GAMING

Get Ahead of the Game...with OMRON's Leading Edge Technologies!

OMRON®
ELECTRONIC COMPONENTS

Leading-edge Technologies for the Gaming Market

Omron designs and manufactures a range of high quality, high performance components utilizing latest technologies for the Gaming Market, these include: operation switches, illumination technology, LED drivers, OKAO/Facial detection, custom power supplies, motion detection/hand gesturing, and detection switches. We contribute to the industry by offering technology and know-how that only Omron can provide and by combining comprehensive functionality and high-speed, high-response products.

The Omron Gaming group draws from the wealth of technology and expertise that defines Omron's family of companies, including factory automation, electronic components, automotive electrical devices, financial distribution systems, health care devices, etc. We will continue to respond to the individual needs of each customer in the Gaming industry. By combining all of the functions of our 7 core technologies with product development, production, quality assurance, sales, and service, we are striving to contribute to a growing and more successful global gaming market.

Operation Switches

Standard Products

Leading edge switching technologies and expertise for the Gaming Market

Illuminated Push Button Switch

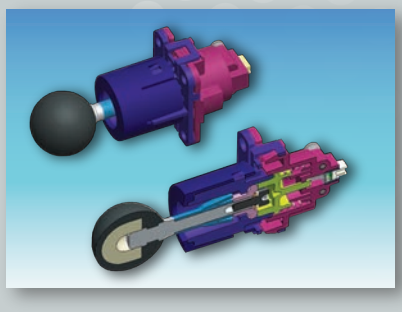
- Durability: 10M times
- Variety of colors available
- Experience in Japan Market

Illuminated 3 Push Button Unit

- Durability: 10M times
- Variety of colors available
- Experience in Japan Market

Lever Switch

- All Direction (360 degree) On/Off Operation
- Durability: 10M times
- Experience in Japan Market



Customized Products

FLEXIBILITY
A wide range of the technologies to optimize your product

SPEED
Quick development time for prototypes and mass produced parts

Product Examples

Chance Switches for Pachinko

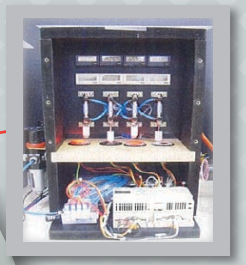
Operation Switch Technology offers:

High Reliability, High Durability & Long Life, Optimum Design, Illumination Quality

Operation Switch Technology

Application Technology

Evaluation Technology
Endurance, Environment



Endurance Testing Equipment

Illumination Technology

Actuator Technology

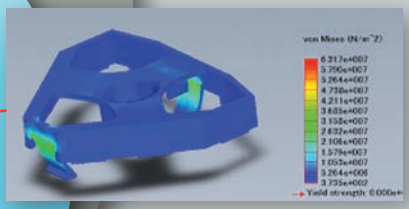
Element Technology

Mechanical Structure Design
- Structure Design
- Grinding Part Design
- Stress Analysis
- Endurance Evaluation

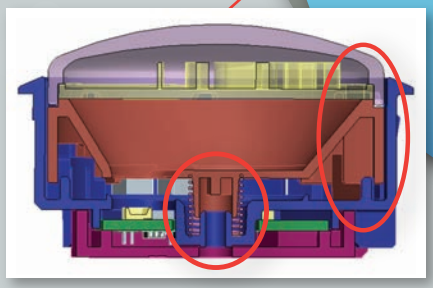
Illumination
- Optical Design
- Optical Analysis

Switch Technology
- Photo sensor utilizing mechanical switching and contact technologies
- Rubber Contact Technology

