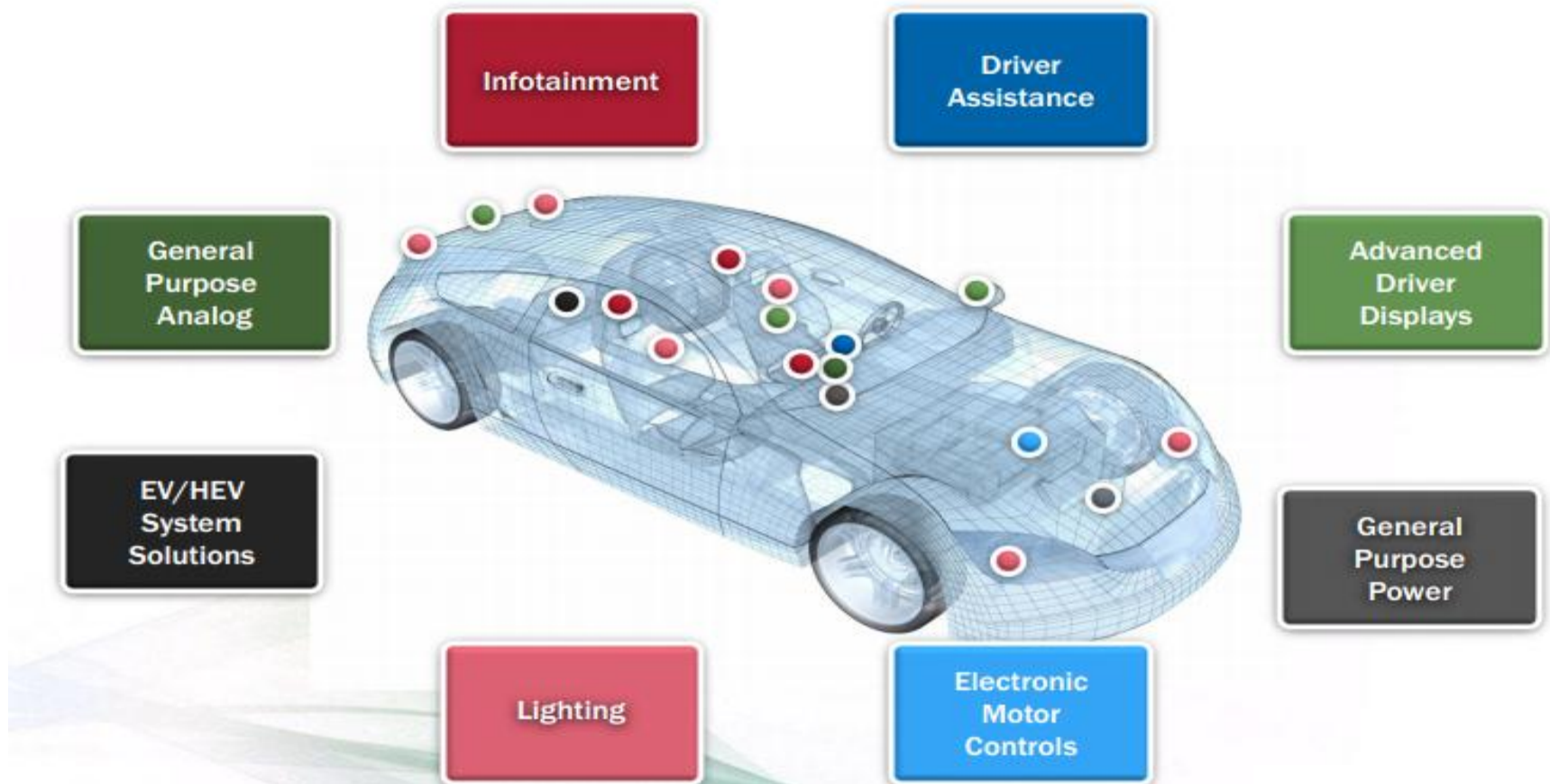


Automotive Power Products

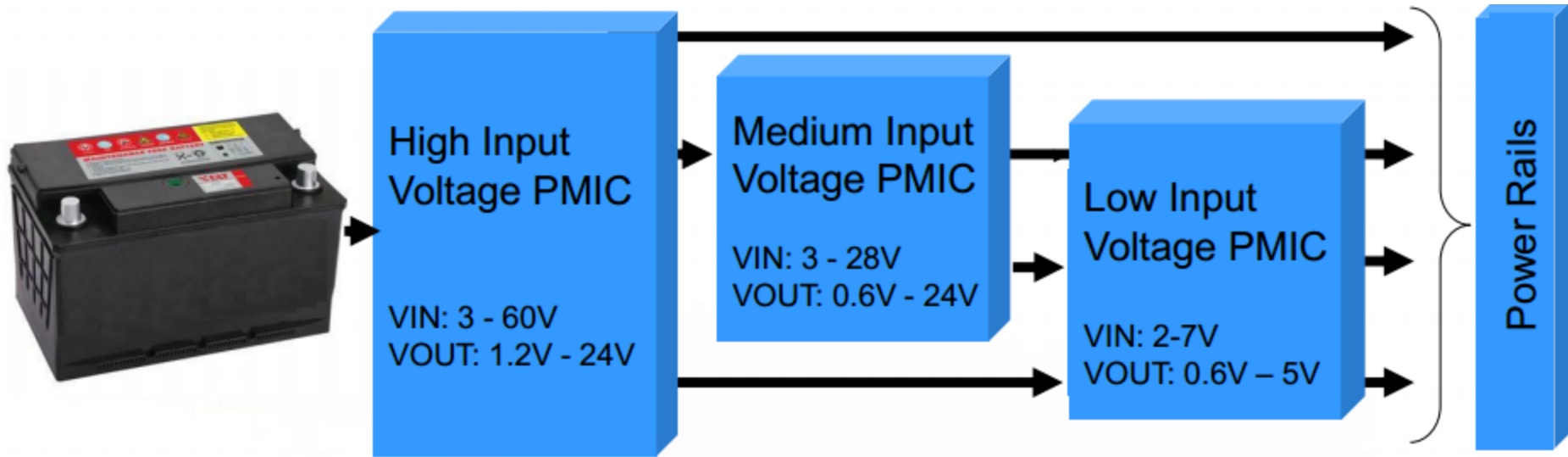
Intersil Automotive Solutions



Intersil Automotive Product

- Introduction Automotive power
- Linear Regulators
- Switching Regulators
- Switching Controllers
- LCD Power
- LED Driver
- BMS

Automotive Power



High Voltage PMIC

Load dump protection
 Double battery protection
 Cold crank operation
 Low quiescent current

Medium Voltage PMIC

Multi-output
 High integration
 Low EMC
 High efficiency

Low Voltage PMIC

Tiny footprint
 Accurate
 Low noise
 High efficiency

All Automotive PMIC

TS16969, AECQ100, Different temperature grades (85° C, 105° C, 125° C, etc.),
 Special packaging (exposed leads or QFN, exposed pads or non-exposed pads).

Automotive Power Selection Guide

Vin	Linear Regulators	Buck Regulators & Controllers	Boost Regulators & Controllers	Bridge Drivers
>48V		ZVS Controller Controller + Driver	ZVS Controller 2-Ph Controller + Driver + Envelope	114V, 2A 96V, 4A
40V	50,150mA	Bidirectional 4,6-Ph Controller 2.5A Int FET 2.5A, Int FET Controller + Driver 2A, Low Iq, Int FET	4,6-Ph Controller	
