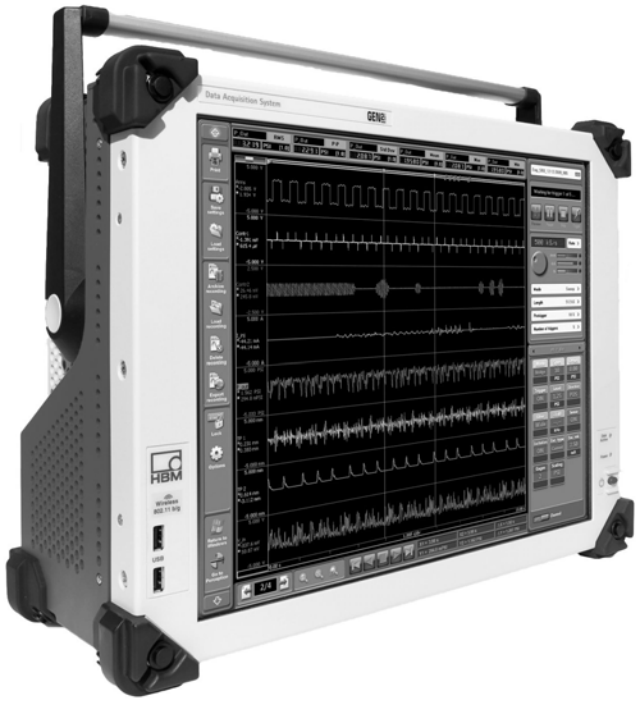
Data sheet

GEN2i

Portable Data Recorder



Features and Benefits

- **PC integrated GEN DAQ mainframe**
- **Robust and portable**
- **Two slots for acquisition cards**
- **Accepts any GEN DAQ acquisition cards - also in mixed configuration**
- **Up to 16 channels**
- **20 MB/s continuous streaming rate**
- **Unique "one-touch" operation using high-res touchscreen**
- **Windows 7 operating system**
- **Perception software with Windows based user interface for advanced review and analysis**
- **Full PC connectivity**

GEN2i

The GEN2i is a versatile portable data recorder. In addition it provides all the features you would expect from a transient recorder. The hardware combines a full-featured, low-power, Windows® PC with a large, high-resolution, touch screen and a robust 2-slot acquisition unit. This unit is based on the proven GEN DAQ series data acquisition systems.

Designed for operation in the field as well as in the laboratory the GEN2i features a unique, Instrument Panel touch interface, with one-touch access to all features for daily operation. In addition the GEN2i includes basic Perception on-board for post-processing. With a single touch you can turn your data recorder into a dedicated instrument for analysis and sophisticated reporting.

PC		
Component	**Unit Description**	**Unit Value**
Memory	DDR2 RAM	4 GB
PC Board	AMD based Low Power	AMD M690T
Processor	AMD Turion^{tm} 64 Dual core TL-62	2.1 GHz
Ethernet	Copper RJ45 Ethernet Connection	1 Gbit/s
Wireless LAN	Embedded 801.11b/g	54 Mbit/s
USB Connectors	USB 2.0	6 on back + 2 on front
Internal Storage	MLC Solid State Drive	256 GB*
	Data streaming to drive	≈ 20 MB/s direct 16 Channels x 500 kS/s @ 16 bits
Display	TFT SXGA Touch Screen	17" / 1280x1024 resolution
Video connection	DVI and VGA	1x DVI, 1x VGA
Multiple Monitors Support	Clone Mode and Extended Mode	
Speaker	Internal speaker	1
Line Out	Jack plug 3.5 mm	1
Microphone	Jack plug 3.5 mm	1
Accessories	Keyboard / Mouse	1 / 1

*Available space for data is approx. 200 GB

Software		
Component	**Unit Description**	**Unit Value**
Operating system	Microsoft® Windows^{tm} 7	
GEN series firmware	Includes High Speed Streaming option, enabling direct-to-disk acquisitions	Up to 20 MB/s (aggregate data transfer rate)
DAQ software	Perception standard package, 6.10 or higher	Refer to Perception specification sheet for details
Instrument panel Touch Interface (Fully touch-optimized)	Setup of instrument Acquisition control Display Data: Live / Review Basic Measurements Export + Archiving Basic Reporting	

Power		
Component	**Unit Description**	**Unit Value**
Power Inlet	Primary Power Inlet	47-63 Hz,100-240 Vac
Power	Total Power of unit (maximum)	250 VA

Hardware		
Component	**Unit Description**	**Unit Value**
Backplane	Acquisition slots – See also **Acquisition boards**	2
Optional Interfaces	IRIG	1x Optional interface only
	IRIG/GPS timing	
	SCSI (Perception only storage)	
I/O	Alarm out	TTL, Level active
	Trigger in	TTL, 50 ns resolution, minimum pulse width 500 ns (Max non destructive voltage: 30 V)
	Trigger out/Recording out	TTL, edge active, pulse width 10 µs/recording duration (software selectable)

Hardware			
Component	Unit Description		Unit Value
	Timebase in		TTL
	Timebase	Accuracy	< 30 ppm for internal sources
		Base	Binary, decimal
		External	Up to 500 kS/s or 1MS/s depending on input module (5 MS/s as special); programmable divider per module

