface) / ABI / PWM	15000	-	•	3.3 or 5.0	-40 to 150	QFN-32	•
AS5247	14-bit Rotary Position Sensor with Digital Angel (Interface), PWM, UVW and ABI output	14-bit	SPI	Digital Angle (Interface) / ABI / PWM / UVW	14500	-	-	3.3 or 5.0	-40 to 150	MLF-40	•
AS5261	Redundant 12-bit Rotary Position Sensor with PWM Output and Overvoltage Protection	12-bit	-	PWM	-	•	•	5.0	-40 to 150	MLF-16	•
AS5262	Redundant 12-bit Rotary Position Sensor with Linear Analog Output and Overvoltage Protection	12-bit	-	Linear analog	-	•	•	5.0	-40 to 150	MLF-16	•
AS5600	12-bit Rotary Position Sensor with Digital Angel (Interface), PWM output	12-bit	-	PWM	-	-	-	3-3.6 and 4.5-5.5	-40 to 125	SOIC-8	•
AS5601	12-bit Rotary Position Sensor with Digital Angel (Interface), ABI output	12-bit	-	ABI	-	-	-	3-3.6 and 4.5-5.5	-40 to 125	SOIC-8	•

Angle Position Off-Axis

Part No.	Description	Resolution	Interfaces	Output	Redundant	Supply Voltage	Temp. Range	Package	AUT Qualified
						V	°C		
NEW ▸ AS5403A/D/E	3D Position Sensor for Automotive Applications	12-bit	SPI, Analog, PWM	SPI, Analog, PWM	-	5	-40 to 150	TSSOP-14	•

Magnetic Position Sensors

Linear Position

Part No.	Description	Resolution	Min Pole Pair Length	Interfaces	Output	Max Speed	Supply Voltage	Temp. Range	Package	AUT Qualified	Remark
			mm			m/s	V	°C			
AS5013	Two-Dimensional Magnetic Position Sensor with Digital Coordinates Output	8-bit (x and y)	I^2C	Digital Coordinates (Interface)	-	-	3.0	-20 to 80	QFN-16	-	
AS5304	160-step Linear Incremental Position Sensor with ABI output	160 step	4		ABI	20	5.0	-40 to 125	TSSOP-20	-	for linear: use magnetic strip for off-axis: use ring magnet
AS5306	160-step Linear Incremental Position Sensor with ABI output	160 step	2.4		ABI	10	5.0	-40 to 125	TSSOP-20	-	
AS5311	12-bit Linear Incremental Position Sensor with Digital Interface and PWM output	12-bit	2	SSI	PWM	0.65	3.3 or 5.0	-40 to 125	TSSOP-20	-	
AS5510	10-bit Linear Position Sensor with Digital Position (Interface) Output	10-bit		I^2C	Digital position (Interface) output		2.5-3.6	-30 to 85	WL-CSP	-	standard axial magnet
NSE-5310	12-bit Linear Position Sensor with Digital Interface and PWM output	12-bit	2	I^2C	PWM	0.65	3.3 or 5.0	-40 to 125	TSSOP-20	-	for linear: use magnetic strip for off-axis: use ring magnet
NEW ▸ AS5403A/D/E	3D Position Sensor for Automotive Applications	12-bit	not applicable	SPI, Analog, PWM	SPI, Analog, PWM	not applicable	5	-40 to 150	TSSOP-14	•	
AS5410	3D Position Sensor for Industrial Applications	12-bit	not applicable	SPI, PWM	SPI, PWM	not applicable	3.3	-40 to 105	TSSOP-14	-	

Power Management

LED Drivers

Part No.	Description	Outputs	LED Current per Output	Features	Error Detection	Read-back	LED-LED Matching	Supply Voltage	Package
		#	mA				%	V	(mm)
AS1100	8×8 Matrix LED driver	64	5	Multiplexed	-	-	3	5.0	SOIC-24
AS1101	80mA 2channel direct LED driver	2	80	Simple Drive	-	-	3	2.2 - 3.6	SC70-6
AS1102	40mA 3channel direct LED driver	3	40	Simple Drive	-	-	3	2.2 - 3.6	SC70-6
AS1103	40mA 4channel direct LED driver	4	40	Simple Drive	-	-	3	2.2 - 3.6	SC70-6
AS1104	40mA 4channel direct LED driver	4	40	Simple Drive, EN	-	-	3	2.2 - 3.6	MSOP-8
AS1105	4×8 Matrix LED driver	32	10	Multiplexed	-	-	3	5.0	SOIC-20
AS1106	8×8 Matrix LED driver	64	5	Multiplexed	-	-	3	2.7 - 5.5	SOIC-24
AS1107	8×8 Matrix LED driver with slew rate	64	5	Multiplexed	-	-	3	2.7 - 5.5	SOIC-24
AS1108	4×8 Matrix LED driver	32	10	Multiplexed	-	-	3	3.0 - 5.5	SOIC-20
AS1109	8channel 100mA direct LED driver	8	100		•	•	2	3.0 - 5.5	SOIC150-16 / SSOP150-16 / TQFN-16 (4×4)
AS1110	16channel 100mA direct LED driver	16	100		•	•	3	3.0 - 5.5	SSOP-24 / TQFN-28 (5×5)
AS1111	Low Dropout LED drivers	2-4	40-80	Simple Drive	-	-	3	0.15 - 3.6	WL-CSP-6, 0.4mm pitch (AS1111A & AS1111B), MLPD-8, 0.5mm pitch (AS1111C)
AS1112	16channel 100mA PWM LED driver	16	100	12-bit PWM, 6-bit DOT	•	•	4.5	3.0 - 5.5	TQFN-32 (5×5)
AS1113	16channel 50mA direct LED driver	16	50		•	•	3	3.0 - 5.5	SSOP-24 / TQFN-28 (5×5)
AS1115	64LED matrix driver with 16keys	64	5	multiplexed; I^2C interface	•	•	3	2.7 - 5.5	QSOP-24 / TQFN-24 (4×4)
AS1116	64LED matrix driver	64	5.5	multiplexed; SPI interface	•	•	3	2.7 - 5.5	QSOP-24 / TQFN-24 (4×4)
AS1117	64LED matrix driver with 8keys	64	5	multiplexed; I^2C interface; Reset	•	•	3	2.7 - 5.5	TQFN-24 (4×4)
AS1118	64LED matrix driver	64	5.5	multiplexed; SPI interface; Reset	•	•	3	2.7 - 5.5	TQFN-24 (4×4)
AS1119	144LED full color crossplexing driver with CP	144	5.5	320mA charge pump; 6 Frames; cross-plexing	•	•	2	2.7 - 5.5	WL-CSP-36 (3×3)
AS1121	16channel 40mA 30V PWM LED driver	16	40	12-bit PWM, 6-bit DOT, low EMI	•	•	1.5	3.1 - 3.6V (Logic); 30V LED	TQFN-32 (5×5)
AS1122	12channel 40mA 30V PWM LED driver	12	40	12-bit PWM, 6-bit DOT, low EMI	•	•	1.5	2.7 - 3.6 (Logic); 30V LED	TQFN-24 (4×4)
AS1123	16channel 40mA direct LED driver	16	40		•	•	3	3 - 5.5V	QSOP-24 TQFN-24 (4×4)
AS1130	132LED full color crossplexing driver	132	2.5	8-bit PWM & analog current control, dynamic headroom control	•	•	2	2.7 - 5.5	WL-CSP-20 SSOP-28

