Review Intel DH67CF

Preface

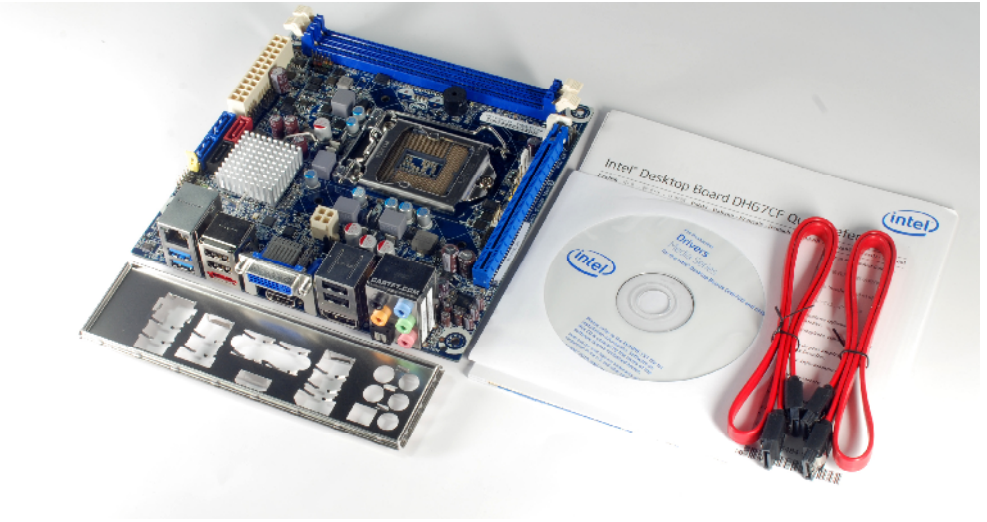
Intel shine with the new Core-I generation. Sandybridge meets Mini-ITX!

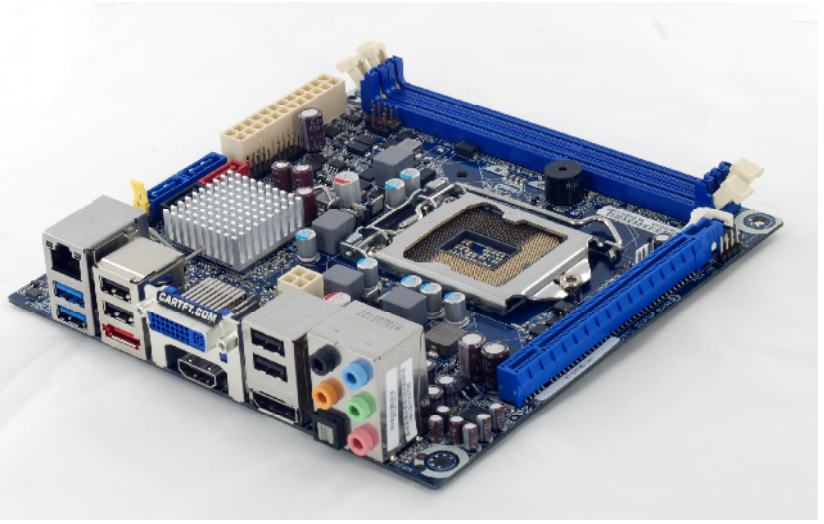
At our last journey to the world of High-End Mainboards we could already see that intel has done his homework.

The DH67CF is the first MiniITX Mainboard with the new Sandybridge processors, that combines the CPU and the graphic card in only one chipset. How well could this graphic be? Are the processors as good as they think, and, how much power has the new Intel DH67CF in real?

The pictures look very nice and incite to discover more about this Mainboard. The new Board sets not only a new standart, it gives you also a lot of new connectors and features for expansion.

Now, we want to see how good this brandnew Mainboard realy is, and check if it really keeps his promise.

