

DJI Osmo Action 6 — FOV Modes Specification

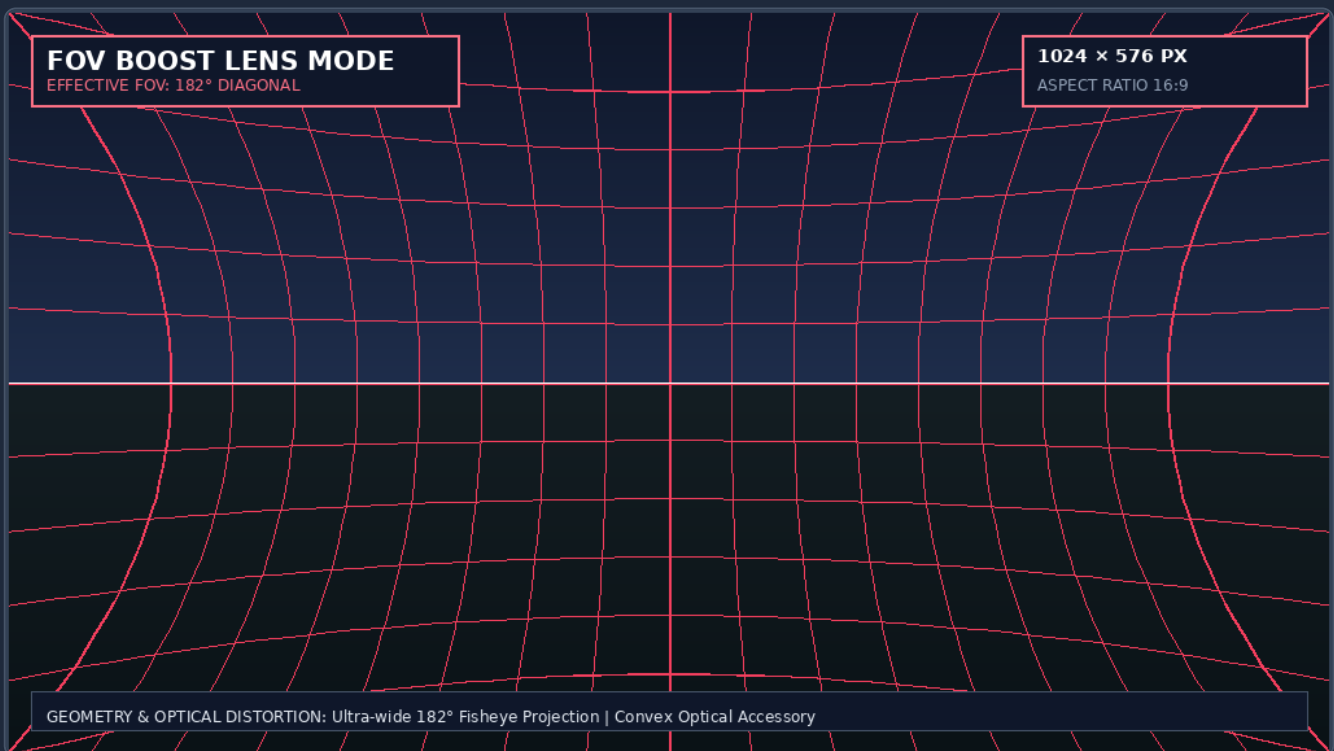
Comprehensive overview of Field of View (FOV) modes on the DJI Osmo Action 6 (1/1.1-inch CMOS sensor with variable aperture f/2.0–f/4.0), including optical coverage degrees, image quality impacts, sensor crop factors, and 1024×576 (16:9) visual framing examples.

FOV Modes Overview & Comparison

MODE NAME	FOV (DEGREES)	SENSOR CROP	DISTORTION CHARACTERISTIC	IMAGE QUALITY & RESOLUTION IMPACT
FOV Boost Lens Mode	182°	None (Optically Expanded)	Pronounced Fisheye / Spherical	+26% wider field; maximum center detail, subtle edge pixel stretching.
Ultra-Wide FOV	155°	0% (Full Sensor Readout)	Moderate Edge Barrel Bowing	Highest native optical sharpness & dynamic range; edge lines curve.
Natural Wide FOV	140°	~5% Minimal Edge Trim	Vertical Dewarp / Linear Verticals	Preserves wide perspective while rectifying upright subjects (trees/buildings).
Wide FOV	130°	~10% Sensor Crop	Subtle Barrel Curvature	Balanced action perspective; clean detail with minimal geometric distortion.
Standard (Dewarp)	98° (~15mm eq)	~20-25% Rectilinear Crop	100% Linear Rectilinear (Flat)	Zero horizon/line bowing; slight reduction in peripheral pixel count due to crop.

