



Rugged. Reliable. High Speed.



HG-XR / HG-XL

**REDLAKE** DIGITAL IMAGING SYSTEMS

# HG-XR / HG-XL



**Excellent resolving power to capture image detail even with a large field of view**

**Speed and flexibility to capture a wide range of high-speed events**

**Extended record time for long events such as missile launches and vehicle rollovers and for biomechanical research**

**Reduces motion blur**

**Reliable operation in harsh environments**

The extended record capability of the HG-XR and HG-XL, along with a rugged design make them the perfect solution for recording high-speed events such as missile launches, explosives tests, and automotive roll-overs where long continuous recording is required.

The cameras use an exclusive 1.7 mega-pixel CMOS sensor to give you beautiful color images or crisp, clean mono images with greater sensitivity.

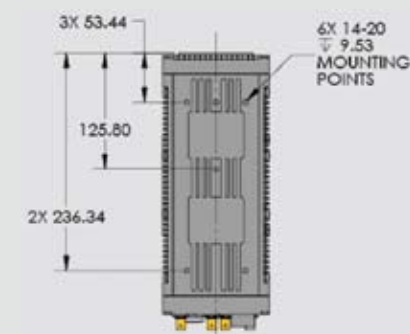
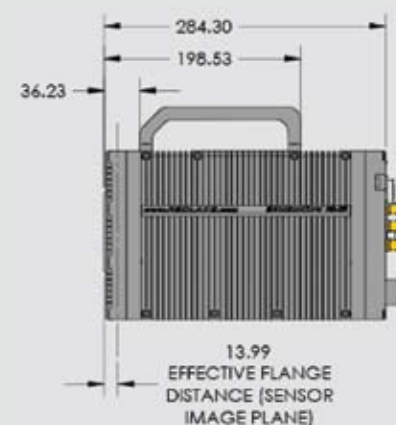
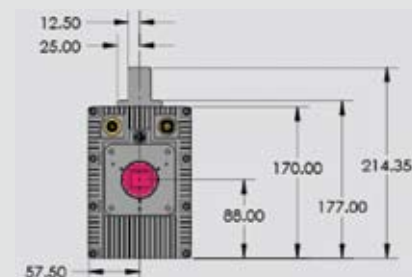
The HG-XR's onboard IRIG decoder provides both time stamp data and extremely accurate synchronization between cameras and other instrumentation on military ranges. An integrated onboard GPS decoder provides the same functionality, but without the infrastructure required for IRIG: Simply distribute any number of XR cameras in locations where their GPS antennae can receive signals and they will synchronize themselves and provide accurate time stamps every frame, every time.

The MotionXtra® extended record capability makes either camera a true replacement for high-speed film cameras. At full 1504 x 1128 (4:3 aspect ratio) resolution and 1000 frames per second, an unprecedented 20 seconds of record time can be achieved. At 1504 x 846 (16:9 aspect ratio) resolution and 1000 frames per second, the record time increases to over 26 seconds.



# Technical Data

	<b>HG-XR</b>	<b>HG-XL</b>
Maximum fps @ Full Resolution	1,000 fps @ 1504 x 1128	1,000 fps @ 1504 x 1128
Array Size	1.7 megapixels	1.7 megapixels
Max fps @ Reduced Resolution	100,000 fps @ 64 x 24	100,000 fps @ 64 x 24
Sensitivity	1500 ASA Mono 750 ASA Color	1500 ASA Mono 750 ASA Color
Pixel Size	12x12 $\mu\text{m}$	12x12 $\mu\text{m}$
Color Mono	Available Available	Available Available
Memory Options	Internal 8, 16, or 32 GB RAM (32 GB = 20,000 frames at 1,000 fps @ 1504 x 1128)	Internal 8, 16, or 32 GB RAM (32 GB = 20,000 frames at 1,000 fps @ 1504 x 1128)
Trigger	TTL & Switch	TTL & Switch
Sync (Input)	Frame sync or STP Cable	Frame sync or STP Cable
IRIG	IRIG (Mod or Unmod)	N/A
GPS Time Code	GPS (SMA connector)	N/A
Sync (Output)	Sync Out (BNC)	Sync Out (BNC)
HDMI	N/A	N/A
Comp Video	Comp Video	Comp Video
Camera Link	N/A	N/A
Ethernet	100/1000BaseT	100/1000BaseT
USB 2.0	N/A	N/A
Shock/Vibration rating	100G - All axes	100G - All axes
Battery Back-up	Battery Back-up (6 hrs.)	Battery Back-up (6 hrs.)
MotionPro X	Mac or Windows	Mac or Windows
Motion Central	Windows	Windows
Plug-ins/MotionPro X	LabVIEW or MatLab	LabVIEW or MatLab
File Formats - MotionPro X	TIF BMP AVI MRF MCF	TIF BMP AVI MRF MCF
File Formats - Motion Central	Type-2 Bayer, TIFF, JPEG and AVI	Type-2 Bayer, TIFF, JPEG and AVI
H x W x L	170 x 115 x 282 mm	170 x 115 x 282 mm
Weight	6.5 kg	6.5 kg



