LUMISSIL MICROSYSTEMS

2024/2025

Analog & Mixed Signal Solutions

Product Selector Guide

Industrial & Automotive

Table of Contents

Five Pillars of Growth

Audio Amplifiers

Class-AB Audio Power Amplifier

Part No.	Channel	Power (W)	THD+N (kHs)	PSRR (dB)	VDD (V)	IDD (mA)	Package (Size in mm)	Key Feature	Status
IS31AP4990D	1	1.2	0.23%	-61	2.7~5.5	3.8	UTQFN-9L (1.5x1.5)	1.2W Mono Audio Power Amplifier in UTQFN Package	Prod
IS31AP4991A	1	1.1	0.07%	-65	2.7~5.5	4.8	MSOP-8 (3x5), SOP-8 (5x6)	1.1W Mono Audio Power Amplifier with active-low standby mode	Prod
IS31AP4996	1	1.1	0.07%	-68	2.7~5.5	3	SOP-8 (5x6)	1.1W Ultra-low power, low distortion, Amplifier with BTL output	Prod

Class-D Audio Amplifier

Part No.	Channel	Power (W)	THD+N (kHs)	PSRR (dB)	VDD (V)	IDD (mA)	Package (Size in mm)	Key Feature	Status
IS31AP2005	1	2.95	0.20%	-65	2.5 ~ 5.5	2.6	DFN-8 (3x3), MSOP-8 (3x4.9)	Class-D, 2.95W Mono filter-less Class-D audio power amplifier	Prod
IS31AP2006	1	3	0.28%	-55	2.7 ~ 5.5	2.6	DFN-8 (3x3)	Class-D, 3W Mono filter-less Class-D audio power amplifier	Prod
IS31AP2010B	1	3	0.22%	-75	2.7 ~ 5.5	2.6	UTQFN-9 (1.5x1.5)	Class-D, 3W Mono filter-less Class-D audio power amplifier	Prod

Headphone

Part No.	Channel	Power (mW)	THD+N	PSRR (dB)	VDD (V)	IDD (mA)	Package (Size in mm)	Key Feature	Status
IS31AP4912	2	30	0.024%	-95	2.7 ~ 5.5	5.0	UTQFN-12 (2x2)	Stereo headphone driver with high SNR and 7uV low output noise	Prod
IS31AP4913	2	30	0.05%	-92	2.7 ~ 5.5	5.0	QFN-20 (3x3)	Stereo headphone driver with high SNR and 8uV low output noise, 3D surround & bass enhanced stereo, pulse count control serial interface	Prod

RGB Color

Multi Channel

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temp.	Package (Size mm)	Key Feature	Status
IS31FL3190	1/ --	42	I2C - 400kHz	−40°C ~ +85°C	UTQFN-9 (1.5x1.5)	Output current can be adjusted in 5 levels, Auto dimming mode [7-bit PWM], PWM Mode [8-bit PWM], fixed I2C address D0h	Prod
IS31FL3193	3/1 RGB	42	I2C - 400kHz	−40°C ~ +85°C	DFN-10 (3x3)	Two-dimensional Auto dimming, breath mark, 5 levels output current, 1 pre-established pattern, selectable I2C address	Prod
IS31FL3194	3/1 RGB	40	I2C - 400kHz	−40°C ~ +85°C	WLCSP-8 (1x1.6)	Auto dimming, one group RGB/RG+W, independent breath fade, 4 band programmable output current, fixed I2C address A6h	Prod
IS31FL3195	4/1 RGB+1 W	20	I2C - 1MHz	−40°C ~ +85°C	WLCSP-16 (1.88x2.08), QFN-16 (4x4)	2.7V - 5.5V 1MHz charge pump, 1x, 1.5x mode with high efficiency, 1uA shutdown, 3 programmable pattern sequence, 8-bit dot correction	Prod
IS31FL3196A	6/2 RGB	40	I2C - 400kHz	−40°C ~ +85°C	QFN-20 (3x3)	Audio sync, auto dimming, 8 levels programmable output current, 8-bit PWM, SDB rising edge resets the I2C module	Prod
IS31FL3197	4/1 RGB+1 W	10	I2C - 400kHz	−40°C ~ +85°C	QFN-16 (4x4), WLCSP-16 (1.88x1.8)	2V-3.7V supply voltage, charge pump: 1x, 1.5x, 2x mode with high efficiency, 8-bit programmable current levels, 12-bit programmable PWM levels, pre-established patterns and auto-cross fade function(one color to another) for RGB	Prod
IS31FL3198	3/1 RGB	80	GPIO Control	-40°C ~ +125°C	QFN-16 (3x3)	3.135V-3.465V supply voltage, Built-in charge pump 2x mode, adjustment external resister: 22 ~ 80mA, ISET pin short protection, less than 1uA shutdown current	Prod
IS31FL3198A	3/1 RGB	80	GPIO Control	-40°C ~ +125°C	QFN-16 (3x3)	3.135V-3.465V supply voltage, Built-in charge pump 2x mode, Adjustment external resister: 22 ~ 80mA, ISET pin short protection, Less than 1uA shutdown current, Improved 1us max LED current rise/fall timing	Sample
IS31FL3099	9/3 RGB	40	I2C - 1MHz	-40°C ~ +125°C	QFN-20 (3x3)	2.7v-5.5v, Ultra-low operational current (200μA Typ. At VCC=3.6V), 1μA (Typ.) with SDB pulled high and all LEDs off, 12-bit/8+4-bit PWM, 8-bit correction current, 6-bit global current adjust, fade pattern, 10s Fade, RGB grouping, Test pins	Prod
IS31FL3199	9/3 RGB	40	I2C - 400kHz	−40°C ~ +85°C	QFN-20 (3x3)	Audio sync, auto dimming, 8 levels programmable output current, 8-bit PWM	Prod

RGB Color

Multi Channel (Cont'd)

