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AUTOMOTIVE LIGHTING - CONNECTIVITY - SENSOR - POWER - CONTROL - AUDIO



# Analog & Mixed Signal Solutions Product Selector Guide

Automotive

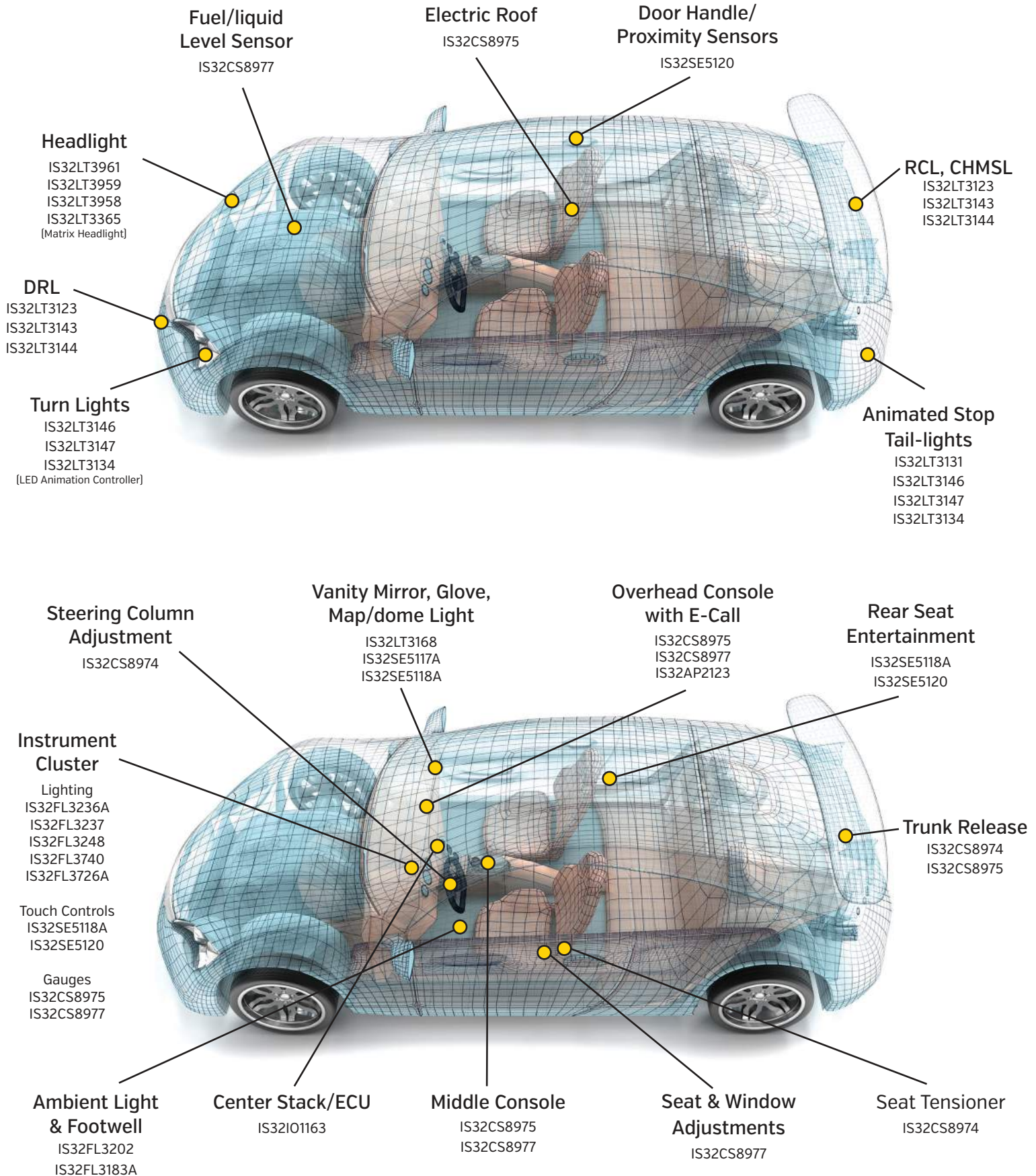
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## Five Pillars of Growth