28V 18V		6A/Dual 3A Int FET Controller + Driver PWM Controller	Async, 4A Int FET PWM Controller	Battery Chargers
<= 6.5V	1A Dual 300mA	6A/Dual 3A Int FET 3,4,5A Int FET Dual 2A/1.7A Int FET Dual 800mA Int FET IMVP Core Regulator	Sync, 500mA Int FET	4.1V, 1A 3.6V, 1A Existing Product Future Product

Display & Lighting Power
Backlight LED Driver 1-ch x 3A Vin: 2.7-16V Vout: 4 - 32V
Backlight LED Driver 6-ch x50mA Vin: 4.5 - 26V Vout: 4 - 45V
Programmable Gamma 14-ch, 10-bit, NVM 400mA/5MHz Vcom
TFT-LCD PMIC 3A Boost Int FET 2 LDO Controllers Vcom/Vgamma Amps
TFT-LCD PMIC 2A Boost Int FET 2 Pos LDO 1 Neg LDO
TFT-LCD PMIC 1.5A Boost Int FET 1 Pos LDO Vcom Amp

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Intersil BMS介绍 (ISL78600)

Multi-Cell Li-ion Battery Manager

ISL78600/ISL78610

The ISL78600/ISL78610 is a Li-ion battery manager IC that supervises up to 12 series connected cells. The part performs accurate monitoring, cell balancing and extensive system diagnostics functions. Three cell balancing modes are provided: **Manual Balance mode**, **Timed Balance mode**, and **Auto Balance mode**, which terminates balancing functions when a (host microcontroller specified) charge transfer value has been met.

