

The potential of “visible light communication,” sending information using familiar light

Visible light communication is a technology for communication using light that can be seen by the naked eye (visible light). It is an energy efficient means of communication that has no impact on human health or electronic equipment, and efforts are already underway both in Japan and overseas to establish standards.

In the future it is believed that the light sources for illumination will mainly be light emitting diodes (LEDs) or electro-luminescence (EL) devices. But unlike normal light bulbs, these light sources can blink at speeds faster than the human eye can detect, so internal and external lighting, traffic lights, electronic advertisement

Visible light communication image



boards, display indicators and all sorts of other lighting can be used just as they are as a means of digital data communication.

Casio is developing and proposing its own more advanced form of visible light communication technology, which we call “image sensor communication.” Using a camera as the receiving device, for example by simply pointing a camera at a city scene, it will be possible to display all sorts of additional information, like the names of buildings and products, at the same time, making maximum use of the ‘visible’ characteristics of visible light communication.

This technology is regarded as a major technology by the Visible Light Communications Consortium, an organization promoting the technology, and many manufacturers and government agencies are working together on trials and test applications, using social infrastructure such as traffic lights and lighthouses.



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Intellectual property protection to guard Casio’s originality and reliability

Casio’s inventions and other creative endeavors consistently produce innovative technologies and products. Casio recognizes that its intellectual property, including proprietary technologies and inventions, is a mission-critical business resource of the company. While respecting the intellectual property of other parties, Casio pursues the sound development of the company and the broader society by taking disciplined steps to protect its intellectual property and safeguard these vital business resources.

Casio also works hard to protect and maintain the value of the Casio brand, which is trusted around the world. Defending the brand from imitation by counterfeit product manufacturers which harm the Casio brand image is one significant function of Casio’s Intellectual Property Center.

Wherever its products are used around the world, Casio registers the trade mark and design of Casio-made brands, and based on these intellectual assets, responds firmly to any infringements by manufacturers and distributors of counterfeit goods.

Staff responsible for measures against counterfeit products are located at headquarters in the Intellectual Property Center, and in Shanghai, China. They directly visit the related authorities in each country to request support for countermeasures, and actively pursue cooperation with the Japanese government and other companies, holding briefing sessions on how to recognize fakes, and lobbying for improvements in legislation and its enforcement.

Undertaking comprehensive measures against counterfeit products, in cooperation with a range of stakeholders

The Intellectual Property Department at Casio (Shanghai) Co., Ltd., investigates and identifies manufacturers of counterfeit goods in China, and implements measures focused on interdiction by the customs authorities to prevent shipment of fakes outside the country. In cooperation with the Intellectual Property Center at headquarters, we also track down and expose the Chinese manufacturers and distributors of fakes found in other countries.

In recent years, counterfeiters have become increasingly sophisticated in their efforts to avoid detection, producing smaller quantities, shipping on the same day, and using very similar trademarks. This means that countermeasures are becoming more difficult. While we encourage the authorities to strengthen enforcement, Casio is also undertaking comprehensive measures in concert with other companies and the Japanese government.

As a result of these measures, the Chinese authorities are also giving due consideration to protecting the Casio brand, and I believe that they are beginning to provide us with good overall support.

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