

Transflective High-Resolution 6.3 cm (2.5-Type) Digital Interface LCD Panel Achieves a 70% NTSC Ratio

ACX542AK

There are now strong desires in the digital still camera market for improved visibility in the displays used for reviewing captured images when shooting outdoors. The ACX542AK is a transflective LCD panel that achieves superb visibility under outdoor ambient light conditions by adopting a display technique that combines both transmissive and reflective modes. This product features optical characteristics that are significantly improved from earlier transflective displays and allows users to review their photographs with even more attractive high-resolution images under outdoor ambient light conditions. The ACX542AK also supports direct connection to the DSP with a direct interface system and achieves both lower power and a significant reduction in the number of peripheral components required.

Furthermore, Sony achieved a module thickness of 1.33 mm in the ACX542AK by using even thinner glass.

- Direct interface (8-bit RGB serial interface)
- Transflective mode operation achieves improved visibility in all environments
- Number of display dots: 230,000 dots Diagonal 6.3 cm (2.5-type) display
- Contrast: 150:1
- Wide color gamut: 70% NTSC ratio
- COG driver included
- Low power consumption: 50 mW (LCD panel)
- RGB delta array for smooth images
- Up/down and/or right/left inversion function
- Ultrathin form factor: 1.33 mm total thickness

■ Transflective Mode Operation Achieves Improved Visibility in All Environments

The ACX542AK achieves excellent visibility even under outdoor lighting conditions through a design that combines both transmissive and reflective modes.

■ Striving for High Picture Quality

By significantly evolving the LCD structure and the color filters, Sony improved the contrast by 1.5 times and the color reproducibility by 1.6 times over conventional transflective LCD panels. The ACX542AK achieves a picture quality that is even clearer than previously possible and approaches the picture quality of photographs.

■ Direct Interface (8-bit RGB serial interface)

The ACX542AK features an 8-bit digital interface and achieves 16.77 million colors by including a COG driver. Since no D/A converter is required in applications that use this panel, noise can be reduced and the application can be manufactured in an adjustment-free line.

■ Panel Module Miniaturization

In the ACX542AK, Sony miniaturized the panel model to contribute to increased flexibility in end product design.

By developing new mounting technologies, Sony was able to realize the narrow-frame design that is a characteristic of the low-temperature polycrystalline silicon LCD technology despite the inclusion of COG devices. Furthermore, Sony was able to reduce the thickness of the glass and thus achieved an overall thickness of only 1.33 mm.

■ Ratio Viewing Area: 100%

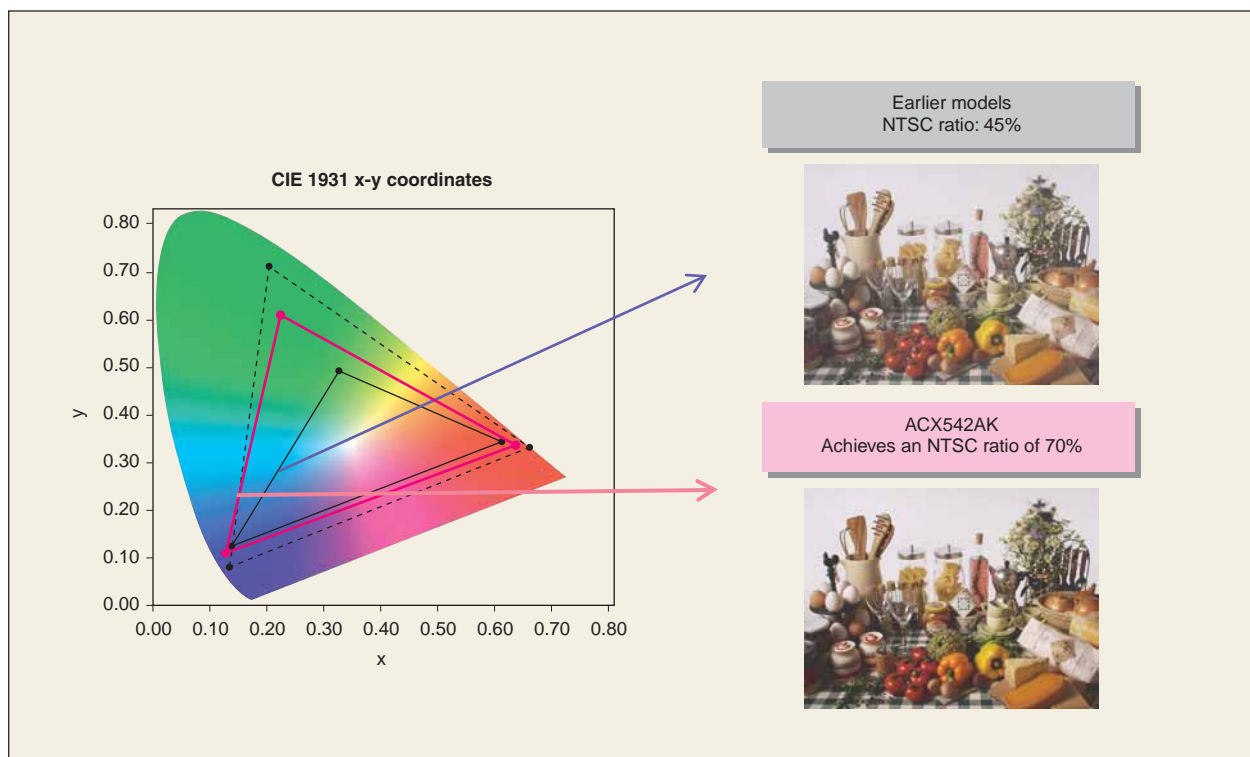
The ACX542AK supports 100% ratio viewing area so that the whole area of images captured by the digital still camera can be reviewed with no parts missing.