# Applications





# Automotive Analog

## Automotive Amplifier

Part No.	Channel	Power [W]	THD+N	PSRR [dB]	VDD [V]	Package [Size in mm]	Key Feature	Status
IS32AP2123	1	24	0.05%	-70	4.5 ~ 24	eTSSOP-16	Class-D Mono BTL with 40V load dump and I2C diagnostics, automatic gain control (AGC), 85% efficiency, with dynamic temperature control and DC level protection, automatic load diagnostics, spread spectrum	Prod

## Automotive FxLED - Multi Channel

Part no.	Channels	No. RGB Group	IOUT max [mA]/CH	Control Interface	Operating Temp.	Pkg-Pin [mm]	Key Feature	Status
IS32FL3202	3	1 RGB	63	Lumibus (base on 5V LUMI PHY & UART protocol layer)	-40°C ~ +125°C	WFDFN-10 [3x3]	12-bit PWM for each channel(after temperature compensation, final PWM data is 16-bit for each channel), 6-bit DC for each channel, SPND: up to 254 devices can be addressed in a chain, Color Calibration, Temperature compensation, Support on die OTP for binning data, LED open/short detection, Thermal shutdown protection, VCC under-voltage detection	Sample
IS32FL3207	18	6 RGB	78	I2C-1MHz	-40°C to +125°C	WFQFN-28 [5x5]	62kHz selectable PWM, 16-bit PWM, four selectable I2C addresses, 180 degree phase shift with spread spectrum, noise reduction, white balance, open and short detect, ± 6% accuracy	Prod
IS32FL3209	18	6 RGB	78	I2C-400kHz	-40°C to +125°C	WFQFN-28 [5x5] eTSSOP-28 [9.7x6.4]	29kHz/4kHz PWM, 8-bit PWM, 78mA current channels, 13 levels scaled output current/channel	Prod
IS32FL3236A	36	12 RGB	38	I2C-400kHz	-40°C to +125°C	eTQFP-48 [9x9]	22kHz/3kHz PWM, 8-bit PWM, 38mA current channels, 4 levels scaled output current/ channel	Prod
IS32FL3237	36	12 RGB	38	I2C-1MHz	-40°C to +125°C	eTQFP48 [9x9]	62kHz PWM, 16-bit PWM, 8-bit dot correction and global current adjust, noise reduction, spread spectrum, selectable phase delay, 180 degree clock phase, open/short detect, pin compatible with IS32FL3236A	Prod
IS32FL3238	18	6 RGB	78	I2C-1MHz	-40°C to +125°C	eTSSOP-28 [9.7x6.4]	62kHz PWM, 16-bit PWM, 8-bit dot correction and global current adjust, noise reduction, spread spectrum, selectable phase delay, 180 degree clock phase, open/short detect	Prod
IS32FL3240	30	10 RGB	38	I2C-1MHz	-40°C to +125°C	WFQFN-40 [6x6]	62kHz PWM, 16-bit PWM, 8-bit dot correction and global current adjust, noise reduction, spread spectrum, selectable phase delay, 180 degree clock phase, open/short detect	Prod
IS32FL3248	48	16 RGB	33	SPI-33MHz, Serial Shift VSB-33MHz	-40°C to +125°C	eLQFP-64 [10x10], WFQFN-64 [9x9]	3.0V to 5.5V, VLED: up to 4.5V to 16V [18V tolerant], multiple LED in series possible, 8-bit global current, 6-bit current scaling, 8/16/8+8/8+4-bit PWM, 33MHz Grayscale control clock, Spread spectrum, 180-degree phase delay	Prod
IS32FL3268	2	8 RGB	50	SPI-33MHz VSB[Video Serial Bus]-33MHz	-40°C ~ +125°C	QFN-40[5x5]	3.0V to 5.5V,3-bit Maximum Current Band,6-bit DC Scaling, 8-bit GCC for 3 color group, Individual 16-bit, 8+8-bit dithering, 8+4-bit dithering, 8-bit PWM mode, 180-degree phase delay to reduce power noise, Real-time LED open/short detection, Spread Spectrum	Sample
IS32FL3265A/B	18	6 RGB	60	I2C-1MHz	-40°C to +125°C	eTSSOP-28 [9.7x6.4]	40V Capable output channels, 25kHz/200Hz PWM, 5-bit global current, 8-bit [dot correction and PWM], LED open detection with fault report, spread spectrum, 8-bit group blinking with programmable frequency [24Hz to 10.66Hz]	Prod
IS32FL3726A	16	5 RGB	60	Serial Shift - 30MHz	-40°C ~ +125°C	eTSSOP-24 [7.8x6.4]	3v-5.5v, Serial-in-parallel-out shift register with 16 common anode current sinks, ±5% accuracy [bit to bit and part to part], 200mv LED dropout @ 25mA	Prod