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temp.	Package (Size mm)	Key Feature	Status
IS31FL3205	12/4 RGB	38	I2C-1MHz	−40°C ~ +125°C	QFN-20 (3x3)	16-bit PWM, up to 62kHz selectable PWM frequency, four selectable I2C addresses, 180 degree phase shift with spread spectrum, noise reduction, 8-bit white balance, open and short detect	Prod
IS31FL3206	12/4 RGB	38	I2C-400kHz	−40°C ~ +125°C	QFN-20 (3x3)	2.7v-5.5v, selectable PWM frequency (24kHz/3.6kHz), 8-bit PWM, 4 levels scaled output current/channel	Prod
IS31FL3207	18/6 RGB	38	I2C-1MHz	−40°C ~ +125°C	QFN-28 (4×4)	16-bit PWM, up to 62kHz selectable PWM frequency, four selectable I2C addresses, 180 degree phase shift with spread spectrum, noise reduction, 8-bit white balance, open and short detect, pin to pin with IS31FL3208A	Prod
IS31FL3208A	18/6 RGB	38	I2C - 400kHz	−40°C ~ +125°C	QFN-28 (4x4)	2.7v-5.5v, selectable PWM frequency (24kHz/3.45kHz), 8-bit PWM, 4 levels scaled output current/channel	Prod
IS31FL3209	18/6 RGB	76	I2C - 400kHz	−40°C ~ +125°C	QFN-28 (4x4)	2.7v-5.5v, selectable PWM frequency (24kHz/3.45kHz), 8-bit PWM, 14 levels scaled output current/channel	Prod
IS31FL3216A	16/5 RGB	33.6	I2C - 400kHz	−40°C ~ +105°C	QFN-28 (4x4)	2.7v-5.5v, 26 kHZ PWM frequency, 8 frames memory for animations, audio sync, 8-bit PWM, 8 programmable output current, outputs 9-16 can be used as GPIO	Prod
IS31FL3218	18/6 RGB	38	I2C - 400kHz	−40°C ~ +85°C	QFN-24 (4x4), SOP-24 (10x15)	2.7v-5.5v, 8-bit PWM, fixed I2C address A8h	Prod
IS31FL3224	24/8 RGB	40	I2C-1MHz, SPI-12MHz, DSB-2MHz, HSB-10Mhz	−40°C ~ +125°C	QFN-40 (5x5)	16V high voltage supports for multiple LEDS per channel, DSB/HSB (7-bit PWM, Global Current Adjust and Dot Correction), I2C/SPI (8-bit PWM, Global Current Adjust and Dot Correction), LED open/short detection and fault reporting for I2C/SPI only, open drain (OD) mode support 100 mA per channel	Prod
IS31FL3235A	28/9 RGB	38	I2C-400kHz	−40°C ~ +85°C	QFN-36 (4x4)	2.7v-5.5v, selectable PWM frequency 3kHz/22kHz, 4 levels output current adjust per channel, 8-bit PWM	Prod
IS31FL3236A	36/12 RGB	38	I2C - 400kHz	−40°C ~ +85°C /+125°C	QFN-44 (5x5), eTQFP-48 (9x9)	2.7v-5.5v, 8-bit PWM, selectable PWM frequency 22kHz/3kHz, 4 levels scaled output current/channel	Prod
IS31FL3237	36/12 RGB	38	I2C-1MHz	−40°C ~ +125°C	QFN-44 (5×5)	16-bit PWM, up to 62kHz selectable PWM frequency, four selectable I2C addresses, 180 degree phase shift with spread spectrum, noise reduction, 8-bit white balance, open and short detect, pin compatible with IS31FL3236A	Prod
IS31FL3238	18/6 RGB	78	I2C-1MHz	−40°C ~ +125°C	QFN-28 (5x5)	16-bit PWM, up to 62kHz selectable PWM frequency, four selectable I2C addresses, 180 degree phase shift with spread spectrum, noise reduction, 8-bit white balance, open and short detect, pin compatible with IS31FL3209	Prod
IS31FL3239	24/8 RGB	38	I2C-1MHz	−40°C ~ +125°C	QFN-32 (4×4)	2.7v-5.5v, Constant current channels with independent PWM control, four selectable I2C addresses, selectable 16-bit PWM, 8 bit (dot correction, global current adjust), open and short detect, temperature detect, spread spectrum	Prod
IS31FL3242	12/4 RGB	48	I2C-1MHz	−40°C ~ +125°C	QFN-20 (3x3)	Low (0.5mA) operating current, 8/12-bit PWM, 8-bit (dot correction/CS and global current adjust), Individual open/short detection, 64kHz PWM frequency, spread spectrum	Prod
IS31FL3246	36/12 RGB	25	I2C-1MHz	−40°C ~ +125°C	QFN-44 (5×5), eTQFP-48 (9x9)	2.7v-5.5v, 8/10-bit PWM at 32KHz, 8-bit PWM at 127Hz/254Hz/508Hz (LFP), 8-bit current adjust for red, green, blue LED groups, 180 degree phase shift with spread spectrum, noise reduction, pin compatible with IS31FL3236A, IS31FL3237	Prod
IS31FL3246A	36/12 RGB	25	I2C-1MHz	−40°C ~ +125°C	QFN-44 (5×5), eTQFP-48 (9x9)	2.7v-5.5v, 8/10-bit PWM at 32KHz, 8-bit PWM at 127Hz/254Hz/508Hz (LFP), 10-bit/8-bit PWM at 32kHz (8-bit mode can be at 64kHz or 128kHz, HFP), 8-bit current adjust for red, green, blue LED groups, 180 degree phase, noise reduction, pin compatible with IS31FL3236A, IS31FL3237, pin and all register compatible IS31FL3246	Prod
IS31FL3248	48/16 RGB	33	SPI-33MHz Serial Shift-33MHz	−40°C ~ +125°C	QFN-64 (8x8), eTQFP-64 (7x7)	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
IS31FL3252	12/4 RGB	25	I2C-1MHz	-40°C ~ +125°C	QFN-20 (3x3)	2.7V to 5.5V, 32kHz PWM frequency (10+4-bit PWM mode), Accurate color rendition with 8/10+4/12/16-bit PWM/channel, Three 8-bit global DC current adjust (Red, Blue, Green Groups), Individual open and short error detect function, Spread spectrum, pin compatible with IS31FL3205/6	Prod

