

# Matrox 4Sight GP >>>

Industrial imaging computer with desktop-level performance and expansion



## Benefits

**Tackle demanding imaging workloads with confidence** using a 3rd generation Intel® Core™ processor

**Encode high-definition video real-time in H.264 with little CPU usage**

**Directly capture from standard GigE Vision® and upcoming USB3 Vision™ cameras**

**Flexible support for analog, Camera Link®, CoaXPress, DVI and SDI video interfaces** using Matrox frame grabbers

**Synchronize with other equipment** using the integrated general purpose digital I/Os

**Expand I/O capabilities** through two PCIe® slots accepting full-height, half-length cards

**Drive up to two operator displays**

**Install in space-limited industrial environments** as a result of a small footprint rugged design

**Run applications in a familiar, reliable and customizable environment** using the provided Microsoft® Windows® Embedded Standard 7<sup>1</sup>

**Solve applications rather than develop underlying tools** by leveraging standard Microsoft® development tools and Matrox Imaging Library (MIL)<sup>2</sup>

**Employ for the long run with assurance** as a result of a managed extended lifecycle

## The right fit for machine vision or medical imaging

The Matrox 4Sight GP is an industrial computer with the functionality you need for your next machine vision or medical imaging system. In addition to Gigabit Ethernet, USB 3.0, DVI and discrete digital I/O interfaces, the Matrox 4Sight GP provides standard PCIe® expansion to tailor the platform to your particular I/O needs. Equipped with a 3rd generation Intel® Core™ processor, the Matrox 4Sight GP also has the ability to meet today's mainstream imaging workloads.

### Desktop-level performance with longevity

The Matrox 4Sight GP uses a desktop-grade embedded dual/quad-core 3rd generation Intel® Core™ processor, giving you uncompromised performance as part of an overall platform carefully designed to meet your long term availability requirement. The processor's integrated graphics core includes the next generation Intel® Quick Sync video technology, ideal for encoding high-definition video real-time in H.264 with little involvement from the processor cores. A pair of PCIe® expansion slots (x16 and x8) meets your current and future bandwidth-intensive video I/O needs.

### Truly flexible video capture

A vast choice of interfaces exists today for video transmission: analog, Camera Link®, CoaXPress, DVI, Gigabit Ethernet, IEEE 1394, SDI and USB. The Matrox 4Sight GP lets you choose which is best for your application by supporting them all, either directly or through Matrox half-length PCIe® add-in boards. Consult [www.matrox.com/imaging](http://www.matrox.com/imaging) for more information on the applicable Matrox frame grabbers.

### Industrial strength design

The Matrox 4Sight GP is built for your tough operating environment. A steel chassis protects the unit from rough conditions. An optimized front-to-back airflow keeps the system within standard operating temperatures allowing for consistent maximum performance. Serviceable air filters keep the inside of the unit free of foreign particles.