The ISL78600/ISL78610 communicates to a host microcontroller via an SPI interface and to other ISL78600/ISL78610 devices using a robust, proprietary, two wire Daisy Chain system.

The ISL78600/ISL78610 is offered in a 64 Ld TQFP package and is specified for operation from -40°C to +105°C.

Applications

- Hybrid vehicle battery packs

Related Literature

- Evaluation Board Application Note:
ISL78600/ISL78610_601EVAL1Z

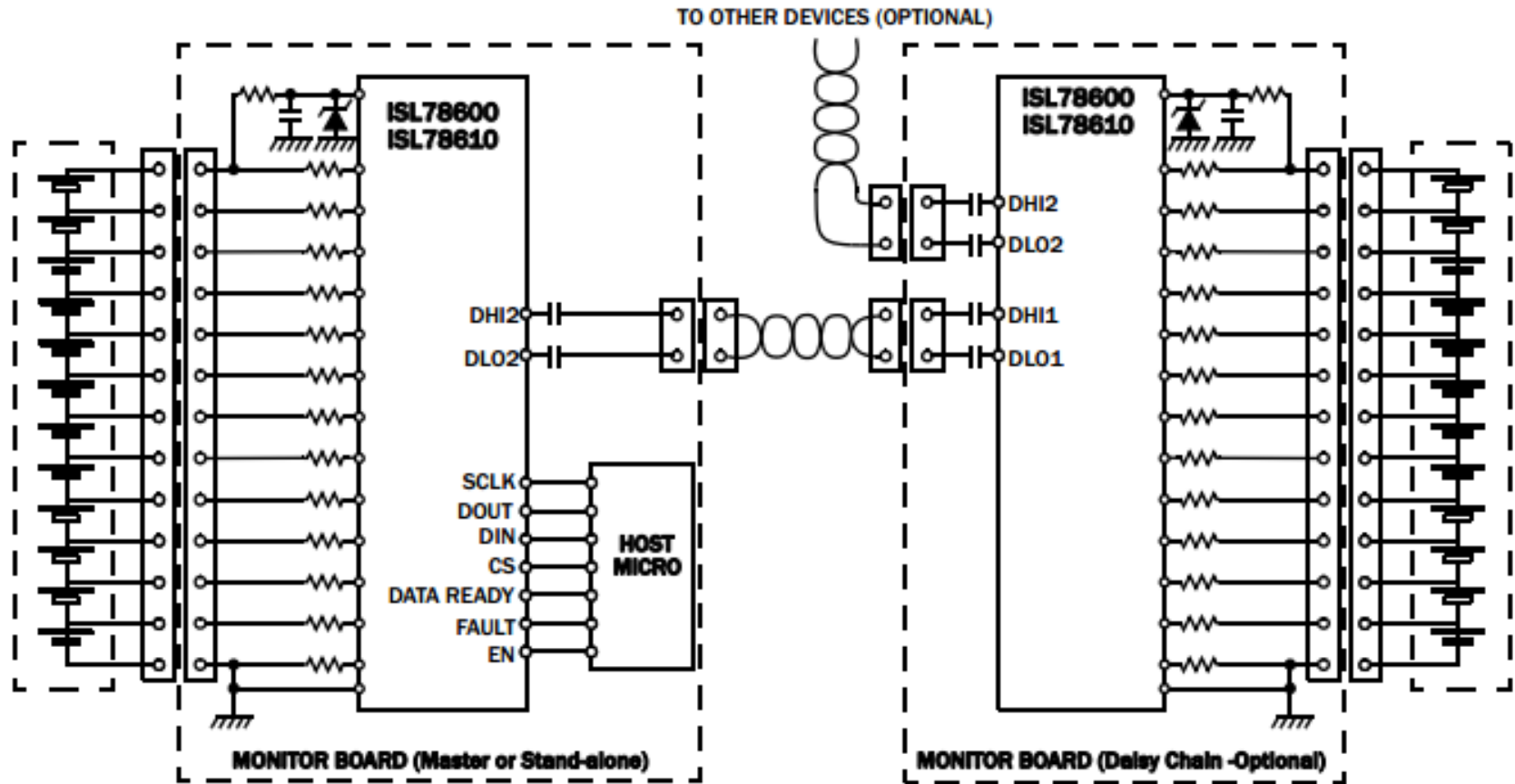
Features

- 6 to 12 cell voltage monitors, support Li-ion CoO₂, Li-ion Mn₂O₄, and Li-ion FePO₄ chemistries
- Cell voltage measurement accuracy ±2mV (ISL78600); ±10mV (ISL78610)
- 13b cell voltage measurement
- Pack Voltage measurement accuracy ±72mV
- 14b Pack Voltage and temperature measurements
- Cell voltage scan rate of 19.5µs per cell (234µs to scan 12 cells)
- Internal and external temperature monitoring
- Up to four external temperature inputs
- Robust Daisy Chain communications system