■ Up/Down and/or Right/Left Inversion Function

Since there are now digital still cameras in which the monitor can be rotated, the ACX542AK provides the ability to perform up/down and/or right/left inversions under serial signal control. This provides a high degree of flexibility for end product designs.

V O I C E

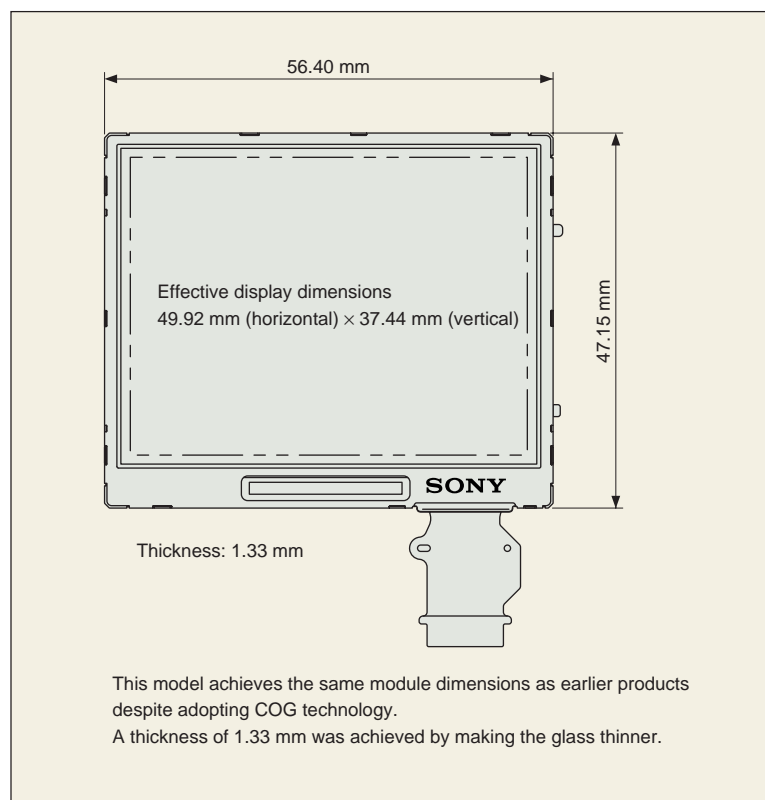
In addition to the larger screen size, this is also a panel in which we focused on picture quality. This panel is easy to view even in bright outdoor light levels and produces picture quality so high you will want to show it to the people around you.



■ Figure 1 Color Reproduction

■ Table 1 Main Characteristics

	ACX542AK
Number of pixels	960 × 240
Diagonal size	6.3 cm (2.5 type)
Display mode	Transflective mode
Interface	Serial RGB interface, 8 bits
Transmittance	6.5%
Reflectance	3.0%
Contrast	150:1
Power consumption (without backlight)	50 mW



■ Figure 2 Module Dimensions