

GNAT II 1080P 60™

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

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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 | 0.2 Lux (Day), 0.1 Lux (Night), 0.005 Lux (Slow |
| Illumination | 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 |
|-----------------|--------------------------|

Control Interface

| Control Intellinee | |
|--------------------|---------------------------------|
| RS-485, OSD | OSD Control Button / via RS-485 |

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

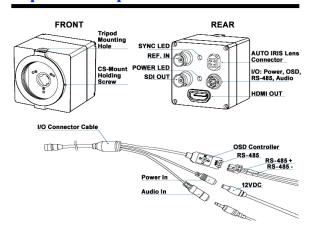
Front of Camera with C Mount Lens



Rear View



Input & Output Connections



Package Contents







3.6mm Megapixel Lens (Pre-installed)