RGB Color

Multi Channel (Cont'd)

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temp.	Package (Size mm)	Key Feature	Status
IS31FL3254	24/8 RGB	25	I2C-1MHz	−40°C ~ +125°C	QFN-32 (4x4)	2.7v-5.5v, 8/10-bit PWM at 32KHz, 8-bit PWM at 127Hz/254Hz/508Hz (LFP), 10-bit/8-bit PWM at 32kHz (8-bit mode can be at 64kHz or 128kHz, HFP), 10+4-bit with 4-bit dithering PWM at 32kHz,8-bit current adjust for red, green, blue LED groups, 180 degree phase, spread spectrum, noise reduction, pin compatible with IS31FL3239	Prod
IS31FL3018	18/6 RGB	25	I2C-1MHz	-40°C ~ +125°C	QFN-32 (4x4)	2.7v-5.5v, 8-bit PWM at 128KHz, 10+4-bit PWM at 32kHz, 16-bit PWM, 8-bit current adjust for red,green, blue LEDs groups, 180 degree phase, spread spectrum	Prod
IS31FL3258	18/6 RGB	25	I2C-1MHz	−40°C ~ +125°C	QFN-28 (4x4)	2.7v-5.5v, 8-bit PWM at 128KHz, 10+4-bit PWM at 32kHz, 16-bit PWM, 8-bit current adjust for red,green, blue LEDs groups, 180 degree phase, spread spectrum, pin compatible with IS31FL3208A	Prod
IS31FL3265A IS31FL3265B	18/6 RGB	60	I2C-1MHz (3265A) SPI-12MHz (3265B)	−40°C ~ +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
IS31FL3268	24/8 RGB	50	SPI-20MHz Serial Shift-20MHz	-40°C ~ +125°C	QFN-40 (5×5)	3.0V to 5.5V, 6-bit channel current, 8-bit group current adjust (3 channel/group), individual 16-bit, 8-bit, or dithering (8+8 or 8+4-bit) PWM, 180-degree phase delay to reduce power noise, Spread Spectrum, real-time LED open/short detection	Prod
IS31FL3292	12/4 RGB	40	I2C-1MHz	-40°C ~ +125°C	QFN-20 (3x3)	Ultra-Low operating current, 12-bit, 8+4 dither PWM per channel, 8-bit channel current, 6-bit global current adjust, Auto breath, fade pattern, 10s Fade, RGB group programming	Prod
IS31FL3293	3/1 RGB	20	I2C-1MHz	-40°C ~ +125°C	UTQFN-9 (1.5x1.5)	Ultra-low (100uA) operating current, 6-bit global DC current adjust ,8-bit current level/channel, 12-bit PWM mode (200Hz/400Hz), auto breath function	Prod
IS31FL3294	4/1 RGB	40	I2C-1MHz	−40°C ~ +125°C	UTQFN-12 (2x2)	Ultra-low operational current, 6-bit global current adjust ,8-bit correction/channel,12-bit PWM mode(220Hz/400Hz)/8+4 PWM mode(23kHz), Auto breath function	Prod
IS31FL3296	6/2 RGB	40	I2C-1MHz	−40°C ~ +125°C	QFN-20 (3x3), UTQFN-12 (2x2)	Ultra-low operational current, 6-bit global current adjust ,8-bit correction/channel,12-bit PWM mode(220Hz/400Hz)/8+4 PWM mode(23kHz), Auto breath function	Prod
IS31FL3298	9/3 RGB	20	I2C-1MHz	−40°C ~ +125°C	WLCSP-25 (2x2), QFN-24 (4x4)	2.5v-5.5v, charge pump 1x, 1.5x modes, quiescent 420µA (typ), shutdown 0.5µA (typ), separate power pin for channels 7 ~ 9, auto address increment, programmable fade patterns	Prod
IS31FL3299	9/3 RGB	40	I2C-1MHz	-40°C ~ +125°C	QFN-20 (3x3)	Ultra-low (250uA) operating current, 6-bit global current adjust, 8-bit current level/channel,12-bit PWM mode(220Hz/400Hz)/8+4 PWM mode (23kHz), auto breath function	Prod
IS31FL3726A	16/5 RGB	60	Serial Shift - 30MHz	-40°C ~ +125°C	QFN-24 (4x4), eTSSOP-24 (7.8x6.4), SSOP24 (8.2x7.8)	3v-5.5v, Serial-in-parallel-out shift register with 16 common anode current sinks, ±4% accuracy (bit to bit), ±2% (part to part), 200mv LED dropout @ 25mA	Prod

Matrix Driver

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temperature	Package (Size mm)	Key Feature	Status
IS31FL3716	8x7, 9x6, 10×n (n=1~5), Matrix-56	70	I2C - 1MHz	−40°C ~ +125°C	QFN-20 (3x3) SOP-20 (12.8x7.5)	25kHz Scan frequency, configurable matrix, 7-bit global current, de-ghost, individual open and short detection	Prod
IS31FL3717	8xn (n=1~8) Matrix-64, 7x9 Matrix-63 (18 RGB)	35	I2C - 1MHz	−40°C ~ +125°C	SOP-24 (15x10)	256kHz PWM, 28.4kHz scanning rate, 7-bit global current, individual LED control (8-bit PWM), de-ghost, Individual open and short detection, pin compatible with IS31FL3739	Prod
IS31FL3719	16×n(n=1~8) Matrix - 128, 15*9 Matrix - 135	35	I2C - 1MHz	−40°C ~ +125°C	QFN-32 (4x4), eTQFP-32 (9x9)	256kHz PWM, 28.4kHz scanning rate, 7-bit global current, de-ghost, EMI Reduction, programmable LED array size, Individual open and short detection, 8x8 of 16x8 LED support individual on and off control only and 8x8 of 16x8 LED support individual 8-bit PWM control	Prod
IS31FL3723	12x16 Matrix - 192	42	I2C - 1MHz	−40°C ~ +125°C	QFN-48 (6x6)	2.7V-5.5V, 1.05kHz/2.1kHz/4.2kHz/8.4kHz/26.7kHz PWM, 16 current source by 12 switch sink, 8-bit PWM and global current, Auto breath, De-Ghost, 1/12 scan, LED open/short detect, Cascade synch	Prod