1. FOV Boost Lens Mode

182° DIAGONAL FOV



1024×576 (16:9) Example Frame — Ultra-Wide 182° Optical Projection (FOV Boost Lens Attached)

FIELD OF VIEW & HARDWARE REQUIREMENT

182° Diagonal FOV. Requires the optional *Osmo Action FOV Boost Lens* accessory (convex optical glass element). When attached, the Action 6 automatically detects the accessory and enables this mode in firmware.

EFFECT ON IMAGE QUALITY

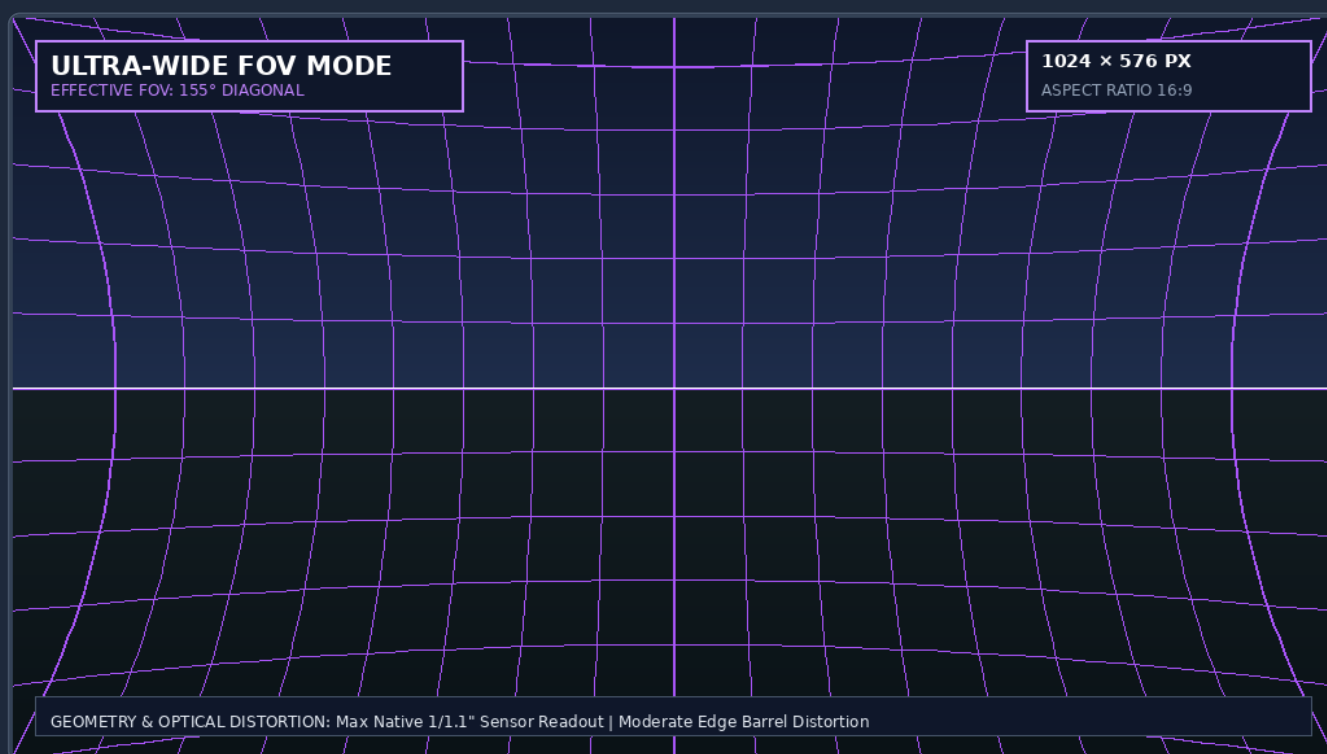
Expansive Optical Field with Peripheral Fisheye: Broadens the captured area by 26% in width and 24% in height over standard native capture. Retains outstanding center sharpness and rich dynamic range. Because of the extreme convex optical curvature, peripheral lines bow significantly and extreme corners display minor pixel stretching, but center subjects remain ultra-sharp.

STABILIZATION & BEST APPLICATIONS

Supports RockSteady 3.0/3.0+ and HorizonBalancing. Perfect for first-person POV (skiing, downhill mountain biking, cockpit video) where maximum surrounding environment and gear context must be captured in frame.