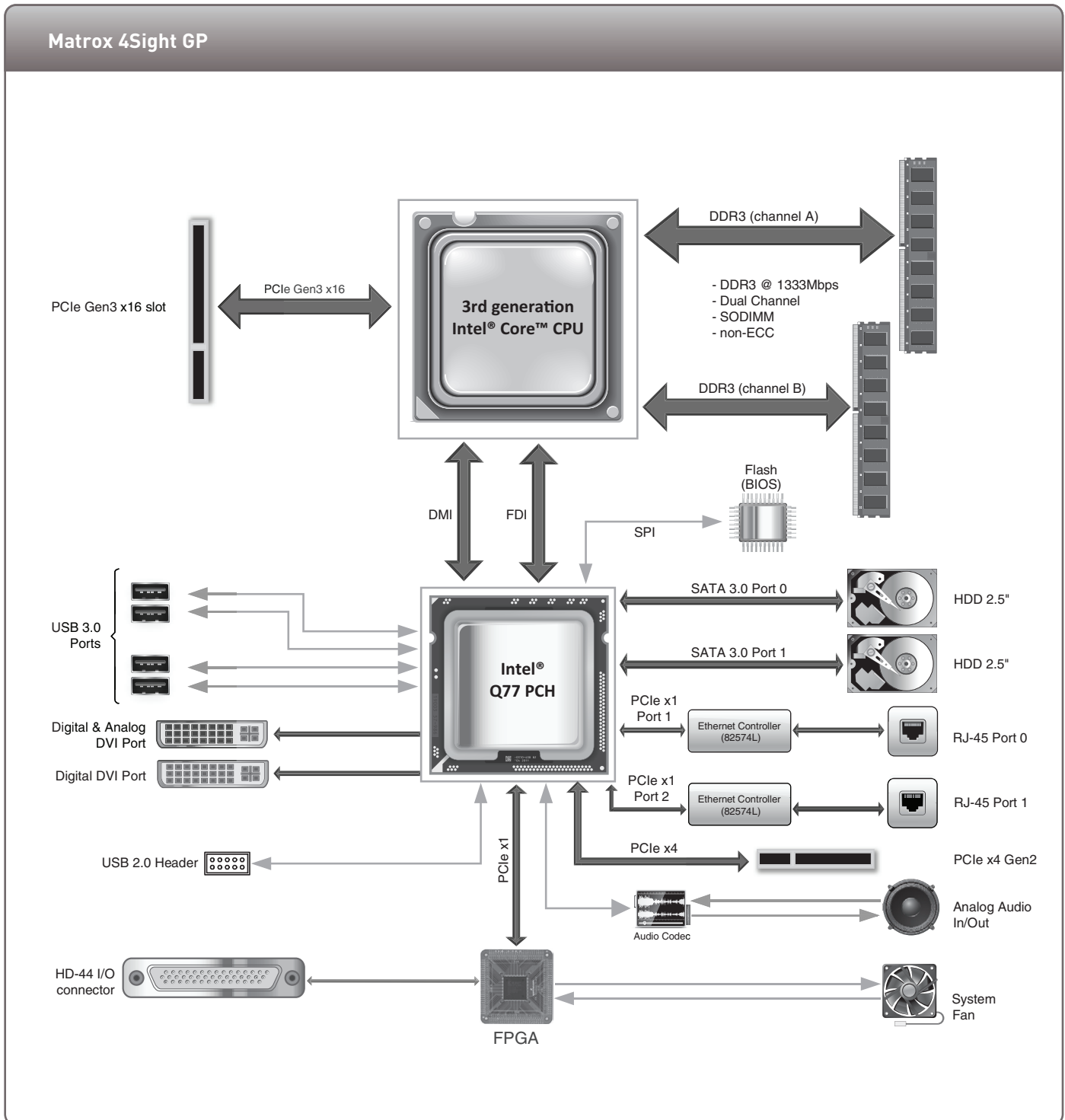
## Software Environment

### Microsoft® Windows® Embedded Standard 7<sup>1</sup>

The Matrox 4Sight GP comes with Microsoft® Windows® Embedded Standard (WES) 7, which provides you with the familiarity, performance and reliability of Windows® 7, along with embedded features like the Enhanced Write Filter (EWF) to prevent corruptions caused by unanticipated power downs. The unit is pre-loaded with the 64-bit WES 7 but includes both 32-bit and 64-bit WES 7 recovery images. The Matrox 4Sight GP can also run other editions of Windows® 7.

### Field-proven application development software

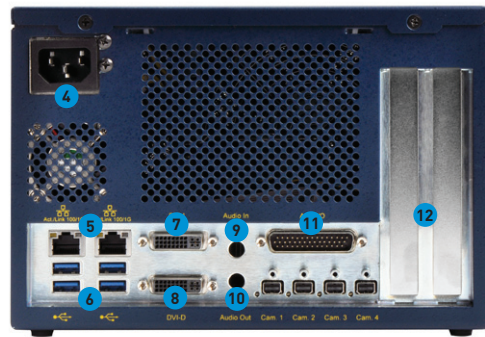
Matrox 4Sight GP is supported by the Matrox Imaging Library (MIL)<sup>2</sup>, a comprehensive collection of software tools for developing industrial and medical imaging applications. MIL features programming functions for image capture, processing, analysis, annotation, display and archiving. These tools are designed to enhance productivity, thereby reducing the time and effort required to bring your solution to market. Refer to the MIL datasheet for more information.



