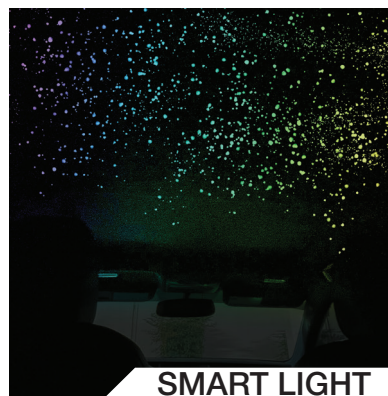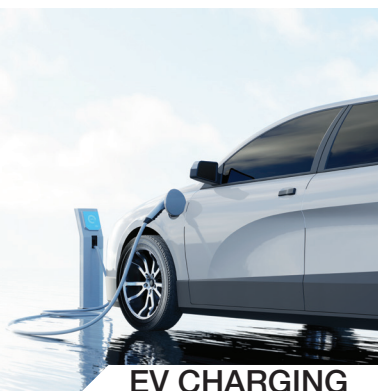# LUMISSIL
MICROSYSTEMS

TAILLIGHT

SMART LIGHT

HEADLIGHT

EV CHARGING

TOUCH SENSORS

AMBIENT LIGHT

MICRO CONTROLLER

2024/2025

Analog & Mixed Signal Solutions

Product Selector Guide
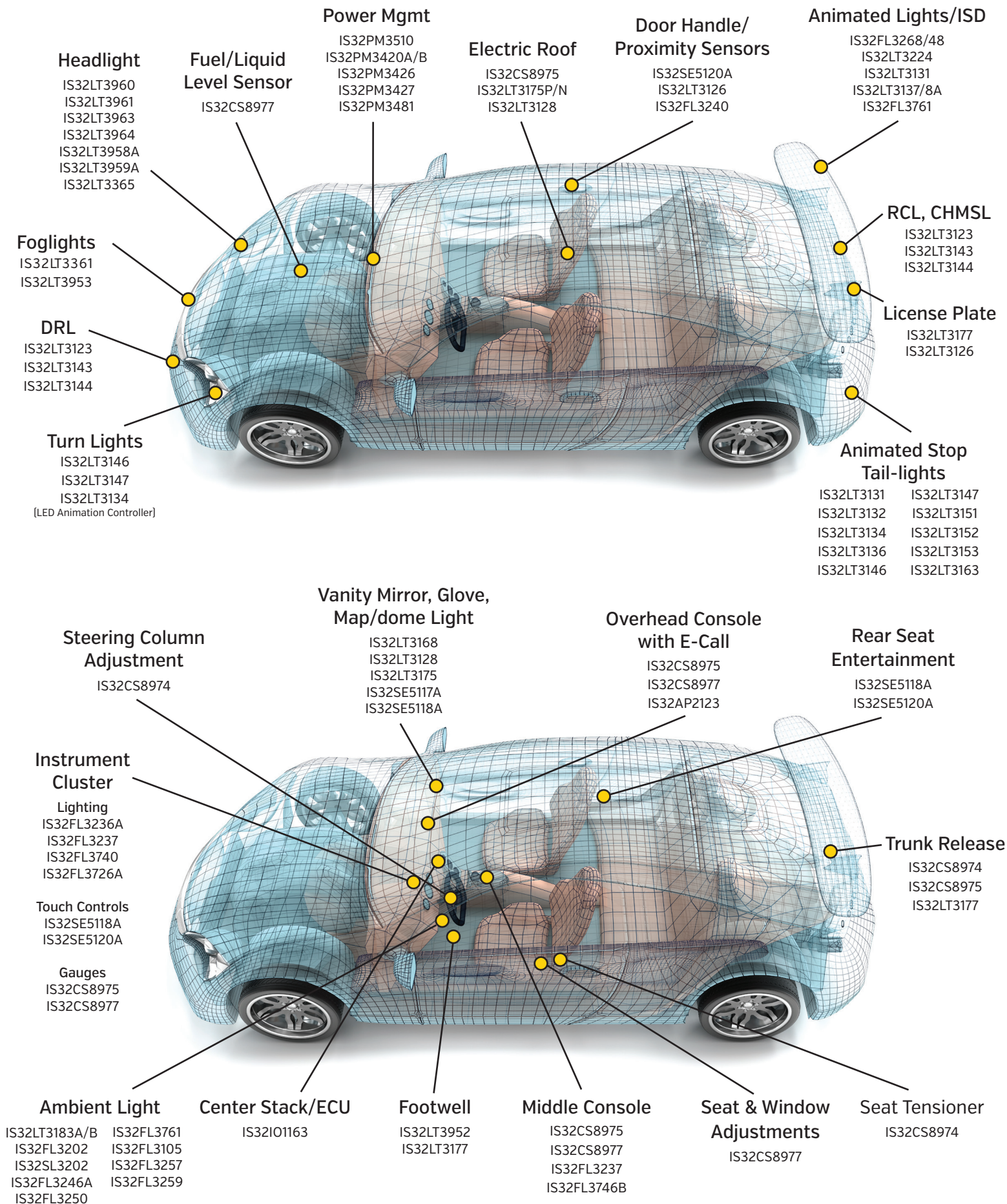Automotive

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Amplifier

Part No.	Channel	Power [W]	THD+N	PSRR [dB]	VDD [V]	Package (Size in mm)	Key Features	Status
IS32AP2123/A	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

RGB Color - Multi Channel

Part no.	Channels	No. RGB Group	IOUT max (mA)/CH	Control Interface	Pkg-Pin (mm)	Key Features	Status
IS32FL3207	18	6 RGB	78	I2C-1MHz	WFQFN-28 (5×5)	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	WFQFN-28 (5×5) eTSSOP-28 (9.7×6.4)	29kHz/4kHz PWM, 8-bit PWM, 78mA current channels, 13 levels scaled output current/channel	Prod
IS32FL3236A	36	12 RGB	38	I2C-400kHz	eTQFP-48 (9×9)	22kHz/3kHz PWM, 8-bit PWM, 38mA current channels, 4 levels scaled output current/ channel	Prod
IS32FL3237	36	12 RGB	38	I2C-1MHz	eTQFP48 (9×9)	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	eTSSOP-28 (9.7×6.4)	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	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
IS32FL3250	30	10 RGB	50	I2C-1MHz	WFQFN-40(6x6)	8-Bit RGB group current adjust, 10 or 8-bit PWM, 6 phase delay, 180 degree clock phase, group dimming	Sample
IS32FL3248	48	16 RGB	33	SPI-33MHz, Serial-Shift-33MHz	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
IS32FL3265A IS32FL3265B	18	6 RGB	60	I2C-1MHz (3265A) SPI-12MHz (3265B)	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
IS32FL3268	24	8 RGB	50	SPI-33MHz Serial-Shift-33MHz	WFQFN-40 (6×6)	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	Prod
IS32FL3726A	16	5 RGB	60	Serial Shift - 30MHz	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

RGB Color - Matrix

Part No.	Channel	No. RGB Group	IOUT max (mA)/CH	Control Interface	Package (Size mm)	Key Features	Status
IS32FL3738	6x8 Matrix 48	16	84	I2C-1MHz	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	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

