Sharp Develops 2-Megapixel CCD Camera Module for Mobile Phones with New 2X Optical Inner Zoom Lens

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Sharp Corporation has developed a new 2-megapixel CCD camera module featuring a 2X optical inner zoom lens. Intended for use in high-end camera-equipped mobile phones, the new LZ0P3738 will be available in quantity beginning in October 2004.
Cameras designed to be embedded in mobile phones have been moving toward ever higher pixel counts beyond the megapixel range in response to user demands for greater functionality and higher image quality on a

par with ordinary digital cameras. At the same time, there are demands for more compact and thinner camera modules to provide this greater functionality and higher image quality without altering the form factor of mobile phone handsets

Sharp is already marketing the LZ0P3731 2-Megapixel CCD Camera Module with auto-focus function, but to provide even greater functionality, Sharp has successfully equipped this new module with an optical zoom lens that is switchable between normal and 2X zoom. In addition, the use of an inner zoom type in which the lens section does not protrude from the module body achieves a compact module size that can be incorporated into folding “clamshell” style mobile phone handset designs.

Major Features

1. 2-Megapixel CCD camera module with 2X optical inner zoom and auto-focus function.
2. High image quality thanks to 2-megapixel FIT*1 CCD and high-performance lens.
3. Compact size ideal for mobile phones.

*1 Frame Interline Transfer (FIT) type: Based on the interline transfer type commonly used in CCDs, the FIT process represents an improvement in the architecture designed to prevent the “smear” phenomenon typical of CCDs (for example, when headlights or light from the sun causes vertical streaks of light to appear on the image). The FIT type is used in professional-quality broadcast video cameras and makes it possible to shoot optimal images, whether at night or under the light of the midday sun.

1. 2-Megapixel CCD camera module with 2X optical inner zoom and auto-focus function

This 2-megapixel CCD camera module for mobile phones is equipped with an optical inner zoom function that is switchable between normal and 2X zoom, an industry first*2. Plus, an auto-focus function makes it possible to capture images with the subject in perfect focus—from close-ups to portraits and landscapes. Because focusing is instant, there's never a missed opportunity for a shot.
This innovative module enables full-fledged digital camera functionality to be added to mobile phones.

*2 As of September 16, 2004, for 2-megapixel CCD camera modules for mobile phones with inner zoom type (based on Sharp research).

2. High image quality thanks to 2-megapixel FIT CCD and high-performance lens
The high-resolution 2-megapixel FIT CCD and high-performance lens make it possible to take high-quality images with minimal distortion. Printing with a 300-dpi camera printer yields beautiful postcard-size(105 x 148 mm) prints.

3. Compact size ideal for mobile phones (volume: 3.34 cc)
By taking full advantage of camera module design technology and expertise nurtured over many years, Sharp has achieved a compact module size (18.9 x 9.2 x 19.2 mm; volume 3.34 cc) by adopting a compact 1/3-inch optical system and 2-megapixel CCD, and by developing a new optical zoom and auto-focus mechanism

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