

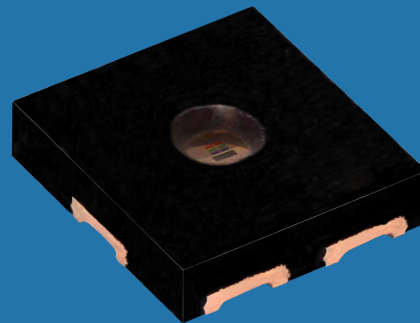
RGB AND LIGHT SENSING

With VEML6046X00 RGB Sensor

With 3 color channels and 1 IR channel, the VEML6046X00 RGB sensors can be used in a variety of color-based automation processes, as well as for HMI applications such as infotainment displays and HUDs, where the sensor improves the backlight dimming by detecting illumination and CCT.

VEML6046X00

RGB Sensor
(2.67 x 2.45 x 0.6 mm)



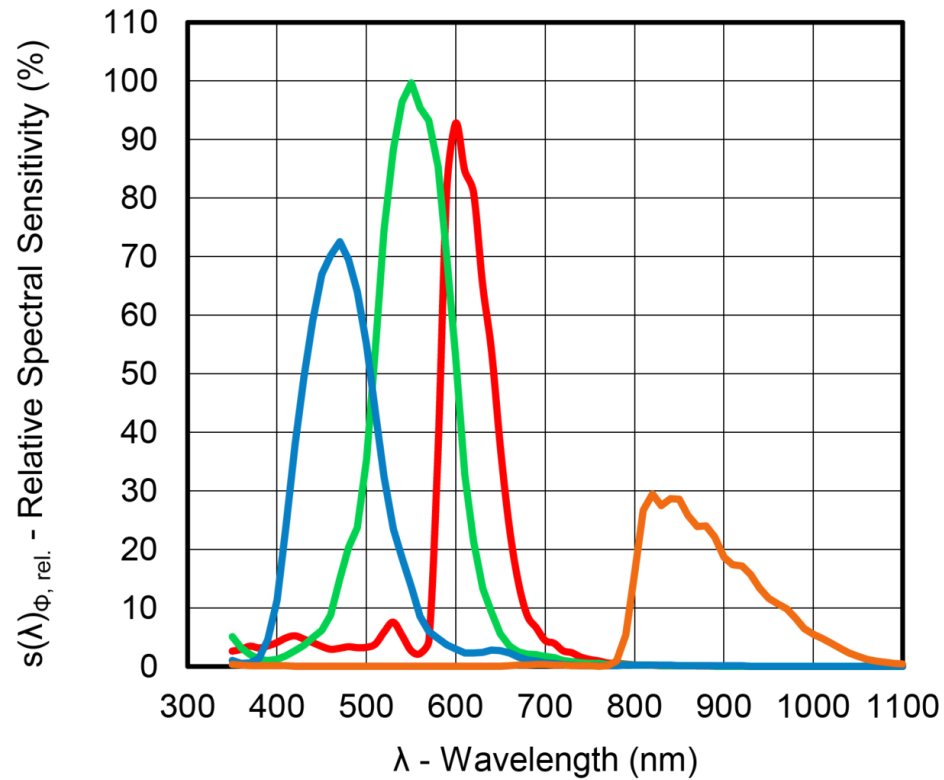
Industrial and Medical



AUTOMOTIVE
GRADE

HMI and Display





KEY BENEFITS



3 COLOR CHANNELS + IR CHANNEL

R, G, B channels detect visible light, IR channel enables accurate light type detection.





Display Brightness Control

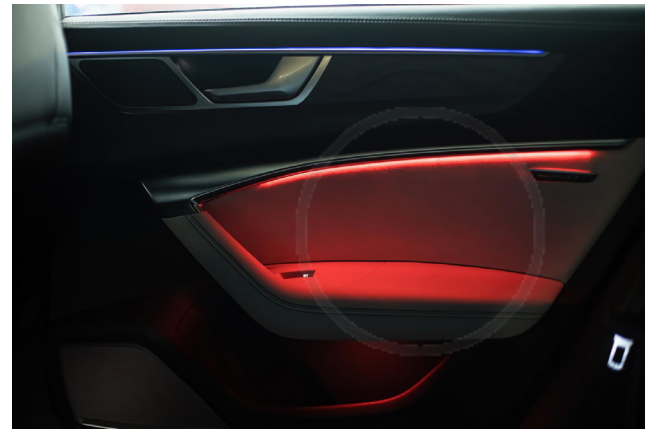
High Intensity



- Auto-dimming displays (e.g. infotainment, instrument cluster)
- Automatic headlight control
- Dashboard and interior ambient lighting adjustments

Interior Lighting Control and Integration

Adjust Intensity



- Adjust ambient lighting based on time of day or detected external light
- Match lighting to infotainment themes or user profiles
- Coordinate CID brightness with interior RGB ambient lighting

Driver Monitoring Systems (DMS)

R, G, B, and IR Channel



- RGB sensors in NIR (near-infrared) enhanced cameras help in identifying skin tone and face features accurately in low light
- Enhances eye-tracking accuracy

Exterior Lighting and Safety

Fast Response Time



- Adjust brake or signal light intensity based on ambient conditions
- Fine-tune headlamp color and intensity for weather conditions