



### PC section

<b>CPU</b>	Dual Core CPU 2 x 2.13 GHz, 2 MB Cache, 1066 MHz FSB
<b>Operating system</b>	Microsoft Vista Ultimate 64-bit
<b>RAM</b>	4 GByte
<b>Network</b>	1 x Gigabit Ethernet
<b>WLAN</b>	Built-in 802.11b/g (54Mbps)
<b>USB</b>	11 x USB 2.0 ports (3 x USB on the front)
<b>Standard hard drive</b>	2 x SATA 640GB in a RAID-0 configuration (1280 GB total)
<b>Backup</b>	Dual-layer DVD-RW drive
<b>2<sup>nd</sup> Drive Bay</b>	Removable Drive Carrier (2x 2.5", empty)
<b>Open slots</b>	2 PCI, 1/2 length 1 PCIe16x, 1/2 length
<b>Display</b>	TFT type, 17 inch, SXGA, 1280 x 1024, 16.7M colors
<b>Others</b>	VGA out for 2 <sup>nd</sup> monitor; up to 1280 x 1024 resolution; dual independent monitor support

### Available drive configurations

Type	Streaming rate	Capacity
Internal HDD RAID-0	56 MB/s	1280 GB
Additional, removable HDD:	32 MB/s	120 GB
Removable System HDD RAID-0:	40 MB/s	240 GB
Internal SSD RAID-0:	24 MB/s	128 GB
Additional, removable SSD:	16 MB/s	64 GB
Removable System SSD RAID-0:	24 MB/s	128 GB

### Weight, power and dimensions

<b>Power</b>	90-264Vac auto ranging @47 to 63Hz; 500 VA maximum
<b>Weight</b>	Less than 21 kg
<b>Dimensions</b>	449 x 330 x 362 mm (17.7 x 13 x 14.25 inch) (without handle (WxHxD))

### Environmental specs

<b>Shock:</b>	Acc. IEC 60068-2-27
<b>Operational</b>	3-axis, half-sine, 10 g for 11 ms
<b>Non-Operational</b>	3-axis, half-sine, 25 g for 6 ms
<b>Vibration:</b>	Acc. IEC 60068-2-34
<b>Operational</b>	3-axis, random 5-500Hz, 1grms, 1/2h (1.5grms with SSD)
<b>Non-Operational</b>	3-axis, random 5-500Hz, 2grms, 1h

### Deliverables

- Full PC with 17 inch TFT display
- GEN5i acquisition hardware with 5 empty slots for input modules
- Windows Vista Ultimate 64-bit
- Perception Enterprise 64-bit
- RAID-0 1280 GB
- Dual-layer DVD-RW
- Empty removable HDD drive carrier
- Keyboard and Mouse
- Protective front cover





## Data Acquisition System GEN5i Specifications

### Data acquisition and transient recording

<b>Capacity</b>	5 slots for acquisition modules (1 slot would be used up for master/slave option); can be filled with any mix of input modules (up to 40 channels max)
<b>Direct to disk streaming</b>	56 MB/s typical (with standard RAID-0)
<b>Disk memory</b>	Approx. 1200 GB free (with standard RAID-0)
<b>Transient recording</b>	No aggregate limit; maximum sample rate depends on input module type; 200 kS/s to 100 MS/s per channel
<b>Transient memory</b>	Depends on input module type; 128 MB to 1.8 GB per board
<b>Acquisition modes</b>	Single Sweep Multi Sweeps Slow Fast Sweeps Continuous Dual rate recording
<b>Expansion</b>	1 slot for either IRIG, IRIG/GPS or SCSI interface

### Time base

<b>Source</b>	Central time base distributed to all acquisition modules
<b>Sample rates</b>	From 200 kS/s per channel up to 100 MS/s per channel, depends on input module
<b>Multiple rates</b>	Each module can run with its own sample rate while still synchronized to a master clock
<b>Accuracy</b>	< 30 ppm (for internal source)
<b>Base</b>	Binary, Decimal or External
<b>External clock</b>	Up to 500 kS/s or 1 MS/s depends on input modules (5 MS/s as special); programmable divider per module

### I/O

<b>Front Panel</b>	Power ON/OFF
<b>Buttons</b>	Start Stop Single Shot Pause Trigger
<b>Alarm out</b>	TTL, level active
<b>Trigger in</b>	TTL, 50 ns resolution, minimum pulse width of 500 ns
<b>Trigger out</b>	TTL, edge active, pulse width of 10 ms or recording duration
<b>Time base in</b>	TTL

### Synchronization

<b>Trigger</b>	Internal trigger bus for AND/OR combinations of trigger sources
<b>Mainframes</b>	With optional master/slave boards synchronization between a single GEN5i and multiple GEN series racks or tower mainframes

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