Matrix Driver (Cont'd)

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temperature	Package (Size mm)	Key Feature	Status
IS31FL3728	8x8, 5x11, 6x10, 7x9, Matrix - 64	75	I2C - 400kHz	−40°C ~+85°C /+105°C	QFN-24 (4x4)	Configurable matrix [8x8, 5x11, 6x10, 7x9], audio sync, audio frequency equalizer mode	Prod
IS31FL3729	16×n(n=1~8) Matrix - 128, 15*9 Matrix - 135	35	I2C - 1MHz	−40°C ~ +125°C	QFN-32 (4x4), eTQFP-32 (9x9)	0.25kHz-55kHz PWM, 8-bit (PWM and dot correction), 6 bit global current, De-Ghost, EMI Reduction, programmable LED array size	Prod
IS31FL3730	8x8, 7x9, 6x10, 5x11, Matrix - 64	75	I2C-400kHz	−40°C ~ +85°C	QFN-28 (4x4), SSOP-28 (10x8)	30.3kHz PWM, crossplex scanning, configurable matrix [8x8, 5x11, 6x10, 7x9], 7-bit global PWM, audio sync, pin compatible IS31FL3728	Prod
IS31FL3731	9x16 Matrix - 144/32 RGB	34	I2C - 400kHz	−40°C ~ +85°C	QFN-28 (4x4), SSOP-28 (10.2x7.8)	20kHz PWM, crossplex scanning, dual blocks of 72 LEDs each with 1/9 scan cycle rate, 8 frames of memory, 8-bit PWM and global current, auto breath features, audio sync, auto dimming	Prod
IS31FL3732A	9x16 Matrix - 144/32 RGB	34	I2C - 1Mhz	−40°C ~ +85°C	QFN-40 (5x5)	20kHz PWM, crossplex scanning, dual blocks of 72 LEDs each with 1/9 scan cycle rate, 8 frames of memory, 8-bit PWM and global current, auto breath features, audio sync, auto dimming	Prod
IS31FL3733B	12x16 Matrix - 192/64 RGB	42	I2C - 1Mhz	−40°C ~ +125°C	QFN-48 (6X6), eTQFP-48 (9x9)	1.05kHz to 26.7kHz selectable PWM, 16 current source by 12 switch sink, 8-bit PWM and global current, auto breath features, de-ghost, 1/12 scan. LED open/short detect, cascade synch	Prod
IS31FL3736B	12x8 Matrix - 96/32 RGB	42	I2C - 1Mhz	−40°C ~ +125°C	QFN-40 (5x5)	1.05kHz to 26.7kHz selectable PWM, 8 current source by 12 switch sink, 8-bit PWM and global current, auto breath features, de-ghost, 1/12 scan, LED open/short detect, cascade synch	Prod
IS31FL3737B	12x12 Matrix- 144/48 RGB	42	I2C - 1Mhz	−40°C ~ +125°C	QFN-40 (5x5)	1.05kHz to 26.7kHz selectable PWM, 12 current source by 12 switch sink, 8-bit PWM and global current, auto breath features, de-ghost, 1/12 scan, LED open/short detect, cascade synch	Prod
IS31FL3739	8xn (n=1~8) Matrix-64, 7x9 Matrix-63 (18 RGB)	35	I2C - 1Mhz	−40°C ~ +125°C	SOP-24 (15x10)	0.25kHz to 80kHz selectable PWM frequency, noise reduction, individual LED control 8-bit PWM and Current adjust, spread spectrum, de-ghost, Individual open and short detection	Prod
IS31FL3741A	39xn (n=1~9) Matrix - 351/117 RGB	38	I2C - 1Mhz	−40°C ~ +125°C	QFN-60 (7x7)	900Hz to 29kHz selectable PWM frequency, 9 switch source by 39 current sink, 8-bit PWM, dot correction and global current, de-ghost, LED open/short detect	Prod
IS31FL3742A	39xn (n=1~9) Matrix - 180/60 RGB	38	I2C - 1Mhz	−40°C ~ +125°C	QFN-48 (6x6)	900Hz to 29kHz selectable PWM frequency, 6 switch source by 30 current sink, 8-bit PWM, dot correction and global current, de-ghost, LED open/short detect	Prod
IS31FL3743A IS31FL3743B	18xn (n=1~11) Matrix - 198/66 RGB	34	I2C - 1Mhz (3743A) SPI - 12MHz (3743B)	−40°C ~ +125°C	UQFN-40 (5x5)	29kHz PWM, 8-bit PWM, global current and dot correction, de-ghost, EMI reduction, cascade synch, programmable LED array size	Prod
IS31FL3745	18xn (n=1~8) Matrix - 144/48 RGB	34	I2C-1MHz	−40°C ~ +125°C	WLCSP-36 (3x3)	29kHz PWM, 8-bit PWM, global current and dot correction, de-ghost, EMI reduction, cascade synch, programmable H/L logic, state lookup registers	Prod
IS31FL3746A IS31FL3746B	18xn(n=1~4) Matrix - 72/24 RGB	34	I2C - 1Mhz (3746A) SPI - 12MHz (3746B)	−40°C ~ +125°C	QFN-32 (4×4)	29kHz PWM, 8-bit PWM, dot correction, and global current, VIO, de-ghost, EMI reduction, programmable LED array size	Prod
IS31FL3747	12xn(n=1~12) Matrix - 144/48 RGB	47.8	SPI-12MHz Serial-shift-30MHz	−40°C ~ +125°C	QFN-40 (5×5) WLSCP-36 (3×3)	62.5kHz PWM, 12-bit PWM, 8-bit DC current, 8-bit global current, de-ghost, EMI reduction, individual open/short detection, programmable LED array size (12xn), dual IS31FL3747 cascade connection support 24 × n (n=1~24) LED matrix configurations	Prod
IS31FL3748	24xn(n=1~4) Matrix-96	40	I2C-1MHz, SPI-12MHz, DSB-2MHz HSB-10Mhz	−40°C ~ +125°C	QFN-48 (6x6)	4.5v-28v, High voltage supports for multiple LEDS per dot, DSB/HSB(7-bit PWM, global current adjust and dot correction), I2C/SPI(8-bit PWM, global current adjust and dot correction), LED open/short detection and fault reporting for I2C/SPI only	Prod
IS31FL3749	24xn(n=1~4) Matrix-96	60	Serial-shift-33MHz, SPI-33MHz	-40°C to +125°C	QFN-48 (6×6)	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
IS31FL3751	9×8 Matrix-72	20	I2C - 1Mhz	−40°C ~ +125°C	QFN-20 (4x4)	31kHz PWM, ultra low (550uA) operating current, crossplex matrix architecture; 12-bit PWM and 4-bit dot correction with programmable pattern operation, noise reduction features (spread spectrum, 180 degree phase delay) and individual open/short detection	Prod
IS31FL3752	12×n(n=1~2), Matrix-24	48	I2C - 1Mhz	−40°C ~ +125°C	QFN-20 (3x3)	64kHz PWM, ultra low (500uA) operating current, 8/12-bit PWM, 8-bit dot correction/CS and global current adjust, individual open/short detection, matrix de-ghosting, spread spectrum	Prod