Automotive

RGB Color - Matrix Con't

Part No.	Channel	No. RGB Group	IOUT max (mA)/CH	Control Interface	Package (Size mm)	Key Features	Status
IS32FL3746B	18×n (n=1~4) Matrix 72	24 RGB	34.5	SPI-12MHz	WFQFN-32 (5×5), eTQFP-32 (9×9)	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	24×n (n=1~4)	32 RGB	60	Serial Shift, (33MHz), SPI (33MHz)	eTQFP-48 (7×7)	4.3v-16v, Support 8/16/8+4/8+8-bit PWM mode, 8-bit Dot correction, 8-bit × 3 global current adjustment, 4 groups delay, Channel to channel timing skew, Spread spectrum. De-ghosting with reduced LED reverse bias	Prod
IS32FL3761	33×n (n=2~12) Matrix-396	132 RGB	30	I2C-1MHz SPI-12MHz	QFN-60 (7x7)	2.7v-5.5v, 12-bit, 8-bit or dithered (8+4 or 6+2-bit) PWM , 8-bit current sink adjust, 8-bit global current, group phase delay , spread spectrum, LED open/short detect, de-ghost, reduced LED reverse bias	Prod
IS32FL3105A IS32FL3105B IS32FL3105C IS32FL3105D	18×n (n=1,2)	12 RGB	60	CAN phy with UART protocol (100kHz~2MHz) UART Rx/Tx (100kHz~2MHz)	WFQFN-32 (5×5)	5.0V~28V Logic, 3.0V~12V LED channel, 16-bit, or dithered (14+2, 13+3, 8+8-bit) PWM modes. 6-bit current sink adjust, 8-bit × 3 global current adjust, 12-bit ADC, 4 group delay, Channel to channel timing skew, Spread spectrum. De-ghost with reduced LED reverse bias 32FL3105A (CAN, Direct Mode, 25 addresses) 32FL3105B (CAN, SNPD Address Mode) 32FL3105C (UART, Direct Mode, 25 addresses) 32FL3105D (UART, SNPD Address Mode)	Sample

Ambient Interior - Standard

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Sink/ Source Dimming	Fault Detection	Fault report	Pkg-Pin (mm)	Key Features	Status
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, Over temp, thermal rolloff (no reporting)	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, Over temp, thermal rolloff (no reporting)	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
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

Automotive

Ambient Interior - Standard

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Sink/ Source Dimming	Fault Detection	Fault report	Pkg-Pin (mm)	Key Features	Status
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

Ambient Interior - Smart LED

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Control Interface	Protection	Pkg-Pin (mm)	Key Feature	Status
IS32LT3183A	4	5.5 - 18	60	LIN 2.2A	Temperature, Open/Short LED protection, ECC, LIN retry	SOP-8-EP (5x6)	16-bit PWM, color calibration, LED aging, animation patterns, SNPD auto-addressing (Bus Shunt Method), I/O pins can be LED driver sinks or configured for I2C bus master or standard GPIO.	Prod
IS32FL3202	3	3.5 - 6.5	63	CANLite (Based on 5V CAN PHY & UART proto-col layer) upto 2MHz	Over temperature (temperatue compensation). Open/ Short LED, undervoltage protection, ECC	WFDFN-10 (3×3)	3.5V~6.5V, State machine smart LED driver, cross-fade algorithm, 6-bit channel current adj, 12-bit PWM, Local address assignment for 254 devices with broadcast mode, On die OTP for binning. Provide constant luminance over operating temperature range, spread spectrum.	Prod
IS32FL3257	18x2	12	60	CAN PHY with UART proto-col layer upto 2MHz	Over temperature (temperatue compensation). Open/ Short LED, Undervoltage protection, ECC	WFQFN-32 (5×5)	3.0V to 12V supply for each LED channel, digital supply 5.0V to 28V. ARM M0+ @ 32MHz, ECC protected (64KB e-flash with 2x 1KB IFB, 8KB SRAM). DMA controller (ECC) for SRAM and peripherals. 12-bit ADC. Location address assignment for 254 devices. Support 16-bit, or dithered (14+2, 13+3, 8+8-bit) PWM mode. 6-bit current sink adjust, 8-bit × 3 global current adjustment, 4 group delay, Channel to channel timing skew, Spread spectrum. De-ghosting with reduced LED reverse bias.	Sample
IS32FL3259	18x2	12	60	LIN 2.2A/ ISO17987	Over temperature (temperatue compensation). Open/ Short LED, undervoltage protection, ECC	WFQFN-32 (5×5)	3.0V to 12V supply for each LED channel, digital supply 5.0V to 28V. ARM M0+ @ 32MHz, ECC protected (64KB e-flash with 2x 1KB IFB, 8KB SRAM). DMA controller (ECC) for SRAM and peripherals. 12-bit ADC. Location address assignment for 254 devices. Support 16-bit, or dithered (14+2, 13+3, 8+8-bit) PWM mode. 6-bit current sink adjust, 8-bit × 3 global current adjustment, 4 group delay, Channel to channel timing skew, Spread spectrum. De-ghosting with reduced LED reverse bias.	Sample

