

ADVANCED PHOTO & VIDEO TECHNOLOGY FOR SMARTPHONES

Imagiq makes it easy for you to capture the best images and video from your Smartphone – whether it's a dual or single camera device. Imagiq, a combination of hardware and software built into our MediaTek Helio family of chipsets, gives users an unparalleled photography experience with truer colors, more detail, improved brightness, faster auto focus and sharper images.

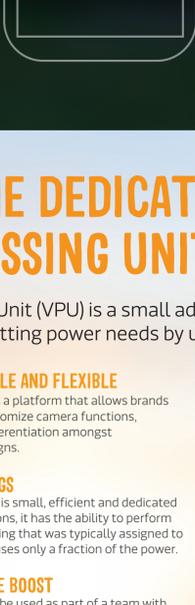
Powered by
MediaTek helio



A REVOLUTION FOR MOBILE PHOTOGRAPHERS

Imagiq will transform your experience behind the lens, making the art of photography simpler, better, and faster.

SIMPLER PHOTOGRAPHY
With Imagiq working behind the scenes, it's easy for anyone to snap great photos in an instant. Imagiq packages complex imaging techniques, traditionally used by professionals, within MediaTek mobile technologies for ease of use. Total freedom from your heavy DSLR!



BETTER PHOTOGRAPHY
Reveal the artist in you with Imagiq enabled devices. Dual-camera effects, image enhancers and other exclusive photo and video technologies work together for endless ways to express your creativity.

FASTER PHOTOGRAPHY
Take great pics without learning jargon or complex camera settings. Imagiq saves you time by intelligently automating everything. Just aim, shoot and be amazed by brilliant photos in one click. Never miss a moment.

THE DEDICATED VISION PROCESSING UNIT DIFFERENCE

The Visual Processing Unit (VPU) is a small addition that makes a big difference, cutting power needs by up to 10 times.



PROGRAMMABLE AND FLEXIBLE
The VPU provides a platform that allows brands the ability to customize camera functions, providing key differentiation amongst smartphone designs.



POWER SAVINGS
Because the VPU is small, efficient and dedicated to camera functions, it has the ability to perform real-time processing that was typically assigned to CPU or GPU, but uses only a fraction of the power.



PERFORMANCE BOOST
The VPU can still be used as part of a team with the CPU/GPU for advanced or multi-system tasks, employing heterogeneous computing on same memory subsystem.

1/10 POWER USAGE VS CPU

IMAGIQ 2.0 FEATURES

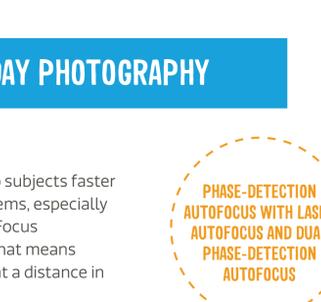
FOR DUAL-CAMERA DEVICES



Imagiq 2.0's Dual Camera Optical Zoom with MediaTek's proprietary **Clear Zoom** digital processing, sharp images and video are created, even at up to 10x zoom. **Color+Mono** provides better low-light image quality. **Real-Time Depth Estimation** adds 3D effects.



without Imagiq



with Imagiq

Real-Time Large Aperture Depth-of-Field (DOF) Effect utilizes an F-number as small as 0.8 for professional looking photos and videos.

FOR EVERYDAY PHOTOGRAPHY

Our **Hybrid Auto Focus system** locks onto subjects faster than traditional contrast Auto Focus systems, especially on moving objects. With Pixel-level Auto Focus technology more light can be collected. That means impressive focus speed, even for objects at a distance in extreme low light conditions.

PHASE-DETECTION AUTOFOCUS WITH LASER AUTOFOCUS AND DUAL PHASE-DETECTION AUTOFOCUS



with Imagiq

INSTANT AUTO-EXPOSURE WITH CAMERA CONTROL UNIT FOR BRIGHTNESS-BASED SENSOR EXPOSURE

Just like auto focus, a system with slow brightness adjustment may mean missing a great photo moment. Imagiq 2.0 introduces **Instant Auto Exposure** for ultra-fast and accurate exposure by capturing lighting changes within the surrounding environment for incomparable performance.



without Imagiq



with Imagiq

Our **HDR engine** on Imagiq 2.0 helps recover the dynamic range of what we see in recorded videos and snapped photos. All this happens automatically while keeping power consumption low, even when shooting high-resolution 4K HDR videos.

NEW MULTI-FRAME HDR PROVIDES CLEARER IMAGES AND VIDEO

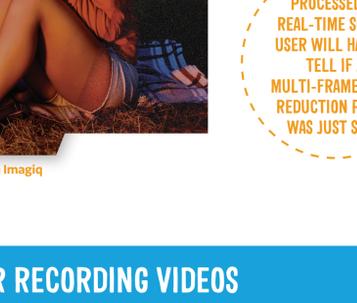
AT NIGHT OR IN A POORLY-LIT ENVIRONMENT

Imagiq's **Image Stabilization** detects insufficient lighting that causes blurry images due to long exposure. Our stabilization technology solves this by combining several consecutively-captured images into one image, eliminating camera shake issues.



without Imagiq

ADVANCED IMAGE STABILIZATION DIVIDING UP LONG EXPOSURE TIMES FOR BLUR-FREE PHOTOGRAPHY



with Imagiq



without Imagiq

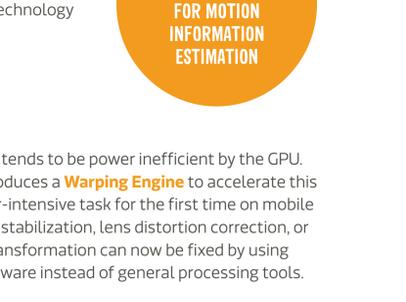
Our **Noise Reduction engine** lowers the processing time and improve smoothness of the image with multi-frame blending.

PROCESSED IN REAL-TIME SO THE USER WILL HARDLY TELL IF A MULTI-FRAME NOISE REDUCTION PHOTO WAS JUST SHOT

FOR RECORDING VIDEOS



without Imagiq



with Imagiq

Our **Electronic Image Stabilization** solution can work solely on video inputs without requiring a gyro. Low-power with high-quality, this advanced technology results in smoother videos.

EIS 3.0 FEATURING HARDWARE ENGINE FOR MOTION INFORMATION ESTIMATION

DEDICATED WARPING ENGINE IN IMAGIQ 2.0 SAVES POWER AND EXTENDS BATTERY LIFE

Image warping tends to be power inefficient by the GPU. Imagiq 2.0 introduces a **Warping Engine** to accelerate this typically power-intensive task for the first time on mobile devices. Image stabilization, lens distortion correction, or other image transformation can now be fixed by using dedicated hardware instead of general processing tools.

Temporal Noise Reduction on Imagiq 2.0 improves the quality of all your previews and recordings by locating and reducing pixel movement in videos. Previews and recordings will see a significant reduction in flicker noise, and will look cleaner.



without Imagiq



with Imagiq

TEMPORAL FILTERING-BASED MOTION-ALIGNED PIXELS FOR NOISE REDUCTION AND ISO GAINS