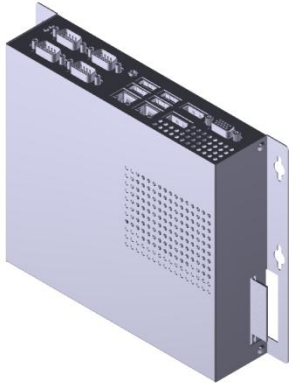




AGX52

AMD G-Series – 8 Line JAMMA Gaming Board



Key Feature:

- AMD G-Series Steppe Eagle SOC
- Build-in AMD Radeon HD 8000 series GPU with 2CU
- Support 2 Display output
- Completed gaming features & customized security mechanism
- low power consumption
- 10 Year life support (2023)

Specification	
PCB Dimension	All in One Main board 240 x 180 m.m x 40m.m
CPU	AMD G series ● GX-412 Quad Core 1.2Ghz, L2=2048KB
Main Memory	On board DDR3-1666 4GB
GPU	AMD Radeon HD8000 series
LAN	One Realtek RTL8111G 10M/100M/1000Mbps One Realtek RTL8111E 10/100/1000Mbps Ethernet with PXE support
Storage	1. 1 x eMMC 8/16GB TLC if AGX-32 2. 2 x SATA connector with power pin
HID	1. 4 x USB 2.0 to Board edge 2. 1 x USB 2.0 to internal USB port
RS-232 Port	1. 4 x COMs to board edge 1.1 COM1 ● Pin 9 is connects to floating or +12V or +5V 2. COM 2 could be option to UART (TTL)
Display Interface	Maximum support 2 displays Display1: VGA output with DSUB-15 Maximum resolution to 1920x 1080. Display2: DP1, Maximum resolution to 1920x1080 Display3: DP2, Maximum resolution to 1920x1080
Backup Battery	1. 1 x One Time Li-Ion Battery CR2032 3.0V for CMOS ■ Battery life is over 5 years if without AC power 2. 2 x One Time Li-Ion CR2032 Battery 3.0V for SRAM and EIT ■ Battery life is longer than 700 days while without AC power. ■ application in ◆ SRAM chip(s) ◆ Intrusion logger (option from system power) ◆ secure RTC
Gaming IO interface	8 Line (20 Pin power + 72 pin Signals Golden Finger)
Auxiliary Gaming controller	AUC
Security	Secrued ID

The product specifications are subject to change without notice.



Audio	<ol style="list-style-type: none"> 1. Stereo Line out to 3.5 Phi audio jack 2. Amplified Stereo audio output <ul style="list-style-type: none"> ● 5.5 Watts Class AB amplifier for each channel ● Output for 8 Ohm speaker ● A jumper selects amplifiers off
Gaming I/O Hub	<ol style="list-style-type: none"> 1. Controller: AGC01 2. All connects golden finger and connectors /headers have to endure ESD 4KV (contact), 8KV (Air). <ul style="list-style-type: none"> ● 23 bits Isolation Input <ul style="list-style-type: none"> ● TTL5 Tolerance ● Working range is -24V to +48V ● 28 bits Output <ul style="list-style-type: none"> ● Open Drain Topology ● Maximum to 3A sink current ● TTL5 Tolerance ● Working voltage is -0.8V to 24V
Intrusion Logger	<ol style="list-style-type: none"> 1. Battery powered at least keep data over 700 days 2. Anti-ESD protect 3. 6 bits TTL level 3V pulled up input <ul style="list-style-type: none"> ● P0: Golden finger Top Side P.17 ● P1: Golden finger Bottom Side P.6 ● P2: Golden finger Bottom Side P.7 ● P3: Golden finger Bottom Side P.8 ● P4: Golden finger Bottom Side P.9 ● P5: System time stamp 4. 64 events with time stamp 5. Event by edge trigger 6. Reference to Secure Real time clock
Secure RTC	<ol style="list-style-type: none"> 1. Supports from 2000 to 20368 year 2. Unit: 1 second
NVRAM	<ol style="list-style-type: none"> 1. SRAM <ul style="list-style-type: none"> ● Battery backup, working day at least 700 days ● Default is 512MB, Maximum to 2MB
I/O on board edge	<ol style="list-style-type: none"> 1. Dual Layer LED (System power + Storage access) 2. 1 x VGA + 2 x DP 3. 2 x (two layer USB connector with 1 x RJ45) 4. 1 x Single layer 3.5 Phi audio Jack 5. 2 x Two layer DB9 for COM Ports 6. 1 x 8 Line JAMMA (72 Pin + 20Pin) 7. 1 x 8 bit DIP switch
Operation System	Support 32 and 64-bit OS Linux Kernel 3.0.6+, Windows XP(E), Win 7
Power Behavior	AT simulated ATX
Power Consumption	+12V: Maximum 3A(Estimating)
Operation temperature	0 to 65 Degree Celsius
Storage temperature	0 to 80 Degree Celsius
ROHS	YES