RGB Color

Matrix Driver (Cont'd)

Part No.	Channels/ RGB Group	IOUT max (mA)/CH	Control Interface	Operating Temperature	Package (Size mm)	Key Feature	Status
IS31FL3756	12×n(n=1~3), Matrix-36	48	I2C - 1Mhz	−40°C ~ +125°C	QFN-20 (3x3)	64kHz PWM, ultra low (500uA) operating current, Accurate color rendition, 8/12-bit PWM, 8-bit dot correction/CS and global current adjust, individual open/short detection, matrix de-ghosting, spread spectrum	Prod
IS31FL3758	40×9 (FET Gate Drivers) Matrix-360	60	I2C-1MHz SPI-12MHz	-40°C ~ +125°C	QFN-60 (7x7)	2.7v-5.5v, Gate drivers for 9 external PMOS, Spread Spectrum, 6 group delay to minimize the power ripple, programmable open/short LED detect, de-ghost, reduced LED reverse bias	Prod
IS31FL3761	33xn(n=2~12) Matrix - 396/132 RGB	30	I2C-1MHz SPI-12MHz	−40°C ~ +125°C	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
IS31FL3763	18×n(n=2~12), Matrix-216	40	I2C-1MHz SPI-12MHz	−40°C ~ +125°C	QFN-40 (5x5)	3.0~5.5V, 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, state lookup registers	Prod
IS31FL3766	18×n(n=1~6), Matrix-108	40	I2C-1MHz	−40°C ~ +125°C	QFN-32 (4x4)	3.0~5.5V, 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, state lookup registers	Prod

High Brightness

High Brightness - Switching

Part No.	Topology	VIN (V)	IOUT (mA)	Dimming	Package	Key Feature	Status
IS31LT3350	Buck	6 - 40	750 mA SOT89-5, 350 mA SOT23-5	DC Voltage, PWM	SOT89-5 (4x4.5), SOT23-5 (3x3)	40V power switch, PWM brightness control, thermal shutdown	Prod
IS31LT3353	Buck	6 - 40	1A	DC Voltage, PWM	SOT23-5 (3x3), SOT89-5 (4x4.5)	40V power switch, 97% efficiency, 3% current accuracy, 1MHz switching, -40°C to +125°C	Prod
IS31LT3354	Buck	6 - 40	External FET	DC Voltage, PWM	SOT23-5 (3x3)	40V power switch, 98% efficiency, 3% current accuracy, 1MHz switching, support for external FET	Prod
IS31LT3360	Buck	6 - 40	1.2A	DC Voltage, PWM	SOT89-5 (4x4.5)	40V power switch, 98% efficiency, 3% current accuracy, 1MHz switching, -40°C to +125°C	Prod
IS31LT3361	Buck	6 - 40	1.3A	PWM, Analog	SOT89-5	40V power switch, 98% efficiency, 5% current accuracy, 1MHz switching, dimming ratio can up to 2000:1 at 100Hz PWM dimming, fault protections, -40°C to +125°C	Prod
IS31LT3952	Buck	4.5 - 38	1.5A	PWM	SOP-8-EP (5x6)	40V power switch, cycle-by-cycle current limit, logic or PSM dim, 2uA shutdown, spread spectrum, UVLO, open/short protection	Prod
IS31LT3953	Buck	4.5 - 38	3A	PWM	SOP-8-EP (5x6)	40V power switch, cycle-by-cycle current limit, logic or PSM dim 2uA shutdown, spread spectrum, UVLO, open/short protection	Prod
IS31LT3954	Buck	4.5 - 38	3A	PWM	SOP-8-EP (5x6)	40V power switch, cycle-by-cycle current limit, logic or PSM dim 2uA shutdown, spread spectrum, UVLO, open/short protection, fault output	Prod
IS31LT3954A	Buck	4.5 - 38	3A,Shared fault out	PWM	SOP-8-EP (5x6)	True average output current, cycle-by-cycle current limit, logic or PSM dim 2uA shutdown, spread spectrum, UVLO, open/short protection	Prod
IS31LT3957A	Buck, boost, buck-boost, SEPIC	5 - 75	External FET	DC voltage, PWM	eTSSOP-16 (5x6.4)	75V power switch, fixed UVLO, spread spectrum, external clock sync, fault report, over voltage protection, LED string short detect, analog dimming down to 10%	Prod
IS31BL3506A	Boost	2.7 - 5.5	250mA	PWM, DC voltage	TSOT23-6 SOT23-6 DFN-8 (2X2)	300mV feedback voltage, Over temperature protection, Over voltage protection, 1.5μA shutdown current	Prod