## Matrox 4Sight GP front and back

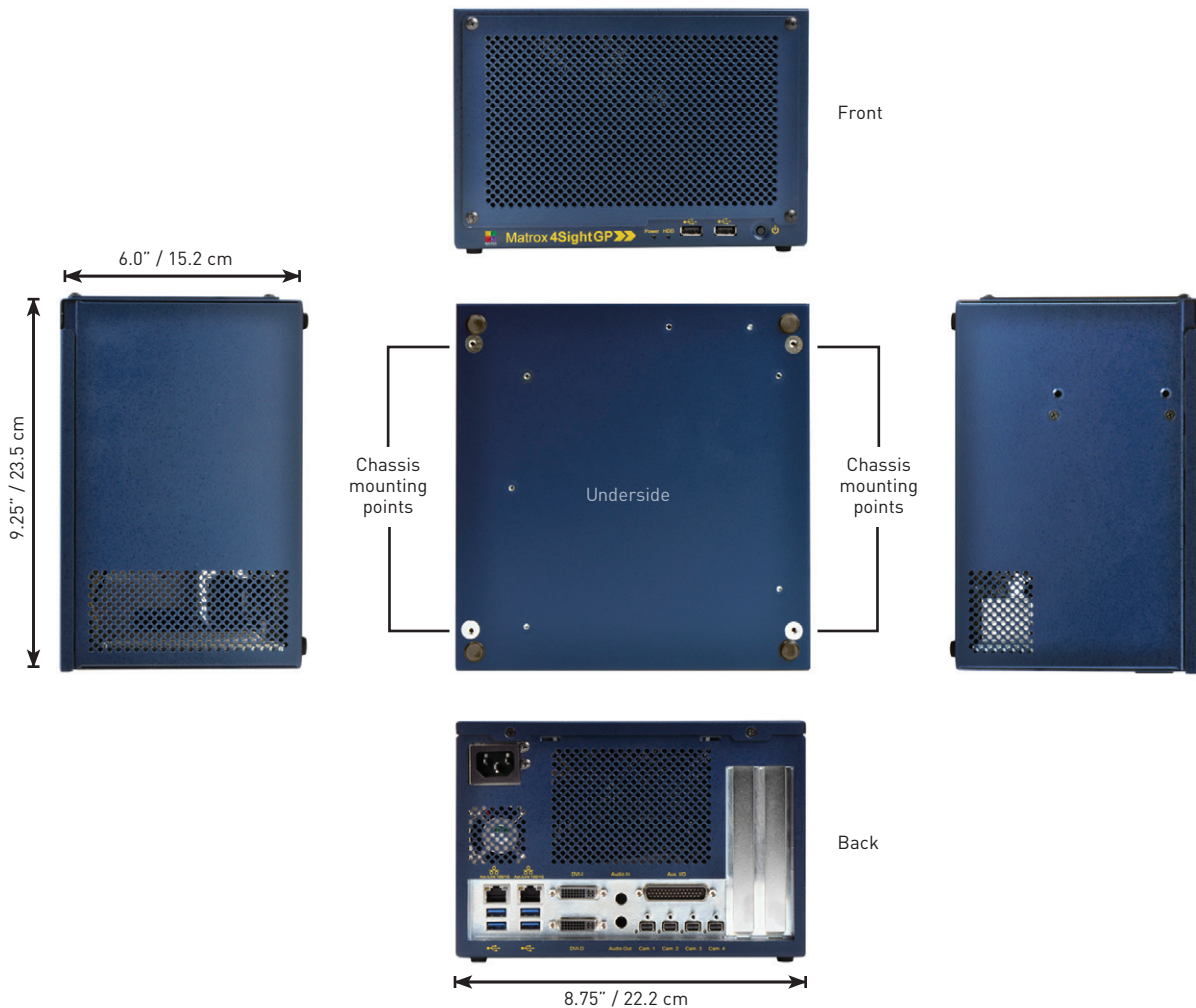


1. Status LEDs    2. USB 2.0 ports    3. Power switch



4. Power input    7. DVI-I output    10. Audio out  
 5. GbE ports    8. DVI-D output    11. Auxiliary I/Os  
 6. USB 3.0 ports    9. Audio in    12. PCIe slots

