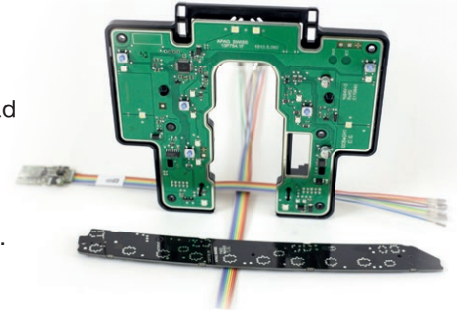


# LED Lighting

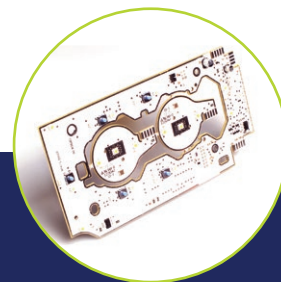
APAGCosyst designs and manufactures electronics for automotive interior and exterior LED lighting.

Our interior lighting ranges from simple ambient lighting to complex overhead consoles. We have developed consoles that integrate features such as seamless light intensity variation (dimming), sunroof control, microphones, alarm sensors, garage door openers, and indicator lights (e.g. airbag status). We can work with switches or integrate our touch technology to control the lights. We are experienced with ASIL safety standards for indicator lights.



Small and versatile LED modules for which production can be highly automated are easy to reuse. Our modular concepts with a bus connection and RGB technology facilitate complementary and consistent interior lighting concepts. RGB LEDs can create a spectrum of colours. They can be used for indirect light to accentuate subtle design or for direct, functional light. We can work on front and rear reading lights, integrated light strips (e.g. on dashboards or doors), illuminated logos in sill plates, and warm foot well lighting. We design light tubes or guides so light can be diffused homogeneously with very few LEDs, saving cost.

Exterior lighting is fast becoming a branding and design statement. Our exterior lighting focuses on such concepts. We understand the stress on exterior lighting from temperature, moisture, and dirt. We produce exterior door handle lighting with a variety of designs proven in weather over the lifetime of the car. Similar technology can be used for indicators and license plate lights. Our design and production is equipped to manage what is needed.



## Specifications

- Exterior – and ambient lighting:
  - single, dual or RGB LEDs
  - with LIN or direct controlled
  - Central light master for network based lighting
- Applications:
  - door handles
  - Interior lights and reading lights
  - Sill plates
  - Gear shift indicators
  - Overhead consoles
- High automated production
- Different potting technologies in production
- Mechanical housing/harness assembly
- Light simulation
- Light design
- Construction
- Combination with touch technology
  - Silicone potting
  - Conformal coating/varnishing with reflow curing
  - Mechanical housing/harness assembly