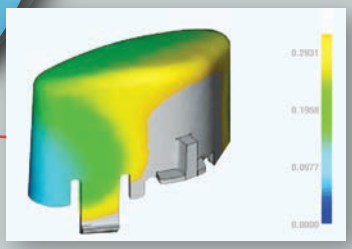
Die Design



Stress Analysis



Sliding Part Structure



Fluid Analysis

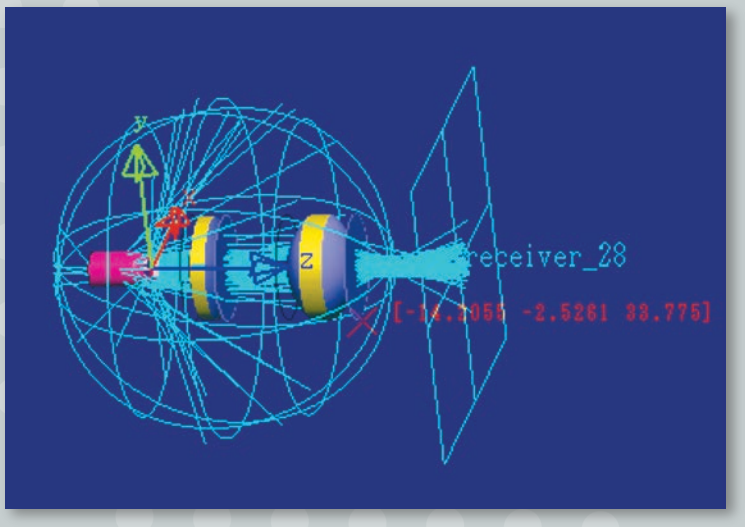
Switch Module for Jyankyu

MAX BET switch for Pachislots

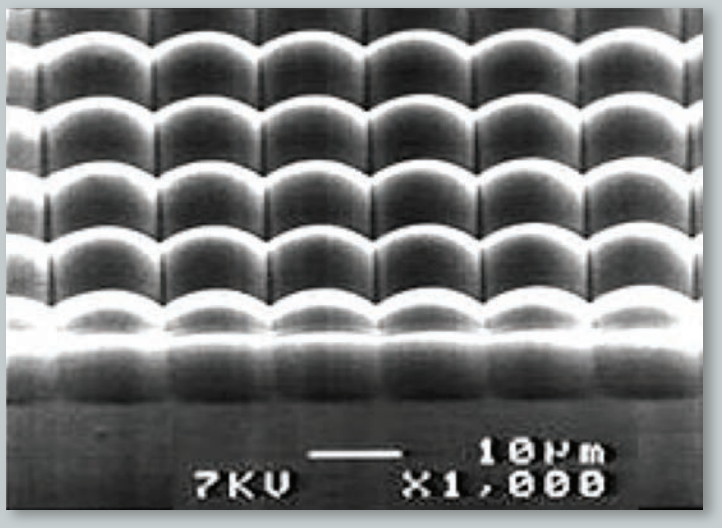
Service Switch for Pachislots

Illumination Technology

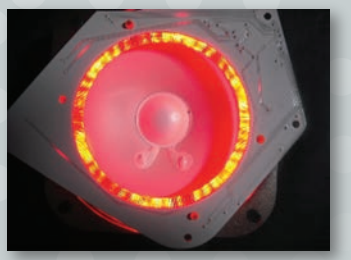
Optical Simulation & Design Technology



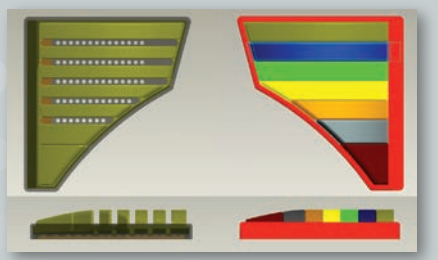
High Precision Replication Technology



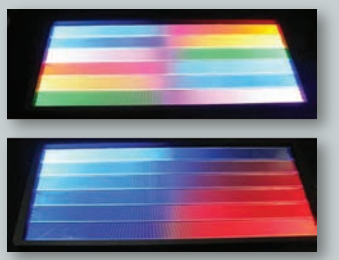
Light Shutter
LED brightness control conceals background.