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Mechanical Request Item

Item	Description
Cooling	Fan-less
Chassis material	Top Cover: Alumina Bottom Cover: SECC with coating T=0.8m.m
Mounting holes	With top chassis
IO Function Painting	White painting printed IO connector on chassis
Storage	Quick access Door

BIOS special Request Item

Item	Description
Bootimg logo	Customer assigns bootimg logo, 640 x 480 pixels BMP file
Bootimg Device and sequence	1. EMMC ports 2. SATA slot 3. USB port

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JAMMA Pin Definition

72-pin Golden Finger Pin Definition (8 Line)

Component Side		Pin	Solder Side	
I/O	Function		Function	I/O
		1		
A	SPEAKER RIGHT+	2	Audio GND	A.G
A	SPEAKER LEFT +	3	Audio GND	A.G
I.I	Button 1	4		
I.I	Button 2	5		
I.I	Button 3	6	Door SW 2	I
I.I	Button 4	7	Door SW 3	I
I.I	Button 5	8	Door SW 4	I
I.I	Button 6	9	Door SW 5	I
I.I	Button 7	10	Key- 3	I.I
I.I	Button 8	11	Key- 4	I.I
I.I	Button 9	12	Coin-Enable	O.D.
I.I	Button10	13	Bill-Enable	O.D.
I.I	Button 15 or Button 16	14		
I.I	Key-0	15	Button 15	I.I
I.I	Button11	16	Button 16	I.I
I	Door SW1	17		
I.I	Coin Signal A	18	Button 12	I.I
I.I	Bill-In	19	Coin-In Signal B	I.I
I.I	Key-2	20	Key-1	I.I
I.I	Button 14	21	Button 13	I.I
P	GND	22	Hopper Sensor	I.I
O.D.	Meter 0	23	Lamp13	O.D.
O.D.	Meter 1	24	Meter 6	O.D.
O.D.	Meter 2	25	Meter 7	O.D.
O.D.	Meter 3	26	Lamp14	O.D.
O.D.	Meter 4	27	Lamp15	O.D.
O.D.	Meter 5	28	Lamp16	O.D.
O.D.	Lamp1	29	Lamp7	O.D.
O.D.	Lamp2	30	Lamp8	O.D.
O.D.	Lamp3	31	Lamp9	O.D.
O.D.	Lamp4	32	Lamp10	O.D.
O.D.	Lamp5	33	Lamp11	O.D.
O.D.	Lamp6	34	Lamp12	O.D.
P	GND	35	GND	P
P	GND	36	GND	P

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20-pin Golden Finger Pin Definition

Component Side			Solder Side	
I/O	Function	Pin	Function	I/O
P	GND	1	GND	P
P	GND	2	GND	P
P	+5V	3	+5V	P
P	+5V	4	+5V	P
P	+12V	5	+12V	P
P	+12V	6	+12V	P
O.D.	Hopper SSR	7		
O.D.	Ticket Enable	8		
P	GND	9	GND	P
P	GND	10	GND	P

