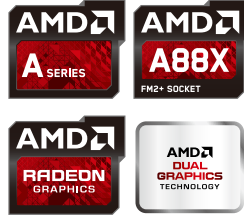
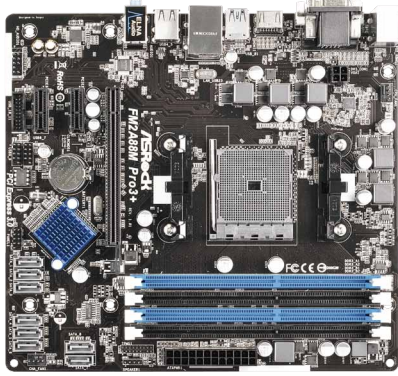


# FM2A88M Pro3+

AMD A88X (Bolton-D4)

# ASRock



## Product Brief

- Support for Socket FM2+ 95W / FM2 100W processors
- Supports Dual Channel DDR3 2400+(OC)
- 1 x PCIe 3.0 x16, 2 x PCIe 2.0 x1
- Supports AMD Dual Graphics
- Integrated AMD Radeon™ R7/R5 Series Graphics in A-series APU
- Graphics Output Options : D-Sub, DVI-D, HDMI
- 5.1 CH HD Audio (Realtek ALC662 Audio Codec), ELNA Audio Caps
- 8 x SATA3, 4 x USB 3.0 (2 Front, 2 Rear), 8 x USB 2.0
- Supports ASRock Cloud, APP Shop, Full Spike Protection, X-Boost



## Detail Specification

Platform	- Micro ATX Form Factor - Solid Capacitor design - High Density Glass Fabric PCB
Unique Feature	ASRock Full Spike Protection ASRock Cloud ASRock APP Shop
CPU	- Supports Socket FM2+ 95W / FM2 100W processors
Chipset	- AMD A88X (Bolton-D4)
Memory	- Dual Channel DDR3 Memory Technology - 4 x DDR3 DIMM Slots - Supports DDR3 2400+(OC)/2133/1866/1600/1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 64GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2 - Supports AMD Memory Profile Technology (AMP) up to AMP 2400
Expansion Slot	- 1 x PCI Express 3.0 x16 Slot (PCIe1 @ x16 mode) * PCIe 3.0 is only supported with FM2+ CPU. With FM2 CPU, it only supports PCIe 2.0. - 2 x PCI Express 2.0 x1 Slots - Supports AMD Dual Graphics
Graphics	- Integrated AMD Radeon™ R7/R5 Series Graphics in A-series APU - DirectX 11.1, Pixel Shader 5.0 with FM2+ CPU. DirectX 11, Pixel Shader 5.0 with FM2 CPU. - Max. shared memory 2GB - Three graphics output options: D-Sub, DVI-D and HDMI Ports - Supports Triple Monitor - Supports HDMI with max. resolution up to 4K x 2K (4096x2160) @ 24Hz * Only FM2+ APU can support up to 4096x2160 resolution display via HDMI port - Supports Dual-link DVI-D with max. resolution up to 2560x1600 @ 60Hz - Supports D-Sub with max. resolution up to 1920x1200 @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required) - Supports Blu-ray Stereoscopic 3D with HDMI Port - Supports AMD Steady Video™ 2.0: New video post processing capability for automatic jitter reduction on home/online video - Supports HDCP with DVI-D and HDMI Ports - Supports Full HD 1080p Blu-ray (BD) playback with DVI-D and HDMI Ports
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec) - Supports Surge Protection (ASRock Full Spike Protection) - ELNA Audio Caps
LAN	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111GR - Supports Wake-On-WAN - Supports Wake-On-LAN - Supports Lightning/ESD Protection (ASRock Full Spike Protection) - Supports LAN Cable Detection - Supports Energy Efficient Ethernet 802.3az - Supports PXE

