



Desire  
For  
Innovation



# Innovative Agile Gaming Solutions

Exceptional Experience for  
Unmatched Success

# Extensive Computing Solutions for Gaming Excellence

Casino Slot Machines  
&  
Multiplayer Roulette



Player Tracking  
&  
Bingo Machines



AWP  
(Amusement With Prize)  
&  
VLT  
(Video Lottery Terminals)



## The DFI Advantage: Why We Stand Out



### Advanced Data Security

Offering secure boot, secure content protection, NVRAM, intrusion detection, and TPM 2.0 for robust data security.



### Customizable Hardware and Software Design

Providing flexible hardware design, software/firmware programming (API, Diagnostics, FPGA, BIOS), and optimized enclosure solutions.

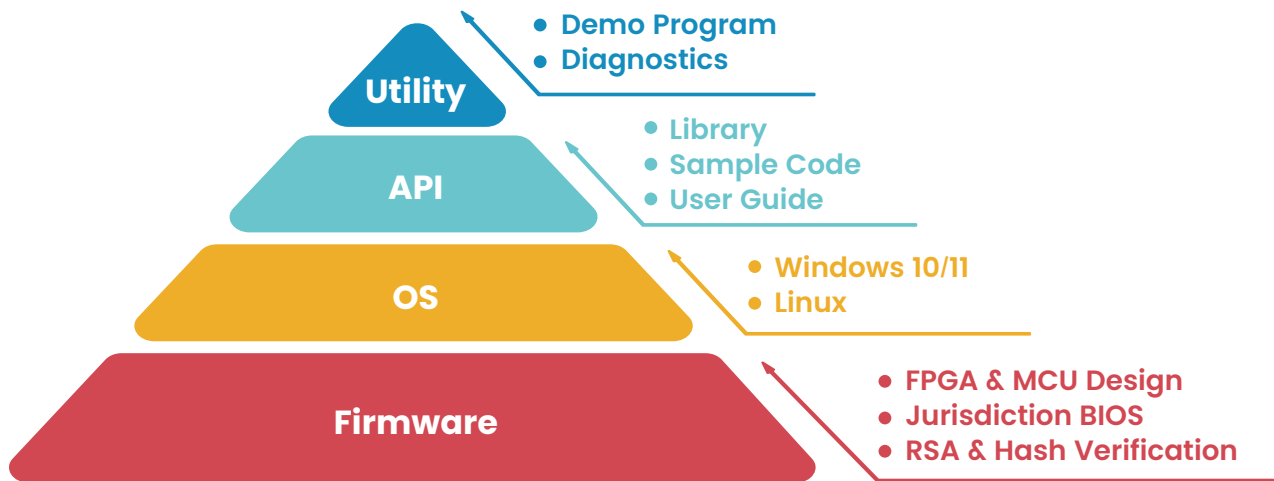


### GLI-Certified Gaming Technology

DFI's gaming technology is pre-verified by GLI, reducing customers' time and costs associated with the GLI certification process.

# Extensive Computing Solutions for Gaming Excellence

As a global leader in embedded computing, DFI is at the forefront of innovation, offering state-of-the-art solutions that cater to the ever-evolving needs of the gaming industry. Our comprehensive portfolio spans advanced systems for casino slots, lottery machines, and player tracking systems, all designed to perform seamlessly in diverse environments worldwide. Through rigorous system development and uncompromising quality assurance, DFI ensures that our high-performance solutions not only meet but exceed the specific demands of gaming enterprises around the globe. With a deep well of industry expertise, we are committed to driving the future of gaming technology.



## Product Guide

### Gaming IO Board GM903

<b>FPGA + MCU</b>	FPGA & MUC implementation of the gaming features controller	<b>Serial</b>	2 x RS232 Header (one support ccTalk)
<b>Gold finger</b>	2 x PCIe x1 slot (side) (PCIe + General IO singals) 1 x PCIe x1 slot (vertical)	<b>Audio</b>	Stereo 6W+6W Class D Audio AMP Output
<b>UART</b>	Pin header for UART signal input	<b>SRAM (NVRAM)</b>	Support 2pcs SRAM (BGA type) 2 x SRAM supported with battery backup, Default 4MB/Single (up to 16MB/Dual) Backup to Retain Data for 5 years during AC off
<b>USB</b>	Pin header for USB 2.0 signal input	<b>EEPROM</b>	EEPROM 2KB
<b>I2C</b>	Pin header for I2C signal input	<b>Coin battery</b>	3 x CR2032 Lithium 3V/220mAh with socket type; 2 of them shared by two SRAM; 1 for MCU
<b>Intrusion Detection</b>	8 x intrusion detection Logs Date/ Time of latest 64 events Operates with and without system active (G3 power from BAT) 5 Years data retention during AC off	<b>iButton</b>	Support iButton 1-wire protocol
<b>DI/DO</b>	32-bit Digital Input, 32-bit OC output (29-bit x 500mA, 3-bit x 3A, up to 24V), Low Active, 8 ports can be set as meter output with disconnect detect		

