

Review Intel DH57JG

Introduction

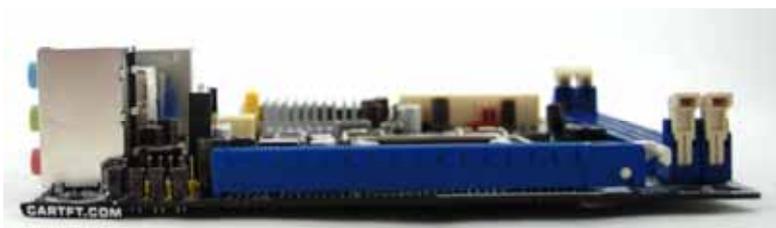
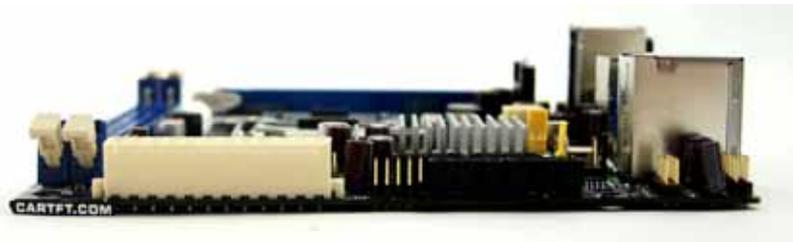
Ferrari calls it “Enzo”...

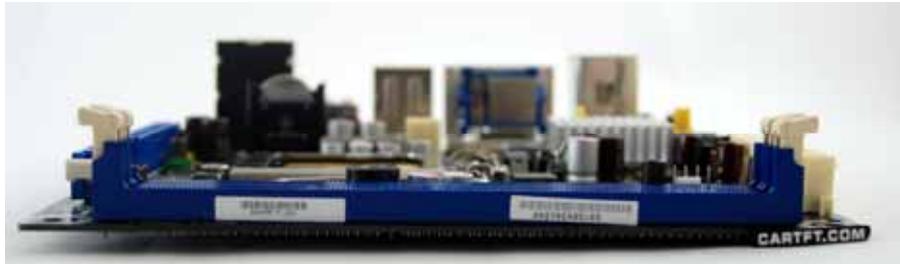
...Intel calls it DH57JG.

Additional to the successfull Atom Mainboard series Intel is also always on the run to create new High End Boards. In case of these we are proud to present the worlds first test of the DH57JG.

With this new Mainboard the Core I-CPU technology starts its attack to the Mini-ITX size.







If you have a look on the marketing facts the new Mainboard starts on the pole position with a special selection of the newest technologies.

- Intel Turbo Boost Technology
- Intel Hyper-Threading Technology for exceptional performance and scalability
- Ten-channel Intel High Definition Audio with Dolby Home Theater
- Dual independent display with HDMI + DVI-I graphics outputs

The new Mainboard continues a large tradition of high performance Mainboards and tries to fix its position on the world market.

For this you also have to supply the Green IT market of course but it is also a must to go on at the high performance section.

Hybrid oder Turbo diesel, Atom or Core – I? Which is the better Technology? We think that there ist place for both of them and the Atom can´t life without the Core Technology.

What is the new DH57HG a champion or a looser.

We will test it and have a look on the real facts and not on specifications.

Specification

Modell	DH57JG
Form Factor	MiniITX
CPU (Socket LGA1156)	Core I7 Core I5 Core I3 Pentium
Chipset	Intel H57 Express Chipset
Graphics	Intel Graphics Media Accelerator HD with Intel Clear Video HD Technology
Audio	10-channel Intel High Definition Audio4, Dolby Home Theater
Memory	2 x DDR3 DIMM, 1066/1333 Mhz, up to 8GB
Power	24 Pin ATX
I/O's external	6 x USB 1 x Audio 1 x SPDIF 1 x 10/100/1000 Mb/s Ethernet 1 x eSATA 1 x HDMI 1.3 1 x DVI-I
I/O's internal	6 x USB 4 x SATA (RAID 0, 1, 5, 10) 1 x eSATA 1 x PCIe x16
Size	17 cm x 17 cm

Mainboard and I/O's



The backside of the new Mainboard looks very good. Additional to the standard I/O ports you can find a DVI, one HDMI, one eSATA and one SPDIF Connector which can realize a lot of different usages.