Rear Panel I/O	- 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x D-Sub Port - 1 x DVI-D Port - 1 x HDMI Port - 4 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) - 2 x USB 3.0 Ports (AMD A88X (Bolton-D4)) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jacks: Line in / Front Speaker / Microphone																								
Storage	- 8 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5 and RAID 10), NCQ, AHCI and Hot Plug																								
Connector	- 1 x Chassis Intrusion Header - 1 x TPM Header - 1 x CPU Fan Connector (4-pin) - 1 x Chassis Fan Connector (4-pin) - 1 x 24 pin ATX Power Connector - 1 x 4 pin 12V Power Connector - 1 x Front Panel Audio Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.0 Header by AMD A88X (Bolton-D4) (Supports 2 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection))																								
BIOS Feature	- 64Mb AMI UEFI Legal BIOS with GUI support - Supports "Plug and Play" - ACPI 1.1 Compliant wake up events - Supports jumperfree - SMBIOS 2.3.1 support - DRAM, CPU Voltage multi-adjustment																								
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, Start8 (30 days trial), Orweb.ME Professional (Win 8.1 / 7)																								
Software and UEFI	<table border="0"> <tr> <td>Software</td> <td>UEFI</td> </tr> <tr> <td>- ASRock A-Tuning</td> <td>- ASRock Interactive UEFI</td> </tr> <tr> <td>- ASRock Disk Health Report</td> <td>- ASRock Instant Boot</td> </tr> <tr> <td>- ASRock USB Key</td> <td>- ASRock Instant Flash</td> </tr> <tr> <td>- ASRock APP Charger</td> <td>- ASRock Internet Flash</td> </tr> <tr> <td>- ASRock XFast LAN</td> <td>- ASRock Crashless BIOS</td> </tr> <tr> <td>- ASRock XFast RAM</td> <td>- ASRock OMG (Online Management Guard)</td> </tr> <tr> <td>- ASRock Restart to UEFI</td> <td>- ASRock UEFI System Browser</td> </tr> <tr> <td>- ASRock X-Boost</td> <td>- ASRock UEFI Tech Service</td> </tr> <tr> <td></td> <td>- ASRock Dehumidifier Function</td> </tr> <tr> <td></td> <td>- ASRock Easy RAID Installer</td> </tr> <tr> <td></td> <td>- ASRock Easy Driver Installer</td> </tr> </table>	Software	UEFI	- ASRock A-Tuning	- ASRock Interactive UEFI	- ASRock Disk Health Report	- ASRock Instant Boot	- ASRock USB Key	- ASRock Instant Flash	- ASRock APP Charger	- ASRock Internet Flash	- ASRock XFast LAN	- ASRock Crashless BIOS	- ASRock XFast RAM	- ASRock OMG (Online Management Guard)	- ASRock Restart to UEFI	- ASRock UEFI System Browser	- ASRock X-Boost	- ASRock UEFI Tech Service		- ASRock Dehumidifier Function		- ASRock Easy RAID Installer		- ASRock Easy Driver Installer
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Hardware Monitor	- CPU temperature sensing - Chassis temperature sensing - CPU Fan Tachometer - Chassis Fan Tachometer - CPU/Chassis Quiet Fan - CPU/Chassis Fan multi-speed control - CASE OPEN detection - Voltage monitoring: +12V, +5V, +3.3V, Vcore																								
OS	- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8.32-bit / 8.64-bit / 7.32-bit / 7.64-bit																								
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)																								
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables																								



## ASRock Cloud

ASRock Cloud\* technology makes your mobile devices connect to your PC seamlessly and supports multi devices for accessing File Explorer cloud service simultaneously! We offer a one-year subscription to Orbweb.ME Professional version, a personal cloud service which is \$49.99 per year. It allows you to get connected with your PC's files, music, photos, and video clips remotely with tablets anytime, anywhere. Plus an additional one-month upgrade to Orbweb.ME Ultimate package with Remote Desktop function.

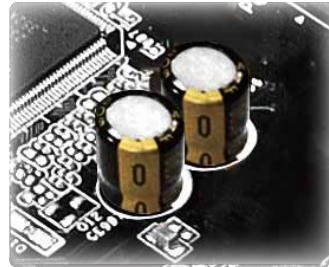


\* OrbWeb ME is provided by a third party. Restriction may apply and the offer is subject to change, termination or discontinuation by the third party without prior notice. Please visit the website for further details: <http://www.asrock.com/feature/cloud/index.html>



## ELNA Audio Caps

Who says high quality audio is only available on high-end motherboards? ASRock applied ELNA audio capacitors on mainstream and entry-level motherboards! Compared with traditional solid caps, the leakage current of ELNA audio caps is merely 3uA. This is the key to reduce noise level significantly and satisfy even the pickiest audiophiles.



## FM2 / FM2+ APU Support

This motherboard is compatible with both AMD FM2 and FM2+ APUs. Please note that some new features may be only supported by FM2+ APUs.



## All Solid Capacitor Design

All capacitors on this board are solid capacitors. With these solid caps, ASRock motherboards are allowed to perform more stably and ensure longer lifetime.



## 3 Graphics Outputs

Complete with all three types of most used connectors! Packed with a D-Sub + DVI + HDMI combo. Plus the HDMI port supports Full HD 1080p Blu-ray (BD) playback.



## 4K x 2K

4K is a new standard for display resolutions with a minimum of 3840 x 2160 pixels, which is twice the horizontal and vertical resolution of the 1080p format and four times as many pixels overall.

\*Only FM2+ APU can support up to 4096 x 2160 resolution display via HDMI port.



## Next-Gen PCIe 3.0

This motherboard supports the next-gen PCIe 3.0! Compared to PCIe 2.0, PCIe 3.0 offers up to 2X data transferring bandwidth for VGA cards, thus providing ultimate graphics performance. (Available only with AMD FM2+ CPUs)



## X-Boost

Brilliantly designed for smart overclocking, ASRock X-Boost Technology is able to unleash the hidden powers of your CPU. Simply press "X" when turning on the PC, X-Boost will automatically overclock the relative components to get up to 15.77% performance boost!



## ASRock APP Shop

We provide various apps and support software for users to download. You can easily optimize your system and keep your motherboard up to date with ASRock APP Shop.



## Full Spike Protection

Some sensitive digital components on the motherboard are vulnerable to power surges, the excessive current may cause your system to malfunction immediately. ASRock Full Spike Protection includes various technologies to prevent your motherboard's components (USB, LAN, MOSFETs) from being damaged by these unexpected voltage spikes.