## Peripheral

### Graphic Card (MXM)

Model	T1000	RTX 3000	RTX A1000	RTX A2000	RTX A500	RTX A4500
<b>Type</b>	A	B	A	A	A	B+
<b>Core</b>	Turing Pascal	Turing	Ampere	Ampere	Ampere	Ampere
<b>Life cycle</b>	~2025	~2025	~2028	~2027	~2028	~2028
<b>CUDA core</b>	896	1920	2048	2560	2048	5888
<b>TFLOPS</b>	2.6	5.3	6.66	8.25	6.54	18.55
<b>Power</b>	50W	80/65W	35/60W	60W	35W	125W
<b>OP. temp</b>	0~55°C or -40~85°C	0~55°C	0~55°C or -40~85°C	0~55°C or -40~85°C	0~55°C	0~55°C
<b>Graphics memory</b>	GDDR6 4GB	GDDR6 6GB	GDDR6 4GB	GDDR6 8GB	GDDR6 4GB	GDDR6 16GB
<b>Remark</b>	-	-	-	-	No display Acceleration only	-

### Open Frame Series



Board	Purpose
<b>Processor</b>	ARM i.MX 8M Intel Atom Alder Lake N
<b>Memory /Storage</b>	2GB LPDDR4/16GB eMMC
<b>LCD Size</b>	6.2"/7"/10"/12"
<b>Brightness</b>	350 (6.2") 500 (7"/10"/12")
<b>Resolution</b>	640 X 240 (6.2") 1280 x 800 (10")
<b>I/O</b>	GbE RJ45, USB 3.0, RS485
<b>OS</b>	Windows 10 IoT Enterprise LTSC(64-bit) Linux Yocto

### Gaming Testing & Demo Fixture

Board	Purpose
<b>GM900</b>	Testing fixture for DI/DO/Intrusion
<b>GM900-1</b>	Demo fixture for DI/DO/Intrusion/Meter

# Wide-Range Solutions for Diverse Gaming Applications



## Explore Our Success Cases



**Modular  
Multi-System  
Game Console**



[Learn More](#)



**Smart  
Gaming**



[Learn More](#)



**Slot  
Machine**



[Learn More](#)

## Product Guide

### Board



COMING SOON

Model	GH171	RNO171	RAP310-B650	HPT171
<b>Processor</b>	AMD® Ryzen™ Embedded V1000/R1000/R2000 processors	AMD® Ryzen™ Embedded V2000	AMD® Ryzen™ 7000 Series with AMD B650 chipset	AMD® Ryzen™ 8000 Series Processors, TDP up to 54W (Hawk Point)
<b>Memory</b>	Dual DDR4 3200MHz SODIMM up to 32GB	Dual DDR4 3200MHz SODIMM up to 64GB	Four DDR5 UDIMM up to 128GB	2x 260-pin SODIMM DDR5 up to 64GB
<b>Storage</b>	2 x SATA 3, 1 x M.2 2280 M Key	2 x SATA 3, 1 x M.2 2280 M Key	4 x SATA 3.0, 1 x M.2 2242/2260/2280 M key	1 x 2.5" SSD Bay, 1x M.2 2280 M Key (PCIe Gen3x4, SATA3)
<b>Display</b>	4 x DP++	4 x DP++	1 x VGA, 1 x DP++, 1 x HDMI 2.0	4 x DP++ or 3 DP++ + 1 M.2 A display
<b>Expansion</b>	1 x PCIe x16 (x8 signal with V1000 series, x4 signal with R1000 series) (Max. 50W) 1 x M.2 2280 M Key (x4 signal with V1000 series, x2 signal with R1000 series) (support 2242 by BOM opt.)	1 x PCIe x16 (x8 Gen3) (Max. 75W) 1 x M.2 2280 M Key (SATA 3.0/ PCIe x4) (support 2242 by BOM opt.)	2 x PCIe x16 (Gen 4, x16 or x8+x8) 2 x PCIe x4 (Gen 4) 1 x M.2 2230 E key 1 x M.2 2242/2260/2280 M key	1 PCIe Gen4 x 16 slot (x8 Gen4) 1 x M.2 2280 M Key (SATA 3.0/ PCIe Gen3x4) 1 M.2 A Key 3042 (BT/WiFi, DFI M2A-display module)
<b>I/O</b>	2x1GHz RJ45, 2xRS-232 DB9, 2xUSB 3.0, 2xUSB 2.0	2x1GHz RJ45, 2xRS-232 DB9, 2xUSB 3.1 Gen1, 2xUSB 2.0	2x2.5GHz RJ45, 1xRS-232 DB9, 6xUSB 3.2 Gen2, 2xUSB 2.0, 1 x Audio (Mic-in/Line-out)	2x2.5GHz RJ45, 2xRS-232 DB9, 2xUSB 3.2 Gen2, 2xUSB 2.0, 1 Audio Jack (Line-in/Line-out/Mic-in)
<b>Gaming</b>	4x RS-232 (TX/RX signal only), 4x USB 2.0, 1x S/PDIF, 1x Audio (Mic-in/Line-out)	4x RS-232 (TX/RX signal only), 4x USB 2.0, 1x S/PDIF, 1x Audio (Mic-in/Line-out)	1x RS-232/422/485, 2x RS232, 2x USB 3.2 Gen1, 4x USB 2.0, 1 x Front Audio Header, 1x S/PDIF	2x RS232/TTL, 2 RS232/ ccTalk, 3x USB 2.0, 1x S/PDIF, 2x I2C, 1x SPI
<b>Security</b>	TPM2.0	TPM2.0	TPM2.0	TPM2.0
<b>OS</b>	Win10/ Linux	Win10/ Linux	Win10/ Windows 11 Enterprise/ Linux	Win10/Windows 11 Enterprise/Linux