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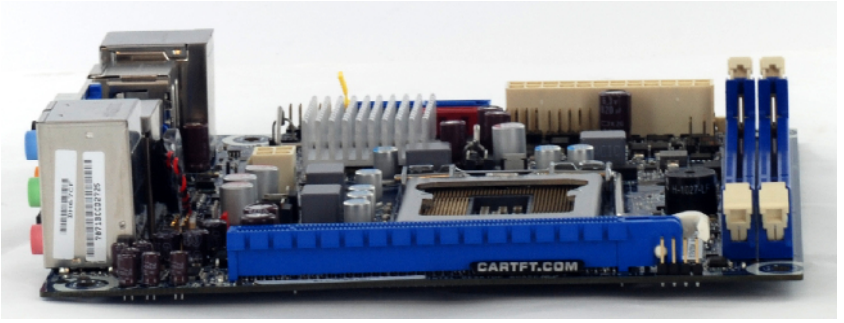
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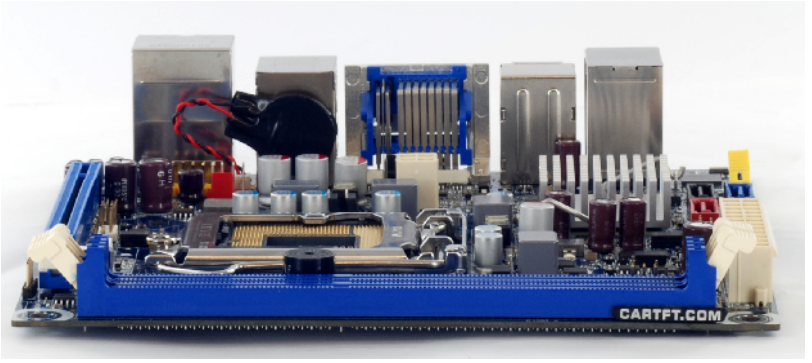
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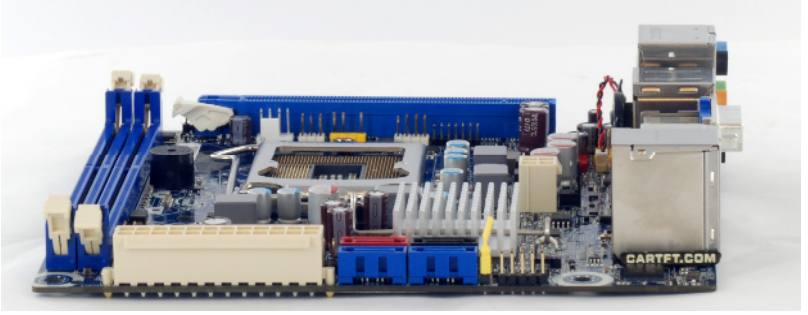
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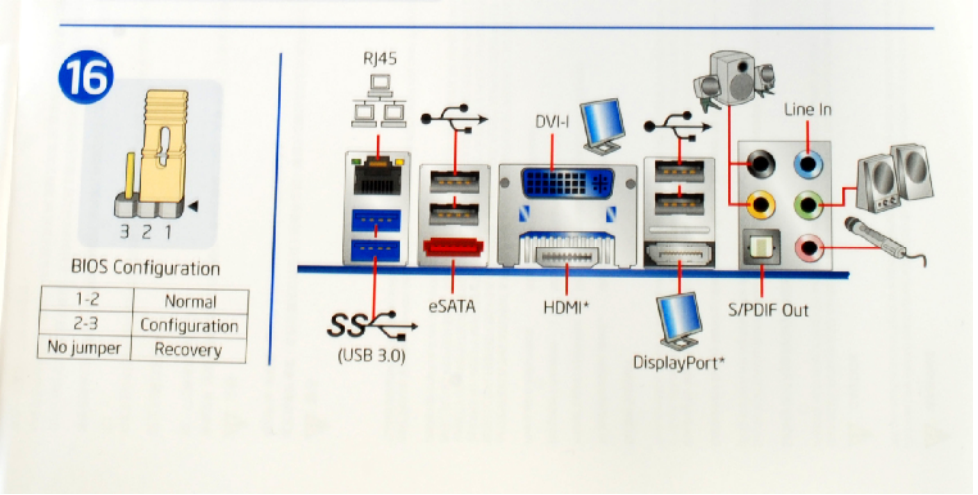
Specification

