

摘要: 便携式裸眼3D设备屏幕规格众多,在基于嵌入式系统多规格小尺寸液晶屏的便携式设备上实现立体显示效果,需在嵌入式系统立体图像进行缩放和插值处理,满足左右眼图像的准确观看。文章对安卓操作系统中3D图像处理进行研究,应用安卓提供的函数获取像素和图像实际分辨率,并根据二者的参数使用失真度小的线性缩放技术和列插值融合方法完成左右格式3D视频和图像的立体播放。在通2D液晶屏的便携式设备上进行了验证得到正确显示。

关键词: 裸眼立体显示 亚屏幕 图像质量

Stereoscopic Display Based on Embedded System

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Abstract: Portable naked-eye 3D device has many different screen sizes, in order to achieve a three-dimensional display on embedded system, which has different small-sizes of LCD, we need to do the image scaling and interpolation process based on the embedded system, so that the viewing of the left and right eye can be satisfied. In this paper, we researched the 3D image processing and designed a naked-eye 3D displayer based on Android system. The displayer can get physical pixels of the screen and the actual image resolution using Android to provide functions, use low distortion linear scaling technology and columns interpolation fusion and complete the left and right format stereo video and image played. It was displayed correctly on portable device with specifications of ordinary LCD screen.

Keywords: nakedness-eye stereoscopic display sub screen image quality

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