High Brightness - 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
IS32LT3131	12	4.5 - 40	75	Source	LED string open/ short, single LED short, over current, over voltage, thermal roll-off, thermal shutdown, CRC error	Yes, One-fail-all-fail or One-fail-all-on	eTSSOP-28 (6x10)	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
IS32LT3132	12	4.5-16	100	Current Source, PWM	LED string open/ short, single LED short, over current, thermal roll-off, thermal shutdown, CRC error	Yes	eTSSOP-24 WFQFN-32 (5x5)	1MHz UART interface with CRC. Each channel 12-bit, 8-bit or 7+5-bit PWM dimming with 8-bit current adjust. 64-steps global current adjust. Current slew rate, phase delay, and spread spectrum	Sample
IS32LT3136	32	4.5-20	25	Current source, PWM	LED string open/ short, single LED short, over current, over voltage, thermal roll-off, thermal shutdown, CRC error	Yes, One-fail-all-fail or One-fail-all-on	WFQFN-48 (7x7)	O/LED high side driver, 2MHz UART interface with CRC, DC feedback to drive power supply, 10-Bit ADC, OTP for data storage, 12/7+5/8-bits PWM dimming, 8-bit global/channel current adjust. Current slew rate, phase delay and 180-degree phase, spread spectrum, watch dog timer, ASIL B safety level	Sample
IS32LT3137	12	4.5 - 16	100	Current Sink with individual 12 bit PWM and 7bit DC	LED string open/ short circuit, single LED short circuit, over current, over voltage, thermal roll-off, thermal shutdown, communication CRC error and so on.	Yes	WFQFN-32 (5x5)	UART interfaces support CAN PHY with up to 1MHz baud rate and fail-safe mode. 12 channels with individual 12bit PWM dimming and 7bit DC current adjustment. 64-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 opti-mizes device thermal stress, protections with fault reporting output.	Prod
IS32LT3138A	18	4.5 - 16	100	Current Sink PWM, Analog	LED string open/ short circuit, single LED short circuit, over current, over voltage, thermal roll-off, thermal shutdown, communication CRC	Yes, One-fail-all-fail or One-fail-all-on	WFQFN-32 (5x5)	1MHz UART interface with CRC. DC feedback to drive power supply, 10-Bit ADC, OTP for data storage, analog dimming, PWM 16-bit, 8-bit or (14+2, 13+3, 8+8) dithering, 7-bit channel current, 6-bit global current adjust. Current slew rate, phase delay and 180-degree phase, spread spectrum, watch dog timer, ASIL B safety level	Prod

High Brightness - Linear (Cont'd)