Panel Backlight

Part No.	Description	Outputs	LED Current per Output	Features	Error Detection	Read-back	LED-to-LED Matching	Supply Voltage	Package
		#	mA				%	V	(mm)
AS3691	4×400mA Precision Current Source Driving RGB and White Color LEDs for General Lighting	4	400	Slew rate contr.	-	-	0.5	Main Supply	QFN-24 ePTSSOP-24
AS3693A	16 Channel High Precision LED Driver for LCD Backlight	16	150	Slew rate contr.	•	-	0.5	Main Supply	epTQFP-64 (10×10), pitch 0.5 QFN-48 (6×6), pitch 0.4 QFN-48 (7×7), pitch 0.5
AS3693B	16 Channel High Precision LED Controller for LCD Backlight	16	limited by external FET	Slew rate contr.	•	-	0.5	Main Supply	epTQFP-64 (10×10), pitch 0.5 QFN64, (9×9), pitch 0.5
AS3693B1	16 Channel High Precision LED Controller for LCD Backlight	16	limited by external FET	Slew rate contr.	•	-	0.5	Main Supply	epTQFP-64 (10×10), pitch 0.5 QFN-64 (9×9), pitch 0.5
AS3695A	16 Channel High Precision LED Driver for LCD Backlight	16	120	2 configurable supply regulation feedback outputs	•	•	0.5	4.0 - 5.5	QFN-48 (7×7), pitch 0.5
AS3695C	16 Channel Precision LED Controller	16	limited by external FET	2 configurable supply regulation feedback outputs	•	•	0.5	4.0 - 5.5	QFN-64 (9×9), pitch 0.5 LPQF-64 (14×14), pitch 0.8
AS3696	4 channel white LED controller for General Lighting or 3D-LCD backlight	4	limited by external FET	3D mode	•	-	1	Main Supply	QFN-32 (5×5), pitch 0.5 TQFP-32 (7×7), pitch 0.8
AS3810	16 channel white LED controller for LCD backlight	16	177.5	enhanced digital feedback, 3D	•	-	0.9	4.0 - 5.5	QFN-32
AS3820	16 channel white LED controller for LCD backlight	16	limited by external FET	2 configurable supply regulation feedback outputs	•	-	0.2	4.0 - 5.5	QFN-48 (7×7), pitch 0.5 LQFP-44 (10×10), pitch 0.8
AS3821	12 channel LED controller	12	limited by external FET	2 configurable supply regulation feedback outputs	•	-	0.2	4.5 - 5.5	QFN-48 (7×7), pitch 0.5
AS3822	8 channel white LED controller for LCD backlight	8	limited by external FET	Enhanced digital feedback, 3D, DPLL	•	-	0.2	4.0 - 5.5	TQFP32 (7×7), pitch 0.5
AS3823	6 Channel White LED Controller for LCD Backlight	6	limited by external FET	Enhanced digital feedback, 3D, DPLL	•	-	0.2	4.0 - 5.5	TQFP32 (7×7), pitch 0.5
AS3833	6 channel high-precision LED controller for 3D-LCD backlight with integrated step-up controller	6	300	integrated step-up, 1 PWM input with phase shift, use of inexpensive BJTs with BETA compensation, LED string voltage only limited by BJT rating	LED short/ open with BJT temp. Supervision	-	0.6	12 - 50	TQFP-32 (7×7), pitch 0.8 SOIC-28, pitch 1.27
AS3834	4 channel high-precision LED controller for 3D-LCD backlight with integrated step-up controller	4	300	integrated step-up, 4 PWM inputs, use of inexpensive BJTs with BETA compensation, LED string voltage only limited by BJT rating	LED short/ open with BJT temp. Supervision	-	0.6	12 - 50	SOIC-28, pitch 1.27
AS3834B	4 channel high-precision LED controller for 3D-LCD backlight with integrated step-up controller	4	300	integrated step-up, 1 PWM input with phase shift, use of inexpensive BJTs with BETA compensation, LED string voltage only limited by BJT rating	LED short/ open with BJT temp. Supervision	-	0.6	12 - 50	SOIC-28, pitch 1.27

Power Management

Flash Drivers

Part No.	Topology	DC-DC Freq.	Performance		LED Channels				Interfaces		Safety Features		Package
		MHz	I_{LED} max	V_{OUT} max	Curr. Sinks	Curr. Source	Flash LEDs	Indicator LED	I²C	Enable	TimeOut	TXMask	(mm)
AS3630	Supercap	4	8000mA	10V	1	High Side	2	1	•	•	•	•	WL-CSP-25 (2.5×2.5), pitch 0.5
AS3642	Inductive	4	500mA	5.5V	1	High Side	1	Flash LED	•	-	•	-	WL-CSP6 (1.5×1.1), pitch 0.5
AS3643	Inductive	4	1300mA	5.5V	2	Low Side	1	Flash LED	•	-	•	•	WL-CSP-13 (2.25×1.5), pitch 0.5
AS3644	Inductive	4	320mA	5.5V	1	High Side	1	Flash LED	•	-	•	-	WL-CSP6 (1.5×1.1), pitch 0.5
AS3645A	Inductive	2	800/500mA (2/1 LED)	10V	1	High Side	1 or 2	1	•	•	•	•	WL-CSP-12 (1.5×2), pitch 0.5
AS3647	Inductive	4	1600mA	5.5V	2	Low Side	1	Flash LED	•	-	•	•	WL-CSP-13 (2.25×1.5), pitch 0.5
AS3648	Inductive	4	2000mA	5.5V	2	Low Side	1 or 2	Flash LED	•	-	•	•	WL-CSP-13 (2.25×1.5), pitch 0.5
AS3649	Inductive	4	2500mA	5.5V	2	High Side	1 or 2	Flash LED	•	•	•	•	WL-CSP16 (2.06×2.02), pitch 0.5
AS3685A	Capacitive		1000mA	5.5V	1	Low Side	1	Flash LED	-	•	•	•	WL-CSP-12 (1.5×2), pitch 0.5 DFN-10 (3×3)
AS3685B	Capacitive		1000mA	5.5V	1	Low Side	1	Flash LED	-	•	•	•	DFN-10 (3×3) WL-CSP-12 (2×1.5)
AS3685C	Capacitive		1000mA	5.5V	1	Low Side	1	Flash LED	•	-	•	•	WL-CSP-12 (1.5×2), pitch 0.5

Part No.	Topology	Supply Voltage	V_{OUT} max	IGBT Driver	IGBT Type	Interface	Safety Features	Package
		V	V					(mm)
AS3635	XENON, Flyback	2.5 - 5.5	330 (in circuit trimmable)	•	2.5V and 4V	charge, done, flash	overtemperature, overcurrent	WL-CSP-9 (1.5×1.5), pitch 0.5
AS3636	XENON, Flyback	2.5 - 5.5	330 (in circuit trimmable)	included, trimmable	2.5V and 4V	I²C, strobe, torch	one time breakable fuse in supply path, system level ESD protection	WL-CSP-16 (2.0×2.15), pitch 0.5

Lighting Management Units

Part No.	# of Current Sinks		Max Current (mA)		Max V_{LED}	Features							Flash		Package
	HV	LV	CP	DC-DC	(V)	LDOs (#)	Auto ALS	DLS	RGB Pattern	Dimming	Audio-In	LED Test	Support	max I (mA)	(mm)
AS3490	3	0	No	100	7.8	-	-	•	-	-	-	•	-	-	WL-CSP-12 (1.7×1.4), pitch 0.5
AS3492	5	0	No	100	7.8	-	-	• (2×)	-	-	-	•	-	-	WL-CSP-12
AS3675	3	10	300	controller*	controller*	1	-	-	•	•	•	•	•	300	WL-CSP-30 (3×2.5), pitch 0.5
AS3676	3	10	300	controller*	controller*	1	•	•	•	•	•	•	•	300	WL-CSP30 (3×2.5), pitch 0.5
AS3677	3	3	50	50	25	1	•	2×	•	•	-	•	-	-	WL-CSP-25 (2.3×2.3), pitch 0.4
AS3687XM	3	3	150	controller*	controller*	-	-	-	•	•	•	•	•	320	WL-CSP-20 (2×2.5), pitch 0.5
AS3688	2	7	900	controller*	controller*	2	-	-	•	•	-	•	•	900	QFN-32 (5×5), pitch 0.5
AS3689	3	12	400	controller*	controller*	1	-	-	•	•	-	•	•	150	WL-CSP-36 (3×3), pitch 0.5