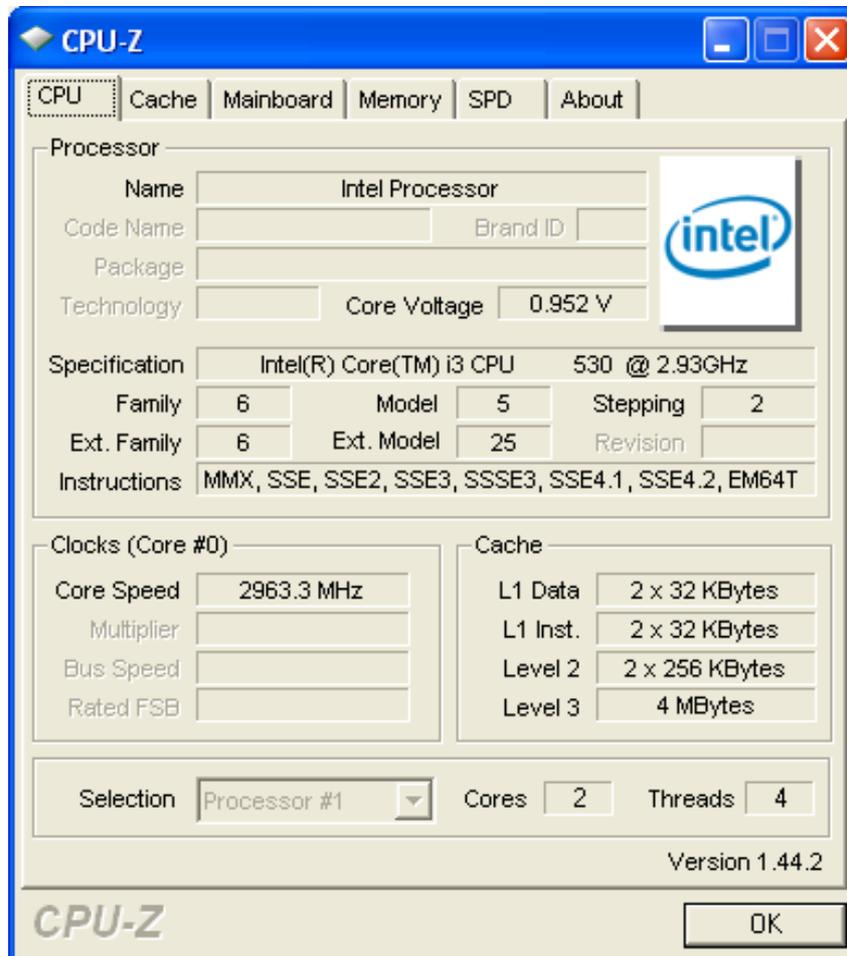
As mentioned in the specification you can find some more usefull connectors onboard. So you can find for example six USB (3 via Pinheader), four SATA (RAID functionality), one eSata and one PCIe port.

Installation, used Hardware and Tests

This Hardware was used in our Test-system.

