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LCD VIDEO MONITOR

CoolTouch RX-563AL LCD Color Monitor

by Joey Gill

One of the constants in both DTV and analog TV worlds is the need to view a picture. Although CRT displays are still widely accepted and are very common in the professional video world, other technologies are emerging and gaining wide acceptance. LCD monitors are competing heavily for leadership in display technology, trying to displace CRT's. LCD technology has improved greatly over the last decade, and the displays continue to improve.

One manufacturer who is successfully developing and marketing high quality LCD monitor solutions is CoolTouch Monitors

FEATURES

The CoolTouch monitor shipped to me for evaluation was an RX-563AL. It is a rack-mountable, triple display, 5.6-inch color NTSC device. The unit weighed in at about five pounds, and is 18.5-by-5.1-by-2.1 inches. The actual screen size is 4.54-by-3.44 inches. Screen type is TFT-LCD (thin film transistor, liquid crystal display).

The aspect ratio is 4:3, and the dot pitch is 0.116-by-0.348 mm. The unit is shipped with a 12 VDC power supply that provides three amps. The monitor is available in red, gold, blue, silver and black and accepts composite NTSC and PAL video, with auto-recog-

niton. Each display has two video inputs, but only a single audio input. This is not mono, just one channel of audio available with each screen. According to the manufacturer, the audio monitor is only intended to be for confidence purposes and as such is provided with very limit-



The CoolTouch RX-563AL three-unit LCD video monitor

ed quality. CoolTouch indicates that later models will enjoy enhanced audio features.

There are three screens, with operating controls below each. The controls include a power switch, an input selector, a menu button and up and down scroll-type buttons. There's also a small speaker opening.

On the rear of the unit you will find the power connector, four input and output BNC connectors for each screen (channels A and B, plus loop-through), a toggle switch to select internal 75-ohm termination for each of the video inputs, an 1/8-inch mini audio jack for each monitor and very good labeling for each connector, switch and jack.

Viewing angle has always been one of the

limitations of LCD technology; however, the CoolTouch unit appears to be as good as any I've seen. The viewing angle for the top is 30 degrees, and the viewing angle for the bottom is 10 degrees. Left to right acceptable viewing is 90 degrees. To aid in connection with limited viewing angles, some manufacturers have added mechanisms that allow their displays to tilt up and down.

The CoolTouch unit has a very slick mechanism that allows users to easily adjust the display's tilt in the rack. However, there are no buttons to push or screws to loosen to change the angle. The monitor will stay where you put it due to the "ball-detent" system designed into it. The unit's workmanship appears to be top quality. The

FAST FACTS

Application

Video and audio confidence monitoring in limited space and other areas

Key Features

Compact design, supports multiple video formats, ease of operation, latest LCD technology

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anodized finish is very appealing; the power connector screws on for security; and the overall metal fit and finish are outstanding.

IN USE

The RX-563AL came packaged in a very nice shipping container, with a solid packing structure.

I set the unit up on my workbench, connected the power supply and supplied NTSC signals to each of the three monitor inputs. The 75-ohm terminating switches worked perfectly, allowing either loop-out or termination of the signal at each on the monitor inputs. When I pressed the power switch, the monitors immediately displayed the sources that feeding each. The video quality was very acceptable, with the displays bright and vibrant. With the high-contrast display, detail did not appear to suffer, although these are not sold as high-resolution monitors.

With all three monitors in operation, the power supply ran at a comfortable temperature and showed no signs of overheating.

The display is equipped with ventilation holes in the top and bottom of the enclosure and after some hours of operation you can feel some heat being vented through the top. In a clever design move, the top and bottom of the chassis is beveled to allow close mounting without restricting air flow needed for proper cooling. I would still

exercise caution with regard to mounting, so as not to restrict air flow, however.

The input selector switch easily toggles between the A and the B sources available to each display. There's even an on-screen display indicating which input is selected.

The menu button provides scrolling through brightness, contrast, chroma and hue adjustments. After selecting which variable to adjust, you just press the up or down buttons, indicated by up and down arrows. The up and down buttons default to volume controls when menu selections aren't being used.

As there's only one audio input per display screen, the audio source heard is the same source whether you select either the A or B input. I used my station's regular audio feed as an audio source during the evaluation of the RX-563AL. Just as CoolTouch indicates, the audio quality is just about adequate to ensure confidence that audio is indeed present.

By using a tone generator, I determined that the frequency response ranged from about 300 Hz to 10 kHz. Admittedly, this response test was done by ear and has limited technical merit. In addition to the limited response, the volume level was somewhat low. However, both response and volume appear adequate for typical applications of these types of monitors.

SUMMARY

Overall, the RX-563AL is a very appealing unit. I cannot say enough about the design and manufacture of the chassis, not to mention the fact that it makes a pretty nice picture as well. For most applications, the audio application included would be a welcomed addition where space is a concern. The physical space limitations of a compact monitor are going to limit the quality of audio you can expect from such a unit, as there's no room for big speakers on any video monitor in this size range. The audio feature is not an option, and is included with all CoolTouch monitors. I think CoolTouch has done an outstanding job with the design, layout and manufacture of this product and I'm looking forward to the release of more CoolTouch products in the future.

Currently, CoolTouch is working toward producing units that will accept SD and HD SDI and that will support "in-picture" audio level metering and can provide "tally" inputs for customers needing this feature.

Joey Gill is chief engineer at television station WPSD in Paducah, Ky. He has been with the station for 25 years and has worked in broadcasting since 1977. He may be contacted at respond2jgill@yahoo.com.