Power Management

Smart Notification Light

Part No.	Performance		User Memory	Performance Features						Package
	# of Current Sinks	Charge Pump	kbit	RGB Pattern	Dimming	Ext. PWM	Ext. Trigger	Audio-In	LED Test	(mm)
AS3661	9	150mA	1.5	•	log & lin	-	•	-	•	WL-CSP25 (2.29×2.29), pitch 0.4
AS3665	9	150mA	1.5	•	log & lin	-	•	•	•	WL-CSP25 (2.61×2.67), pitch 0.5
AS3668	4	150mA	-	•	log & lin	•	•	•	•	WL-CSP12 (1.25×1.68), pitch 0.4

DC-DC Buck-Boost Converters

Part No.	Description	Input Voltage	Output Voltage	Output Current*	Efficiency	Iq	Architecture	fmax	Enable/ SHDN	Reset/ POK	Features	Package
		V	V	mA	%	µA		kHz				(mm)
AS1331	300mA, DC-DC buck-boost converter	1.8 - 5.5	2.5 - 3.3	300	90	22	Synchronous	<500	•	•	Low Battery Detection	TDFN-10 (3×3)
AS1337	200mA, DC-DC step-up converter with buck mode	0.65 - 4.5	2.5 - 5.0	200	97	20	Fixed, Sync	1.200	•	•	LDO Mode	TDFN-8 (3×3)

DC-DC Buck Converters

Part No.	Description	Input Voltage	Output Voltage	Output Current	Efficiency	Iq	Architecture	fmax	Enable/ SHDN	Reset	Features	Package
		V	V	mA	%	µA		kHz	/SHDN	POK		(mm)
AS1313	DC-DC Step-down Converter	2.4 - 5.5	1.2 - 3.6	150	95	1	Hysteretic, async		•		Ultra Low Quiescent Current	WL-CSP-6 (0.4) MLPD-8 (2×2)
AS1324	DC-DC Step-Down Converter, 600mA, 1.5MHz	2.7 - 5.5	0.6 - Vin	600	96	35	fixed Frequency, sync.	1500	•	-		TSOT23-5
AS1335	DC-DC Step-down Converter, Iout=1.5A 1.5MHz	2.6 - 5.25	0.6 - 5.25	1500	96	400	fixed Frequency, sync.	1500	•	-		TDFN-10 (3×3)
AS1341	HV DC-DC Step-down Converter 20V, 600mA	4.5 - 20	1.25 - Vin	650	96	12	Hysteretic, async	<250	•	•	100% Duty Cycle	TDFN-8 (3×3)
AS7620	HV DC-DC Step-Down Converter, 32V, with Dual Power Monitor	3.6 - 32	AS7620-A: 1.2 – Vin AS7620-B: 3.3	650	90	30	Hysteretic, async	>250	•	•	Early Power Fail Warning 100% Duty Cycle	QFN-12 (4×4)
NEW ▸ AS1382	1A, High Efficiency, DC-DC Step Down Converter	2.7 - 5.5	0.6 - 3.35	1000	96	95	fixed Frequency, sync.	2, 3, or 4 MHz	•		Small Foot Print, Small System Area	6-pin WL-CSP, 0.4 mm pitch

Power Management

DC-DC Charge Pumps

Part No.	Description	Input Voltage	Output Voltage	Output Current	Efficiency	Iq	Architecture	fmax	Enable/ SHDN	Reset/ POK	Features	Package
		V	V	mA	%	µA		kHz				(mm)
AS1302	Inductorless Boost Converter, Lowest Power, 5V/30mA	2.9 - 5.15	5.0	30	90	100	Charge Pump	1200	•	-	Inductorless	WL-CSP-8 (1.2×1.2) TDFN-10 (3×3)

DC-DC Boost Converters

Part No.	Description	Input Voltage	Output Voltage	Output Current	Efficiency	Iq	Architecture	fmax	Enable/ SHDN	Reset/ POK	Features	Package
		V	V	mA	%	µA		kHz				(mm)
AS1310	Ultra Low 1µA Quiescent Current	0.7 - 3.6	1.8 - 3.3	100	92	1	Hysteretic, sync		•	•	Low Battery Detection	TDFN-8 (2×2)
AS1312	Ultra Low 1µA Quiescent Current	0.7 - 5.0	2.5 - 5.0	100	94	1	Hysteretic, async		•	•	Low Battery Detection	TDFN-8 (2×2), WL-CSP-8, pitch 0.4
AS1322	DC-DC Step-Up Converter Low Voltage, 1.2 MHz	0.65 - 5.0	2.5 - 5.0	570	95	150	Fixed Frequency, sync	1200	•	-	Powersave Mode	TSOT23-6
AS1323	DC-DC Step-Up Converter 1.6µA Quiescent Current	0.75 - 2.0	2.7, 3.0, 3.3	100	85	1.6	Hysteretic, async		•	-	1.6 µA Quiescent Curr.	TSOT23-5
AS1326	DC-DC Step-Up Converter High-Current 650mA	0.7 - 5.0	2.5 - 5.0	800	96	65	Fixed Frequency, sync	1200	•	-	Synchr. to Ext. Clock, Softstart	10-pin TDFN (3×3)
AS1329	DC-DC Step-Up Converter Low Voltage, 1.2 MHz	0.65 - 5.0	3.3, 2.5 - 5.0	570	95	30	Fixed Frequency, Sync	1200	•	-	Battery Feedthrough	TSOT23-6
AS1330	DC-DC Step-up Converter 4MHz and 470nH Inductor	0.6 - 3.0	1.8 - 3.3	150	91	30	Fixed Frequency, sync	4000	•	•	Output Disconnect, Low Battery Detection	TDFN-8 (2×2)
AS1340	HV DC-DC Step-up Converter, 50V, Adjustable Output with Shutdown Disconnect	2.7 - 50	2.7 - 50	100**	90	30	Fixed Frequency, sync	1000	•	•	Output Disconnect	TDFN-8 (3×3)
AS1345A	18V, High Efficiency, 100mA coil current, DC-DC Step-Up Converter	2.9 - 5.0	5.0-18	4mA@18V	90	25	Hysteretic		•	•	Power Good Output, Shutdown, Output, Disconnect in Shutdown Fixed and Adjustable Output Versions	TDFN-8 (2×2), WL-CSP-8, pitch 0.4
AS1345B	18V, High Efficiency, 200mA coil current, DC-DC Step-Up Converter	2.9 - 5.0	5.0 - 18	8mA@18V	90	25	Hysteretic		•	•	Power Good Output, Shutdown, Output, Disconnect in Shutdown Fixed and Adjustable Output Versions	TDFN-8 (2×2), WL-CSP-8, pitch 0.4
AS1345C	18V, High Efficiency, 350mA coil current, DC-DC Step-Up Converter	2.9 - 5.0	5.0 - 18	14mA@18V	90	25	Hysteretic		•	•	Power Good Output, Shutdown, Output, Disconnect in Shutdown Fixed and Adjustable Output Versions	TDFN-8 (2×2), WL-CSP-8, pitch 0.4
AS1345D	18V, High Efficiency, 500mA coil current, DC-DC Step-Up Converter	2.9 - 5.0	5.0 - 18	20mA @ 18V	90	25	Hysteretic		•	•	Power Good Output, Shutdown, Output, Disconnect in Shutdown Fixed and Adjustable Output Versions	TDFN-8 (2×2), WL-CSP-8, pitch 0.4
NEW ▸ AS1383	200mA, 3.5MHz DC-DC Step-Up Converter	2.7 - 5.5	2.7 - 5.0	200	92	25	Fixed Frequency, sync	3500	•		Ultra-compact solution for space constrained designs Automatic Power save, and load disconnect in shutdown	6-pin WL-CSP, 0.4mm pitch