- DH57JG
- Core I3-530 / Core I5-650
- 2 x 2GB DDR3 DIMM 800 Mhz
- Intel SSD 80 GB
- Panasonic UJ-85J-B
- Pico 150
- 84 Watt AC Adapter

Core I3-530

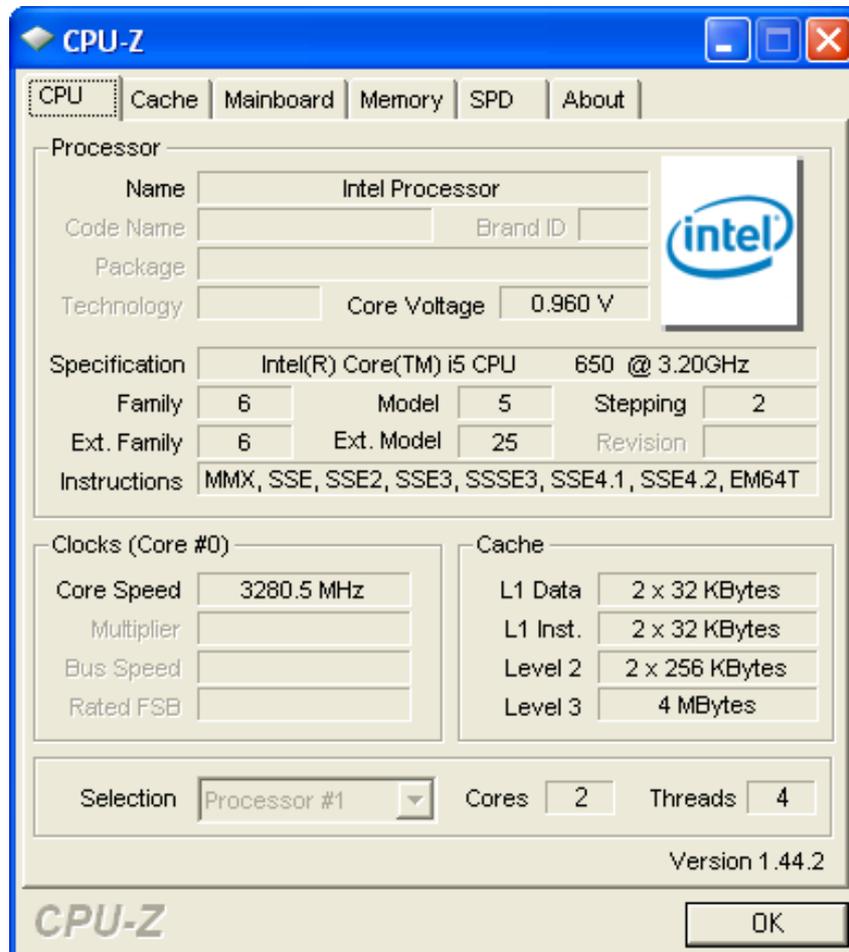


The screenshot shows the CPU-Z application window. The 'CPU' tab is selected, displaying the following information:

- Processor:**
 - Name: Intel Processor
 - Code Name: [empty]
 - Brand ID: [empty]
 - Package: [empty]
 - Technology: [empty]
 - Core Voltage: 0.952 V
- Specification:** Intel(R) Core(TM) i3 CPU 530 @ 2.93GHz
 - Family: 6, Model: 5, Stepping: 2
 - Ext. Family: 6, Ext. Model: 25, Revision: [empty]
 - Instructions: MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T
- Clocks (Core #0):**
 - Core Speed: 2963.3 MHz
 - Multiplier: [empty]
 - Bus Speed: [empty]
 - Rated FSB: [empty]
- Cache:**
 - L1 Data: 2 x 32 KBytes
 - L1 Inst.: 2 x 32 KBytes
 - Level 2: 2 x 256 KBytes
 - Level 3: 4 MBytes
- Selection:** Processor #1 (dropdown), Cores: 2, Threads: 4
- Version: 1.44.2

