

OptiML™ Panorama Technology



Panoramic images – typically joined together by software, based on multiple exposures from a single camera – have grown popular as more people use digital cameras or smart phones. DigitalOptics Corporation™ (DOC) OptiML Panorama technology is simple and easy to integrate into electronic devices.

OptiML Panorama technology is created so no UI is required to capture a scene; just press the shutter and sweep the camera. There are no complicated “stop and go” procedures. Real time execution with no shake produces a natural look to the joined images. No geometric perspective correction is required. DOC’s proprietary algorithm ensures the best image quality for panoramic images.



Benefits

- Quick image capture and processing on device
- Easy to capture 3D content using low cost imaging devices
- Enables consumers to display their own content on 3D TVs and displays
- Low cost solution to enable 3D capture on a wide range of imaging devices and existing camera system architectures
- Embedded technology designed for existing single aperture camera architectures
- Optimized for speed and quality
- Supports fast sweep (which can be further improved by HW acceleration)

2D Panorama

Memory required

- Library heap: 132 KB
- Key-frames buffer: 7.2 MB
- Result buffer: 4.3 MB

Processing time

- Registration: 15 msec
- Joining: 250 msec

3D Panorama

Memory required

- Library heap: ~132 KB
- Key-frames buffer: ~40 MB
- Result buffer: ~4.4 MB

Processing time

- Registration: 12 msec
- Joining: 365 msec

Platform

- ARM946E-S 288MHz
- 1280x720 full resolution and 320x180 small copy
- YUV 420 planar
- Result max size: 4000x720 / 1280x2250

Contact a DigitalOptics sales representative for more information.

3025 Orchard Parkway | San Jose, CA 95134 | τ +1.704.887.3154 | www.doc.com

DigitalOptics, the DigitalOptics logo, OptiML, μPILR, μZ and μBGA are trademarks or registered trademarks of DigitalOptics Corporation or its affiliated companies in the United States and other countries.