Power Management

DC-DC Controllers

Part No.	Description	Input Voltage	Output Voltage Boost Controller	Output Current Boost	Output Buck Converter	Overvoltage Protection	Overcurrent Protection	Overtemp. Protection	3D Features	Package
		V	V							
AS1390A	High Power Boost Controller for LED Backlight	10 - 30	100	3A	5V/100mA	•	•	•	•	QFN-20
AS1390B	High Power Boost Controller for LED Backlight	10 - 30	100	3A	5V/100mA	•	•	•	-	SOIC-16

LDOs

Part No.	Description	Outputs	Accuracy	Output Current**	Feature	Output Voltage	Dropout Voltage @ max Current	Supply Current	Supply Voltage	Package
		#	%	mA		V	mV	µA	V	(mm)
AS1353	150mA low dropout regulator, reverse battery protection, low noise bypass pin	1	± 1.0	150	Low Noise	1.5 - 3.6	60	115	2.5 - 5.5	SOT23-5
AS1355	300mA triple low drop out regulator	3	± 1.0	300	OTP*	1.25 - 3.6	100 @ 200mA	160	2.3 - 5.5	QFN-16 (3×3)
AS1358	150mA 9µVrms ultra-low-noise, 92dB high-PSRR - LDO	1	± 0.5	150	Ultra Low Noise, High PSRR	1.5 - 4.5	70	40	2.0 - 5.5	TSOT23-5
AS1359	300mA 9µVrm ultra-low noise, 92dB high-PSRR - LDO	1	± 0.5	300	Ultra Low Noise, High PSRR	1.5 - 4.5	140	40	2.0 - 5.5	TSOT23-5
AS1360	1.5µA low-power, 20V, positive voltage regulator	1	± 1.5	250	High Voltage, Low IQ	1.8, 2.5, 3.0, 3.3, 5.0	400	1.5	2.0 - 20	SOT23-3
AS1363	500mA ultra-low-dropout linear regulator	1	± 0.75	500	Ultra Low Dropout, Ultra Low Noise	1.2 - 5.3	150	40	2.0 - 5.5	SOT23-6
AS1364	1A ultra-low dropout linear regulator	1	± 0.75	1000	Ultra Low Dropout, Ultra Low Noise	1.2 - 5.3	140	35	2.0 - 5.5	TDFN-8 (3×3)
AS1369	200mA micro-sized ultra-low-dropout regulator	1	± 0.7	200	Micro-Sized	1.2 - 5.0	80	25	2.0 - 5.5	WL-CSP-4
AS1374	200mA, ultra-low-noise, high-PSRR, dual low dropout regulators	2	± 1.0	200	Ultra Low Noise, High PSRR	1.2 - 3.6	120	30	2 - 5.5	WL-CSP-6
AS1376	1A, Low Input Voltage, Low quiescent current LDO	1	± 1.5	1000	Ultra Low Dropout, Very Low Input/ Output Voltage range	0.5 - 3.3	105	6.5 (Vin), 60 (Vbias)	0.7 - 3.6 (Vin), 2.5 - 5.5 (Vbias)	WL-CSP-6, TDFN-8 (2×2)

*) One Time Programmable: The Output Voltage of each Output port can be programmed, one time, on a PCB board, (**) per output

Power Management

Power Management Units

Part No.	DC-DC Step Up Converters	DC-DC Step Down Converters	Special LDOs	Digital LDOs	Current Sinks	Charge Pump	Audio DAC	Audio ADC	Audio Features	General Purpose ADC	Charger	Customizable Startup Sequences	Package
			mA	mA	mA	V/mA							(mm)
AS3606	1× General Purpose (Voltage or Current Output) (30V)	3×0.7A or 1.4A+0.7A	1×100, 3×250	-	2×38 (HV)	-	-	-	-	10-bit	Linear	Programmable	QFN-32 (5×5)
AS3607	1× General Purpose (Voltage or Current Output) (30V)	3×0.7A or 1.4A+0.7A	1×100, 4×250	-	2×38 (HV)	-	-	-	-	10-bit	Linear	Programmable	QFN-36 (6×6)
AS3608	1× General Purpose (Voltage or Current Output) (30V)	3×1A or 2A+1A	1×100, 4×250	-	2×38 (HV)	-	-	-	-	10-bit	Linear	Programmable	QFN-36 (6×6)
AS3658	2× General Purpose (Voltage or Current Output)	3×0.5A or 1.6A + 2×0.5A or 1.6A + 1A	1×400, 2×150	4×200	4×40, 3×40 (HV)	5/100	96dB SNR	84dB SNR	2× Headphone, 1× Line Out, 1× Line In, Mic Input, Audio Mixer, Equalizer	10-bit	Step-Down/ Linear + Linear	8× + Programmable	BGA-124 (8×8)
NEW ▸ AS3701	1 buck DCDC, 2 LDOs, 500mA power path management linear charger, programmable startup	1 x 500mA		2×200	2×40					-	Linear 500mA	Programmable	CSP-20 0.4pitch
NEW ▸ AS3709	5 buck DCDCs, 2 LDOs, programmable startup	5 x 1A, 2A configurable, 3A configurable			-					-	-	Programmable	QFN-32 (4×4) CSP-36 0.4pitch
AS3710	3× General Purpose (Voltage or Current Output)	1.5A + 2×1A or 2A + 1.5A	2×250	6×300	3×40 (HV)	-	-	-	-	10-bit	Step-Down/ Linear	Programmable	QFN-56 (7×7) CSP-64 0.4pitch
AS3711	2× General Purpose (Voltage or Current Output)	1×3A + 1.5A + 2×1A or 3A + 2A + 1.5A	2×250	6×300	3×40 (HV)	-	-	-	-	10-bit	Step-Down/ Linear	Programmable	QFN-56 (7×7) CSP-64 0.4pitch
AS3712	3× General Purpose (Voltage or Current Output)	1.5A + 2×1A or 2A + 1.5A	2×250	6×300	3×40 (HV)	-	-	-	-	10-bit	-	Programmable	QFN-56 (7×7) CSP-64 0.4pitch
AS3713	2× General Purpose (Voltage or Current Output)	1×3A + 1.5A + 2×1A or 3A + 2A + 1.5A	2×250	6×300	3×40 (HV)	-	-	-	-	10-bit	-	Programmable	QFN-56 (7×7) CSP-64 0.4pitch
AS3715	3 buck DCDC, buck controller, 8 LDOs, 2 Boost convrters, Genral Purpose ADC	2 x 1A, 1 x 2A, 4A configurable	2×250	6×300	3×40 (HV)					10-bit	DCDC / Linear 1.5A	Programmable	CSP-81 0.4pitch
AS3721	4 buck DC-DC, 24A DC-DC controller, 12 LDOs, general purpose ADC	8phase + 2phase + 2phase + 4A + 2A + 2×1.5A	-	12×300	-	-	-	-	-	10-bit	-	Programmable	BGA-124 (8×8)
AS3722	4 buck DC-DC, 24A DC-DC controller, 12 LDOs, general purpose ADC	8phase + 2phase + 2phase + 5A + 2A + 2×1.5A		11×300	-					10-bit	-	Programmable	BGA-124 (8×8)
AS3728	8A HV dual-phase power stage (2 × 4A)	2-phase power stage with 2×4A											WL-CSP24 (2.415× 1.615)
AS3729	6A dual-phase power stage (2 × 3A)	2phase power stage with 2×3A	-	-	-	-	-	-	-	-	-	-	WL-CSP-16
AS3729B	8A dual-phase power stage (2 × 4A)	2phase power stage with 2×4A	-	-	-	-	-	-	-	-	-	-	WL-CSP-16