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Sink/Source Dimming	Protection	Fault report	Pkg-Pin (mm)	Key Feature	Status
IS32LT3138A	18	4.5 - 16	100	Current Sink PWM, Analog	LED string open/short circuit, single LED short circuit, over current, over voltage, thermal roll-off, thermal shutdown, communication CRC	Yes, One-fail-all-fail or One-fail-all-on	WFQFN-32 (5x5)	1MHz UART interface with CRC. DC feedback to drive power supply, 10-Bit ADC, OTP for data storage, analog dimming, PWM 16-bit, 8-bit or (14+2, 13+3, 8+8) dithering, 7-bit channel current, 6-bit global current adjust. Current slew rate, phase delay and 180-degree phase, spread spectrum, watch dog timer, ASIL B safety level	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
IS32LT3140C IS32LT3140D	1	4.5 - 40	450	Source PWM	Programmable fault operation with single LED short detection (IS32LT3140C only), LED string open/short, output over current, shared fault output for one-fail-all-fail system operation.	Yes	eTSSOP-14 (IS32LT3140C) SOP-8-EP (IS32LT3140D)	Single channel, linear programmable current regulator with low operating head room voltage and ±8% current accuracy over temperature range. Optional heat shunt resistor to optimize IC power dissipation. Programmable fault operation with single LED short detection(IS32LT3140C only) and shared fault output for one-fail-all-fail system operation.	Sample
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 channels, linear programmable current regulator with low operating head room voltage. Programmable junction over temperature thermal roll off. External resistors program single LED short detection and 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 channels, linear programmable current regulator with low operating head room voltage. LED over temperature thermal roll off and device junction over temperature thermal roll off . External resistors program single LED short detection and shared fault output for one-fail-all-fail system operation, VIN over voltage current derating protection	Prod

High Brightness - Linear (Cont'd)

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Sink/Source Dimming	Protection	Fault report	Pkg-Pin [mm]	Key Feature	Status
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
IS32LT3151A IS32LT3151B IS32LT3151C IS32LT3151D	1	4.5 - 40	450	Source PWM & BCM	Single LED short detection (IS32LT3151A/C only), IREF resistor open/short (IS32LT3151A/C only), LED string open/short	Yes, One-fail-all-fail	eTSSOP-14 (IS32LT3151A/C) SOP-8-EP (IS32LT3151B/D)	Single channel, linear programmable current regulator with low operating head room voltage, PWM dimming, optional heat shunt resistor, programmable single LED short detection (only IS32LT3151A/C). ASIL-B (IS32LT3151C/D only)	Sample
IS32LT3152A IS32LT3152B	3	4.5 - 40	150	Source PWM & BCM	LED string open/ short, over temperature thermal	Yes, One-fail-all-fail	eTSSOP-16 (5x6.4)	3 channel, linear programmable current regulator with low operating head room voltage, with 3 PWM dimming inputs, optional heat shunt resistors, programmable single LED short detection. ASIL-B (IS32LT3152B only)	Sample
IS32LT3153A IS32LT3153B	3	4.5 - 40	150	Source PWM & BCM	Single LED short detection, LED string open/short, over temperature	Yes, One-fail-all-fail	eTSSOP-20 (6.5x6.4)	3 channel, linear programmable current regulator with low operating head room voltage, with 3 PWM dimming inputs, optional heat shunt resistors, programmable single LED short detection. ASIL-B (IS32LT3153B only)	Sample
IS32LT3163	3	4.5 - 40	150	Source PWM & BCM	LED string open/ short,over temperature thermal, shared fault output for 'one-fail-all-fail' system operation	Yes	eTSSOP-16 (5x6.4)	3 channel linear LED driver with individual PWM dimming for each channel, Optional heat shunt resistor to optimize IC power dissipation	Prod
IS32LT3365A IS32LT3365B	12 By-pass Switches	4.5 - 55	External Supply up to 1.5A	PWM	LED open/short, Single LED short, Thermal Alarm, CRC error	Yes	eLQFP-48 (9x9)	IS32LT3365A (UART) IS32LT3365B (CANLITE), upto 1MHz bus speed, 10-bit PWM, device-to-device synch, I2C EEPROM interface for LED binning and calibration, Two 10-bit ADC for temperature sensing (via thermistor) of PCB or LEDs, phase shift, spread spectrum, slew rate control, ASIL-B	Prod