# Automotive Analog

## Automotive FxLED - Matrix

Part No.	Channel	No. RGB Group	IOUT max [mA]/CH	Control Interface	Operating Temp.	Package [Size mm]	Key Feature	Status
IS32FL3738	6x8 Matrix 48	16	84	I2C-1MHz	-40°C to +125°C	eTSSOP-28 [9.7x6.4]	7.4kHz-PWM, 8 current source by 6 switch sink, 8-bit PWM and global current, auto breath features, de-ghost, LED open/short detect, cascade synch	Prod
IS32FL3740	3x4 Matrix 12	4	84	I2C-1MHz	-40°C to +125°C	eTSSOP-20 [6.5x6.4]	7.4kHz PWM, 4 current output by 3 switch output, 8-bit PWM and global current, auto breath features, de-ghost, LED open/short detect, cascade synch	Prod
IS32FL3746B	18xn [n=1~4] Matrix 72	24 RGB	34.5	SPI-12MHz	-40°C to +125°C	WFQFN-32 [5x5], eTQFP-32 [9x9]	29kHz PWM, 8-bit [PWM, dot correction, global current], individual open and short error detect function, VIO, de ghost, spread spectrum, EMI reduction, 180 degree phase delay	Prod
IS32FL3749	24xn[n=1~4]	32 RGB	60	VSB [video serial bus, 33MHz], SPI [33MHz]	-40°C to +125°C	eTQFP-48 [7x7]	4.3v-16v, Support 8/16/8+4/8+8-bit PWM mode, 8-bit Dot correction, 8-bit x 3 global current adjustment, 4 groups delay, Channel to channel timing skew, Spread spectrum, 1.0mA Quiescent current, 3.3µA shutdown current, De-ghosting with reduced LED reverse bias	Prod

## Automotive FxLED - Smart LED

Part no.	Channel	No. RGB Group	IOUT max [mA]/CH	Control Interface	Operating Temp.	Pkg-Pin [mm]	Key Feature	Status
IS32LT3183A	4	1	60	LIN 2.2A	-40°C ~ +125°C	SOP-8-EP [5x6]	16-bit PWM, color calibration, LED aging, animation patterns, SNPD [Bus Shunt Method], temperature and ESD protection, ECC	Prod

## Automotive HBLED - Linear

Part no.	Channel	Vdd[V]	IOUT Max [mA]/CH	Sink/ Source Dimming	Protection	Fault report	Pkg-Pin [mm]	Key Feature	Status
IS32LT3123	4	5 - 40	External FET	Sink Internal PWM	LED Open/Short, thermal roll off, over temp	Yes	eTSSOP-24 [7.8x6.4]	Support four external NFETs with independent high current settings, ±4% current accuracy with 200mV reference feedback, PWM slew rate control, cascadable	Prod
IS32LT3124	4	5 - 28	150	Source PWM & BCM	LED open/short, single LED short, ISET pin open/short, over temp	Yes	eTSSOP-16 [5x6.4]	Quad channel (independent PWM and current), linear LED driver with dynamic headroom control	Prod
IS32LT3126	2	5 - 42	150	Source PWM & BCM	LED open/ short, single LED short, ISET pin open/short, OUT short to VCC, over temp, thermal rolloff	Yes	eTSSOP-16 [5x6.4]	Dual independent channels with independent. enable, current set and undervoltage detection	Prod
IS32LT3128 IS32LT3128A	3	5 - 42	20 - 150	Source BCM PWM or Switch Priority	LED strings or ISET pin shorted to GND [no reporting], Over temp and thermal roll off	Yes	eTSSOP-20 [6.5x6.4]	Triple channel LED driver with PWM dimming and switch gamma corrected fade IN/ OUT [higher priority than PWM IS32LT3128 only, lower priority than PWM IS32LT3128A only], resistor programmable	Prod
IS32LT3129 IS32LT3129A	3	5 - 42	20 - 150	Source I2C or Switch Priority	LED strings short or open, ISET pin shorted to GND [no reporting], Over temp and thermal roll off	Yes	eTSSOP-20 [6.5x6.4]	Triple channel LED driver with PWM dimming and switch gamma corrected fade IN/ OUT [switch higher priority than I2C--IS32LT3129 only, switch lower priority than I2C--IS32LT3129A only], I2C programmable	Prod