# Product Guide

## System



Model	GM850-RPF	GM840-RNF	GM841-HPF	GM310-3MM
<b>Processor</b>	14th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W	AMD® Ryzen™ V2000 Series Processors, BGA V2748	AMD® Ryzen™ 8000 Series Processors, TDP up to 54W (Hawk Point)	NXP i.MX 8M mini applications processors
<b>Memory</b>	2x 260-pin SODIMM DDR5 up to 64GB	2x 260-pin SODIMM DDR4 up to 64GB	2x 260-pin SODIMM DDR5 up to 64GB	LPDDR4 2GB Memory Down
<b>Storage</b>	1 x 2.5" SSD Bay, 1x M.2 2280 M Key (PCIe Gen3x4, SATA3)	1 x 2.5" SSD Bay, 1x M.2 2280 M Key (PCIe Gen3x4, SATA3)	1 x 2.5" SSD Bay, 1x M.2 2280 M Key (PCIe Gen3x4, SATA3), 4 x DP++ or 3 DP++ + 1 M.2 A display	eMMC 5.1 8GB on board
<b>Display</b>	1 DP++(CPU) + 1 DP++(MXM) + 1 USB Type C(DP Alt-mode) + 1 eDP(MXM) + 1 internal HDMI(MXM)	4 x DP++	1 PCIe Gen4 x 16 slot (x8 Gen4) 1 x M.2 2280 M Key (SATA 3.0/ PCIe Gen3x4)	1 x LVDS (HDMI by request)
<b>Expansion</b>	1x M.2 2280 M Key (PCIe Gen3x4, SATA3) 1x M.2 2230 E Key (PCIe Gen3x, USB 2.0, support Intel® CNVi) 1x MXM Type-A/B/B+C	1 x M.2 2280 M Key (SATA 3.0/ PCIe x4)	1 M.2 A Key 3042 (BT/WiFi ,DFI M2A-display module)	1x Mini-PCIe Support Full/Half Size Wifi+ BT / LTE
<b>I/O</b>	2x2.5GHz RJ45, 4xRS-232/2ccTalk DB9/Microfit, 3xUSB 3.2 Gen2, 1xUSB Type C, 1 Audio Jack (Line-out/Mic-in)	2x1GHz RJ45, 8xRS-232/2ccTalk DB9/Microfit, 2xUSB 3.1 Gen1, 6xUSB 2.0, 1 Audio Jack (Line-in/Line-out-/Mic-in)	2x2.5GHz RJ45, 8xRS-232/2ccTalk DB9/Microfit, 2xUSB 3.2 Gen2, 6xUSB 2.0, 1 Audio Jack ( Line-in/Line-out-/Mic-in)	2x1GHz RJ45, 2xRS-232 (Header), 3xUSB 2.0, Line-out (Header)
<b>Gaming</b>	8 x Intrusion detection (Retain Data for 5 years during AC off), NVRAM up to 16MB (Retain Data for 5 years during AC off), 32 DI/DO (Disconnect detection up to 8 meters), iButton 1-wire protocol	8 x Intrusion detection (Retain Data for 5 years during AC off), NVRAM up to 16MB (Retain Data for 5 years during AC off), 32 DI/DO (Disconnect detection up to 8 meters), iButton 1-wire protocol	8 x Intrusion detection (Retain Data for 5 years during AC off), NVRAM up to 16MB (Retain Data for 5 years during AC off), 32 DI/DO (Disconnect detection up to 8 meters), iButton 1-wire protocol	NVRAM 256KB (Retain Data for 2 years during AC off), 8 DI/DO
<b>Security</b>	TPM 2.0	TPM 2.0	TPM 2.0	TPM 2.0
<b>OS</b>	WIN10/WIN11/Ubuntu 20.04/Gaming SDK	WIN10/Ubuntu 20.04/Gaming SDK	WIN10/WIN11/Ubuntu 22.04/Gaming SDK	Linux Yocto 2.5 (Kernel 4.14.98)