Physical/Environmental		
Component	Unit Description	Unit Value
Weight	GEN2i Mainframe (exc. acquisition boards)	9.5 kg (add ≈ 1 kg per acq board) (20.9 lbs (add ≈ 2.2 lbs per acq board))
Dimensions	Height/Height with handle	34.2 cm/39.2 cm (13.5"/15.4")
	Width	43.6 cm (18.2")
	Depth	18.6 cm (7.3")

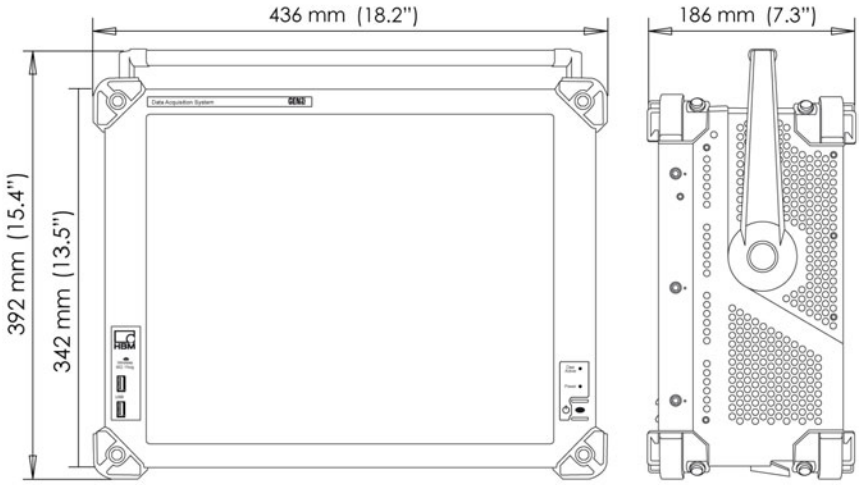


Figure 1.1: Dimensions GEN2i (With and without handle)

Physical/Environmental		
Component	Unit Description	Unit Value
Shipping Carton Weight (Gross)	GEN2i + shipping container	18.2 kg (40.1 lbs)
Shipping Carton dimensions	Height	59.0 cm (23.2")
	Width	49.7 cm (19.6")
	Depth	55.6 cm (21.9")
Shipping Case	With wheels and a handle, tested according to ASTM D4169-04 Level 1 (drop), and ASTM D4728 E (Vibration and shock)	1x Optional
Shock According to IEC-68-2-27	Operational	10 g @ 11 ms half sine
	Non-Operational	25 g @ 6 ms half sine
Vibration According to IEC-60068-2-34	Operational	1 g rms
	Non-Operational	2 g rms
Temperature range	Operating	0 °C to +40 °C (+32 °F to + 104 °F)
	Storage	-20 °C to +60 °C (-4 °F to + 140 °F)
Humidity	Relative humidity (non-condensing)	0 % to 80 %
Altitude	Operational altitude (maximum)	2000 m (6100 ft)
Acoustic Noise	The total A-weighted SPL of the GEN2i	60 dBA @ 0.6 m maximum

Physical/Environmental		
Component	**Unit Description**	**Unit Value**
Temperature Sensors	Temperature for monitoring and Air Flow Control	Multiple
Cooling Fans	Provides Air Flow	2
Handle	Carrying handle, also used for higher tilt angles	1 adjustable
Tilting Feet	Retractable feet for small tilt angles	2
Grounding	Banana plug	1
Casing	Aluminum/plastic cover	
Accessories	Soft carry case with strap for transportation included with hardened front and back for protection, and storage pouches for mouse and keyboard	1
Rack Mount Kit	19 inch rack mount kit	1 optional

Acquisition Boards						
Model	**Input type**	**Isolation**	**Sample rate (Max)**	**Resolution**	**Memory**	**No. of Channels**
Basic200	Single Ended	no	200 kS/s	16 bit	64 MS	8
Basic200 XT iso	Unbalanced Diff	yes	200 kS/s	16 bit	64 MS	8
Basic1M	Single Ended	no	1 MS/s	16 bit	128 MS	8
Basic1M iso	Unbalanced Diff	yes	1 MS/s	16 bit	256 MS	8
Basic1M XT iso	Unbalanced Diff	yes	1 MS/s	16 bit	256 MS	8
Bridge200 iso	Bridge/Diff	yes	200 kS/s	16 bit	64 MS	4
Bridge1M iso	Bridge/Diff	yes	1 MS/s	16 bit	256 MS	4
Uni200 iso	Diff/ICP/Shunt	yes	200 kS/s	16 bit	64 MS	4
Uni1M iso	Diff/ICP/Shunt	yes	1 MS/s	16 bit	256 MS	4
HiSpeed 25M	SE/Diff	no	25 MS/s	15 bit	64 MS	4
HiSpeed 100M	SE/Diff	no	100 MS/s	14 bit	900 MS	4
IsoDig MV	Unbalanced Diff	yes	25/100 MS/s	14/15 bit	100-900 MS	1t / 4r*
IsoDig HV	Unbalanced Diff	yes	25/100 MS/s	14/15 bit	100-900 MS	1t / 4r*
Marker1M	Binary	no	1 MS/s	1 bit	512 MB	64
Marker1M HV	Binary	yes/no	1 MS/s	1 bit	512 MB	8 / 32

*1**t** = 1 per transmitter board, 4**r** = 4 per receiver board

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