Illumination for Speaker
Divides light into multiple directions.



Illumination for Corner Lamp
Illumination pattern can be changed by modifying the surface.



Indicator
Illumination for area where LED board cannot be placed.

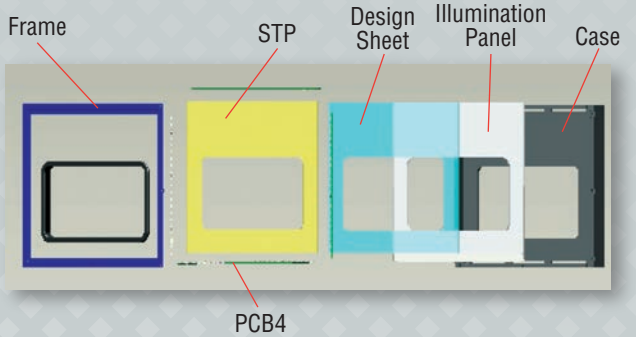
See Through Panel: Separate Area

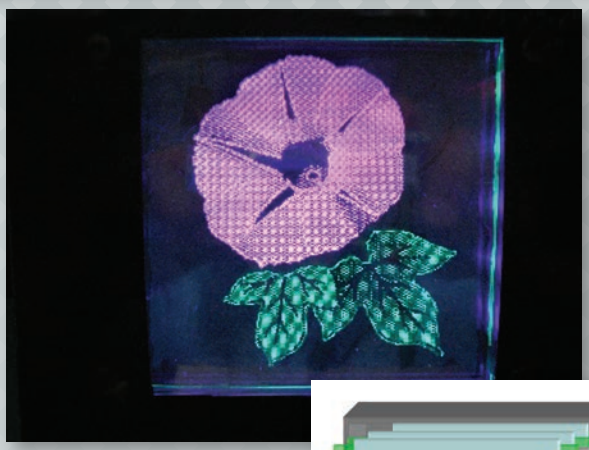
- Achieve high brightness and transparency

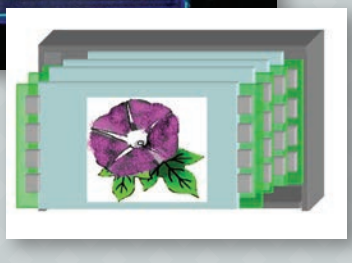
Features:

1. Transparency
- Lens is not visible due to micro size, when LED is not illuminated.
- Can be placed in front of LCDs, Design Panels, reels, etc.

2. The special shape of the lens allows for light to only reflect from a particular direction.







See Through Panel: Multi Layer

- Cost-effective, alternative solution to an LCD panel
- Illumination creates 3D-like depth of field.

Features:

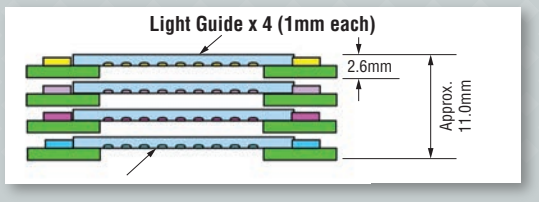
1. Layered

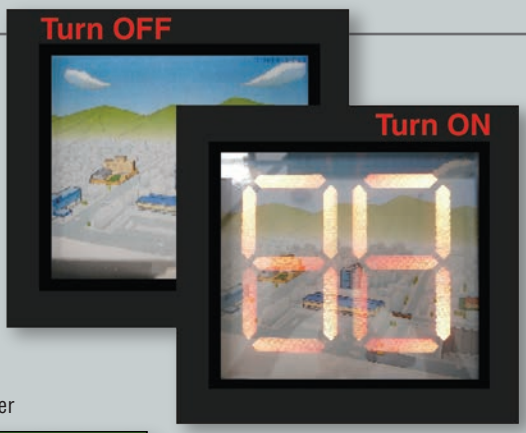
-Animation effect can be realized by turning on the LEDs sequentially.