Buttons: CPU, Cache, Mainboard, Memory, SPD, About, OK

Core i5-650



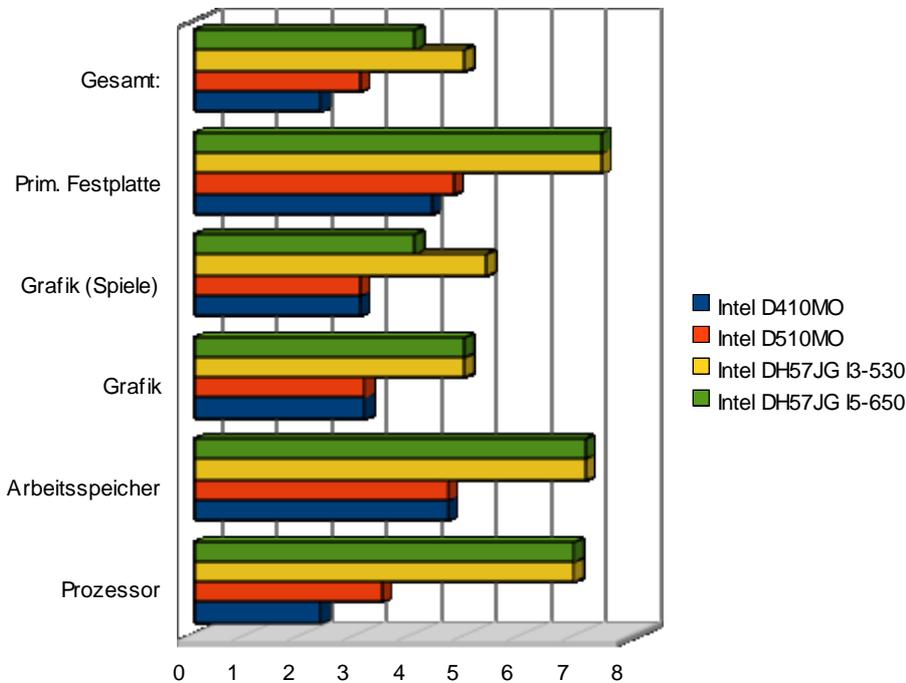
The screenshot shows the CPU-Z application window with the 'CPU' tab selected. The processor is identified as an Intel Core i5-650. The interface includes fields for Name, Code Name, Package, Technology, Core Voltage, Specification, Family, Model, Stepping, Ext. Family, Ext. Model, Revision, Instructions, Clocks (Core #0), and Cache. The current core speed is 3280.5 MHz, and there are 2 cores and 4 threads.

Processor			
Name	Intel Processor		
Code Name		Brand ID	
Package			
Technology		Core Voltage	0.960 V
Specification	Intel(R) Core(TM) i5 CPU 650 @ 3.20GHz		
Family	6	Model	5 Stepping 2
Ext. Family	6	Ext. Model	25 Revision
Instructions	MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, EM64T		
Clocks (Core #0)			
Core Speed	3280.5 MHz		
Multiplier			
Bus Speed			
Rated FSB			
Cache			
L1 Data	2 x 32 KBytes		
L1 Inst.	2 x 32 KBytes		
Level 2	2 x 256 KBytes		
Level 3	4 MBytes		
Selection	Processor #1	Cores	2 Threads 4

