

HDC-350-1

Global Shutter High Definition Camera

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Key Features

- High definition (1080p/60 max) Resolution
- Sensor pixel resolution: 2064H x 1544V (3 Mp)
- Rugged, lightweight and miniature size enclosure
- Lens mount: C-mount with adjustable back-focus
- Operating temperature: -40 to 75°C
- 3G/HD-SDI output (SMPTE 292M & 424M) video output
- Fast auto exposure and white balance
- High dynamic range (71 dB)
- 2D/3D noise reduction
- Defective pixel correction
- Excellent manual controls

Applications

- Flight test instrumentation
- De-icing video
- High vibration scene – cockpit displays
- Aircraft monitoring

Overview

The high-definition HDC-350 camera is a perfect solution for applications where space is at a premium, including airborne, automotive and ground testing. The HDC-350 is ideal as an airborne-rugged high definition (HD) camera for the test engineering community.

It has a 3 MP resolution (1920 x 1080p x 60 fps) and uses a global shutter to eliminate image and pixel blurring.

The HDC-350 enclosure is miniature (only 1.5 x 1.5 x 2.4" (37 x 37 x 62 mm)) and, thanks to its rugged construction, is able to be mounted in virtually any situation that arises on an aircraft interior in any test condition.

The high dynamic range (HDR), wide dynamic range (WDR) imaging and fast exposure continuously adjusts to changing light situations and assures high accuracy by removing over and under saturation artifacts in each frame while auto-exposure and auto-white balance adjust for perfect color balance. The HDC-350 camera has an 3G/HD-SDI video output.

Specifications

TABLE 1		HDC-350-1 Ordering Information
PART	DESCRIPTION	
Image Sensor	Sony IMX-265	
Active Image Resolution	2064 (H) x 1544 (V)	
Resolution	3 MP	
Optical Format	1 / 1.8"	
Pixel Size (Microns)	3.45	
Electronic Shutter Type	Global Reset	
Frame Rate	1920x1080p (60 fps - max)	
Digitization	8, 10, or 12-bits	
Dynamic Range	71 dB	
Shutter Speeds	1 μ s/step from 14 μ s to 16 sec	
AEC/AGC	Yes	
Black-level Offset	Manual (0-255), Automatic	
White Balance	Once, Manual, Automatic, OFF	
Trigger Inputs	Edge, Pulse Width, Delay, Debounce	
Trigger Mode	External, Free-run	
Lens Mount	Industry Standard C-Mount	
Power	8V to 32V DC, Nominal 12V DC; Typical usage is 4W	
Enclosure Size	37 mm (W) x 37 mm (H) x 62 mm (L)	
Mass / Weight	108 grams (No Cable/Connectors)	
Environment: Temperature	Operating: -40C to +75C Storage: -40C to +85C	
Environment: Shock/Vibration	Shock: 40g 15-23ms all axis MIL-STD-810G Vibration: 15g all axis MIL-STD-810F Crash Hazard: 75g 6ms all axis MIL-STD-810G	

Ordering Information

- + HDC-350C-1: Color Image Sensor Camera
- + HDC-350M-1: Monochrome Image Sensor Camera

Camera does not include lens (see table below for ordering information)

TABLE 2		HDC-350-1 Lens Ordering Information (Lens is sold separately)
CAMERA LENS PART NUMBER	DESCRIPTION	
CCL-3405-1	4.8 mm f/1.8, 11 mm Image Circle	
CCL-3406-1	6 mm f/2.1, 11 mm Image Circle	
CCL-3408-1	8 mm f/1.4, 11 mm Image Circle	
CCL-3410-1	10 mm focal length, f/1.9, 16 mm Image Circle	
CCL-3412-1	12 mm focal length, f/1.4, 11 mm Image Circle	
CCL-3416-1	16 mm focal length, f/1.8, 16 mm Image Circle	

Note: Additional lenses are available. Please contact the factory for details.