Modell	DH67CF
Type	MiniITX
CPU (Sockel LGA1155)	Core I7 Core I5 Core I3 Socket LGA1155
Chipset	Intel H67 Express Chipsatz
Graphic	HD100 bzw. HD200
Audio	10-channel Intel High Definition Audio (7.1+2)
Memory	2 x DDR3 DIMM, 1066/1333 Mhz, bis zu 16GB (1.2V-1.8V Memory voltage control for maximum DIMM compatibility)
Powersupply	24 Pin ATX
External connectors	4 x USB 2.0 2 x USB 3.0 1 x Audio 1 x SPDIF 1 x 10/100/1000 Mb/s Ethernet 1 x eSATA 1 x HDMI 1 x DVI-I 1 x S/PDIF 1 x DISPLAY PORT
Internal connectors	6 x USB 2.0 3 x SATA (3,0GB/s) 2 x SATA (6.0GB/s) 1 x eSATA 1 x PCIexpress 2.0 x16
Messures	17 cm x 17 cm

Mainboard und external Connectors



The rear view, with two USB 3.0 and a separate DisplayPort is a real eye candy. Together with DVI and HDMI, are now all connector types available at one Mainboard, without any adapter or riser.

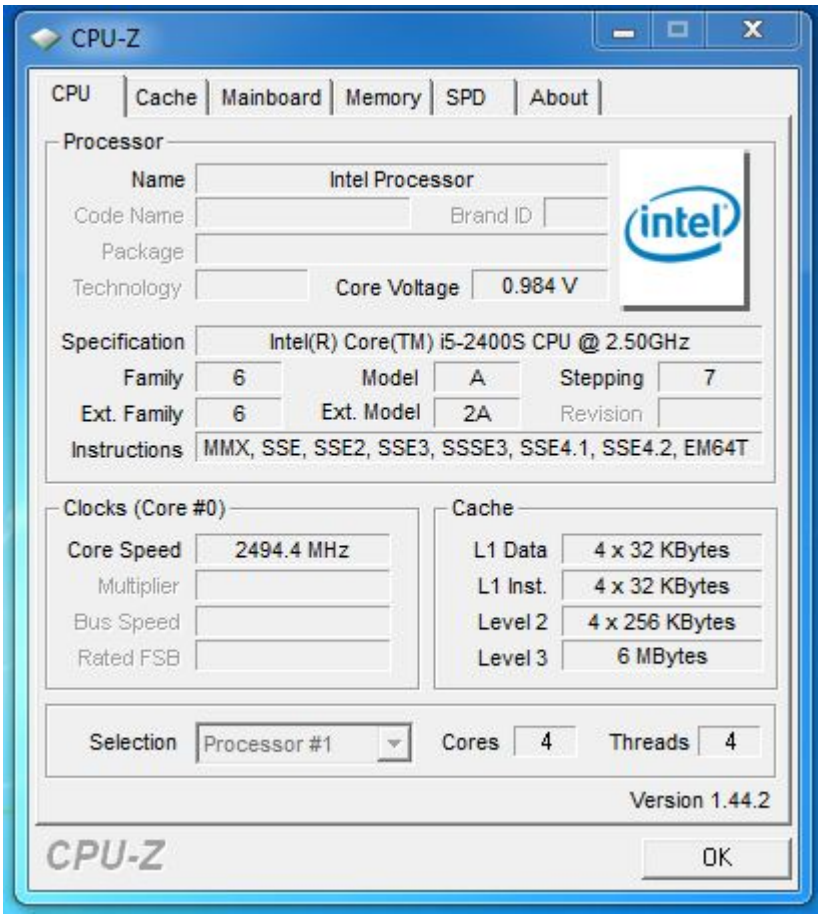
What the I/O Shild promise, keeps also the board. They don´t where economic with internal connectors and everyone will be able to use it in the way that it is most suitable. One of the gratest Highlights are the two new SATA connetors with a data transfer rate of 6,0 GB/s.