2. Ultra-Wide FOV Mode

155° DIAGONAL FOV



1024x576 (16:9) Example Frame — Full Sensor Native Readout (155° Optical FOV)

FIELD OF VIEW & SENSOR READOUT

155° Diagonal FOV. Captures the maximum native optical field directly from the 1/1.1-inch CMOS sensor without external optics or in-camera linear dewarping.

EFFECT ON IMAGE QUALITY

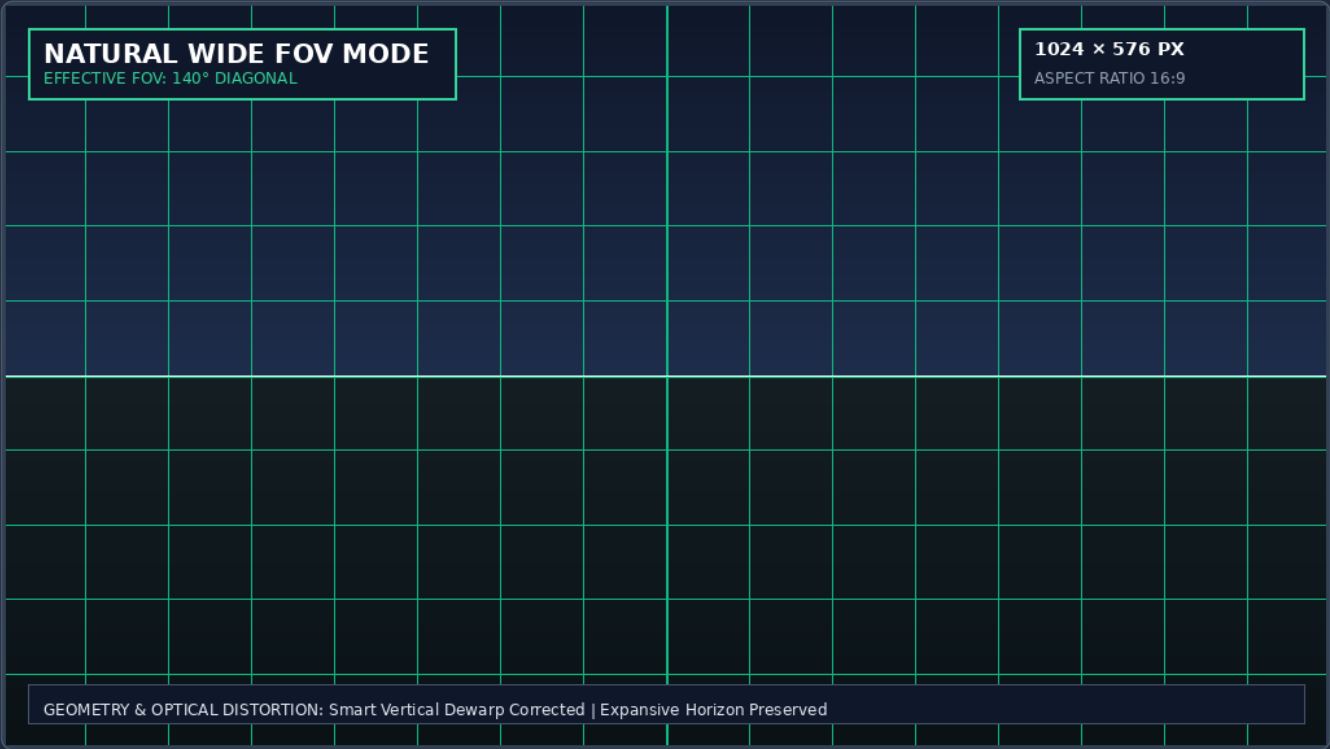
Maximum Optical Resolution & Dynamic Range: Utilizes 100% of the active sensor surface, delivering maximum light gathering, low-light performance (up to 13.5 stops dynamic range), and highest micro-contrast. Edge straight lines display classic action-cam barrel distortion, giving footage an immersive, high-velocity feel.

STABILIZATION & BEST APPLICATIONS

Fully compatible with RockSteady 3.0/3.0+. Ideal for fast action sports, wide scenic landscape fly-bys, trail riding, and chest-mounted POV video where immersive coverage is prioritized over straight geometric lines.

3. Natural Wide FOV Mode

140° DIAGONAL FOV



1024x576 (16:9) Example Frame — Vertical Dewarp Algorithm (140° Natural Field)

FIELD OF VIEW & ALGORITHM PROFILE

~140° **Diagonal FOV**. An advanced hybrid FOV mode introduced on the Osmo Action 6. It applies intelligent anamorphic/vertical linear correction while leaving the horizontal expanse wide.