Supervisors

Part No.	Description	Supervised Voltages				Inputs	Push/Pull Active Low	Push/Pull Active High	Open-Drain	Watch-dog	Man. Reset	Supply Current	Supply Voltage	Package
		V (IN1)	V (IN2)	V (IN3)	V (IN4)							µA	V	
AS1904	150nA Ultra Low Power µP Supervisory Circuit, Push-Pull Active-Low Reset	2.2 - 3.1				1	•	-	-	-	-	0.15	1.0 - 3.6	SOT23-3
AS1905	150nA Ultra Low Power µP Supervisory Circuit, Push-Pull Active-High Reset	2.2 - 3.1				1	-	•	-	-	-	0.15	1.0 - 3.6	SOT23-3
AS1906	150nA Ultra Low Power µP Supervisory Circuit, Open-Drain Active-Low Reset	2.2 - 3.1				1	-	-	•	-	-	0.15	1.0 - 3.6	SOT23-3
AS1907	Low-Voltage µP Supervisory Circuit, Active-Low Push/Pull Reset	1.6 - 2.5				1	•	-	-	-	-	2.6	0.7 - 3.6	SOT23-3
AS1908	Low-Voltage µP Supervisory Circuit, Active-High Push/Pull Reset	1.6 - 2.5				1	-	•	-	-	-	2.6	0.7 - 3.6	SOT23-3
AS1909	Low-Voltage µP Supervisory Circuit, Open-Drain Reset	1.6 - 2.5				1	-	-	•	-	-	2.6	0.7 - 3.6	SOT23-3
AS1916	Microprocessor Supervisory Circuits with Manual Reset and Watchdog	1.58 - 3.6				1	•	-	-	•	•	5.5	1.0 - 3.6	SOT23-5
AS1917	Microprocessor Supervisory Circuits with Manual Reset and Watchdog	1.58 - 3.6				1	-	•	-	•	•	5.5	1.0 - 3.6	SOT23-5
AS1918	Microprocessor Supervisory Circuits with Manual Reset and Watchdog	1.58 - 3.6				1	-	-	•	•	•	5.5	1.0 - 3.6	SOT23-5
AS1920	Triple-Voltage Supervisory Circuit with Push/Pull Reset	3	1.8	Adjust.		3	•	-	-	-	-	6.5	1.0 - 3.6	SOT23-5
AS1922	Triple-Voltage Supervisory Circuit with Open-Drain Reset	3	1.8	Adjust.		3	-	-	•	-	-	6.5	1.0 - 3.6	SOT23-5
AS1923	Quad-Voltage Supervisory Circuit	5.0, Adj.	3.3, 3.0	2.5, 1.8, Adj.	-5.0, 1.8, Adj.	4	-	-	•	-	-	6.5	1.0 - 3.6	SOT23-5

Analog Switch

Part No.	Lines	Type	RON	RON Flatness	RON Matching	On/Off Time	Supply Voltage	Package
	#		Ohm	Ohm	Ohm	ns	V	(mm)
AS1747	2	SPDT	0.4	0.25	0.03	200/50	1.8 - 5.5	TDFN-10 (3×3)

Operational Amplifiers

Part No.	Description	Amplifiers	Slew Rate	Gain Bandwidth	PSRR	CMRR	Shutdown	Supply Current	Supply Voltage	Package
		#	V/µs	MHz	dB	dB		mA	V	(mm)
AS1712	Quad Rail to rail Op Amp with shutdown	4	10	10	-85	-70	•	6.4	2.7 - 5.5	TQFN -16 (3×3)

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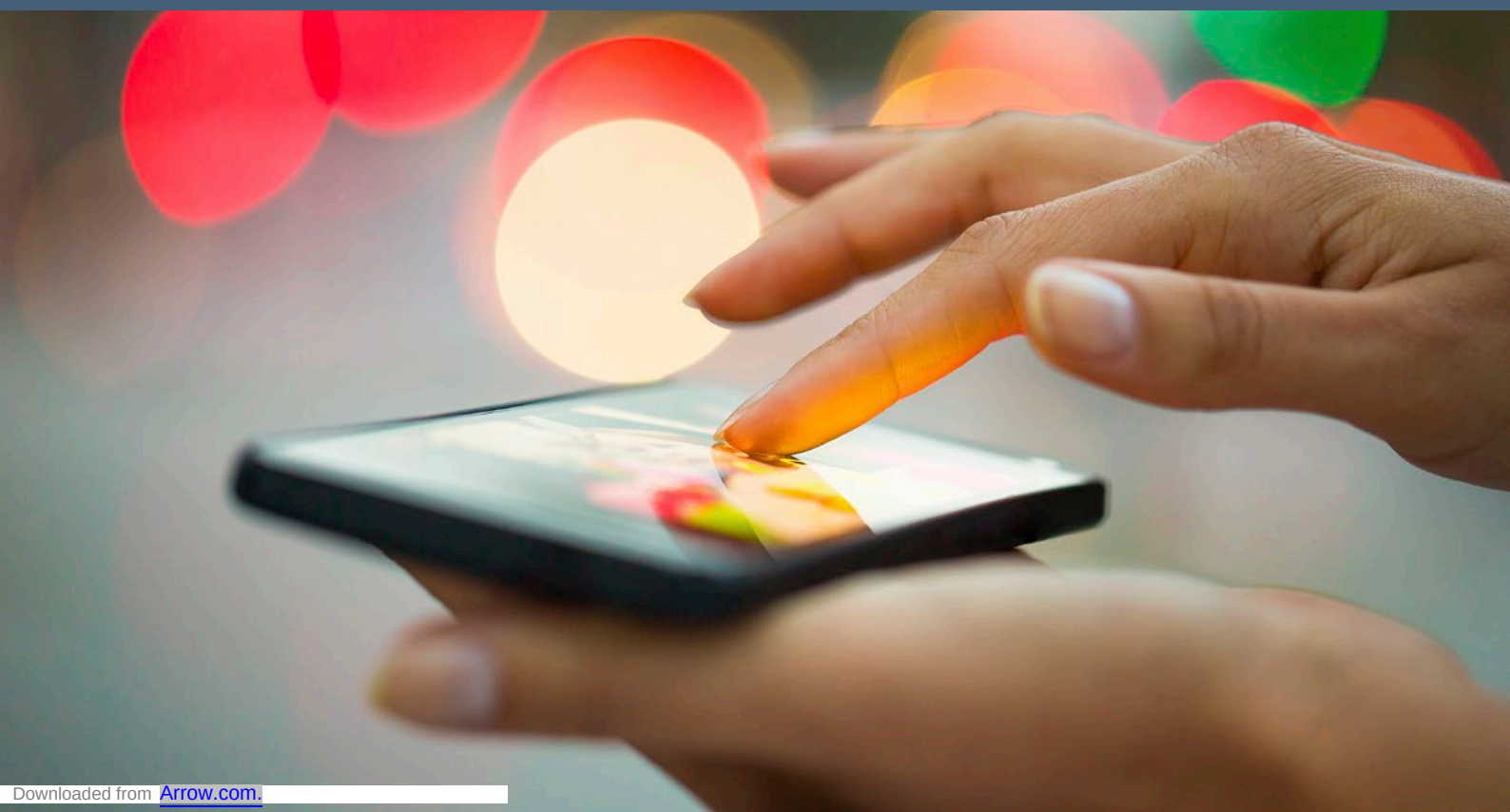

Battery Management

Battery Chargers

Part No.	Description	Chemistry	# of Cells	Charger Current	Switchmode	OVP	Power Path Management	USB OTG/ Host Boost	NTC	I²C	Package
				A		V			k		(mm)
AS3610	USB Compliant Step Down Charger for Li-Ion Portable Devices	Li-Ion	1	1.25	•	22	-	•	10/100	•	MLPD-14 (3×3)
AS3611	USB Compliant Step Down Charger for Li-Ion Portable Devices	Li-Ion	1	1.25	•	22	-	•	10/100		MLPD-14 (3×3)