Version 1.44.2

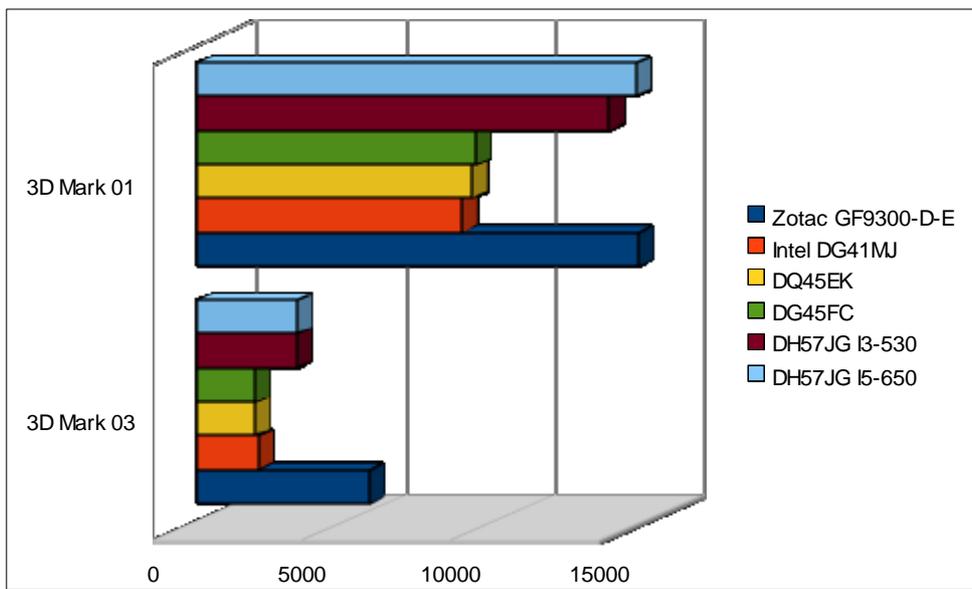
CPU-Z OK

Windows 7 performance index



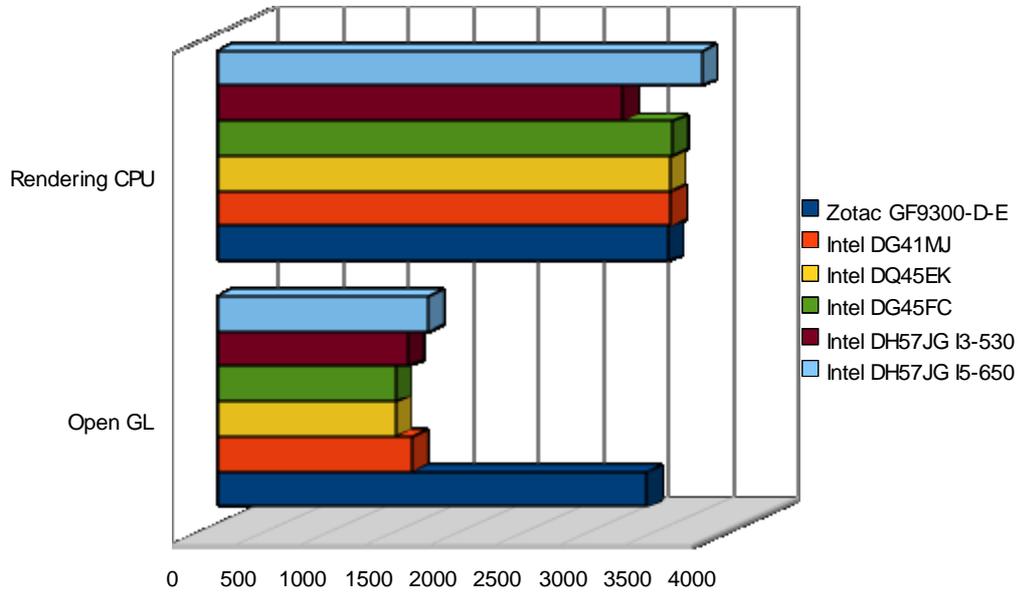
The comparison to the Atom Mainboards shows up which performance the new CPU's can realize. On the following charts we can also see some more performance checks.