Installation, used Hardware and Operation

The following Hardware was used for this Testsystem:

- DH67CF
- Core I5-2400S / Core I7-2600K
- 2 x 2GB DDR3 DIMM 1333 Mhz
- Intel SSD 160 GB
- Panasonic UJ-85J-B
- Pico 160
- AC Adapter

Core I5-2400S



Windows 7 Performance Indicator Core I5-2400S

Bewertung und Verbesserung der Leistung des Computers

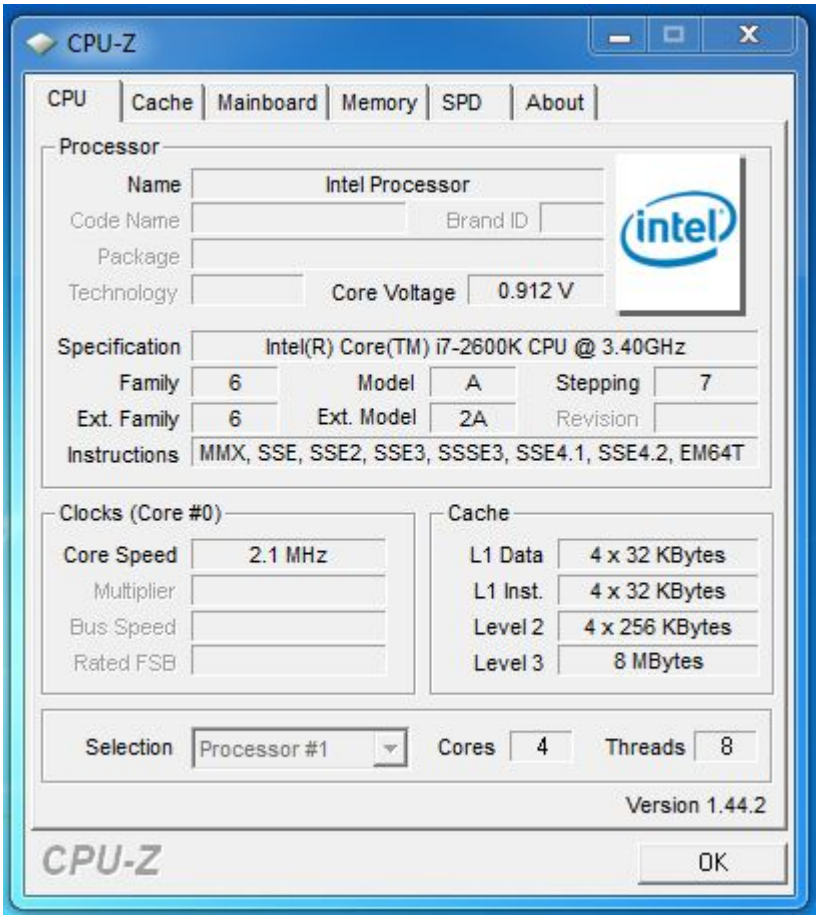
Mithilfe des Windows-Leistungsindex werden wichtige Systemkomponenten anhand einer Skala von 1,0 bis 7,9 bewertet.