EFFECT ON IMAGE QUALITY

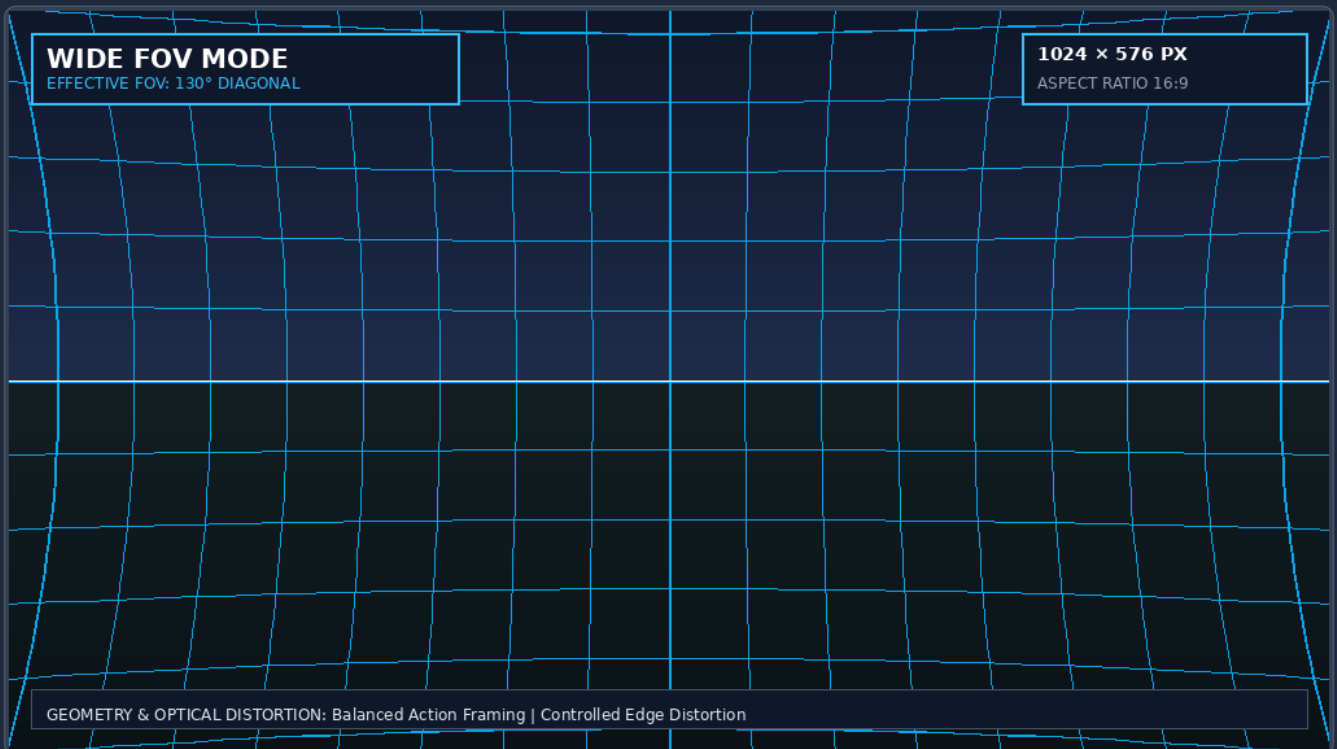
Realistic Upright Perspective with High Resolution: Eliminates the distracting "bowing" on vertical objects like forest trees, buildings, power poles, and standing people. Because it crops far less than full Dewarp, image detail and corner sharpness remain exceptionally high with minimal resolution loss.

STABILIZATION & BEST APPLICATIONS

Supports RockSteady 3.0+, HorizonBalancing, and 8K video modes. The premier choice for urban action sports, forest mountain biking, architecture walk-throughs, and travel vlogging where vertical lines should look natural.

4. Wide FOV Mode

130° DIAGONAL FOV



1024×576 (16:9) Example Frame — Standard Wide Angle Perspective (130° FOV)

FIELD OF VIEW & CROP CHARACTERISTICS

~130° Diagonal FOV. Applies a moderate ~10% crop onto the sensor to tame extreme peripheral distortion while retaining a broad wide-angle perspective.