3D Mark Test



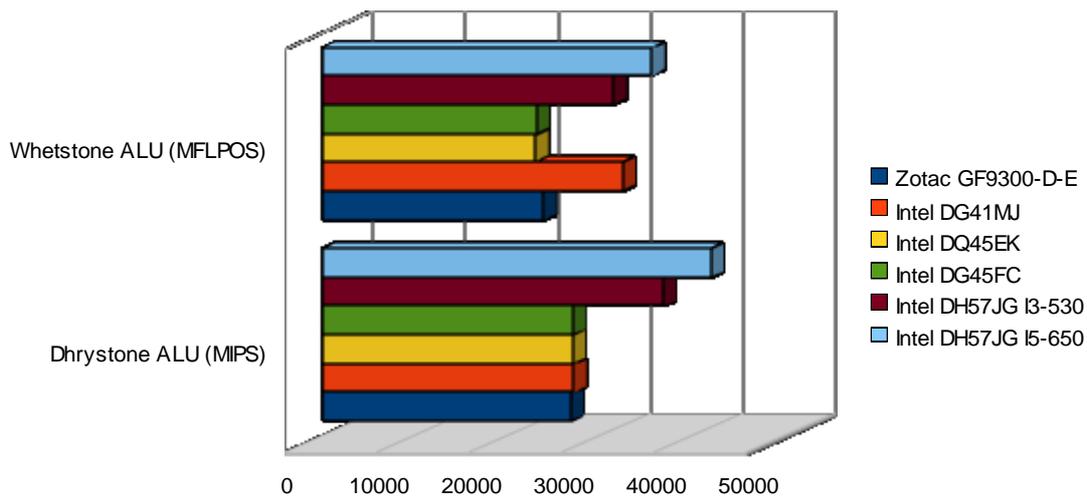
On the 3D Mark Test we can see the massive performance upgrade to the older version DG45FC. Also it starts a attack to the Zotac GF9300-D-E.

Cinebench R10 Test



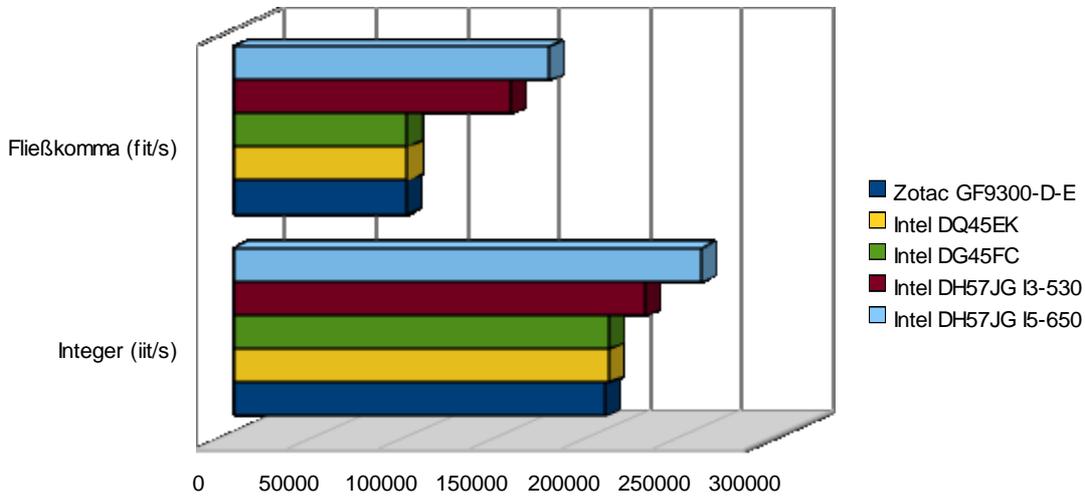
The new Intel Mainboard also defends its pole position at the Cinebench Test. Only at the OpenGL part it has to start on the second place behind the zotac Mainboard.