High Brightness

High Brightness - Switching (Cont'd)

Part No.	Topology	VIN (V)	IOUT (mA)	Dimming	Package	Key Feature	Status
IS31BL3506B	Boost	2.7 - 5.5	250mA	PWM, DC voltage	SOT23-6 TSOT23-6	200mV feedback voltage, Over temperature protection, Over voltage protection, 1.5µA shutdown current, PWM dimming	Prod
IS31BL3508A	Boost	2.7 - 5.5	250mA	PWM, DC voltage	SOT23-6 TSOT23-6	38V power switch, 1.0MHz boost converter; VFB = 300mV	Prod
IS31BL3508B	Boost	2.7 - 5.5	250mA	PWM, DC voltage	SOT23-6	38V power switch, 1.0MHz boost converter ; VFB = 200mV	Prod

High Brightness - Linear

Part No.	Channels	VIN (V) / Channels	IOUT max (mA)/CH	Sink/ Source	Dimming	Pkg-Pin (mm)	Key Feature	Status
IS31LT3177	1	5 - 40	200	Sink	PSM	SOT23-6 (2.9x2.8), SOP-8-EP (4.9x6)	Low dropout voltage, 150mA (SOT23), 200mA (SOP), thermal roll off, ±5% current accuracy over temp, dimming with Power Supply Modulation (PSM) at supply voltage, -40° to +125°C	Prod
IS31LT3178	1	2.9 - 40	200	Sink	PWM	SOT23-6 (2.9x2.8), SOP-8-EP (4.9x6)	Low dropout voltage, 150mA (SOT23), 200mA (SOP), thermal rolloff, ±5% current accuracy over temp, dimming with Power Supply Modulation (PWM) at supply voltage, -40°C ~ +125°C	Prod

Power Managment

Industrial Power Management

Part no.	Topology	VIN (V)	VOUT(V)	IOUT (mA)	Efficiency	Pkg-Pin (mm)	Key Feature	Status
IS31PM3510	Buck, Boost, Buck-boost	4.5 - 50	1.2 - 55	Ext. MOS	Up to 94%	eTSSOP-16 (5x6.4)	Asynchronous multi-topology with high efficiency, spread spectrum and fault protections, 150 to 650kHz operating frequency, external clock synchronization, soft start, 1.5uA shutdown current	Prod
IS31PM3420A	Buck	3.8~36	1~24	0 ~ 3000	Up to 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
IS31PM3420B	Buck	3.8~36	1~24	0 ~ 3000	Up to 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, Pin-selectable FCCM or PFM during light loads to reduce output voltage ripple, Spread Spectrum, operating temp range -40°C ~ +150°C	Prod
IS31PM3426	Buck	3.8~36	1~24	0 ~ 2000	Up to 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
IS31PM3427	Buck	3.8~36	1~24	0 ~ 4000	Up to 94%	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

Power Management

Industrial Motor/Gate Driver

Part no.	Topology	VIN (V)	IOUT(mA)	Pkg-Pin (mm)	Key Features	Status
IS31PM7217	1-CH Half-Bridge	6.5 - 35	>2000, Peak <3000	SOP-8	1/2 H-bridge motor driver, Motor drive peak current up to 3.0A, Typically used to drive DC brush motor controlled by an MCU, Options for Input polarity and Output disable Control, built-in Internal Charge Pump, Over-current protection (OCP), Input over-voltage protection (OVP), Under-voltage detection (UVLO), Thermal shutdown (OTP)	Sample
IS31PM7211	3-CH Gate Driver	10 - 60	5V LDO: 50mA	TSSOP-28 w/Thermal Pad	Integrated 3-Channel high voltage, High-speed power MOSFET and IGBT gate driver, Suitable for applications up to 60V with very low power consumption. All three channels have under-voltage lockout functions. All logic are powered by an internal 5V LDO, the output of LDO can also supply to external circuits up to 50mA capability. A ground-reference operational amplifier provides amplifications of bridge current via external current sense resistor. It also has built-in comparator for over-current protection.	Sample

Interface

Multi-Function I/Os

Part no.	VDD (V)	Ctrl. Interface	I/O Port	ISD(uA)	Interrupt Output	Pkg-Pin(mm)	Status
IS31IO7325	2.4 - 5.5	I2C	16	0.3	I/O state change	QFN-24(4x4), SOP-24(15x10)	Prod
IS31IO7326	2.4 - 5.5	I2C	16	0.3	Key pressed input	QFN-24(4x4)	Prod
IS31IO7328	2.4 - 5.5	I2C	8	0.3	I/O state change	QFN-16(3x3)	Prod

MCU - Application Specific

Touch/Proximity Sensors

Device	Sensor Type	VIN (V)	No. Channels	Package	Key Feature	Status
IS31SE5117A	Capacitive Touch	2.7 - 5.5	16 Cap Touch input through shared GPIO, differential dual slope charge sharing	QFN-24 (4x4)	E-Flash for code storage has built-in ECC, SRAM storage has built-in ECC, water resistant, proximity sensor, melody generator	Prod
IS31SE5118A	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
IS31SE5120A	Capacitive Touch	2.7 - 5.5	24 Cap Touch input through shared GPIO, differential dual slope charge transfer	QFN-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

