

MITSUBISHI ELECTRIC CORPORATION
PUBLIC RELATIONS DIVISION
7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

FOR IMMEDIATE RELEASE

No. 2726

Customer Inquiries

Advanced Technology R&D Center
Mitsubishi Electric Corporation
[https://www.mitsubishielectric.com/ssl/contact/
company/rd/form.html](https://www.mitsubishielectric.com/ssl/contact/company/rd/form.html)

Media Inquiries

Public Relations Division
Mitsubishi Electric Corporation
Tel: +81-3-3218-2346
prd.gnews@nk.MitsubishiElectric.co.jp
<http://www.MitsubishiElectric.com/news/>

Mitsubishi Electric Develops Car Display System with Free-form Screen

Projects images on curve-, oval- or triangle-shaped screens to match interior layouts

TOKYO, February 7, 2013 – [Mitsubishi Electric Corporation](#) (TOKYO: 6503) announced today that it has developed a prototype car display system with an optical engine that can project images on curved, oval or triangular screens to suit a wide range of car interiors.

The system's free-form screen responds flexibly to the increasing use of curves and other design features in car interiors. At the same time, its easy visibility helps to promote driving safety. The system incorporates display technologies that Mitsubishi Electric fostered through its development of rear-projection TVs as well as car electronics that withstand severe operating conditions, ensuring high quality and reliability.

Key Developments

1) In-vehicle display flexibly matches car interiors

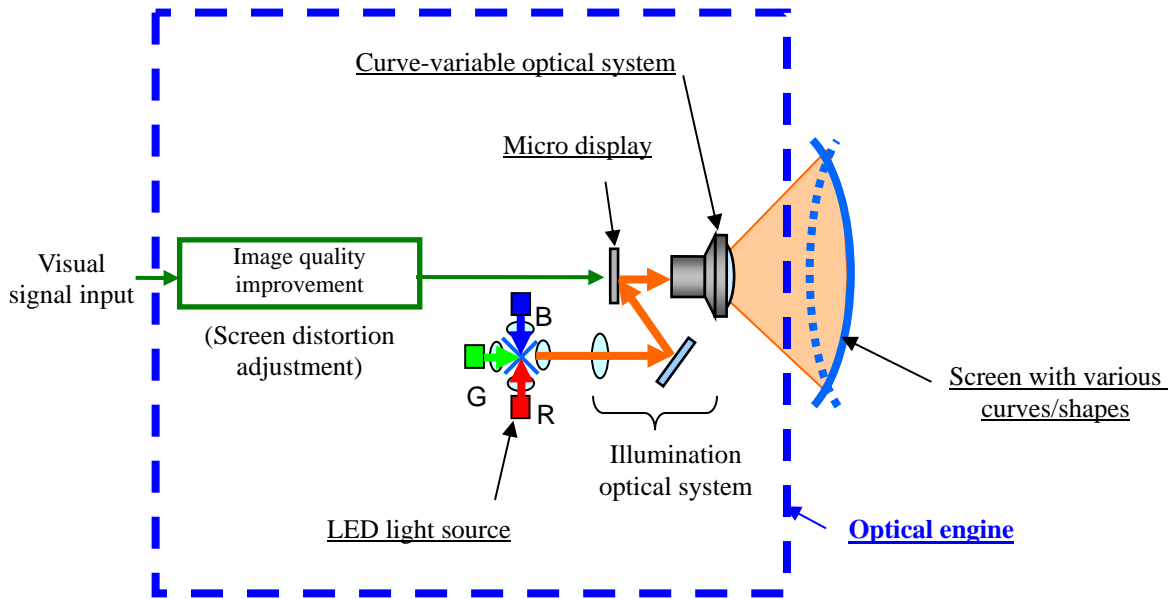
Mitsubishi Electric's original curve-variable optical system projects images on screens of various shapes to minimize blur in screen areas with deep curves. The prototype system's single optical engine adapts to a wide range of surfaces, unlike conventional displays that require a designated optical engine designed for a screen's specific curves or shape.

Natural, distortion-free images are projected on curved, oval or triangular surfaces through a screen distortion adjustment process that predicts the distortion of images caused by complex curves, and adjusts visual signal input. (See image below)



Application example

(Left: convex screen; Right: dual convex-concave screen)



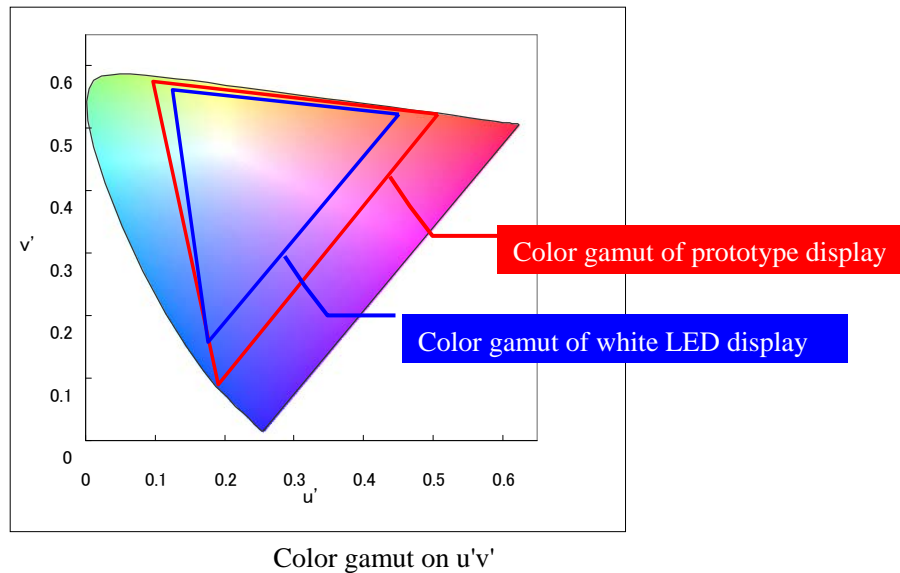
Configuration of car display system with free-form screen

2) Excellent resistance to high temperature, vibration and shock

To ensure steady performance and extended product life, Mitsubishi Electric developed a hybrid cooler that combines systems for highly efficient radiation and natural and forced-air cooling. In addition, the overall structure minimizes distortion of the optical engine and chassis due to vibration or shock while driving, ensuring that images remain crisp and clear. The display also incorporates a plastic screen that absorbs light to maintain excellent visibility in bright environments.

3) Rich colors in high-temperature conditions

The display system incorporates red, green and blue LEDs for its light source to achieve a color gamut 1.5-times wider than conventional displays that use white LED backlights. The three different LEDs produce brighter colors and increased visibility. In addition, a light sensor separately controls light emissions from the different LEDs, each having its own temperature characteristics, and maintains color balance to stabilize color reproduction in a wide range of temperatures.



(1976 UCS chromaticity diagram, International Commission on Illumination)

Patents

The technologies announced in this news release encompass 11 Japanese and three international patents pending.

###

About Mitsubishi Electric

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 3,639.4 billion yen (US\$ 44.4 billion*) in the fiscal year ended March 31, 2012. For more information visit <http://www.MitsubishiElectric.com>

*At an exchange rate of 82 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2012