



# Analog

## HB LED Drivers

### ► Product Portfolio:

- Target commercial, residential, and automotive markets
- Superior of efficiency, functionality, and solution size
- Flexible high performance HB LED drivers can be used in a variety of topologies such as buck mode, boost-mode, flyback mode etc.
- Highly efficient solutions geared to meet the growing green energy market segment
- Prompt Technical Support to LED power module designers

### ► General Features:

- DC/DC and AC/DC driver ICs
- Active power factor correction
- Non-Dimmable and Dimmable (Analog, PWM, Switch & Triac Dimming)
- Temperature compensation
- Lead-free option
- Several package types available
- Extended operating temperature range
- compliant with worldwide EMI regulations
- Energy Star compliant

### ► Applications:

- |  |  |
|--|--|
| General Lighting   | Automotive Lighting  |
| <ul style="list-style-type: none"> <li>• Residential</li> <li>• Commercial</li> <li>• Architectural</li> <li>• Accent</li> </ul> | <ul style="list-style-type: none"> <li>• DRL &amp; CHMSL</li> <li>• Interior</li> <li>• LED strip</li> </ul> |
| <ul style="list-style-type: none"> <li>• Solar and Battery Powered Lighting</li> </ul>   |  |

### ► Customer Benefits:

- Broad portfolio of products to address a range of general lighting applications such as MR16, T8-T12, GU-10, Accent lighting
- High efficiency, integrated active power factor control and supports TRIAC dimming
- Monolithic (integrated power MOSFET) and controller (external MOSFET) based solutions offer flexibility in design
- Low external component count to reduce BOM and minimize overall solution size and cost
- Robust built in protections for extended life operation

## Product Selector Guide

### Switching

Part No.	Driver	VDD (V)	IOUT Accuracy	Effcy (%)	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3350	DC/DC Buck	6-40	750mA ±5%	95	Built-in	Low voltage LED lighting, MR16 replacement	SOT23-5, SOT89-5, SOP-8	Single pin ON/OFF or brightness control with DC/PWM, thermal shutdown	Prod
IS31LT3352	DC/DC Buck	6-40	750mA ±5%	95	Built-in	Low voltage LED lighting, MR16 replacement	SOP-8	Cascadable, temp. compensation and one pin ON/OFF/dimming control	Prod
IS31LT3354	DC/DC Buck	6-40	- ±3%	98	External	Low volt. LED lighting, Illuminated sign	SOT23-5	1200:1 dimming ratio LED driver with thermal shutdown protection	Prod
IS31LT3360	DC/DC Buck	6-40	1.2A ±3%	98	Built-in	MR16, MR11 spot light, PAR light	SOT89-5	High efficiency with open/short and thermal shutdown protection	Prod
IS31LT3380	DC/DC Buck	8.5-40	1.2A ±5%	98	Built-in	MR16, MR11 spot light, PAR light	SOT8	3-level switch dimming control, open/short and thermal shutdown protection	Prod
IS31LT3505	DC/DC Buck	6-30	24W ±5%	90	Built-in	Battery powered LED, solar light	MSOP-10	1MHz Boost Converter with 35V Internal NMOS	Prod

## Switching

Part No.	Driver	VDD (V)	IOUT Accuracy	Effcy (%)	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3515	DC/DC Buck/Boost	6-40	±3%	90	External	MR16, MR11 spot light, PAR light	QFN-16	40V Buck/Boost converter, 3% accurate w/ TRIAC Dimming support for compatible E-XFMR	S=Q3/13
IS31LT3948	DC/DC Boost	5-100		90	External	Street lamp, LED lighting, Gen. illum.	SOP-8	Wide input voltage range, over-voltage/temperature protection	Prod
IS31LT3910	AC/DC Driver	8-450 DC 110/220 AC	500mA ±7%	90	External	T8, PAR light	SOP-8	Non-isolation, linear/PWM dimming, temperature compensation	Prod
IS31LT3916	AC/DC Driver	110/220 AC	PF > 0.9	85	External	T8, Bulb Replacement, spot light, PAR light	MSOP-8	Isolated and Non-Isolated; Offline LED Driver with Active PFC	Prod
IS31LT3918	AC/DC Driver	6-450 DC 85-265 AC	- ±3%	95	External	LED Lighting; Signal & decor. lighting, T8	SOP-8	High voltage LED driver with 3-level Switch Dimming	Prod
IS31LT3935	AC/DC Driver	110/220 AC	PF > 0.95	87	External	Bulb Replacement, spot light, PAR light	DFN10 3x3	25W Triac Dimmable Active PF Isolated and Non-Isolated	S=Q1/13
IS31LT3938	DC/DC, AC/DC Driver	10-450 DC 85-265 AC	- ±3%	95	External	LED Lighting; Signal & decorative lighting	SOP-8	High voltage LED driver with Switch Dimming, Single External FET	Prod

## Linear

Part No.	Driver	VDD (V)	IOUT Accuracy	Power Transistor	Typical Applications	Package	Key Feature	Status
IS31LT3117	Constant Current	5.5-60 DC	350mA ±3% (per channel)	Built-in	Automotive lighting, low EMI lighting applications	SOP-8	1 channel linear regulated, constant current LED driver	S=Q2/13
IS31LT3135	Constant Current	2.7-5.5	500mA ±5%	Built-in	Miner lamp, Torch, Battery powered LED lighting	SOP-8	Main/sub dual-channel driver with short circuit and over temp. protection	Prod

## Evaluation Boards

IC Part Number	Evaluation Board Part Number	Description
IS31LT3135	IS31LT3135-V1GRSL2-EB	Dual Ch. - 1.17V
	IS31LT3135-V2GRSL2-EB	Dual Ch. - 1.23V
IS31LT3350	IS31LT3350-V1SDLS2-EB3CH	3CH
IS31LT3360	IS31LT3360-SDLS3-EBMR16	MR16
	IS31LT3360-SDLS3-EBAIC	AIC
	IS31LT3360-SDLS3-EBSG	General
IS31LT3354	IS31LT3354_STLS2_EBDCDC	AC Input
IS31LT3380	IS31LT3380_GRLS2_EBMR16	1.2A MR16
IS31LT3505	IS31LT3505-SLS2-EBDC	Constant Current
IS31LT3910	IS31LT3910_T8_EB	T8 Evaluation Board

IC Part Number	Evaluation Board Part Number	Description
IS31LT3916	IS31LT3916_EB_T8_V01A	T8
	IS31LT3916_EB_T8ISO_V01A	T8 Isolated
	IS31LT3916_EB_BULB_V01A	Bulb
	IS31LT3916_EB_BULBISO_V01A	Bulb Isolated
IS31LT3918	IS31LT3918_GRLS2_EBT8	T8
IS31LT3938	IS31LT3938-GRLS2-EBBULB	Bulb
	IS31LT3938-GRLS2-EBDCDC	DC-DC
IS31LT3948	IS31LT3938-GRLS2-EBT8	T8
	IS31LT3350-V1SDLS2-EBAIC	White LED Array
	IS31LT3948-GRLS2-EBMR16	MR16
	IS31LT3948-GRLS2-EBAC	General