# Automotive Analog

## Automotive HBLED - Linear (Contd)

Part no.	Chan-nel	Vdd[V]	IOUT Max (mA)/CH	Sink/ Source Dimming	Protection	Fault report	Pkg-Pin (mm)	Key Feature	Status
IS32LT3131	12	4.5 - 40	75	Source	LED string open/ short circuit, single LED short circuit, over current, over voltage, thermal roll-off, thermal shutdown, communication CRC error	Yes	eTSSOP-28	UART/CANLITE interfaces support CAN PHY with up to 1MHz baud rate and failsafe mode, 9MHz SPI BUS, CRC error correction to ensure robustness of communication, 12 channels with individual 10-bit PWM dimming and 8-bit DC current adjustment, 32-steps global DC current setting, Thermal shunt topology optimizes the device thermal stress, Robust protections with fault reporting output	Prod
IS32LT3138	18	4.5 - 16	100	Sink	LED string open/ short circuit, single LED short circuit, over current, over voltage, thermal roll-off, thermal shutdown, communication CRC error	Yes	WFQFN-32 (5x5)	UART interface support CAN PHY with up to 1MHz baud rate and fail-safe mode. 18 channels with individual 12bit PWM dimming and 7bit DC current adjustment. 64-steps global DC current setting. Thermal shunt topology optimizes device thermal stress, protections with fault reporting output.	Prod
IS32LT3140A IS32LT3140B	1	4.5 - 40	450	Source PWM	single LED short (IS32LT3140A only), LED string open/ short, output over current, shared fault output.	Yes	eTSSOP-14 (IS32LT3140A) SOP-8-EP (IS32LT3140B)	Single channel, high-side programmable current regulator with ±8% current accuracy, PWM or PSM dimming, optional shunt resistor to optimize IC power dissipation, 350uA operating current, 5uA shutdown current	Prod
IS32LT3141A IS32LT3141B	1	4.5 - 40	450	Source Onewire Serial BUS	Shared fault flag for "one-fail-all-fail" function, single LED short detection (IS32LT3141A only), LED string open/ short, output over current	Yes	eTSSOP-14 (IS32LT3141A) SOP-8-EP (IS32LT3141B)	Single Channel, high-side programmable current regulator with ±8% current accuracy over temperature range, Onewire Serial BUS (100kbps) to control LED on/off, cascadable upto 30 devices, 5uA shutdown current	Prod
IS32LT3143	3	5 - 40	10 - 150	Source, PWM	Single LED short detection level, LED string open/short, ISET resistor open/ short, programable thermal roll off	Yes	eTSSOP-16	Three channel, 10 to 150mA current regulator, 2% channel to channel and 3.5% part to part accuracy, independent PWM channel dimming, programmable thermal roll off, external resistors program per channel single LED short detection, shared fault output for one- fail-all-fail system operation.	Prod
IS32LT3144	3	5 - 40	10-150	Source, PWM, analog dimming	Single LED short detection, LED string open/short, ISET resistor short, over temperature thermal roll off, VIN over voltage current derating protection	Yes	eTSSOP-16	Three channel 10 to 150mA current, 2% channel to channel and ±3.5% part to part accuracy, independent PWM channel dimming, external resistors program per channel single LED short detection, NTC for thermal roll off or LED binning , shared fault output for one- fail-all-fail system operation.	Prod
IS32LT3146	6	5.0 - 40	75	Source State Machine	Single LED short detection, LED string open/short, ISET resistor open/ short, thermal roll off	Yes	eTSSOP-20 (6.5x6.4)	Six channel 75mA current, programmable sequential turn animation, external resistors program timing, sequence style, cascadable for synchronizing multiple devices, thermal shunt topology, open drain fault configurable for 'one-fail-all-fail' or 'one-fail-all-on' modes	Prod
IS32LT3147	6	5.0 - 40	75	Source PWM	Single LED short detection level, LED string open/ short, ISET resistor open/ short, thermal roll off	Yes	eTSSOP-20 (6.5x6.4)	Six channel 75mA current , individual PWM dimming for each channel, external resistors program single LED short detection level and channel LED current, thermal shunt topology, open drain fault configurable for 'one-fail-all-fail' or 'one-fail-all-on' modes	Prod