- Integrated system diagnostics for all key internal functions
- Hardwired and communications based fault notification
- Integrated watchdog shuts down device if communication is lost
- <20µA shutdown current: Enable = V_{SS}
- 2Mbps SPI

ISL78600

Typical Application

RELEASE UNDER NDA

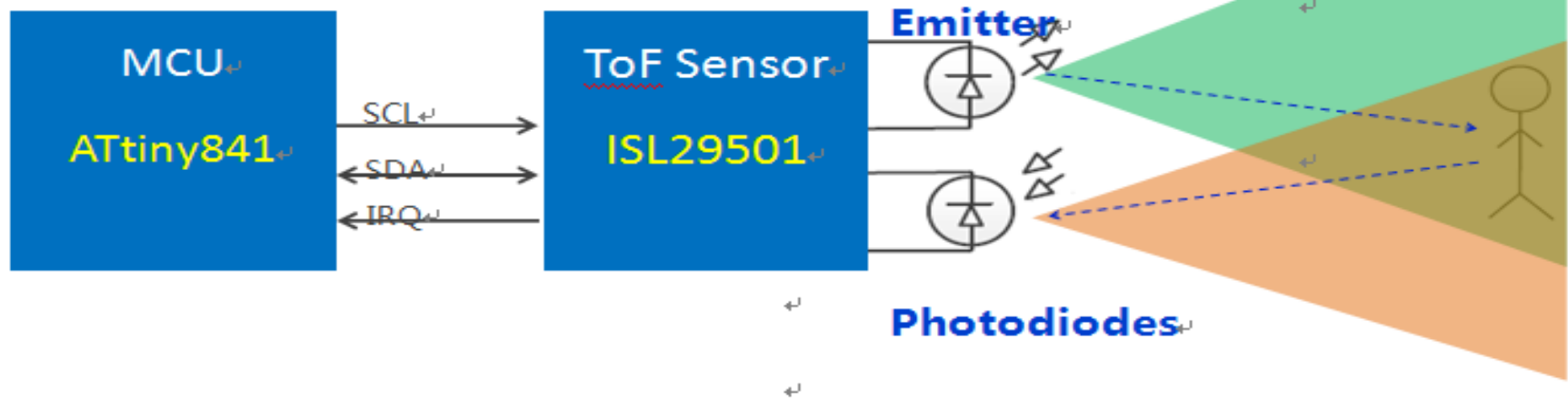


Intersil TOF介绍 (ISL29501)

ToF 是飞行时间 (Time of Flight) 技术的缩写，即传感器发出经调制的近红外光，遇物体后反射，传感器通过计算光线发射和反射时间差或相位差，来换算被拍摄景物的距离。

ISL29501 是一款低成本、低功耗、检测距离长的 ToF Sensor，搭配 MCU + 发射管 + 接收管实现测距功能。

应用框图



Intersil TOF介绍 (ISL29501)

2 应用领域

无人机、机器人、扫地机、平板电脑、工控设备、游戏机等。

3 性能优势

- 测量距离长达 2 米，理论值可达 33M
- 小封装，4mm X 5mm TQFN，适合微小型终端产品
- 低功耗，IC 待机 1uA
- 高精度，± 20mm @ 2 米
- 固定 4.5MHz 调制频率，避免其它频段干扰
- 与光源波长无关，可根据实际应用最优选择
- 外置发射管/接收管，可根据实际应用最优选择

Intersil TOF介绍 (ISL29501)

- ▶ 发射管驱动电流可编程配置，最高达 255mA⁺
- ▶ 明亮和黑暗的环境下一致性好⁺
- ▶ 内置可见光过滤功能，优化测量精度⁺
- ▶ 支持单次采样和连续采样两种工作模式⁺



谢 谢

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