The camera features a fast 5 $\mu\text{sec}$  global shutter to eliminate motion blur and deliver razor sharp images. The HG-XR is network compatible with our MotionXtra HG-100K, HG-LE, and HG-TH cameras via 100Base-T or 1000 Base-T (Gigabit) Ethernet enabling you to quickly incorporate it into your network for multi-camera support.

The intuitive MotionCentral® software for camera control, including image downloading and viewing, offers compatibility across the entire MotionXtra product line. The Ethernet interface allows remote camera control and fast 1000 Base-T transfer of uncompressed file formats including TIFF and compact Type-2 Bayer. High-quality JPEGs may be downloaded, providing excellent image quality at a fraction of the file size. AVI files using popular codecs (compressed or uncompressed) may be produced in tandem with any image download.

**NORTH AMERICA**  
1202 E Park Ave  
Tallahassee, FL 32301  
United States  
P: (+001) 850-222-5939  
F: (+001) 850-222-4591

1 West Mountain Street,  
Suite 3  
Pasadena, CA 91103-3070  
United States  
P: (+001) 626-794-4649  
F: (+001) 626-794-4651

[www.idtvision.com](http://www.idtvision.com)

**EUROPE**  
Via Pennella, 94  
I-38057  
Pergine Valsugana (TN)  
Italy  
P: (+39) 0461-532112  
F: (+39) 0461-532104

Eekhoornstraat, 22  
B-3920 - Lommel  
Belgium  
P: (+32) 11 551065  
F: (+32) 11 554766

**ASIA**  
**Unit 6, 9F, 77, Hun Hua S.**  
Road  
Section 2, Taipei, Taiwan  
P: (+02) 2706-2110  
F: (+02) 2706-3837

No.388, Caonong Road,  
Songjiang Industry Zone,  
Shanghai, China  
Zip Code: 201612  
P: (+86) 21-57687667  
F: (+86) 21-57686418

6F Sakurai Bidg.  
2-8-19 Fukagawa, Koto-  
ku, Tokyo  
135-0033, Japan  
P: (+81) 3-5639-2773  
F: (+81) 3-5639-2808  
[www.idt-japan.co.jp](http://www.idt-japan.co.jp)





Rugged.  
Reliable.  
More Sensitive.



HG-N

**REDLAKE** DIGITAL IMAGING SYSTEMS

HG-N



**Excellent resolving power to capture image detail even with a large field of view**

**Speed and flexibility to capture a wide range of high-speed events**

**Extended record time for long events such as missile launches and vehicle rollovers and for biomechanical research**

**Reduces motion blur**

**Reliable operation in harsh environments**

The extended record capability of the HG-N, along with a rugged design makes it the perfect solution for recording high-speed events such as missile launches, explosives tests, and automotive rollovers where long continuous recording is required.

The camera uses an exclusive 1.7 mega-pixel CMOS sensor to give you beautiful color images or crisp, clean mono images with greater sensitivity.

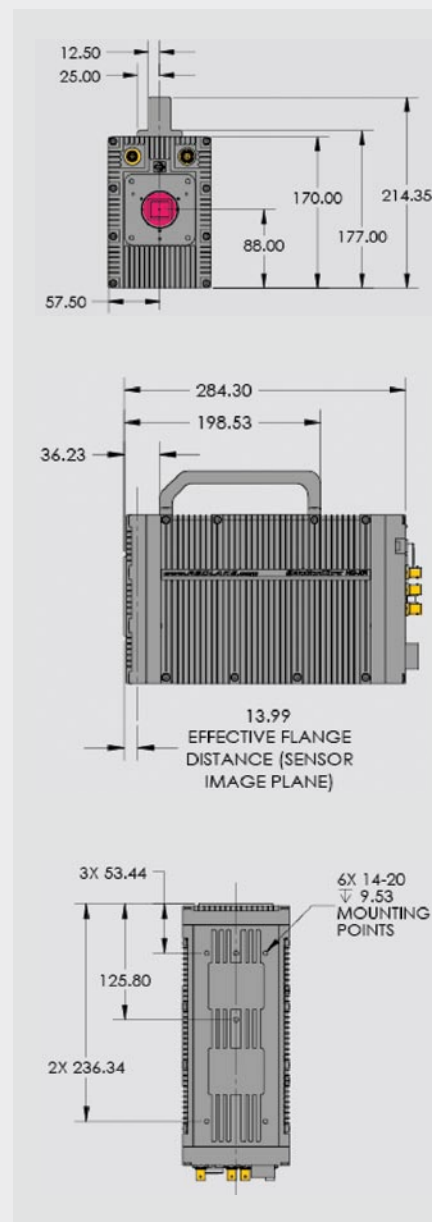
The HG-N's onboard IRIG decoder provides both time stamp data and extremely accurate synchronization between cameras and other instrumentation on military ranges. An integrated onboard GPS decoder provides the same functionality, but without the infrastructure required for IRIG: Simply distribute any number of XR cameras in locations where their GPS antennae can receive signals and they will synchronize themselves and provide accurate time stamps every frame, every time.

