EIS
ELECTRONIC IMAGE STABILIZATION

Eliminates the effect of hand jitter and flight navigation vibration by correcting for 6 degrees of freedom, including rotation, translation, lens distortion and rolling shutter effects.

There are three deployment modes, addressing different market configurations.

**LOW LATENCY** - action camera real time streaming. The corrected frame is available with 1/3 frame delay; the ideal stabilized trajectory is estimated;

**REAL TIME** - action camera and smartphone streaming. The corrected frame is available with one frame delay; the ideal stabilized trajectory is estimated;

**DEFERRED CORRECTION** - action camera, smartphone and drone streaming. The corrected frame is available with a configurable number of frames delay; the ideal stabilized trajectory is known;

**MARKETS SERVED**
- drones
- smartphones
- action cameras
- tablets
- cameras
- surveillance
- automotive

3025 Orchard Parkway | San Jose, CA 95134 | T +1.408.473.2500 | E sales@fotonation.com
FEATURES AND TECHNOLOGY HIGHLIGHTS

- Unique hybrid implementation.
- Supports SW or SW + HW 8K input at 30 FPS and 4K input at 120 FPS.
- SW + HW solution enables lightning fast image processing.
- Accurate lens distortion modelling and motion compensation.
- Optimized for embedded and mobile environment (Android and iOS).
- Low power consumption and bandwidth requirements.

MOTION ESTIMATION
- 256 independent motion vectors
- High accuracy - up to 0.01 of a pixel
- Works in low-light condition
- Resistant to image blur

MOTION FILTERING
- Adaptive motion filtering
- Motion field outliers resistant
- Sensor fusion technology (registration + motion sensor)

MOTION CORRECTION
- Corrects complex rolling shutter
- Distortion correction & stabilization in 1 pass
- Native HW support for bicubic resampling
- Patented caching design minimizes bandwidth

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SW</th>
<th>SW + HW</th>
<th>PERFORMANCE</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIS 1.x</td>
<td>✔</td>
<td>✗</td>
<td>FHD @ 60 FPS</td>
<td>medium</td>
</tr>
<tr>
<td>EIS 3.x</td>
<td>✗</td>
<td>✔</td>
<td>up to 8K @ 30 FPS</td>
<td>low</td>
</tr>
</tbody>
</table>

3025 Orchard Parkway | San Jose, CA 95134 | T +1.408.473.2500 | E sales@fotonation.com