High Brightness - Switching

Part no.	Topology	VIN (V)	IOUT (mA)	Dimming	Efficiency	Power Transistor	Pkg-Pin (mm)	Key Feature	Status
IS32LT3361	Hysteretic 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)	1.5A PWM dimmable constant current buck LED driver with output fault report/protect, 2uA shutdown, spread spectrum	Prod
IS32LT3952	Buck	4.5 - 38	1500	PWM	95%	Built-in	SOP-8-EP (5x6)	1.5A PWM dimmable constant current buck LED driver with robust protection, 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	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)	3A PWM dimmable constant current buck LED driver with spread spectrum, robust protection and reporting, fault sharing (3954A)	Prod
IS32LT3957A	Buck, boost, buck-boost, SEPIC	5 - 75	External FET	PWM, Analog	93%	External	eTSSOP-16 (5x6.4)	High voltage LED lighting driver, spread spectrum, external clock sync, fault report, over voltage protection, LED string short detect, Analog dimming down to 10%	Prod
IS32LT3958A	Buck, boost, buck-boost, SEPIC	5 -70	External FET	PWM, Analog, internal PWM	93%	External	eTSSOP-20	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, EMI reduction via spread spectrum and freq sync with ext. clock, robust fault reporting, Improved program soft start	Prod
IS32LT3959A	Buck, Boost and Buck-boost configuration with LED string cathode refers to GND	4.5 - 55	Up to 50W	Internal PWM, external PWM, analog	94%	External	eTSSOP-28 (6.4x9.7)	Support Buck, boost and buck-boost with LED string to GND, programmable internal PWM generator, supper low shutdown current, spread spectrum and robust fault protection, optimized over current protection (OCP)	Prod

High Brightness - Switching Con't

Part no.	Topology	VIN (V)	IOUT (mA)	Dimming	Efficiency	Power Transistor	Pkg-Pin (mm)	Key Feature	Status
IS32LT3960	2 phase Boost 2 phase SEPIC	4.5 - 65	External FET	Internal PWM, external PWM, Analog (SPI)	94%	External	eTSSOP-32 QFN-32	Dual channel CV and CC mode configuration. SPI communication interface for programming spread spectrum, soft-start timing, LED current and output voltage, fault-timer, single versus dual phase, ASIL-B	Sample
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 ther¬mal roll off, 1uA shutdown current, thermal shutdown	Prod
IS32LT3963	Sync Buck	4.5 - 65	1600	PWM, Analog	96%	Inte-grated	eTSSOP-32 (DAD)	Dual channel, high side current sense, up to 1.6A output current, adaptive on-time average current control, spread spectrum, ASIL-B	Sample Q1'25
IS32LT3964	Sync Buck	4.5 - 65	1600	PWM, SPI	96%	Inte-grated	eTSSOP-32 (DAD/DAP)	Dual channel, high side current sense, up to 1.6A output current, adaptive on-time average current control, spread spectrum, SPI with CRC for safety diagnostics, ASIL-B	Sample Q1'25
IS32LT3965	Sync Buck	3.8 - 38	1500	PWM, Analog	97%	Inte-grated	WFQFN-14 (3x4)	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

MCU - LED Controller/Driver

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
IS32LT3183A	RGB+W or 4 GPIO	Color Calibration, Animation patterns	60	LIN 2.0/2.1/2.2A and SAE J2602	SOP-8-EP (4.9x6)	Prod
IS32CS8979	18-channel	Accurate Color Rendition, High Current Accuracy, Animation Patterns	60	Master/Slave I2C, UART/EUART/LIN Controller, SPI	WQFN-40 (6x6)	Prod