# Automotive Analog

## Automotive HBLED - Linear (Contd)

Part no.	Channel	Vdd[V]	IOUT Max [mA]/CH	Sink/ Source Dimming	Protection	Fault report	Pkg-Pin [mm]	Key Feature	Status
IS32LT3168	1	6.5 - 36	200	Source Hall sensor fade ON/OFF	Fault Protection: OUT or ISET pin shorted to GND, thermal roll off, thermal shutdown (TSD)	No	SOP-8-EP [4.9x6]	Single channel, configurable current from 20mA to 200mA, ultra-low standby current (50µA), omnipolar hall-effect switch sensor, ENB input pin for LED on/off with Gamma corrected fade in/out	Prod
IS32LT3175P IS32LT3175N	1	5 - 42	20 - 150	Source, momentary switch fade ON/OFF	LED Short, ISET pin short, over temp, thermal rolloff	No	SOP-8-EP [4.9x6]	Single Channel, configurable current 20 to 150mA, momentary contact switch enables gamma corrected fade in/out, PWM input 'P' suffix for positive going and 'N' for negative PWM	Prod
IS32LT3177 IS32LT3178	1	5 - 42	10 - 200	Sink, Power Supply PWM [3177] Digital PWM [3178]	Over current, over temp and thermal rolloff protection	No	SOT23-6 [2.9x2.8], SOP-8-EP [4.9x6]	Single channel low dropout, ±5% current accuracy. high voltage PWM input [IS32LT3177], logic level 1kHz PWM input [IS32LT3178]	Prod
IS32LT3365	1	4.5 - 58	External Supply up to 1.5A	12 Bypass Switches, PWM	LED open/short, Single LED short, Thermal Alarm, CRC error to protection	Yes	eLQFP-48	3 PN's with CANLITE, UART, or SPI Host Interfaces, 10-bit PWM, Adjustable PWM frequency with multiple device sync, I2C EEPROM interface for LED binning and calibration, Two 10-bit ADC for temperature sensing (via thermistor) of PCB and LEDs, Phase shift, Spread Spectrum, Slew rate control	Sample

## Automotive HBLED - Switching

Part no.	Topology	VIN [V]	IOUT [mA]	Dimming	Efficiency	Power Transistor	Pkg-Pin[mm]	Key Feature	Status
IS32LT3361	Buck	6.0 - 40	1300	PWM, Analog	up to 98%	Built-in	SOP-8-EP [5x6]	Continuous mode step-down converter, ±5% output current accuracy, 1MHz switching, integrated 40V NFET, 2000:1 dimming ratio, fault report/protect and sharing, LED string open/short detect	Prod
IS32LT3951	Buck	4.5 - 38	1500	PWM	95%	Built-in	SOP-8-EP [5x6]	Switching converter with internal control loop compensation, integrated 40V NFET, output fault report/protect, 2µA shutdown, spread spectrum	Prod
IS32LT3952	Buck	4.5 - 38	1500	PWM	95%	Built-in	SOP-8-EP [5x6]	Switching converter with internal control loop compensation, integrated 40V NFET, no fault reporting, 2µA shutdown, spread spectrum	Prod
IS32LT3953	Buck	4.5~38	3000	PWM	95%	Built-in	SOP-8-EP[4.9x6]	3A PWM dimmable constant-current buck LED driver with robust protection, spread spectrum, Prog UVLO, Low shutdown current, LED string open/short detect, No fault reporting, AEC-Q100	Prod
IS32LT3953B	Buck	4.5 - 38	3000	PWM	95%	Built-in	SOP-8-EP [5x6]	3A PWM dimmable constant-current buck LED driver with robust protection, spread spectrum, Prog UVLO, 2µA shutdown current, LED string open/short detect, No fault reporting, AEC-Q100, 5V linear regulator output (VDD) to bias an external circuit	Prod
IS32LT3954 IS32LT3954A	Buck	4.5 - 38	3000	PWM	95%	Built-in	SOP-8-EP [5x6]	Switching converter with internal control loop compensation, integrated 40V NFET, fault reporting, 2µA shutdown, spread spectrum, fault sharing for 3954A only	Prod