Komponente	Was wurde bewertet	Teilbewertung	Gesamtbewertung
Prozessor:	Berechnungen pro Sekunde	7,3	
Arbeitsspeicher (RAM):	Speichervorgänge pro Sekunde	5,9	
Grafik:	Desktopleistung für Windows Aero	5,2	
Grafik (Spiele):	3D-Business- und Gaminggrafikleistung	4,6	
Primäre Festplatte:	Datentransferrate	7,4	

4,6

Ergibt sich aus der niedrigsten Teilbewertung

Core I7-2600K



Windows 7 Performance Indicator Core I7-2600K

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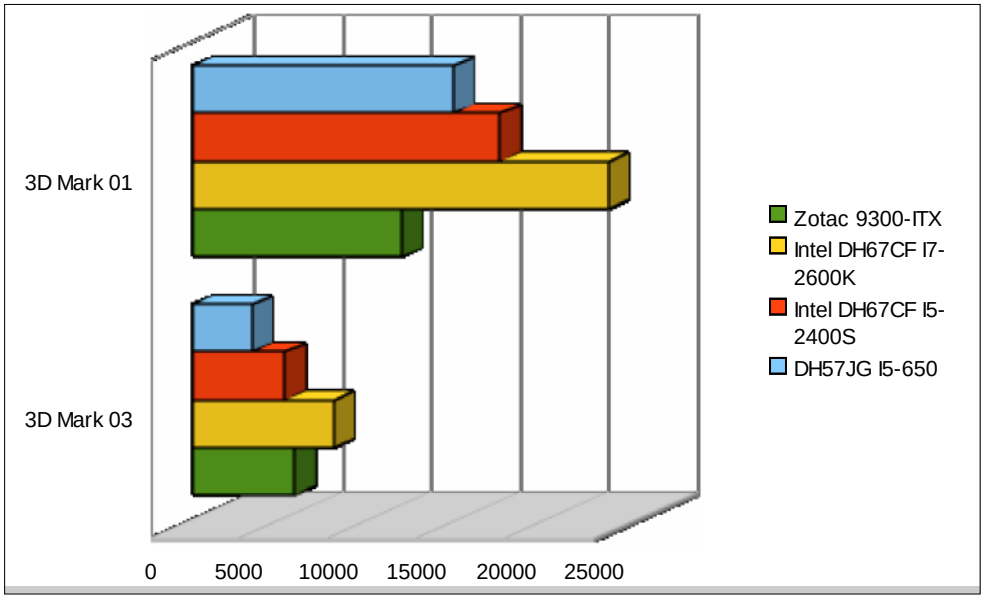
Windows 7 Performance Indicator complete:

If you compare both Mainboards directly, you will see the extreme difference in the performance indicator. The new Intel DH67CF wins four of six test with a clear margin.

