

## 1.3-Inch SVGA Data Projector LCD Supporting Multi-Format Display 1.3-Inch, 520,000-Dot SVGA LCD

# LCX016AL

The development of small LCD projectors capable of bright and clear "desktop presentations" directly displaying images and data from a connected personal computer is becoming popular.

The LCX016 LCDs, designed for use in AV projectors, reflect Sony's expertise in polysilicon TFT technology. As high-resolution versions of the highly-rated LCX012BL VGA LCD, these models support all display formats up to SVGA.

- SVGA display support
- High optical transmittance(20%)
- Multiformat display support—VGA, NTSC, PAL, etc.
- Cross talk free performance achieved by use of high-picture quality circuit
- Built-in up/down and/or right/left inversion functions
- Built-in level conversion circuit
- High-voltage drive sample-and-hold IC for simpler system configuration and fewer adjustment points

### ■ High Optical Transmittance SVGA-Compatible 1.3-Inch LCD

Use of Sony's proprietary polysilicon TFT technology has made it possible to achieve a high optical transmittance SVGA display (832 x 624) with a 1.3-inch. Since SVGA uses more display dots than VGA, it is possible to enlarge the display area and perform smooth character display, for more effective presentations. And since analog signal input is used, the display can adjust to the output tones of the connected personal computer.

### ■ Built-In Multiformat Display Functions

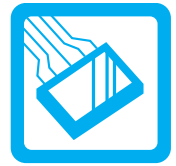
A built-in function for displaying a surrounding black frame according to the number of display dots of the actual panel enables the dots in the required area, out of the total number of dots (832 x 624), to be displayed centrally without using external memory or setting the screen center in each case. This enables VGA (640 x 480) display and AV modes, including NTSC and PAL, to be selected easily by switching the mode. In particular, since the LCX016 can handle without eliminating PAL display, it is possible to obtain a very clear display with no missing pictorial information. In addition, PC98 mode (640 x 400) and NTSC (16:9) widemodes can be supported by using the appropriate combination of black frames (figure 1).

### ■ Designed for Ease of Use

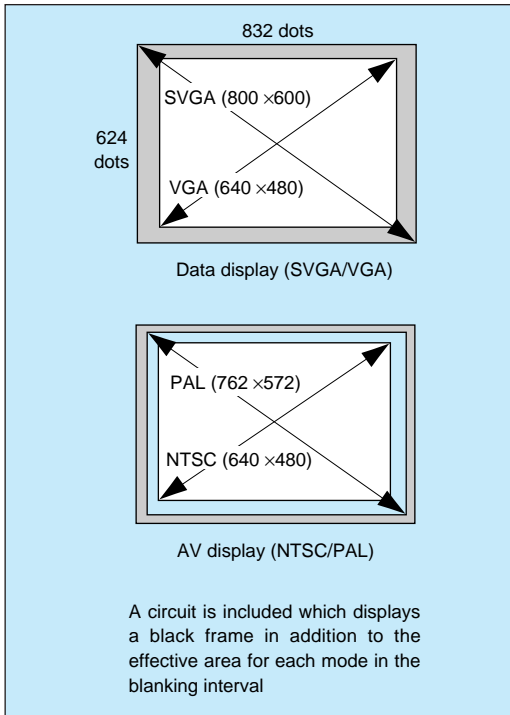
Sony's projector LCDs incorporate up/down and/or right/left inversion functions suitable for a variety of uses, and also include a built-in level shifter that allows external drive on a 5 V signal and enables undesired radiation to be suppressed. The Sony's original high-picture quality circuit provides cross talk free performance (figure 2), and a high-voltage drive sample-and-hold IC is used for LCD drive, reducing the number of adjustment points and providing a user-friendly system configuration (figure 3).

## V O I C E

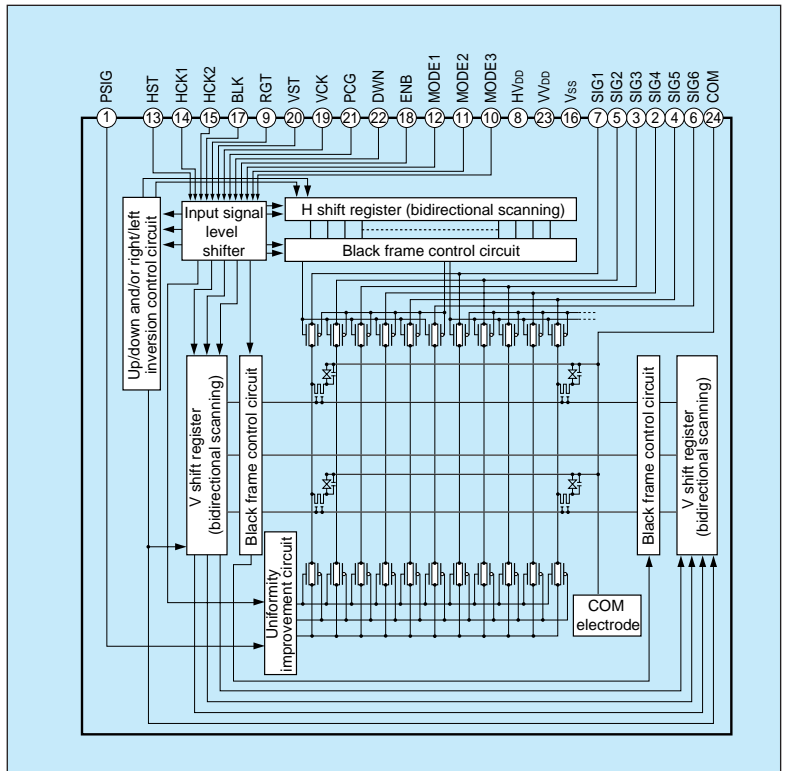
The LCX016 is a high-resolution version of the highly-rated LCX012, featuring new technology and improved functions. High optical transmittance of 20% is achieved with higher resolution, making the LCX016 the definitive high luminance data projector LCD.



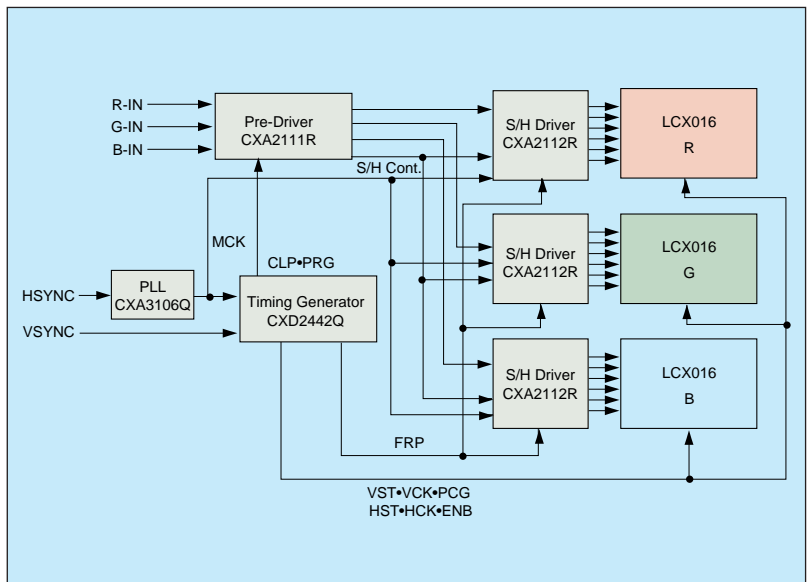
# New Products



■ Figure 1 Multiformat Display Support



■ Figure 2 LCX016 Block Diagram



■ Figure 3 LCX016 System Blocks