## Matrox 4Sight GP chassis



## Specifications

### Motherboard

- Mini-ITX form factor (6.75" x 7.75" or 17.1 cm x 19.7 cm)
- Intel® Q77 Express Platform Controller Hub (PCH)
- two (2) 204-pin DDR3-1066/1333/1600 SODIMM slots (dual channel)
- dual head graphics support
  - one (1) DVI display output
    - DVI-D 1.0 compliant
    - up to 1920 x 1200 @ 60 Hz
  - one (1) DVI-I display output
    - up to 1920 x 1200 @ 60 Hz digital
    - up to 2048 x 1536 @ 75 Hz analog
- two (2) Gigabit Ethernet ports (10/100/1000)
- four (4) USB 3.0 ports
- two (2) USB 2.0 ports
- two (2) SATA 3.0 internal ports
- one (1) 20-bit stereo audio input and 24-bit stereo output
- thirty-two (32) auxiliary I/Os
  - TTL compatible
  - sixteen (16) inputs
    - up to 9 V tolerant
  - sixteen (16) outputs (open collector)
    - 100mA max. @ 5 to 24VDC
- one (1) PCIe® 3.0<sup>3</sup> x16 slot
- one (1) PCIe® 2.0 x8 (electrically x4) slot

### CPU options

- Intel® Core™ i7-3770
  - Quad core with hyperthreading
  - 3.4 GHz - 3.9 GHz
  - 8MB cache
  - Intel HD Graphics 4000 (650 MHz - 1.15 GHz)
- Intel® Core™ i5-3550S
  - Quad core
  - 3.0 GHz - 3.7 GHz
  - 6MB cache
  - Intel HD Graphics 2500 (650 MHz - 1.15 GHz)
- Intel® Celeron® G540
  - Dual core
  - 2.5 GHz
  - 2MB cache
  - Intel HD Graphics (850 MHz - 1.0 GHz)

### Memory options

- 4 GB Dual Channel DDR3-1333
- 8 GB Dual Channel DDR3-1333

### Hard drive

- 250GB SATA hard drive

## Specifications (Cont.)

### Chassis

- material
  - 1.2 mm (0.048") cold rolled steel
- cooling
  - integrated 120mm 138 CFM fan
  - washable air filter
- dimensions
  - length: 23.5 cm (9.25")
  - width: 22.2 cm (8.75")
  - height: 15.2 cm (6.0")
- mounting
  - four (4) x #6-32 UNC x 0.5" (13 mm) deep
- expansion
  - two PCIe® full-height, half-length cards

### Power supply

- Integrated 300W power supply
- AC input
  - 100-240VAC (+/- 10%)
  - 47-63 Hz
  - Power factor corrected

### Environmental information

- 10° C (50° F) to 50° C (122° F) operating temperature
- -40° C (-40° F) to 85° C (185° F) storage temperature
- up to 90% (non-condensing) relative humidity

### Certifications

- FCC part 15 class A
- CE Class A
- RoHS-compliant
- EN55022:2006 Class A pending
- EN61000-3-2:2006 class D pending
- EN61000-3-3:1995/A2:2005 pending
- EN55024:1998/A2:2003 pending

## Ordering Information

### Hardware

#### Part number & Description

<b>4GPI7M8*</b>	4Sight GP integrated unit with Intel® Core™ i7-3770, 8GB DDR3 RAM, 250GB hard drive, Microsoft® Windows® Embedded Standard 7 <sup>1</sup> (32-bit or 64-bit) and 300W power supply with appropriate power cord.
<b>4GPI5M8*</b>	4Sight GP integrated unit with Intel® Core™ i5-3550S, 8GB DDR3 RAM, 250GB hard drive, Microsoft® Windows® Embedded Standard 7 <sup>1</sup> (32-bit or 64-bit) and 300W power supply with appropriate power cord.
<b>4GPCM4*</b>	4Sight GP integrated unit with dual core Intel® Celeron® G540, 4GB DDR3 RAM, 250GB hard drive, Microsoft® Windows® Embedded Standard 7 <sup>1</sup> (32-bit or 64-bit) and 300W power supply with appropriate power cord.

### Software

Refer to MIL datasheet.  
Contact Matrox Imaging or your local representative for more information.

#### Endnotes:

- With support for multiple languages.  
Only one language version can be used at any given time.  
Une seule version de langue peut être utilisée à la fois.  
Nur eine Sprachversion kann zu jeder gegebenen Zeit verwendet werden.  
Solo una versione di ogni lingua può essere utilizzata allo stesso tempo.  
Solo puede ser utilizada la versión de un idioma a la vez.  
いかなる時でも一言語毎の使用のみが、可能になります。  
한 가지 언어로만 제공되며 언제든지 사용이 가능하다  
两种以上的语言版本不可以同时使用
- The Matrox 4Sight GP is pre-licensed for the MIL interface run-time package.  
All other MIL run-time packages require adding a separate license.
- Dependent on the processor model.

#### Corporate headquarters:

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