SIsoft Sandra CPU Arithmetik



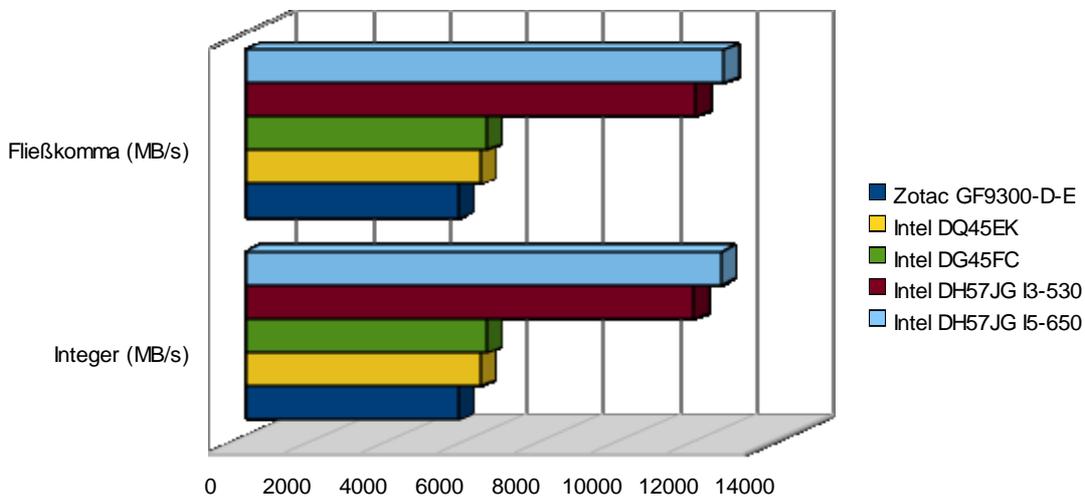
At the SIsoft Sandra CPU Arithmetik Test the DH57JG shows its qualities and stays on the first position.

SIsoft Sandra CPU Multimedia



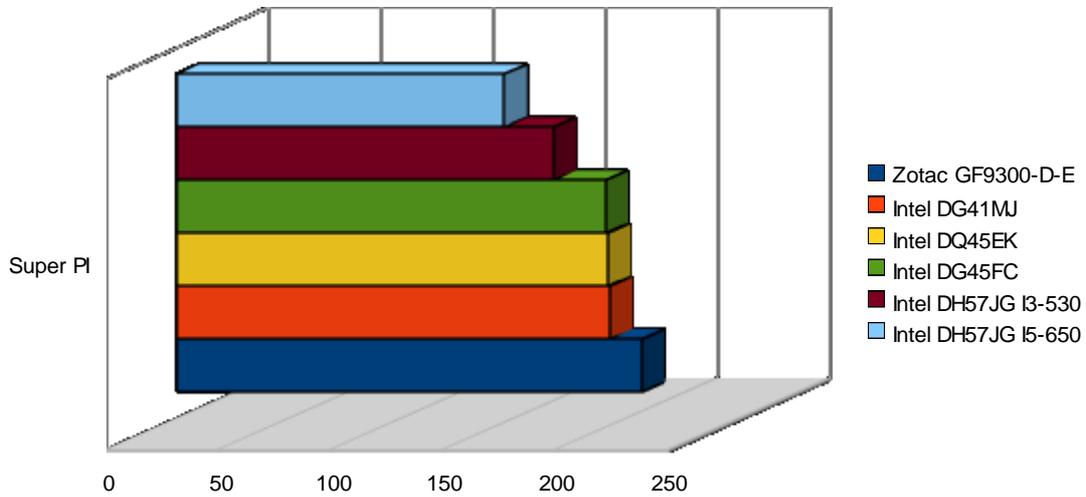
The new „Intel Enzo“ stays on the pole and starts a great sprint to the finish line.

SIsoft Sandra Speicherbandbreite



The DH57JG turns into the honour lap. The new Intel Mainboards wins the tournament sovereign and shows its competitors what real memory performance means.

Super PI 8M Test



An the winner is.... 5 of 7 victories. The DH57JG strikes at the tournament consistently.

Power Consumption

Bootphase	49W
Idle	27W
Last	56W
CD/DVD Load	49W
DVD	50W

Suitable Housings



The M350 case fits the new Intel Mainboard very well.(very nice feature... a hidden USB port behind the front bezel for a



WLAN stick or something else)

Result

We've tested the new Intel nugget with all kinds of the actual testing methods and we can only say that we can't say anything worse about it. The performance is great and the connecting possibilities are amazing. If we have to say some bad things we can only mention that there is no direct VGA port but this you also have adapt in a lot of standard PC's.

But you have to decide it by yourself.

... buy, build in and be happy