- Layered illumination creates 3D effect.

2. Thin

Thin layers (< 3mm) allows for stacking several layers.





See Through Panel: 7 Segment

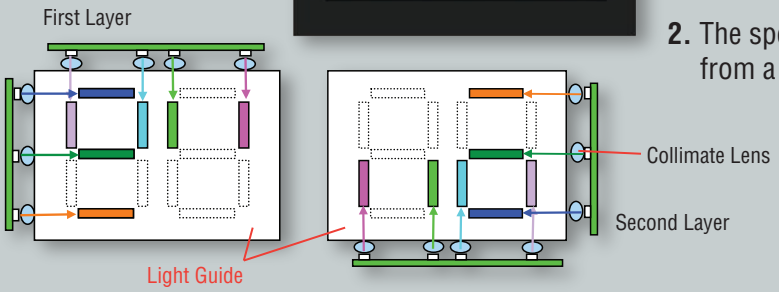
- New display device using the See Through Panel (STP)
- Create dynamic effect with static images.

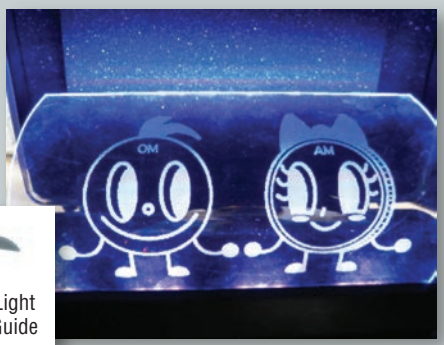
Features:

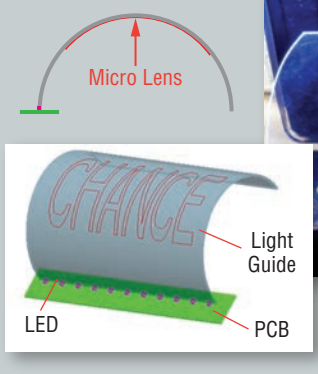
1.Transparency

- Lens is not visible due to micro size, when LED is not illuminated.
- Can be placed in front of LCDs, Design Panels, reels, etc.

2. The special shape of the lens allows for light to only reflect from a particular direction.







See Through Panel: Curved

- Illumination for curved and transparency is required. ex. Reel front Illumination

Features:

1.Transparency

-Lens is not visible due to micro size, when LED is not illuminated.

- Can be placed in front of LCDs, Design Panels, reels, etc.

2. The special shape of the lens allows for light to only reflect from a particular direction.

3. Lens is machined to curved surface.

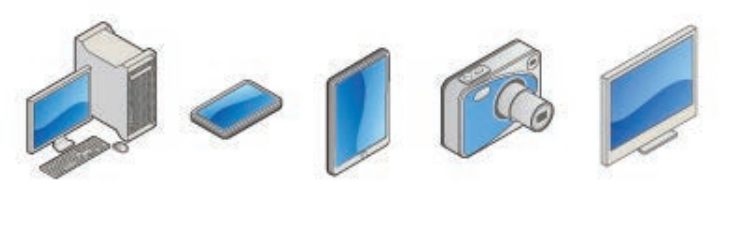
Motion Detection / Hand Gesturing

Recognizing Motion of Faces and People: this technology provides a modern and natural human interface to various devices by recognizing the position, shape and motion of a hand or finger.

1. A trigger motion is unnecessary by facial sensing technology.
By combining gesture recognition with OMRON's facial image sensing technology, a user's intention can be estimated by relationship between the position/direction of the face and the hand position. It is possible to realize a more natural user interaction in various devices.

