

Mobile Device System Solution

Jan. 31, 2012

Input/Output (Including UI, Sensors)

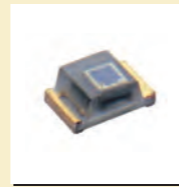
For brightness control of LCD panel section

- **Ambient light sensor (OPIC light detector with visual sensitivity characteristics)**
 - Peak sensitivity characteristic close to human visual sensitivity
 - Compact package



For brightness control of LCD panel section

- **Leadless-chip type phototransistor**



For transmission between mobile devices/digital equipment

- **IR data communication device with remote control signal transmission function (IrSimple™/IrSS™ compatible)**
 - Enables high-speed transfer of image data



For color image input

- **CMOS camera module**
 - Wide variety of lineup, including the industry's smallest, thinnest and highest performance-class camera modules.



For human body (proximity of face) detection

- **Proximity sensor**
 - Detecting distance: TYP. 65 mm
 - Compact package 4.0 × 2.0 × 1.2 mm



■ **Proximity sensor with integrated ambient light sensor**

- Proximity sensor and ambient light sensor combined into a single package
- Detecting distance: TYP. 65 mm
- Compact package: 5.6 × 2.1 × 1.2 mm



Pointing Device

- **OFM (Optical Finger Mouse)**
 - Smooth operability
 - No mechanical structure (Optical solution)



For one-seg broadcast reception

- **One-seg tuner module**
 - Compact, thin package (5.4 × 5.4 × 1.0 mm)



For wireless LAN

- **Wireless LAN module**
- **Wireless LAN/Bluetooth combo module**



Power Supply

For auxiliary power supply

- **Solar module for mobile devices**
 - Module thickness: 0.8 mm



For insulation of and transfer between high- and low-voltage sides of power supply

- **Photocoupler compliant with safety standards**

Safety standard approved / compliant



Processing

For image display

- **MDDI-compliant LCD controller (for CDMA mobile phone use)**
 - MDDI (Mobile Display Digital Interface) compliant
 - Controller for main and sub LCD displays
 - IrSimple™- and IrDA-compliant™ communication devices



Display

For LCD backlight

- **High-luminosity white surface-mount LED**
 - Thin, high luminosity
 - High rendering color products are also available



For indicator/decorative lighting

- **High-luminosity surface-mount LED (RGB trichromatic)**
 - 1 616 size



For operation button lighting

- **0.35-mm-thick surface-mount LED**
 - Compact, thin, single-color



For camera flash

- **High-luminosity white surface-mount LED**
 - Thin, high luminosity



For LCD backlight

- **LED driver**
 - Automatic brightness control function using the ambient light sensor
 - Enables driving of 9 white LEDs (RGB grid) connected in series



For flashlight

- **LED driver**
 - Current for LED driving: MAX. 1.5 A
 - High Switching Frequency (6 MHz)



For image display

- **High-resolution LCD module**
 - LCD with some of the highest resolution, luminosity, and contrast in the industry



Mechanical Structure

(Lens unit) for mechanical position detection and rotation detection

- **Compact transmissive-type photointerrupter**
 - Compact: 2.26 × 1.4 × 1.6 mm



For part mounting and circuit connection

- **Advanced Flex (ADF) printed circuit board «customizable»**

ADF: Advanced Flex printed circuit board

