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PHOTON IS OUR BUSINESS

The vital role of light intensity measurement

In today's technological landscape, precise measurement of light intensity is crucial across various industries and applications. A key player in this field is Hamamatsu Photonics' S9705[1] light-to-frequency converter, a highly accurate Photo IC solution that measures light intensity.

The S9705 accurately and reliably caters to a wide range of applications. Its high dynamic range, excellent linearity, and digital output ensure precise measurements in environments ranging from automotive technology to home automation. Its versatility makes it indispensable in industries where it enhances safety, convenience, and performance.

A primary application of the S9705 light-to-frequency converter photo IC is in **automotive rearview mirrors**, where it helps improve road safety. Integrated into these mirrors, the converter measures the intensity of light emitted by vehicles behind, enabling automatic dimming to prevent glare and enhance driver visibility. This reduces the risk of accidents caused by blinding lights and improves overall driving comfort.

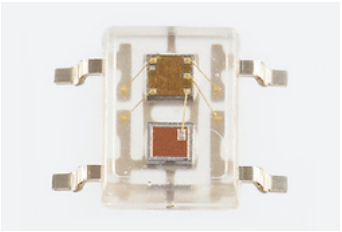
Furthermore, the S9705 **facilitates intelligent beam adjustment between vehicles on the road** by measuring the light emitted by incoming vehicles. This ensures that a vehicle's headlights are adjusted appropriately, avoiding dazzling other drivers and fostering a harmonious driving environment for all road users.

Beyond automotive technology, the S9705 is used in **home automation systems**, where it contributes to creating environments that adapt to occupants' needs. By automatically adjusting ambient light levels based on measured intensity, the converter enhances energy efficiency and comfort within homes, providing occupants an optimal living environment while reducing unnecessary energy consumption.

Moreover, the S9705 **optimizes visual experiences in display technology**. Its high dynamic range, excellent linearity, and digital output allow for accurate light intensity measurements, enabling dynamic adjustments to display brightness for optimal viewing conditions across diverse lighting environments, whether for high-definition televisions or smartphone screens.

Hamamatsu's commitment to customization allows the S9705 to meet specific needs across different applications. Customized versions of Photo ICs ensure that each solution is tailored to its intended use, helping customers fully leverage the potential of Photo ICs in various industries.

Measurement of light intensity is essential for our safety and comfort, and Hamamatsu's S9705 light-to-frequency converter plays a significant role in this domain. With its accuracy, versatility, and customization options, the S9705 contributes to advancements that promote a brighter, safer, and more efficient future.



S9705 photo IC

Reference

[1] Hamamatsu Photonics, S9705: www.hamamatsu.com/eu/en/product/optical-sensors/photo-ic/illuminance-sensor/S9705.html