

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

- Output: 3G-SDI/HD-SDI (NTSC, PAL) with 292M, or HDMI, in one camera
- Approximately 2.1 Megapixels
- 1/3” Progressive Scan CMOS Sensor
- 45.22 x 53.86 x 50.97 millimeters – just over two inches long
- Maximum 1,920 x 1,080 resolution
- Maximum 60 fps @ 1,920 x 1,080
- Genlock
- 16X digital zoom
- Day and Night: ICR for infrared cut filter
- Privacy Zone Masking
- Control remotely via PC with RS-485 cable connection – communications protocols supported include Sony Visca™, Pelco® D, etc.
- WDR (Wide Dynamic Range)
- SDI/HD-SDI output resolutions
 - SMPTE 292M (1.485Gbps) 1080p@25/30 or 29.97
 - 1080i@50/60 or 59.94
 - 720p@50/60/25/30 or 59.94
 - SMPTE 424M (2.97 Gbps) 1080p@50/60 or 59.94
- HDMI output resolutions
 - HDMI 1080p@50/60 or 59.94
 - 1080i@50/60 or 59.94
 - 1080p@25/30 or 29.97
 - 720p@50/60/25/30 or 59.94
- High performance functions
 - 3D-DNR (Digital Noise Reduction)
 - Defog
 - Motion Detection
 - DIS (Digital Image Stabilizer)
 - DSS (Digital Slow Shutter)
 - Image Flip
 - HLC (High Light Compensation)
 - AGC (Automatic Gain Control)
 - Auto/Manual White Balance
- Built-in Joystick
- C/CS mount
- DC12V
- Ships with Universal power supply, Tripod Adapter, and Control Cable
- Board mount version available with Board Mount Lens



Overview

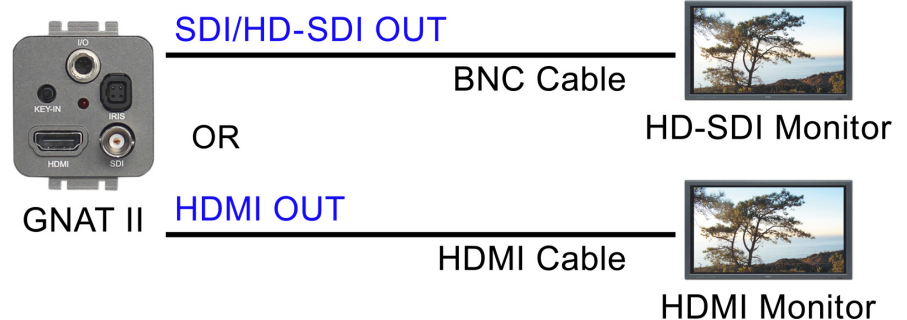
Industrial cameras have recently adopted SDI and HD/SDI as the primary interface standard. SDI is a Serial Digital Interface and is defined by uncompressed digital video with a BNC Connector and the ability to carry 3 Megapixels over coax cable. This transfers 1080p @ 60 fps which covers the higher end of current video standards.

HDMI is proven technology evolved from the broadcast industry, supporting up to Full HD resolution (1920 x 1080) at 30 FPS over standard cables.

The Viewbits GNAT II is a camera that covers both worlds. It is a miniature 1080p camera with a 3G HD/SDI or HDMI output and supports all machine vision standards. 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

- 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, approx. 2.1 megapixels
Scanning System	16:9 Progressive
Sync. System	Internal
Effective Pixels	1,920 (H) x 1,080 (V)
Minimum Illumination	0.2 Lux (Day), 0.1 Lux (Night), 0.005 Lux (DSS on)
Horizontal Resolution	1000TVL

Optics

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

Functions

Back Light Compensation	WDR/BLC, HLC (High Light compensation)
Exposure	Auto / Manual
White Balance	Auto (3,000°K~8,000°K) / ATW (1,900°K~11,000°K) / Manual
Day & Night System	AGC / TDN (ICR)
Electronic Shutter	NTSC: 1/30~1/30000 PAL: 1/25~1/30000, DSS (~X64)
Functions	WDR, Privacy Mask, Image Mirror, 3DNR, Flickerless, Sharpness, Defog, DIS (Digital Image stabilizer), Freeze, Black & White

Video Outputs

SDI Output (3G, BNC)	SMPTE 292M (1.485 Gbps): 1080p@25/30 or 29.97, 1080i@50/60 or 59.94, 720p@50/60/25/30 or 59.94 SMPTE 424M (2.97 Gbps): 1080p@50/60 or 59.94 800mVp-p, 75Ω, unbalanced generator (single-ended)
HDMI Output	HDMI 1080p@50/60 or 59.94 1080i@50/60 or 59.94 1080p@25/30 or 29.97 720p@50/60/25/30 or 59.94

Genlock

Sync Input	Tri-level Sync signal (HD format) 1080p@50/60/59.94, 1080i@50/60/59.94, 1080p@25/30/29.97, 720p@50/60/59.94/25/30/29.97
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Control Interface

RS-485	Pelco®-P/D, Sony Visca™ protocol 8 bits data, 1 stop bit, no parity, 2400~115200 bps
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Physical and Power

Power	12VDC
Power Consumption	Max 6W
Operating Temperature	10°C ~ +50°C (50°F ~ +122°F)
Dimensions	45.22 (W) x 53.86 (H) x 50.97 (D) millimeters 1.78 (W) x 2.12 (H) x 2 (D) inches
Weight	Approx. 170 grams (camera 130g + cable 40g) Approx. 6 ounces (camera 4.6 oz. + cable 1.4 oz.)

Ordering Information

GNAT II 1080p 60: 2 Megapixel HD Camera

Ships with tripod adapter, universal power supply, and control cable

GNAT II 1080p 60 Board: 2 Megapixel HD Camera – Board Version

Hardware Overview



1. I/O: 6 Pin (DC12V, RS485, Ext. Sync)
2. Key In: Menu function (Joystick)
3. IRIS: DC IRIS
4. HDMI Output
5. SDI Output
6. Tripod Mounts, top and bottom