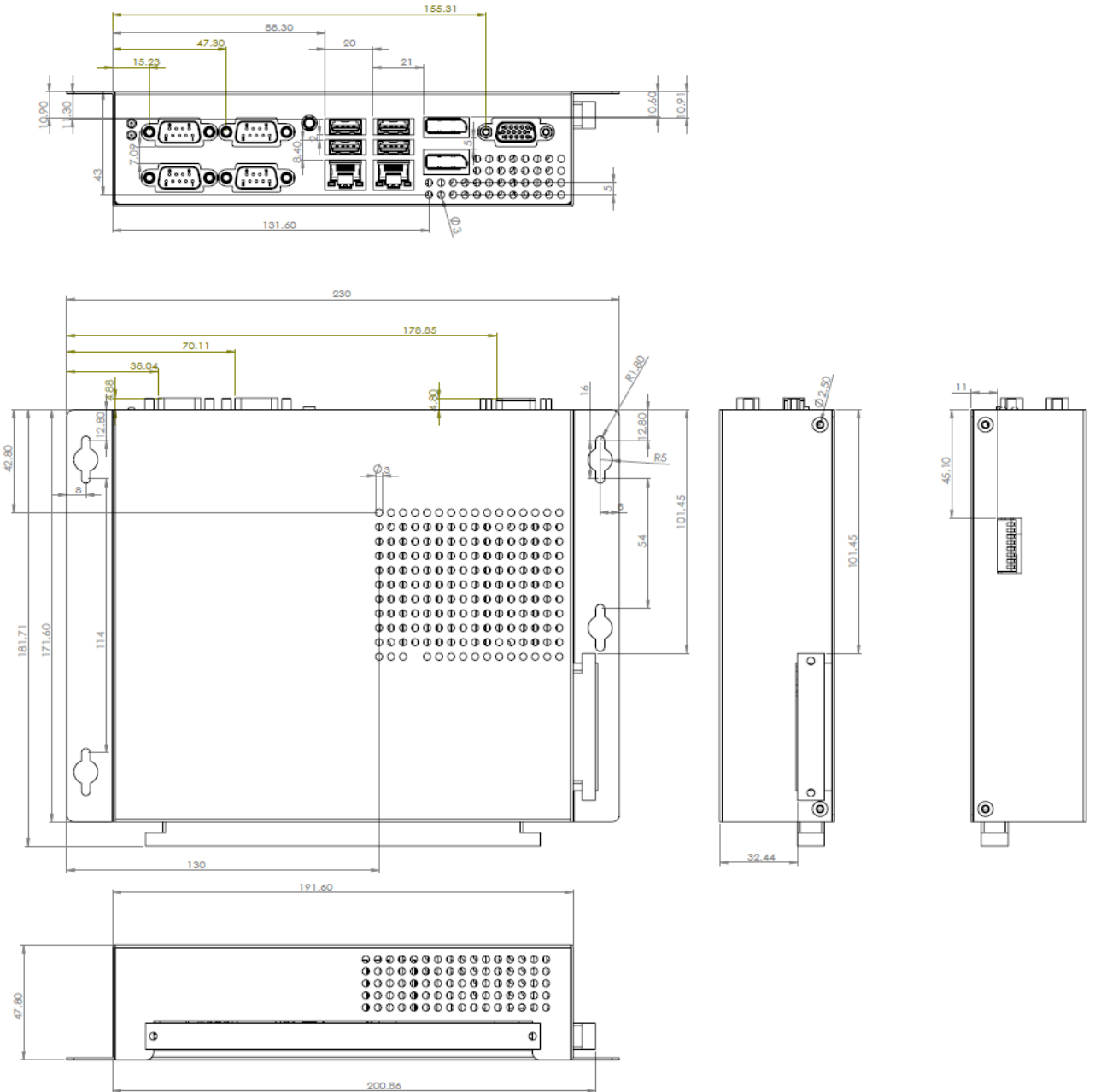
Single describe

- I3: TTL 3.0V level input
- O3: TTL 3.0V level output
- I: Isolation input
 - Logical High is over 2.2V
 - Logical Low is under 1.0V
- O.D: Open Drain Output
- AO: Analogy output
- G: Analog ground
- P: Power wall or ground

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Mechanism



The product specifications are subject to change without notice.