EFFECT ON IMAGE QUALITY

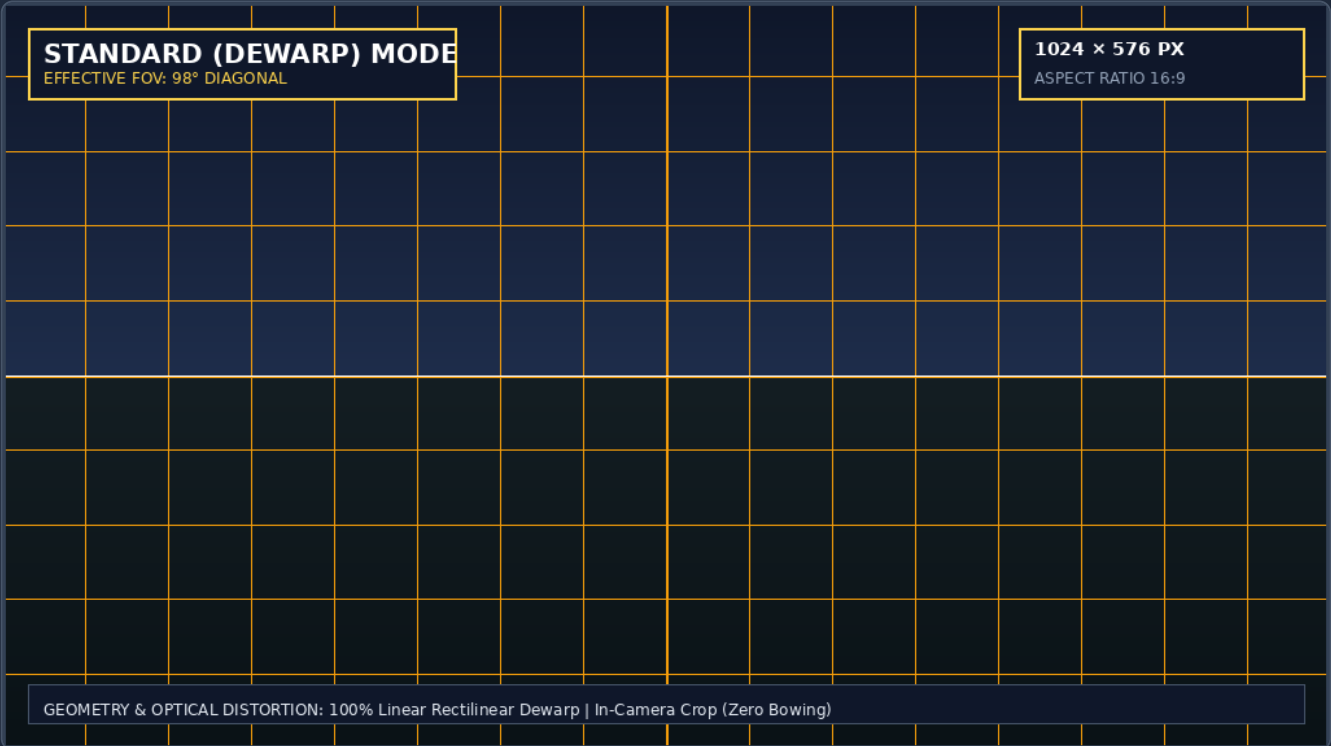
Balanced Proportions & Consistent Sharpness: Offers clean geometry across 85% of the central frame with subtle barrel curvature near the outer edges. Delivers excellent sharpness and minimal edge soft-focus, creating comfortable viewing for long-form video content.

STABILIZATION & BEST APPLICATIONS

Fully supports HorizonSteady (360° lock) and HorizonBalancing up to 4K/60fps. Great for general sports, handheld walking footage, family recreation, and multi-subject group activities.

5. Standard (Dewarp) FOV Mode

98° DIAGONAL FOV (~15mm eq)



1024x576 (16:9) Example Frame — 100% Linear Rectilinear Correction (Zero Line Distortion)

FIELD OF VIEW & FOCAL EQUIVALENT

~98° Diagonal FOV (~15mm 35mm Equivalent). In-camera digital processor completely rectifies lens distortion to output a traditional flat (rectilinear) image.

EFFECT ON IMAGE QUALITY

Zero Line Distortion / Moderate Sensor Crop: All straight lines in the physical scene remain completely straight in video. Requires an approximate 20-25% crop into the sensor, which slightly reduces peripheral pixel density compared to Ultra-Wide, but yields clean, natural human proportions without edge stretching.

STABILIZATION & BEST APPLICATIONS

Supports HorizonSteady, HorizonBalancing, and SuperNight mode. Essential for vlogging, talking-head interviews, close-up product demos, and architectural video where fisheye curvature is unacceptable.