3D Mark Test

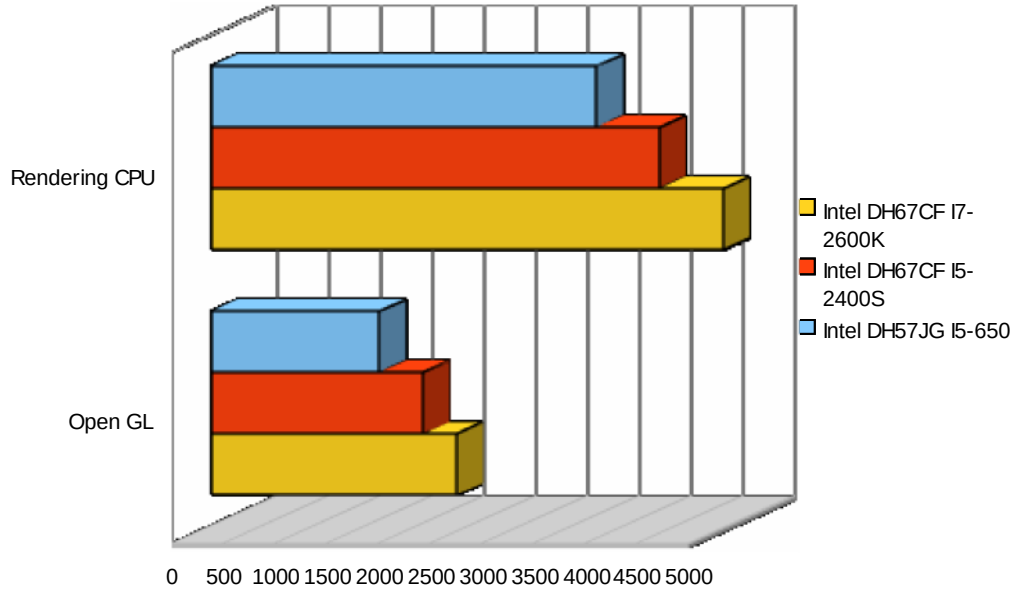


You can see the improvement to the older DH57JG (external Graphic) also in the 3D Mark-Test. The i5 and the i7 are doing their jobs very well.

For an objective comparison to other Mainboards with integrated GPU, we used also the Zotac 9300-ITX to check the new DH67CF and it´s performance.

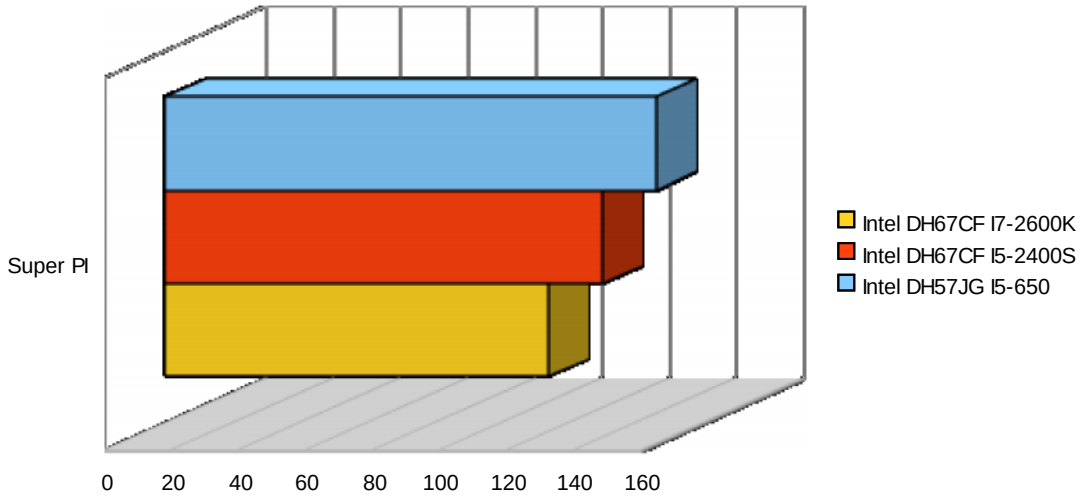
As you can see, it is possible for the Zotac Mainbaord to keep up with the i5 CPU, but it has to give up very soon against the i7.

Cinebench R10 Test



The DH67CF is completely far above all other at the moment, available Mini-ITX Mainboards. Also Cinebench shows the difference to the old DH57JG.

Super PI 8M Test



Also in the last Test, the Super PI is this Mainboard on the road to success.

Power Consumption

	I5-2400S	I7-2600K
Bootphase	63W	99W
Idle	29W	23W
Last	76W	120W
CD/DVD Load	39W	54W
DVD	40W	55W

Ok, we all know that such powerfull Mainboard also has to make sacrilfices. This System is not a „low power consumption“-wonder, but anyway the performance is great and compens for the high consumption.

Result

Finding the pro and the Contra‘s of this Mainboard is not realy difficult. The integrated graphic is very nice and ist performance is nearly like a GeForce GTX200. The fan is unbelievably quiet, HTPC users will also be very pleased about that.

The only dreawback is the high power consumption, but if you compare it with the performance, you can disregard that.

All in all is the DH67CF a worthy sequel of highend Mainboards that Intel offered in the past. If they go on like this, we can be strained what will follow in the future.