# Automotive Analog

## Automotive HBLED - Switching (Con't)

Part no.	Topology	VIN [V]	IOUT [mA]	Dimming	Efficiency	Power Transistor	Pkg-Pin[mm]	Key Feature	Status
IS32LT3957A	Buck, boost, buck-boost, SEPIC	5 - 75	External FET	PWM, Analog	93%	External	eTSSOP-16 [5x6.4]	Fixed UVLO, spread spectrum, external clock sync, fault report, over voltage protection, LED string short detect, analog dimming down to 10%	Prod
IS32LT3958	Buck, boost, buck-boost,	5 - 70	External FET	PWM, Analog, internal PWM	93%	External	eTSSOP-20	External or integrated PWM dimming, two analog dimming inputs, LED binning with over-temp current roll off, program UVLO, +/-2.8% current accuracy, adjust operating frequency range, program soft start, EMI reduction via spread spectrum and freq sync with ext. clock, robust fault reporting	Prod
IS32LT3958A	Boost, buck-boost, SEPIC	5 - 70	External FET	Analog, External PWM, Internal PWM	Up to 93%	External	eTSSOP-20 [6.5x6.4]	No MCU req, dual brightness by internal PWM dimming, two analog dimming inputs, LED binning with over-temp current rolloff, program UVLO, +/-2.8% current accuracy, adjust operating freq range, program soft start, EMI reduction via spread spectrum and freq sync with ext. clock, robust fault reporting, AEC-Q100	Prod
IS32LT3959	Buck, boost, buck-boost	4.5 - 55	Up to 50W	PWM, Analog, internal PWM	94%	External	eTSSOP-28	Minimize inrush current, 3% current accuracy, integrated PWM, external and analog PWM dimming, 1.5uA shutdown current, spread spectrum, external clock synchronization and robust fault report, LED string cathode reference to GND.	Prod
IS32LT3959A	Buck, Boost and Buck-boost	4.5 - 55	External FET	Analog, External PWM, Internal PWM	Up to 93%	External	eTSSOP-28 [9.7x6.4]	4.5V to 55V, High side PMOS PWM/protection switch driver, 150KHz-650KHz Adjustable operating frequency, spread spectrum, Programmable Integrated PWM generator, Supper low shutdown current, Internal soft start to avoid inrush current, Fault report	Prod
IS32LT3961	Buck	5.0 - 60	2000	PWM Analog Bypass MOSFET shunt	-	Built-in	eTSSOP-16 [5x6.4]	Integrated high-side NFET switch, high-side current sense with LED string cathode to GND, cycle-by-cycle current limit, spread spectrum, output current monitor, open drain fault signal output, single LED short detect, LED over temperature thermal roll off, 1uA shutdown current, thermal shutdown	Prod
IS32LT3965	Sync Buck	3.8 - 38	1500	PWM, Analog	Up to 97%	Integrated	WFC-QFN-14 [3mmX-4mm]	1.5A sync buck LED driver with up to 2.2MHz forced CCM operation, analog dimming, spread spectrum, programmable UVLO, 1uA shutdown current and robust protections with fault reporting output.	Prod

## Automotive HBLED - LED Controller

Part no.	Channels	Animation	IOUT [mA]	Comm Interface	Pkg-Pin [mm]	Status
IS32LT3134	12-channel common anode/cathode/multiplexed drive	4patterns x 12Kb, 0.1sec-15sec animation, Global/ local dimming, programmable clock prescaler	Total 100mA sink/source, External FET drive option	19.2K UART, Dynamic addressing mode	WQFN-24 [4x4]	Prod



