

GNAT II 1080p 60™ – Miniature 1080p 60 fps or 59.94 fps 3G SDI/HDMI Camera
With Interchangeable C or CS Lensing and Genlock Function. Available in Cased or Board Versions.

Features

- 3G/HD-SDI and HDMI seamless video performance
- Outputs: 3G-SDI/HD-SDI (NTSC, PAL) with 292M, or HDMI, in one camera
- 2 Megapixels
- 1/3" Progressive Scan CMOS Sensor
- 49 x 49 x 57 millimeters – only 2.25 inches long
- Maximum 1,920 x 1,080 resolution
- Output resolutions
 - 1080p@60/59.94/50/30/29.97/25
 - 1080i@60/59.94/50
 - 720p@60/59.94/50/30/25
- C/CS mount with DC Iris
- Full HD Progressive Scan sensor captures sharp and vivid color under different light conditions
- Advanced digital imaging processor provides vivid and detailed images by utilizing WDR, White Balance, and Noise Reduction
- Motion Compensated temporal noise reduction filter leads to effective noise reduction for motion video without blur
- Tri level sync Genlock synchronizes GEN3 cameras and other system components for seamless vertical interval switching between sources
- Compatible with other industry leading products, conforming with SMPTE 424M/292M standard
- Auto White balance and shutter speed provides optimized performance in a variety of situations
- Flawlessly relays embedded audio via SDI and HDMI
- Built in OSD (On Screen Display) controls for customizable image settings
- Versatile, compact, and rugged design



Overview

The GNAT II is a compact HD 3G-SDI Broadcast Camera which produces clear and crisp HD Video suitable for use in a broad range of HD video applications. The GNAT II features Self Adaptive Genlock Tri level Sync, built in OSD for customizable image settings, inter changeable lens design making it compatible with auto iris CS and C mount lenses and audio input that can relay embedded audio via SDI and HDMI. This camera will be your go-to camera for multiple video production workflows.

Broadcast cameras are converging with industrial cameras in as much as both industries have recently adopted SDI and HD/SDI as the primary interface standard. SDI is a Serial Digital Interface and is defined by uncompressed digital video with a BNC Connector and the ability to carry 3 Megapixels over coax cable. This transfers to 1080p @ 60 fps which covers the higher end of broadcast standards. The difference between broadcast and machine vision is that machine vision needs 60 fps and broadcast needs 59.97 fps with Genlock.

The GNAT II camera covers both worlds. It is a miniature 1080p camera with 3G HD/SDI or HDMI output and supports all broadcast standards and machine vision standards. For broadcast requirements it supports Genlock as well. For situational awareness users, a built-in 2D and 3D Digital Noise Reduction capability is very useful. If fog, rain or dust threatens to impair the image, the DNR will digitally remove the "Noise".

Applications

- Broadcast
- Live Production
- Sports and Racing
- Houses of Worship
- Education
- Rugged Military Camera
- High End Security
- Medical (Microscopy, Dental Medicine)
- Sport Science (Motion Analysis, Physical) POV
- Situational Awareness for Subs, Airplanes, and Ships
- Self Driving Cars

Specifications

Sensor Specifications

Image Sensor	1/3" progressive scan CMOS Sensor, 2 megapixels
Sensor Size	5.346 mm x 3.003 mm (16:9)
Effective Pixels	1,920 (H) x 1,080 (V)
Pixel Size	2.75 μm x 2.75 μm
Sync. System	Internal Sync
Resolutions	1080p / 1080i: 1920 x 1080 Full HD; 720p: 1280 x 720
Minimum Illumination	0.2 Lux (Day), 0.1 Lux (Night), 0.005 Lux (Slow Shutter On)

Video Outputs

Video Signal Outputs	3G-SDI/HD-SDI; HDMI 1.3a
SMPTE Standards	SMPTE 292M, SMPTE 424M
Frame Rates	1080 60p / 59.94p / 50p / 30p / 29.97p / 25p 1080 60i / 59.94i / 50i 720 60p / 59.94p / 50p / 30p / 25p
Color Space	4:2:2 (YCbCr) 10bit

Audio

Audio Input	3.5 mm Analog Audio Input through I/O cable
Audio Sample Rate	16 / 20 / 24 / 32 bits

Optics

Lens	DC-IRIS, fixed lens
Lens Mount	C/CS Mount

Functions

White Balance	Auto & Manual (1,900°K~11,000°K)
Day & Night System	TDN (ICR)
Other Features	WDR, Auto Gain Control

Genlock

Synchronization	External Tri-Level Input
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Control Interface

RS-485, OSD	OSD Control Button / via RS-485
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Physical and Power

Power	12VDC (+9 ~ +15VDC)
Power Consumption	6W
Operating Temperature	15°F ~ 120°F
Dimensions	49 x 49 x 57 mm without lens 49 x 49 x 71 mm with default 3.6 mm lens 1.93 x 1.93 x 2.25 inches without lens 1.93 x 1.93 x 2.8 inches with default 3.6 mm lens
Weight	150 grams (5.3 ounces) without lens 180 grams (6.35 ounces) with default 3.6 mm lens

Ordering Information

GNAT II 1080p 60: 2 Megapixel 3G SDI/HDMI HD Camera
GNAT II 1080p 60 Board: 2 Megapixel 3G SDI/HDMI HD Camera – Board Version

Hardware Overview

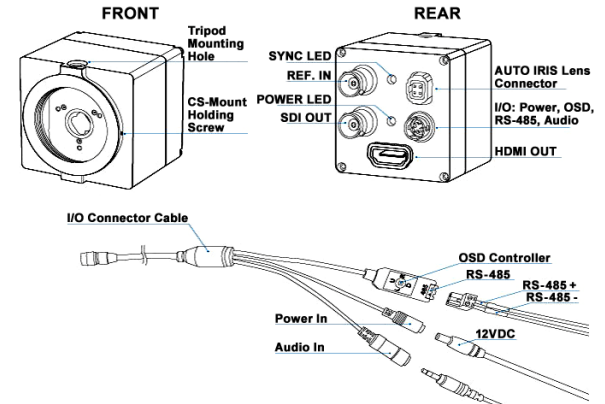
Front of Camera with C Mount Lens



Rear View



Input & Output Connections



Package Contents