Cell Supervision Circuits

Part No.	Cell Monitoring/Balancing ICs	Typical Standby Quiescent Current	Balancing Current	Temperature Range	Number of Cells per IC	Cell Voltage Range	Package
		µA	mA	°C		V	(mm)
AS8506	Cell Monitoring & Balancing IC	17	typically 100	-40 to 85	3-7	1.8 - 4.5	MLF-40 (6×6)
AS8506C	Cell Monitoring & Balancing IC (non-AUT version)	17	typically 100	-40 to 85	3-7	1.8 - 4.5	MLF-40 (6×6)

Battery Sensor Interfaces

Part No.	Description	Channels	Resolution	Sampling Rate	Supply Current	Supply Current	Supply Voltage	Package
		#	bit	ksps	mA @ max speed	mA	V	(mm)
AS8501	Calibrated Data Acquisition IC, Single ADC	4 mux	16	8	4	3	4.9 - 5.1	SOIC-300-16
AS8510	Data Acquisition IC, Dual ADC	1 + 3 mux	16	4	5	4	3.3	SSOP-20
AS8515	Data Acquisition, LIN Communication	1+3mux	16	up to 4	5	5	12 nominal (4.3 - 18)	MLF (5×5)

Flow Sensing

Ultrasonic Flow Converters

Part No.	Description	Analog Front End	Amplitude Measurement	TDC Resolution	CPU	NVRAM	Interfaces	Temperature Range	Package
		No. of hits		ps				°C	
TDC-GP21	Time-to-Digital Converter with integrated analog frontend	3	-	22	-	-	SPI	-40 to 125	QFN-32
TDC-GP22	Time-to-Digital Converter with integrated analog frontend	3	-	22	-	-	SPI	-40 to 125	QFN-32
NEW ▸ TDC-GP30	System-on-Chip solution for ultrasonic flow metering	31	•	11	32-bit	4k	SPI, UART, Pulse	-40 to 125	QFN-32 QFN-40

Precision Time Measurement

Time-to-Digital Converters

Part No.	Description	Channels	Inputs	Resolution	Pulse-Pair Resolution	Measure Rate	Multihits	Temperature Range	Package
				ps	ns	Ms		°C	
TDC-GP21	2-Channel Time-to-Digital Converter	2	CMOS	22	20	0.5	3	-40 to 125	QFN-32
TDC-GPX	High-perfomance 8-Channel Time-to-Digital Converter	8	TTL/LVPECL	10	6	200 peak	unlimited	-40 to 125	TQFP-100

Wireless Connectivity

Readers

Part No.	Protocols Supported	Frequency	Antenna Management	Wakeup	Closed Loop Modulation Depth Adjustment	AECQ-100	Max. Output Power	Data Rate	Supply Voltage	Temp. Range	Package
		MHz					mW	kbit/s	V	°C	(mm)
AS3909	ISO14443 A/B, ISO-15693 (transparent mode), NFCIP-1 (106 kbit/s)	13.56	-	-	•	-	700	up to 848	2.4-3.6	-40 to 125	TQFN-32 (5×5)
AS3910	ISO-15693 , ISO14443 A/B, (transparent mode), NFCIP-1 (106 kbit/s)	13.56	•	-	•	-	700	up to 848	2.4-3.6	-40 to 125	QFN-32 (5×5)
AS3911B	ISO14443 A/B (848kbps), ISO-15693, ISO18092 (NFC active) FeliCa, EMVCo	13.56	•	Capacitive & Inductive	•	-	1000	up to 6800 (VHBR)	2.4-5.5	-40 to 125	QFN-32 (5×5)
NEW ▸ AS3914	ISO14443 A/B (848kbps), ISO-15693, ISO18092 (NFC active) FeliCa, EMVCo	13.56	•	Capacitive & Inductive	•	•	1000	up to 848	2.4-5.5	-40 to 125	QFN-32 (5×5)
NEW ▸ AS3915	ISO14443 A/B (848kbps), ISO-15693, ISO18092 (NFC active) FeliCa, EMVCo	13.56	-	Capacitive & Inductive	•	•	1000	up to 848	2.4-5.5	-40 to 125	QFN-32 (5×5)

Part No.	Standards	ISM Range	TX Modulation	Sensitivity	Output Power	Link Frequencies Supported	Coding	Temperature Range	Package
		MHz		dBm	dBm	kHz	V	°C	(mm)
AS3980	EPC Class 1 - Gen 2, ISO 18000 6c	840 - 960	ASK-DSB, PR-ASK	-90	0	40	M8	-40 to 85	QFN-48 (7×7)
AS3991	EPC Class 1 - Gen 2, ISO 18000 6c/b	840 - 960	ASK-DSB, PR-ASK	-66	20	40 - 640	FM0, M2-8	-40 to 85	QFN-64
AS3992	EPC Class 1 - Gen 2, ISO 18000 6c/b, DRM	840 - 960	ASK-DSB, PR-ASK	-86	20	40 - 640	FM0, M2-8	-40 to 85	QFN-64
AS3993	EPC Class 1 - Gen 2, ISO 18000 6c/b, ISO 29143	840 - 960	ASK-DSB, PR-ASK	-90	0 or 20	40 - 640	FM0, M2-8	-40 to 85	QFN-48

NFC AFEs

Part No.	Protocols Supported	Frequency	Antenna Management	Supply	Sensitivity	Data Rate	Temperature Range	Package
		MHz		V	mVpp	kbit/s	°C	
NEW ▸ AS3921	ISO14443A/B, FeliCa	13.56	APC	2.7 to 3.6	50	106	-25 to 85	WL-CSP
AS3922	ISO14443A/B, FeliCa	13.56	AAT APC	2.7 to 3.6	50	106	-25 to 85	Die
NEW ▸ AS39230	ISO14443A/B, FeliCa	13.56	APC	2.7 to 4.8	14	up to 424	-25 to 85	WL-CSP

Wireless Connectivity

Sensor Tags & Interfaces

Part No.	Description	Frequency	Protocol	Supply Voltage	Temp. Range	Interface	EEPROM	Features	Data Rate	Package
		MHz		V	°C		kbit		kbit/s	(mm)
AS3953	NFC to SPI interface chip	13.56	ISO14443A up to level 4 NFCIP-1 target at 106 kbit/s NFC forum tag 4 type emolution	RF field or ext. 1.65 to 3.6	-40 to 85	ISO14443A 4-wire SPI (slave) up to 5MHz	1	Wake-up interrupt, energy harvest 5mA	up to 848	Die; MLPD-10; WL-CSP
NEW ▸ AS3955	NFC to SPI/I²C interface NFC	13.56	NFC Forum compliance and ISO 14443A compliance up to Level 4	Passive by RF field or ext. 1.65 to 5.5	-40 to 125	ISO14443A 3/4-wire SPI (slave) up to 5MHz I²C (slave) up to 1MHz	2 or 4	Wake-up interrupt, energy harvest 5mA@4.5V	up to 106	Die; MLPD-10; WL-CSP
SL13A	RFID sensor tag and data logger IC	13.56	ISO15693/NFC-V	RF field or 1.2 to 3.3	-40 to 110	SPI (slave), analog input	8	Energy harvest 5mA, temperature sensor	up 26.48	QFN-16 (5×5), die or Au-bumped die

Part No.	Description	Frequency	Protocol	Supply Voltage	Temp. Range	Interface	EEPROM	Sensor Type	Package
		MHz		V	°C		kbit/s	integrated	(mm)
SL900A	EPC sensor tag and data logger IC	860 - 960	EPC Gen2	RF field or 1.2 to 3.6	-40 to 125	SPI (slave), analog inputs	9	Temperature	QFN-16 (5×5) NEW or DoW