Automotive

Power Management

Part no.	Topology	VIN [V]	VOUT(V)	IOUT [mA]	Efficiency	Pkg-Pin [mm]	Key Feature	Status
IS32PM3420A	Buck	3.8 - 36	1 - 24	0 ~ 3000	91%	SOP-8-EP [4.9x6]	Power Good output pin, 400kHz, Synchronous DC-DC step-down converter with constant on-time control for fast transient response, Force Continuous Conduction Mode [FCCM] during light loads to reduce output voltage ripple, Spread Spectrum, operating temp range -40°C ~ +150°C	Prod
IS32PM3420B	Buck	3.8 - 36	1 - 24	0 ~ 3000	93%	SOP-8-EP [4.9x6]	Pin selectable FCCM or PFM operation mode, 400kHz, Synchronous DC-DC step-down converter with constant on-time control for fast transient response, Force Continuous Conduction Mode [FCCM] during light loads to reduce output voltage ripple, Spread Spectrum, operating temp range -40°C ~ +150°C	Prod
IS32PM3426	Buck	3.8 - 36	1 - 24	0 ~ 2000	95%	WFCQFN-14 [3x4]	100kHz to 2.2MHz, Synchronous DC-DC step-down converter with constant on-time control for fast transient response, Pulse-frequency Modulation [PFM] mode or Force Continuous Conduction [FCCM] mode selectable discontinuous conduction and auto frequency reduction at light loads, Spread Spectrum, operating temp range -40°C ~ +150°C	Prod
IS32PM3427	Buck	3.8 - 36	1 - 24	0 ~ 4000	94%	WFCQFN-14 [3x4]	100kHz to 2.1MHz, Synchronous DC-DC step-down converter with constant on-time control for fast transient response, Pulse-frequency Modulation [PFM] mode or Force Continuous Conduction [FCCM] mode selectable discontinuous conduction and auto frequency reduction at light loads, Spread Spectrum, operating temp range -40°C ~ +150°C	Prod
IS32PM3481	Buck	3.8 - 60	1-28	0~1000	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 - 50	Ext. MOS	94%	HTSSOP-28	Asynchronous multi-topology Non-sync buck, boost or buck-boost with high efficiency, spread spectrum and robust fault protections, 150kHz to 650kHz operating frequency, external clock synchronization, soft start, 1.5uA shutdown current	Prod
IS32LT3960	2 phase Boost 2 phase SEPIC	4.5 - 65	2.4 - 90	Ext. MOS	94%	eTSSOP-32 QFN-32	Dual channel CV and CC mode configuration. SPI communication interface for programming spread spectrum, soft-start timing, LED current and output voltage, fault-timer, single versus dual phase, ASIL-B	Sample

Application Specific Touch/Proximity 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	Prod
IS32SE5118A	Capacitive Touch	2.7 - 5.5	8 Cap Touch input through shared GPIO, differential dual slope charge sharing	TSSOP-16 [6.4x5]	E-Flash for code storage has built-in ECC, SRAM storage has built-in ECC, water resistant, proximity sensor, melody generator	Prod
IS32SE5120A	Capacitive Touch	2.7 - 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

Application Specific MCU STN-LCD LED (Matrix) Drive MCU

Part No.	Flash/ Program SRAM	RAM	ADC	PWM (PCA)	DAC	Time/ Counter	Comm. Interface	Package	Status
IS32CS8979	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	-	16-bit x5, 24-bit x1, 32-bit WDTx3, 16-bit Timer/Capture x1, 16-bit quadrature decoder x1	Master/Slave I2C, UART+EUART/ LIN Controller, SPI, 9 GPIO, 60mAx18-ch LED Driver	QFN-40 (6x6)	Prod
IS32CS9201	64KB (ECC)	8KB (ECC)	12-bit SAR ADC x2 w/ PGA front-end	14-bit PWM x 8, 16-bit Timer/Capture controller x2	Analog comparator x 4 and 8-bit DAC	16-bit x2, 24-bit x1, 16-bit WDTx2, 16-bit Timer/Capture controller x2	Master/Slave I2C, UART/ EUART/LIN Controller, SPI, 28 GPIOs, Lumibus Bus LED Controller	WQFN-32, TSSOP-28/24	Sample
IS32CS9202	256KB (ECC), SPI Flash Controller (ECC)	(8+8) KB (ECC)	14-bit SD Incremental ADC, 12-bit SAR ADC	16-bit center aligned PWM x 8, 16-bit Timer/ Capture controller x2	8-bit DAC x1	16-bit x2, 24-bit x1, 16-bit WDT x2 24-bit Sys Tick Timer T0/T1 16-bit and T2 24-bit Timers 16-bit Timer/Capture controller x2 Quadrature Encoder	Master/Slave I2C, UART/ EUART/LIN Controller, SPI, 42 GPIOs, Lumibus Bus LED Controller, Video Serial Bus Controller	QFN-48, LQFP-48	Sample
IS32CS9310	256KB (ECC)	(16+16) KB (ECC)	12-bit SAR ADC w/ GPIO analog input	14-bit PWM x 3, 16-bit Timer/Comparator/ Capture (TCC)	8-bit DAC x 3, 8-bit IDAC	16-bit x 2, 24-bit x1, 16-bit WDT x2	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 35 GPIOs, 8 x 12 LED matrix controller & driver	eLQFP-64	Sample

