Apollo/68080 Core
100% 680x0 compatible processor

Apollo Core is the natural and modern evolution of latest 680x0 processors. It’s 100% code compatible, corrects bugs of 680x0 designs and adds on top most of the cool features which were invented the years after.

Apollo core : a game changer
Back in the 80s, Motorola was leading the market with his 680x0 CISC processors range, selling it to big companies like HP, Apple, Atari, Commodore, NeXT, SEGA and others.

Today, 680x0 is still used by industrial machines, planes industry, cars vendors and is still used by retrocomputing fans around the world.

When put in an FPGA, the Apollo offers a good combination of moderate FPGA space consumption and excellent performance. Apollo surpases the performance of 68060 ASIC by far - even when only using low cost FPGA.

Performance Amiga-land deserves
Bored of tiresome 68020 performance, of expensive 68060 accelerators and not feeling same emotions with emulation? Apollo core resolve all those topics.

Core Features
Faster Amiga CPU ever
Faster than a 68060 at 150MHz, capable of Next Gen workloads (watching movies, listening to digital music, browsing web, etc.)

Digital Video Output
32-Bit Digital Video output from RTG and SAGA. You can now plug in your new shiny LCD screen.

User upgradable
Thanks to FPGA technologies, new cores are uploaded directly from your Amiga, giving you new functionalities and performances when they hit the street.

Affordable
Apollo based accelerators are cost efficient and brings twice as much performance at fraction of the cost of an old accelerator.

Loads of memory
Apollo based accelerators all offers at least 128MB of FastRAM.

Faster storage
Use your preferred storage solution (MicroSD, Compact Flash, etc.) to get fastest amiga experience, up to 11MB/s.

Ready for the future
Unlike old processor stocks getting more and more difficult to find, Apollo core can be ported to industry standard FPGA, getting speedups every time it gets on a more powerful chip.

www.apollo-accelerators.com
Performance comparison against other Amiga hardware

Apollo Performance Comparison Chart (Minibench MIPS)

- AC68080 x16: 193
- AC68080 x12: 145
- Cyberstorm MK2 (060/66MHz): 65
- Amiga 4000 (040/40MHz): 25
- Amiga 4000 (040/25MHz): 13
- Blizzard 1230 (68030/50MHz): 11
- ACA1231 (68030/41MHz): 11
- FPGA Arcade: 9
- ACA620 (020/16MHz): 4

Performance increase over releases
Since start beginning in January 2016, Apollo core evolved to bring even more performance to end-users for free.

Apollo Core Performance Evolution Chart

- SILVER7/8/9 (x13): 155
- SILVER7/8/9 (x11): 130
- SILVERS5/6: 116
- SILVER3/4: 108
- SILVER2: 104
- SILVER1: 104

www.apollo-accelerators.com
# Apollo core based accelerators line-up*

<table>
<thead>
<tr>
<th>Model</th>
<th>Compatibility</th>
<th>FPGA</th>
<th>FastRAM</th>
<th>Storage</th>
<th>Other I/O</th>
</tr>
</thead>
<tbody>
<tr>
<td>V600 V2</td>
<td>A600</td>
<td>Altera Cyclone 3</td>
<td>128MB</td>
<td>MicroSD</td>
<td>N/A</td>
</tr>
<tr>
<td>V500 V2+</td>
<td>A500(+), A1000, A2000</td>
<td>Altera Cyclone 3</td>
<td>128MB</td>
<td>MicroSD, FastIDE</td>
<td>Expansion Port</td>
</tr>
</tbody>
</table>
| V4 Standalone| Standalone system | Altera Cyclone 5| 512MB DDR3 | MicroSD, FastIDE | 3x Expansion Port  
|              |                 |                 |         |               | 1x i2c Port  
|              |                 |                 |         |               | 2x DB9  
|              |                 |                 |         |               | 2x USB         |

*Features and specifications subject to change without notice.

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## Get in touch with Apollo team

**Internet Chat Relay**  
Server: irc.freenode.org  
Channel: #apollo-team

**Facebook**  
https://www.facebook.com/apolloaccelerators/

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## For more information, visit

- **About core**: http://www.apollo-core.com/
- **About accelerators**: http://www.apollo-accelerators.com/
- **Official Wiki**: http://wiki.apollo-accelerators.com/