Wireless Sensor Connectivity

Part No.	Description	Channels	Wake-Up Sensitivity	LF Carrier Freq. Range	Data Rate (Manch.)	Dynamic Range	RSSI Step	Package
		#	µVpp	kHz /mHz	kbit/s	dB	dB	(mm)
AS3930	Programmable 1D LF Wake-up Receiver	1	282	110 - 150 kHz	0.5 - 4	64	2	TSSOP-16, QFN-16 (4×4)
AS3931	Low Power 3D LF Wakeu-p Receiver	3	350	19 - 150 kHz	1.365	60	290mV	TSSOP-16
AS3932	Programmable 3D LF Wake-up Receiver	3	282	110 - 150 kHz	0.5 - 4	64	2	TSSOP-16, QFN-16
AS3933	Programmable 3D LF Wake-up Receiver	3	225	15 - 150 kHz	0.5 - 4	64	2	TSSOP-16, QFN-16 (4×4)

Part No.	Description	Supply	Frequency	Clients (max)	Range	TX Power (max)	Data Rate (max)	RX Current	TX Current (typ)	Digital Output	Temp. Range	Package
		V	MHz		m (typ)	dBm	kbit/s	mA (typ)	mA @ 0dBm		°C	(mm)
AS3977	Multi-Channel Narrowband FSK Transmitter	2.0 - 3.6	300 - 928	No clients - only simple Transmitter	Depending on external receiver sensitivity and antenna configuration	-20 to +10	up to 100	no receiver	see datasheet	Only digital SPI input (for transmitter data, register settings)	-40 to 85	QFN-16 (4×4)

Part No.	Description	Features	Supply	Current Consumption	Interface	Temp. Range	Package
			V	(PD/Listening/Active) µA		°C	(mm)
AS3935	Franklin Lightning Sensor™ IC	Distance estimation up to 40 km in 14 steps, embedded Disturber rejection algorithm & auto antenna tuning	2.4 - 5.5	1 / 60 / 350	SPI or I²C	-40 to 85	MLPQ-16 (4×4)

Sensor Interfaces

PICOCAP Capacitive Sensing

Part No.	Description	Channels	Noise	Measure Rate	GPIO	CPU	Memory	Temperature Range	Package
			aF (@10pF)	Maximum				°C	
PCap02	Low-power CDC with integrated signal processor	8	15	500k	6	48-bit	4k OTP	-40 to 125 (90)	QFN-32

PICOSTRAIN Resistive Sensing

Part No.	Description	Channels	Noise	Measure Rate	GPIO	CPU	Memory	Temperature Range	Package
		Half bridges	nV (@5Hz)	maximum				°C	
PS081	System-on-chip for strain gage applications	4	11.5	1000	21	24-bit	2k EEPROM	-40 to 125	QFN-56
PS09	System-on-chip for strain gage applications	4	19	10000	24	24-bit	8k OTP	-40 to 125	QFN-40

Photovoltaic

Part No.	Description	Resolution	Features	Supply Voltage	Temp. Range	Automotive Qualification	Package	Comments
		bit		V	°C		(mm)	
AS8002	Solar photovoltaic inverter measurement IC with fast over current detection	12	Voltage and current measurement, programmable gain amplifiers, on-chip temperature sensor, fast overcurrent detection	3.0 - 3.6	-40 to 125	-	QFN-16 (4×4)	target market: photovoltaic solar inverters

FlexRay™ Transceivers

Part No.	Network	Description	Supply Voltage	Temperature Range	Package
			V	°C	(mm)
AS8222	FlexRay™	FlexRay™ Enhanced Standard Transceiver	VBAT 5.5 - 40	-40 to 150	SSOP-20
AS8223	FlexRay™	FlexRay™ Active Star Device	VBAT 5.5 - 40	-40 to 125	MLF-44 (9×9)

LIN / CAN Bus Systems

Part No.	Description	Typical Standby Quiescent Current	Operating Supply Range	Temperature Range	Package
		µA	V	°C	(mm)
AS8525	High Side battery sensor companion IC with LIN	50	4.9 - 18	-40 to 125	punched QFN-32 (5×5)
AS8530	8 PIN LIN Companion IC with microcontroller interface	37	6 - 18	-40 to 125	epSOIC-8
AS8650	Smart Power Management Device with High Speed CAN Interface	65	6 - 18	-40 to 105 (at maximum load)	QFN-36 (6×6)

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Full Service Foundry Technology Overview

Leading Edge Technology

Feature Size	ams Process Technology	Process Name	# Masks	# Metal	5V Module	High Res Poly	Poly Caps	MIM Caps	Thick Metal	Additional Information
0.18µm	CMOS Mixed-Signal 1.8/5V	aC18	16-30	3-6	•	•		•	•	IBM CMOS7RF equivalent, High Density and Low Leakage libraries
0.18µm	High-Voltage CMOS 1.8/5/20/50V	aH18	22-32	3-6	•	•		•	•	Ron: 144 mOhm mm² (50V NFET) Ron: 35 mOhm mm² (20V NFET) High Density and Low Leakage libraries
0.35µm	CMOS Mixed-Signal 3.3/5V	C35	13-22	3-4	•	•	•	•	•	TSMC compatible, RF extension
0.35µm	Opto-CMOS 3.3/5V	C35O	17-19	4	•	•	•			ARC layer, sensitivity 350mA/W at 550-900nm
0.35µm	CMOS embedded Flash 3.3/5V	C35EE	21-25	3-4	•	•	•			1×8 - 32K×16 bit block size, high reliability
0.35µm	High-Voltage CMOS 3.3/5/20/50/120V	H35	18-27	3-4	•	•	•		•	Ron: 35 mOhm mm² (20V) Ron: 120 mOhm mm² (50V) Ron: 350 mOhm mm² (120V)
0.35µm	High-Voltage CMOS embedded Flash 3.3/5/20/50/120V	H35EE	26-34	3-4	•	•	•		•	1Kx8 - 4Kx16 block size, high reliability
0.35µm	SiGe-BiCMOS 3.3/5/12V	S35	23-32	3-4	•	•	•	•	•	fT: 65 / 38 / 15 GHz fmax: 65 / 61 / 32 GHz BVCEO: 2.7 / 5.1 / 14V
0.8µm	CMOS Mixed-Signal 5V	CXQ	11-13	2	•	•	•			Suitable for high performance analog mixed-signal sensor applications
0.8µm	High-Voltage CMOS 50V	CXZ	15-17	2	•	•	•			Ron: 0.29 Ohm mm²
0.8µm	BiCMOS 5V	BYQ	16-17	2	•	•	•			fT: 12 GHz, fmax: 14 GHz, BVCEO: >6 V

Fast Prototyping Service (MPW)

Full Service Foundry offers a fast IC prototyping service (Multi Project Wafer service), which combines several designs from different customers onto a single wafer.

Advantages

- Frequent schedules for all offered process technologies
- Fast and cost-effective prototyping service
- Additional dies, multiple placements, delivery of bare dies or packaged parts (ceramic, plastic, WLCSP)

For further information about our MPW service please refer to http://asic.ams.com/MPW