MCU - Application Specific

Part no.	Flash Memory	RAM	ADC	PWM (PCA)	DAC	Timer/ Counter	Communication	Package	Status
IS32CS8976	16KB (ECC)	1KB (ECC)	11-bit SAR ADC x4 channel	8/10/12-bit PWM x6, 16-bit timer/ capture/quadrature x1	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDT x1, 16-bit WDT x2	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 10 GPIO LDO and LIN Transceiver integrated	eTSSOP-20	Prod
IS32CS8978	64KB (ECC)	2KB (ECC)	12-bit SAR ADC /w GPIO analog input	8/10/12-bit center-aligned PWM x6, 8-bit left/right-aligned PWM x16	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDT x1, 16-bit WDT x2, 16-bit Timer/ Capture x1, 16-bit quadrature decoder x1	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 21 GPIO LDO and LIN Transceiver integrated	WQFN-40	Prod

Automotive

MCU - General Purpose

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 ADC x 4-chan-nel	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, WQFN-16	Prod
IS32CS8977	64KB (ECC)	2KB (ECC)	12-bit SAR ADC /w GPIO analog input	8/10/12-bit center-aligned PWMx6, 8-bir left/right-aligned PWMx16	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDTx1, 16-bit WDTx2, 16-bit Timer/ Capaturex1, 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

LIN / CAN

Part No.	Data Rate	VBAT (V)	IBAT	Ctrl. Interface	I/O Port	Pkg-Pin(mm)	Status
IS32IO1021	to 20Kbps	5.5 – 32.0	Normal mode 2.0 mA (typ); Standby mode 32 uA (typ); Sleep mode 22 uA	INH, SLPN, WAKEN, TXD, RXD, RSTN	LIN	eSOP-8 (6mmx4.9mm), WDFN-8(3mmx3mm)	Sample
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 (6mmx4.9mm)	Prod
IS32IO1044	up to 6Mbps	4.75 – 5.25	Normal mode 5mA in recessive (typ); 55mA in dominate (typ); standby mode 25uA (typ)	STB, VIO, TXD, RXD	CANH, CANL	eSOP-8 (6mmx4.9mm), WDFN-8 (3mmx3mm)	Sample
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 (5mmx4.4mm)	Prod

In Vehicle Network

Part no.	Type	Description	Wire interfaces	Interfaces	Grade	Pkg-Pin(mm)	Status
CG5316B0-A2NE3	In vehicle network	G.vn Transceiver for in vehicle networking	G.vn	RG/MII, SPI	AEC-Q100 Grade 2	aQFN80 (8x8)	Prod
IS32CG5516-AQLA2	In vehicle network	Automotive MCU with embedded G.vn transceiver	G.vn	RGMII, MIPI/DVP, CAN, LIN, SPI, I2S, I2C, UART	AEC-Q100 Grade 2	aQFN80 (9x9)	Sample

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	Prod

Part Number Decoder

IS 31 LT 3135 V1 - GR L S2 - TR

Lumissil prefix
Product Family
Product Type
Part Number

Package Option
Temp. Grade
Solder Type
Package Code
Voltage/Parameter

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 Managment
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 = WCSP, 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

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