Industrial MCU STN-LCD LED (Matrix) Drive MCU

Part No.	Flash/ Program SRAM	RAM	ADC	PWM (PCA)	DAC	Time/ Counter	Comm. Interface	Package	Status
IS31CS8979	64KB (ECC)	8KB (ECC)	12-bit SAR ADC /w GPIO analog input	8/10/12-bit center-aligned PWM x6, 8-bit left/right-aligned PWM x16	-	16-bit x5, 24-bit x1, 32-bit WDT x3, 16-bit Timer/Capature x1, 16-bit quadrature decoder x1	Master/Slave I2C, UART+EUART/LIN Controller, SPI, 9 GPIO, 60mA 18-CH LED Driver	QFN-40 (6x6)	Prod
IS31CS9201	64KB (ECC)	8KB (ECC)	12-bit SAR ADC x2 w/ PGA front-end	14-bit PWM x8, 16-bit Timer/Capture controller x2	Analog comparator x4 and 8-bit DAC x1	16-bit x2, 24-bit x1, 16-bit WDT x2, 16-bit Timer/ Capture controller x2	Master/Slave I2C, UART/ EUART/LIN Controller, SPI, 28 GPIOs, Lumibus Bus LED Controller	QFN-32, TSSOP-28/24	Sample
IS31CS9202	256KB (ECC), SPI Flash Controller (ECC)	(8+8) KB (ECC)	14-bit SD Incremental ADC, 12-bit SAR ADC	16-bit center aligned PWM x8, 16-bit Timer/Capture controller x2	8-bit DAC x1	16-bit x2, 24-bit x1, 16-bit WDT x2, 24-bit SysTick Timer, 16-bit Timer/ Capture controller x2, quadrature decoder	Master/Slave I2C, UART/ EUART/LIN Controller, SPI, 42 GPIOs, Lumibus Bus LED Controller, Video Serial Bus Controller	WQFN-48/32	Sample
IS31CS9310	256KB (ECC)	(16+16) KB (ECC)	12-bit SAR ADC /w GPIO analog input	14-bit center-aligned PWM x3	10-bit DAC x1 and 8-bit IDAC x 1	16-bit x2, 24-bit x1, 16-bit WDT x2, 16-bit Timer/Comparator/ Capture x1	Master/Slave I2C, EUART1 (DMA)/EUART2(LIN)/SPI, 27 GPIO, 8x12 Matrix LED Driver	eLQFP-64 (9x9)	Prod

MCU - General Purpose

Part No.	Flash/ Program SRAM	RAM	ADC	PWM (PCA)	DAC	Time/ Counter	Comm. Interface	Package	Status
IS31CS8974	32KB (ECC)	2KB (ECC)	-	8-bit center-aligned PWM x 6, 16-bit timer/capture/ quadrature x 1	-	16-bit x 5, 24-bit x1, 30-bit WDT x 1, 31-bit WDT x 2	Master / Slave I2C, UART/EUART/LIN Controller, SPI	QFN-24, TSSOP-24	Prod
IS31CS8975	16KB (ECC)	1KB (ECC)	11-bit SARADC x 4-channel	8/10/12-bit center-aligned PWM x 6, 16-bit timer/capture/ quadrature x 1	8-bit DAC x1	16-bit x 5, 24-bit x1, 30-bit WDT x 1, 31-bit WDT x 2	Master / Slave I2C, UART/EUART/LIN Controller, SPI	SOP-8, TSSOP-16, QFN-16	Prod
IS31CS8977	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 Timer/Capature x1	8-bit DAC x1	16-bit x5, 24-bit x1, 30-bit WDT x 1, 31-bit WDT x 2, 16-bit quadrature decoderx1	Master/Slave I2C, UART/EUART/LIN Controller, SPI, 28 GPIO	TSSOP-20/24/28, LQFP-32, QFN-32	Prod

MPU

Processors

Part No.	CPU	DDR	Multimedia	Camera Interface	Display Interface	Memory Interface	Comm. Interface	Package (Size in mm)	Status
X1600	MIPS@1.0GHz, MIPS@240MHz	LPDDR2 32MB SIP	I2S	DVP, MIPI-CSI	SLCD, RGB	SFC, eMMC	USB 2.0, RMII, GPIO, UART, I2C, SSI	BGA159 (9 x 9, 0.65mm pitch)	Prod
X1600E	MIPS@1.0GHz, MIPS@240MHz	LPDDR2 64MB SIP	I2S	DVP, MIPI-CSI	SLCD, RGB	SFC, eMMC	USB 2.0, RMII, GPIO, UART, I2C, SSI	BGA159 (9 x 9, 0.65mm pitch)	Prod
X1600HN	MIPS@1.0GHz, MIPS@240MHz; DRAM	DDR2 128MB SIP	I2S	DVP, MIPI	SLCD, RGB	SFC, eMMC	USB 2.0, RMII, GPIO, UART, I2C, SSI	BGA159 (9 x 9, 0.65mm pitch)	Prod
X2000	MIPS@1.2GHz, SMT; MIPS@240MHz	LPDDR3 128MB SIP	H.264 Coding & Decoding, 2 ISPs, Audio CODEC	Up to 3 cameras, MIPI-CSI, DVP	MIPI-DSI, SLCD, RGB	SFC, eMMC	USB 2.0, RGMII, GPIO, UART, I2C, SSI	BGA270 (12 x 12, 0.65mm pitch)	Prod
X2000E	MIPS@1.2GHz, SMT+MIPS @240MHz	LPDDR2 256MB SIP	H.264 Coding & Decoding, 2 ISPs, Audio CODEC	Up to 3 cameras, MIPI-CSI, DVP	MIPI-DSI,SLCD, RGB	SFC, eMMC	USB 2.0, RGMII, GPIO, UART, I2C, SSI	BGA270 (12 x 12, 0.65mm pitch)	Prod
X2000H	MIPS@1.2GHz, SMT+MIPS @240MHz	LPDDR3 512MB SIP	H.264 Coding & Decoding, 2 ISPs, Audio CODEC	Up to 3 cameras, MIPI-CSI, DVP	MIPI-DSI,SLCD, RGB	SFC, eMMC	USB 2.0, RGMII, GPIO, UART, I2C, SSI	BGA270 (12 x 12, 0.65mm pitch)	Prod
X2600	MIPS@1.2GHz, SMT+RISC-V @600MHz+MIPS @300MHz	DDR3 128MB SIP	H.264 Decoding, Audio CODEC	DVP	MIPI-DSI, LVDS, SLCD, RGB	SFC, eMMC	USB 2.0, RMII, GPIO, UART, I2C, SSI, CAN	BGA209 (11 x11, 0.65mm pitch)	Prod