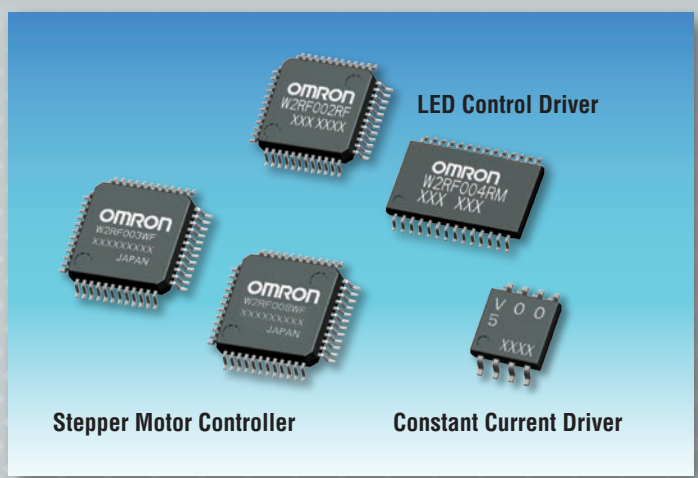
2. Recognizes the motion and shape of the hand.
Simple instructions usually used in most human interfaces such as "up,down,left, right" can be simply defined by a V-sign, 1-finger sign and other finger poses. Hand and finger position can be detected simultaneously.
*More hand motions and shapes will be recognized in the future.

3. Recognition occurs in a wide distance range.
- Recognition distance dependent upon camera and lens resolution.
- Can detect hand size of 60 x 60 pixels or larger.



4. Works on various devices such as Web cameras, built-in cameras and digital cameras.

Controller IC Technology



LED Control Driver W2RF002RF/W2RF004RM

1. The human eye is more sensitive to varying shades of dim light than bright light.
   - Uses Pulse Width Modulation (PWM) Control.
2. Can achieve target brightness and fade in/out speed with a single command.

Stepper Motor Controller W2RF003RF/W2RF008WF

- Step by step speed(rate of rotation) control as following a linear equation.
- Position (number of step) management
- Auto acceleration control.

Power Supplies

Power Supplies

Features:

Custom Power Supply Units

- Design Power Supply to fit the application.
- Quick development time.
- Evaluation system that fits market.

Input

- AC100/200 V of AC (Based on region)
- AC100-240 V (Worldwide)

Output

- DC, small capacity to large volume

Standard

- By Country

Enclosure

- Case designed to customers specific needs.