The MotionXtra® extended record capability makes either camera a true replacement for high-speed film cameras. At full 1504 x 1128 (4:3 aspect ratio) resolution and 1000 frames per second, an unprecedented 20 seconds of record time can be achieved. At 1504 x 846 (16:9 aspect ratio) resolution and 1000 frames per second, the record time increases to over 26 seconds.

# Technical Data

## HG-N

Maximum fps @ Full Resolution	1,000 fps @ 1504 x 1128
Array Size	1.7 megapixels
Max fps @ Reduced Resolution	100,000 fps @ 64 x 24
Sensitivity	10,000 ASA Mono 5,000 ASA Color
Pixel Size	16x16 $\mu\text{m}$
Color Mono	Available Available
Memory Options	Internal 8, 16, or 32 GB RAM (32 GB = 20,000 frames at 1,000 fps @ 1504 x 1128)
Trigger	TTL & Switch
Sync (Input)	Frame sync or STP Cable
IRIG	IRIG (Mod or Unmod)
GPS Time Code	GPS (SMA connector)
Sync (Output)	Sync Out (BNC)
HDMI	N/A
Comp Video	Comp Video
Camera Link	N/A
Ethernet	100/1000BaseT
USB 2.0	N/A
Shock/Vibration rating	100G - All axes
Battery Back-up	Battery Back-up (6 hrs.)
MotionPro X	Mac or Windows
Motion Central	Windows
Plug-ins/MotionPro X	LabVIEW or MatLab
File Formats - MotionPro X	TIF BMP AVI MRF MCF
File Formats - Motion Central	Type-2 Bayer, TIFF, JPEG and AVI
H x W x L	170 x 115 x 282 mm
Weight	6.5 kg



The camera features a fast 5 $\mu\text{sec}$  global shutter to eliminate motion blur and deliver razor sharp images. The HG-N is network compatible with our MotionXtra HG-100K, HG-LE, and HG-TH cameras via 100Base-T or 1000 Base-T (Gigabit) Ethernet enabling you to quickly incorporate it into your network for multi-camera support.

The intuitive MotionCentral® software for camera control, including image downloading and viewing, offers compatibility across the entire MotionXtra product line. The Ethernet interface allows remote camera control and fast 1000 Base-T transfer of uncompressed file formats including TIFF and compact Type-2 Bayer. High-quality JPEGs may be downloaded, providing excellent image quality at a fraction of the file size. AVI files using popular codecs (compressed or uncompressed) may be produced in tandem with any image download.

**NORTH AMERICA**

1202 E Park Ave  
Tallahassee, FL 32301  
United States  
P: (+001) 850-222-5939  
F: (+001) 850-222-4591

1 West Mountain Street,  
Suite 3  
Pasadena, CA 91103-3070  
United States  
P: (+001) 626-794-4649  
F: (+001) 626-794-4651

[www.idtvision.com](http://www.idtvision.com)

**EUROPE**

Via Pennella, 94  
I-38057  
Pergine Valsugana (TN)  
Italy  
P: (+39) 0461-532112  
F: (+39) 0461-532104

Eekhoornstraat, 22  
B-3920 - Lommel  
Belgium  
P: (+32) 11 551065  
F: (+32) 11 554766

**ASIA**

**Unit 6, 9F, 77, Hun Hua S.**  
Road  
Section 2, Taipei, Taiwan  
P: (+02) 2706-2110  
F: (+02) 2706-3837

No.388, Caonong Road,  
Songjiang Industry Zone,  
Shanghai, China  
Zip Code: 201612  
P: (+86) 21-57687667  
F: (+86) 21-57686418

6F Sakurai Bidg.  
2-8-19 Fukagawa, Koto-  
ku, Tokyo  
135-0033, Japan  
P: (+81) 3-5639-2773  
F: (+81) 3-5639-2808  
[www.idt-japan.co.jp](http://www.idt-japan.co.jp)