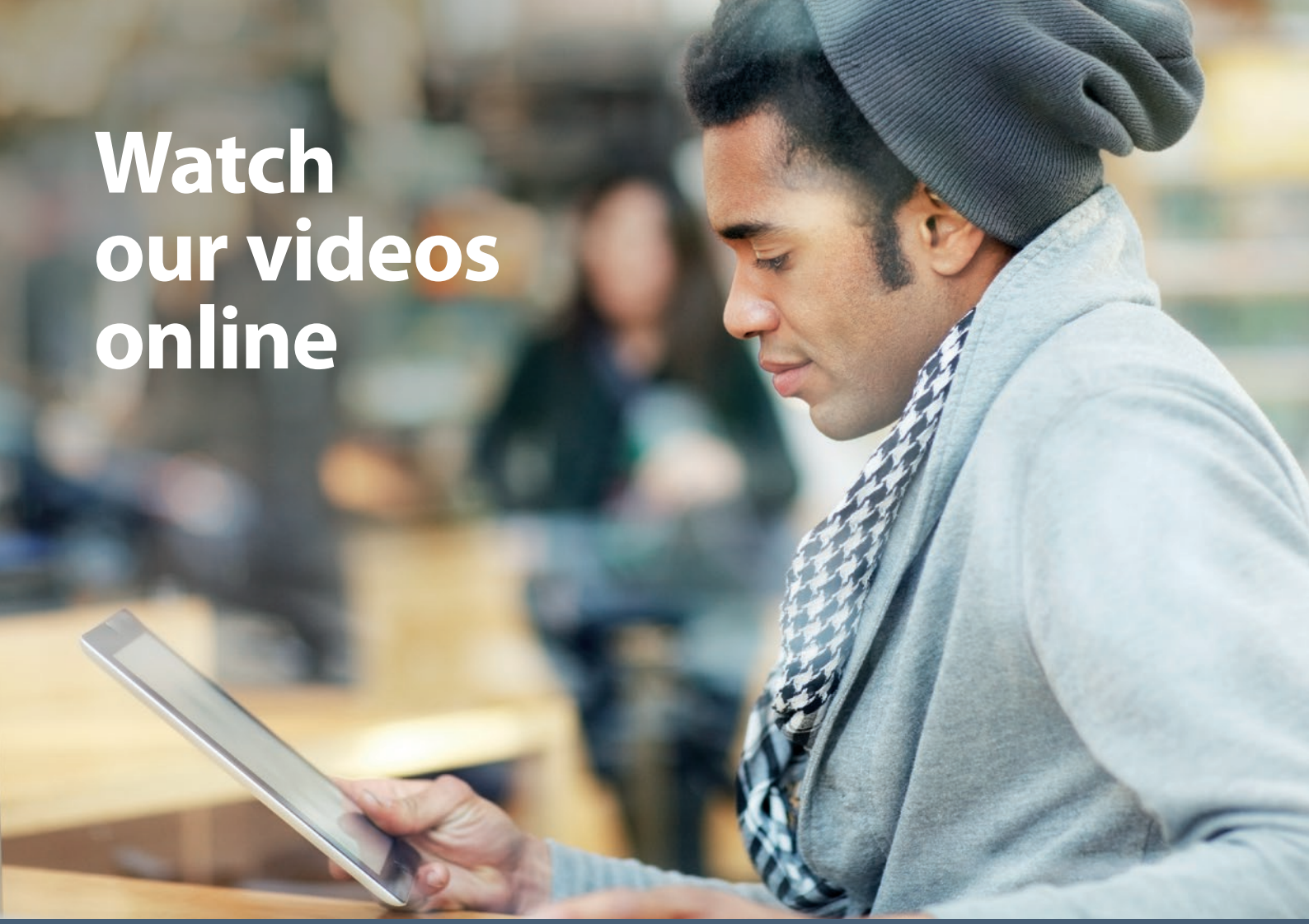
Multi Layer Reticles (MLR)

Using MLR, multiple mask levels are placed on a single reticle. This approach reduces the number of masks and results in reduced NRE costs during product development phase as well as mitigated development risks/costs as project funding often depends on 1st prototypes' performance

Advantages

- Individual start dates
- Moderate NRE due to reduced number of masks
- Increased number of dies (from 6 wafers)
- Optional manufacturing stop prior POLY1 (allows mask redesign)
- Fast manufacturing lead times

Find more technical information on our foundry support server at http://asic.ams.com
In case of any questions please contact foundry@ams.com



Watch our videos online

Shaping the world with sensor solutions

This new corporate video brings to life ams' mission of shaping the world with sensor solutions

ams DAEC™ Dynamic Angle Error Compensation

This video provides a brief introduction to Dynamic Angle Error Compensation, ams' break-through magnetic position sensor technology.

Gesture Sensors

ams' TMG399x family of IR Touchless Gesture sensors delivers an innovative user interface and a richer end user experience!

Customized Sensor Solutions

This video provides overview of customized sensor solutions for the internet of things (IoT).

Magnetic Stray Field Immunity

ams' position sensors offer immunity to ('stray') magnetic fields, deliver reliability and safety for a broad range of automotive and industrial applications.

BoostedNFC

This video introduces ams' boostedNFC technology for reliable, hassle-free NFC mobile transactions for smartphones and wearable devices.

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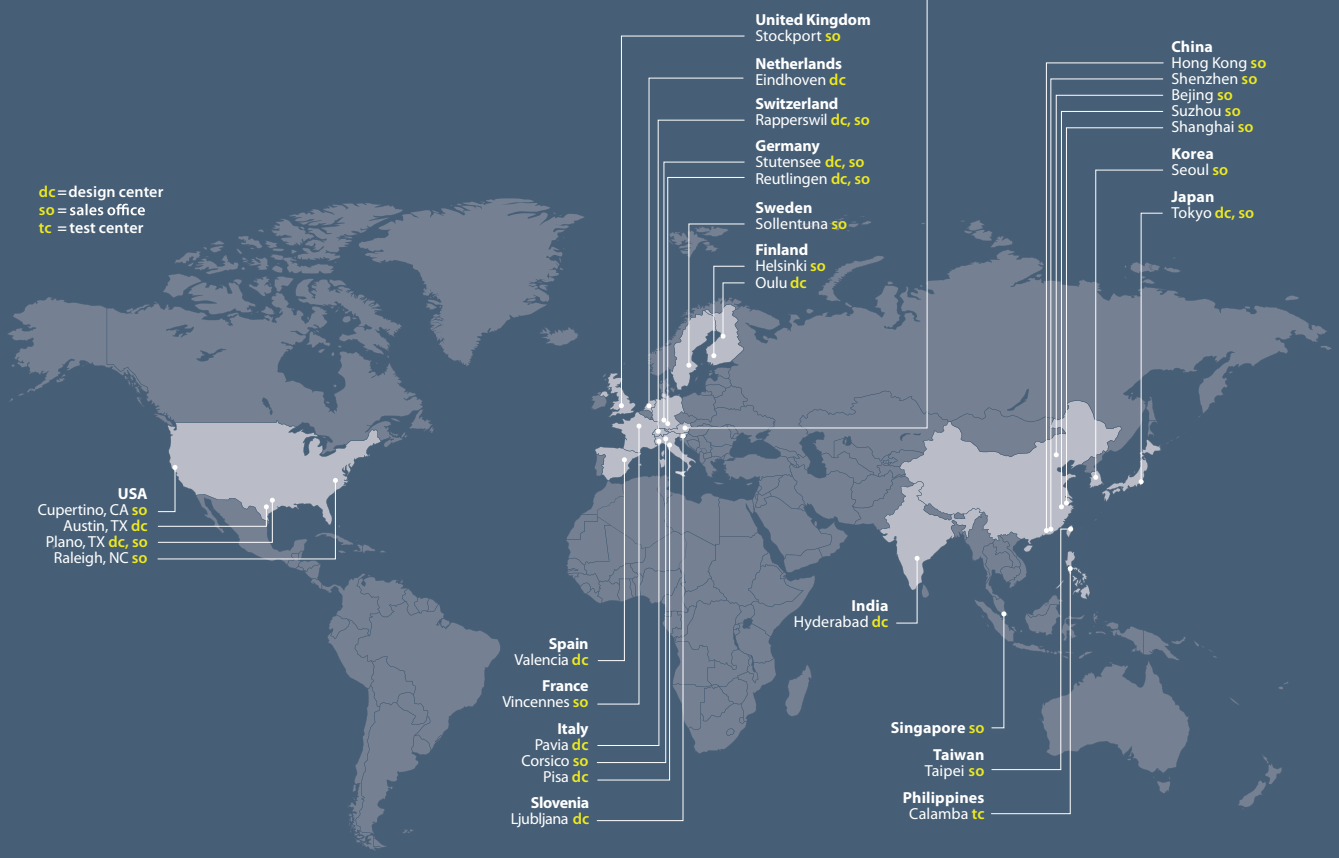

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