Optical Transceiver Components

Optical Components

Part Number	Type	Speed	Function	Key Features	Pkg-Pin(mm)	Status
CS6710	Transimpedance Amplifier	155Mbps	Pre-Amplifier	Fiber channel, SDH/SONET, Ethernet, -39dBm sensitivity	Die	Prod
IS31FB6718	Laser Diode Drivers	155Mbps - 1.25Gbps	LD, Driver (2 in 1)	SONET/ SDH, FTTH 1*9 & CSFP Modules	QFN-28 (4×4)	Prod
IS31FB6721	Laser Diode Drivers	1.25Gbps - 2.5Gbps	LD, Driver, MCU (3-in-1)	EPON & GPON FTTH ONU/OLT BOSA-On-Board ONU SFP/SFF & CSFP Modules	QFN-32 (4x4)	Prod
IS31FB6729	Laser Diode Drivers	2.5Gbps - 10Gbps	LD, Driver, MCU (3-in-1)	10G EPON & XGPON FTTh ONU/ONT BoB designs Next Generation 10G PON ONU/ONT	QFN-32 (4x4)	Sample
IS31PM7212	DC-DC for APD	300 Max Power(mW)	10 ~ 76 (Vout)	Avalanche Photodiode Biasing and Monitoring, PIN Diode Bias Supply, Low-Noise Varactor Diode Bias Supply, FBON Modules, GPON Modules	DFN-8 (2x2)	Prod

Wired Communication

G.hn

Part No.	Wire interfaces	Interfaces	Pkg-Pin	Description	Status
CG5321A-CNE3	AC power - P-N-G	MII, RGMII, UART, SPI	DRQFN 164 pin	G.hn powerline communication (MIMO and SISO). G.hn Broadband Power Line(smart grid, home network and industrial applications)	Prod

HomePlug Green PHY (HPGP)

Part no.	Type	Wire interfaces	Interfaces	Grade	Pkg-Pin(mm)	Description	Status
IS31CG5317	HomePlug Green PHY (HPGP)	PLC	SPI, R/MII	Industrial	EP-LQFP	Powerline communication for EV and charging station	Prod

LINE Driver

Part no.	Grade	Pkg-Pin	Description	Status
IS31CG1110	Industrial (Ambient Operating Temperature -40°C to +85°C)	QFN 20pin	High performance MIMO/SISO dual port differential line driver designed to work in broadband PLC system.	Prod

Automotive

Amplifier

Part No.	Channel	Power (W)	THD+N	PSRR (dB)	VDD (V)	Package (Size in mm)	Key Features	Status
IS32AP2123 IS32AP2123A	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 (9x9)	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 (9.7x6.4)	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	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 -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
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
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

Automotive

RGB Color - Matrix

Part No.	Channel	No. RGB Group	IOUT max (mA)/CH	Control Interface	Pkg-Pin (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
IS32FL3746B	18×n (n=1~4) Matrix 72	24 RGB	34.5	SPI-12MHz	WFQFN-32 (5×5), 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	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
IS32LT3175P IS32LT3175N	1	5 - 42	20 - 150	Source, momentary switch fade ON/OFF	LED Short, ISET pin short, over temp, ther-mal 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

Automotive

Ambient Interior - Smart LED

Part no.	Channel	Vdd(V)	IOUT Max (mA)/CH	Control Interface	Protection	Pkg-Pin (mm)	Key Features	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 protocol 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 protocol 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 Features	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

High Brightness - Linear (Cont'd)

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

Automotive

High Brightness - Switching

Part no.	Topology	VIN (V)	IOUT (mA)	Dimming	Efficiency	Power Transistor	Pkg-Pin (mm)	Key Features	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
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%	Integrated	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%	Integrated	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%	Integrated	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

Automotive

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, programeble 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

Power Management

Part no.	Topology	VIN (V)	VOUT(V)	IOUT (mA)	Efficiency	Pkg-Pin (mm)	Key Features	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 Features	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	Pkg-pin (mm)	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/Capaturex1, 16-bit quadrature decoderx1	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 control-ler x2	Analog comparator x 4 and 8-bit DAC	16-bit x2, 24-bit x1, 16-bit WDTx2, 16-bit Timer/Capture control-ler 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 Control-ler (ECC)	(8+8) KB (ECC)	14-bit SD Incre-mental 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	Pkg-pin (mm)	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 ana-log 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

MCU - General Purpose

Part no.	Flash Memory	RAM	ADC	PWM (PCA)	DAC	Timer/ Counter	Communication	Package	Status
IS32CS8974	32KB (ECC)	2KB (ECC)	-	8-bit PWM x6 /w one channel Timer/Capture controller, Trigger interrupt, Output polarity	-	16-bit x5, 24-bit x1, 30-bit WDT x1, 16-bit WDT x2	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 PWM x6 /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 WDT x1, 16-bit WDT x2	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 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, 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 (6 x 4.9), WDFN-8 (3 x 3)	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 (6 x 4.9)	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 (6 x 4.9), WDFN-8 (3 x 3)	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 (5 x 4.4)	Prod

Automotive

In Vehicle Network

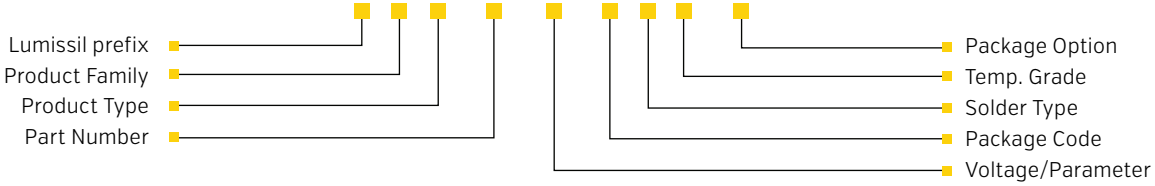
Part no.	Type	Description	Wire interfaces	Interfaces	Grade	Pkg-Pin(mm)	Status
CG5316B0-A2NE3	In vehicle network	G.vn Transceiver for in vehicle networking	G.vn	RG/MII, SPI	AEC-Q100 Grade 2	aQFN80 (8x8)	Prod
IS32CG5516-AQLA2	In vehicle network	Automotive MCU with embedded G.vn transceiver	G.vn	RGMII,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



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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