# Automotive Analog

## Automotive Power Management

Part no.	Topology	VIN [V]	VOUT[V]	IOUT [mA]	Efficiency	Pkg-Pin [mm]	Key Feature	Status
IS32PM3481	BUCK	3.8 - 60	1V-28V	0~1000	Up to 96%	eTSSOP-20 [6.5x6.4]	SPI interface, Adjustable frequency range: 200kHz to 2.2MHz, Spread spectrum to minimize EMI, Frequency synchronization to external clock, Power Good flag, Internal compensation, Internal and adjustable external soft start, Precision enable to program system UVLO, Integrated synchronous rectification	Sample
IS32PM3510	Buck , Boost, Buck-Boost	4.5 - 55	1.2 - 55	Ext. MOS	Up to 94%	HTSSOP-28	Asynchronous multi-topology Non-sync buck boost or buck-boost with high efficiency, spread spectrum and robust fault protections, 150 to 650kHz operating frequency., external clock synchronization, soft start, 1.5uA shutdown current	Prod

## Automotive Touch Key Sensor

Part no.	Sensor Type	VIN [V]	No. Channels	Pkg-Pin[mm]	Key Feature	Status
IS32SE5117A	Capacitive Touch	2.7 - 5.5	16 Cap Touch input through shared GPIO, differential dual slope charge sharing	WQFN-24 [4x4]	E-Flash for code storage has built-in ECC, SRAM storage has built-in ECC, water resistant, proximity sensor, melody generator	Sample
IS32SE5118A	Capacitive Touch	2.35 - 5.5	8 Cap Touch input through shared GPIO, differential dual slope charge sharing	TSSOP-16 [6.4x5], WQFN-16 [4x4]	E-Flash for code storage has built-in ECC, SRAM storage has built-in ECC, water resistant, proximity sensor, melody generator	Sample
IS32SE5120	Capacitive Touch	2.3 - 5.5	24 Cap Touch input through shared GPIO, Differential dual slope charge transfer	WQFN-32 [5x5]	E-Flash for code storage has built-in ECC, SRAM storage has built-in ECC, water resistant, active proximity sensor, melody generator	Prod

## Automotive MCU

Part no.	Flash Memory	RAM	ADC	PWM [PCA]	DAC	Timer/Counter	Communication	Package	Status
IS32CS8974	32KB [ECC]	2KB [ECC]	-	8-bit PWMx6 /w one channel Timer/Capture controller,Trigger interrupt,Output polarity	-	16-bit x5, 24-bit x1, 30-bit WDTx1, 16-bit WDTx2	Master/Slave I2C, UART/EUART/LIN Controller, SPI	TSSOP-24, WQFN-24	Prod
IS32CS8975	16KB [ECC]	1KB [ECC]	11-bit SAR ADCx4-channel	8/10/12-bit PWMx6 /w one channel Timer/ Capture controller, Trigger interrupt and ADC Conversion, Output polarity	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDTx1, 16-bit WDTx2	Master/Slave I2C, UART EUART/LIN Controller, SPI	TSSOP-16, SOP-8	Prod
IS32CS8976	16KB [ECC]	1KB [ECC]	11-bit SARADC x 4-channel	8/10/12-bit PWM x 6, 16-bit timer/capture/ quadrature x 1	8-bit DAC x 1	16-bit x 5, 24-bit x1, 32-bit WDTx3	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 10 GPIO LDO and LIN Transceiver integrated	eTSSOP-20	Sample
IS32CS8977	64KB [ECC]	2KB [ECC]	12-bit SAR ADC /w GPIO analog input	8/10/12-bit center-aligned PWMx6, 8-bit left/right-aligned PWMx16	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDTx1, 16-bit WDTx2, 16-bit Timer/Capturex1, 16-bit quadrature decoderx1	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 28 GPIO	TSSOP-20, TSSOP-24, TSSOP-28, WQFN-32, LQFP-32	Prod
IS32CS8978	64KB [ECC]	2KB [ECC]	12-bit SAR ADC /w GPIO analog input	8/10/12-bit center-aligned PWMx6, 8-bit left/right-aligned PWMx16	8-bit DAC x1	16-bit x5, 24-bit x1, 32-bit WDTx3, 16-bit Timer/ Capturex1, 16-bit quadrature decoderx1	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 21 GPIO LDO and LIN Transceiver integrated	WQFN-40	Sample