Face Detection Technology

OKAO™ for the Gaming Market

OKAO™ Vision

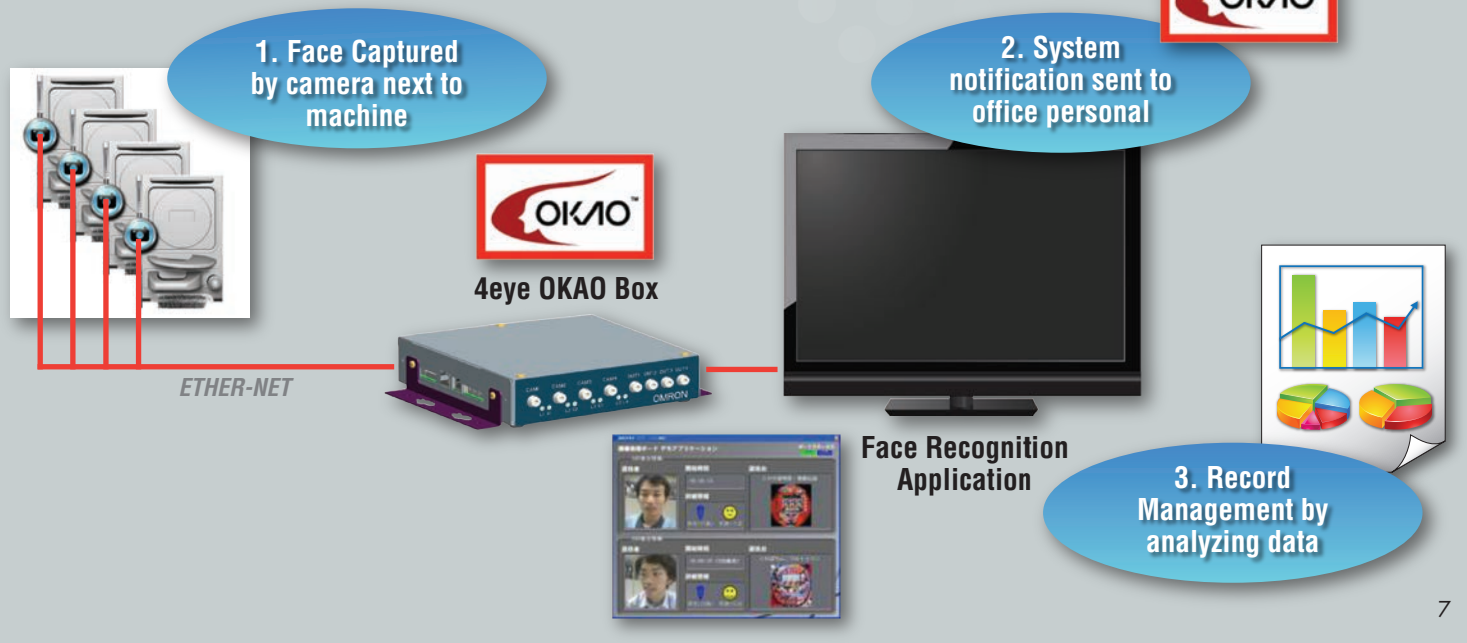
Software detects faces under various conditions by using OMRON's original object detection algorithm. This detection occurs amazingly fast and with high accuracy.

- Detection occurs for 360-degree in-plane rotation.
- Partial occlusion can be handled by combining with face tracking.
- Optimized for embedded environment.
- Device independent and highly customizable.

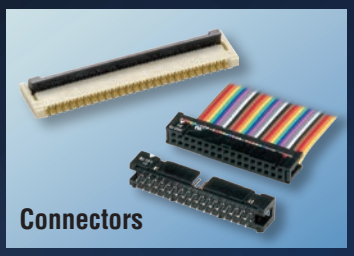
Face Recognition/Detection

OKAO™ Box

Back-end solution for capturing key marketing data of Players and Customers.

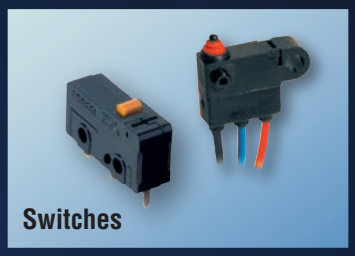


Standard Products

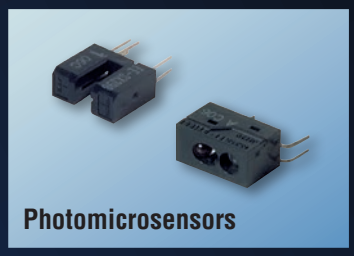


Omron offers FPC/FFC, Flat Ribbon Cable, DIN, D-sub and Circular connectors to provide design flexibility and space savings.

Omron has a wide variety of relays to meet the most demanding switching and application needs.



Sealed and unsealed snap-action switches are available with a variety of ratings, actuators and termination options.



Omron has a full line of slotted and reflective optical switches that will meet your most challenging applications.

Omron Electronic Components: The Quality, Flexibility and Global Support You Need.

For More Detailed Information...

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www.components.omron.com

- Browse Omron's full range of Product Information and selection guides.
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- Download PDF data sheets, brochures and more.
- Locate a Distributor and search for available inventory.
- Complete Terms and Conditions of Sale and Usage.

Call Us:
1-847-882-2288 Monday through Friday, 8:00 a.m. to 5:00 p.m. Central Time (CT)

Email Us:
components@omron.com

Phone: 847-882-2288
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