# Analog Part Decoder

## Automotive In-Vehicle Network

Part no.	Type	Wire interfaces	Interfaces	Grade	Pkg-Pin(mm)	Description	Status
CG5316B0-A2NE3	In vehicle network	G.vn	G/MII, SPI	AEC Q-100 grade 2	aQFN80 [8x8]	G.vn Transceiver for in vehicle networking	Prod

## Automotive HomePlug Green PHY (HPGP)

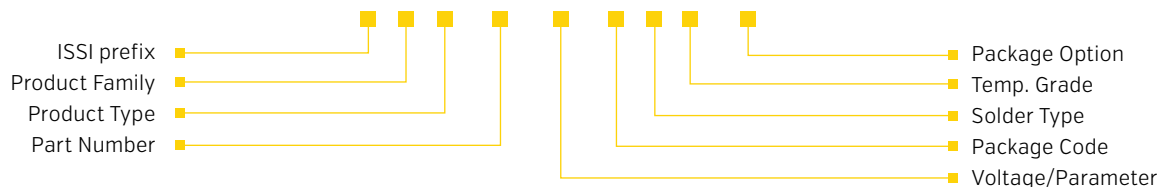
Part no.	Type	Wire interfaces	Interfaces	Grade	Pkg-Pin(mm)	Description	Status
IS32CG5317	HomePlug Green PHY [HPGP]	PLC	SPI, R/MII	AEC-Q100 Grade 2	EP-LQFP	Powerline communication for EV and charging station	Mass production [Industrial version] by Q4 2022

## Automotive Multi-Function I/O's

Part No.	Data Rate	VBAT[V]	IBAT	Ctrl. Interface	I/O Port	Pkg-Pin(mm)	Status
IS32IO1028	up to 20Kbps	5.5 - 32	Normal mode 2.8 mA [typ]; Standby mode 45 uA [typ]; Sleep mode 23 uA.	EN, TXD, RXD, RSTN	LIN	SOP-8 [6x4.9]	S=Q1/23
IS32IO1163	up to 6Mbps	6.3 - 32	Normal mode 5 [mA] in recessive [typ] 45 [mA] in dominate [typ]; standby mode 85uA [typ]	STBN, TXD, RXD, RSTN, CTS	CANH, CANL	eTSSOP-14 [5x4.4]	Sample

# Part Number Decoder

IS 31 LT 3135 V1 - GR L S2 - TR



### Analog Product Family

- 31 = Commercial/Industrial Analog
- 32 = Automotive Analog and Mixed Signal

### Product Type

- AP = Audio Power Amplifier
- AS = ASIC
- BL = White LED Driver
- CG = Connectivity
- CS = MCU
- FB = Optical Transceiver Components
- FL = FxLED Driver
- IO = Multi-Function I/O Expander, CAN, LIN
- LT = HBLED Driver
- NM = Networking
- PM = Power Management
- SE = Sensor

### Temperature Grade

- S1 = Commercial temp. [0°C to +70°C]
- S2 = Industrial temp. [-40°C to +85°C]
- S3 = Industrial temp. [-40°C to +105°C]
- S4 = Industrial temp. [-40°C to +125°C]
- A1 = Automotive temp. [-40°C to +85°C]
- A2 = Automotive temp. [-40°C to +105°C]
- A3 = Automotive temp. [-40 to +125°C]
- A4 = Automotive temp. [-40 to +150°C]

### Solder Type

- Blank = Sn/Pb
- L = Lead-free [RoHS Compliant]

### Package Type

- C = WCSFP, FCQFN
- D = DFN
- GR = SOP
- QF = QFN
- LQ = eLQFP
- S = MSOP
- SA = SSOP
- SD = SOT89
- ST = SOT23
- TQ = TQFP
- TT = TSOT
- UT = UTQFN
- QW = Wettable flank QFN
- QWC = Wettable flank QFN+flip chip
- QU = UQFN
- Z = eTSSOP

### Voltage Range / Parameters

- Sense Voltage Range**
- V1 = 91mV to 101mV
- V2 = 99mV to 110mV
- Under-Voltage Range**
- V1 = 1.13V to 1.21V
- V2 = 1.19V to 1.26V

### Package Option

- Blank = Tray or Tube
- TR = Tape & Reel

# Lumissil Locations



# Lumissil Contacts

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