## System

Model	GM831-CSF	EC70A-ADN	GM341-GHF
<b>Processor</b>	8th/9th Generation Intel® Core™ with Intel® Q370/H310 up to 65W	Intel® Atom® Alder Lake-N Processors	AMD® Ryzen™ Embedded V1000/R1000/R2000 processors, TDP support up to 54W
<b>Memory</b>	Four 288-pin DIMM DDR4 up to 64GB	1 DDR5 4800 MT SO-DIMM up to 32GB	2x 260-pin SODIMM DDR4 up to 32GB
<b>Storage</b>	1 x 2.5" SSD Bay, 1x M.2 2280 M Key (PCIe Gen3x4, SATA3)	1 x M.2 M key 2280/2242 (PCIe Gen3 x1/SATA3.0)	2 x SATADOM with 7-pin VCC Support, 1 x M.2 M Key (2280, PCIe x2, only support for V1000)
<b>Display</b>	DP++, DVI-D, HDMI	1 HDMI, 1 Type-C DP	4 x DP++
<b>Expansion</b>	1 x PCIe x16 (Gen 3) 2 x PCIe x4 (Gen 3) 1 x mini PCIe (PCIe/mSATA/USB2.0) 1 x M.2 2242/2260/2280 M key (PCIe Gen3 x4 NVMe) Support AMD E9260 Graphic card 180(L)x115(H)mm; up to 75W	1 x M.2 M key 2280/2242 (PCIe Gen3 x1/SATA 3.0) 1 x M.2 B key 3052/3042 (USB 3.0/USB 2.0, optional PCIe x1), 1 x SIM slot for 4G/5G 1 x M.2 E key 2230 (USB/PCIe x1, support CNVi)	1 x M.2 M Key (2280, PCIe x2, only support for V1000)
<b>I/O</b>	2x1GHz RJ45, 3xRS-232/2ccTalk DB9, 4xUSB 3.1, 6xUSB 2.0, 1 Audio Jack (Line-out/Mic-in)	3x2.5GHz RJ45, 4xUSB 3.2, 2xUSB 2.0, 1xCOM, 1xLine-out, 1xMic-in	2x1GHz RJ45, 5xRS-232/2ccTalk DB9, 2xUSB 3.0, 4xUSB 2.0, 5.1 ch/Stereo 10W Audio output
<b>Gaming</b>	8 x Intrusion detection (Retain Data for 5 years during AC off), NVRAM up to 16MB (Retain Data for 5 years during AC off), 32 DI/DO (Disconnect detection up to 8 meters), iButton 1-wire protocol	-	8 x Intrusion detection (Retain Data for 5 years during AC off), NVRAM up to 16MB (Retain Data for 5 years during AC off), 32 DI/DO (Disconnect detection up to 8 meters), iButton 1-wire protocol
<b>Security</b>	TPM 2.0	TPM 2.0	TPM 2.0
<b>OS</b>	WIN10/Ubuntu 20.04/Gaming SDK	WIN10/Ubuntu 20.04	WIN10/Ubuntu 20.04/Gaming SDK

# Worldwide offices

## Headquarters DFI Inc.

10F, No.97, Sec.1, Xintai 5th Rd.  
Xizhi Dist., New Taipei City 221416  
Taiwan (R.O.C.)  
Tel: +886 (2) 2697-2986  
Fax: +886 (2) 2697-2168  
www.dfi.com

## DFI AMERICA, LLC.

197 Route 18 South, STE 108, East  
Brunswick, NJ 08816, U.S.A.  
Tel: +1 (732) 390-2815  
Fax: +1 (732) 562-0693  
us.dfi.com

## DFI Co., Ltd.

5F Dai2 Denpa Bldg. 2-14-10 Sotokanda  
Chiyoda-ku, Tokyo, 101-0021, Japan  
Tel: +81 (3) 5209-1081  
Fax: +81 (3) 5209-1082  
www.dfi.com

## Diamond Flower Information (NL) B.V.

Klompemakerstraat 89, 3194 DD  
Rotterdam Hoogvliet, The Netherlands  
Tel: +31 (10) 313-4100  
Fax: +31 (10) 313-4101  
www.dfi.com

## Yan Ying Hao Trading Co., Ltd. (Shenzhen)

1819, 18F, Hongyu Building, Longguan  
Road, Shitouling, Yucui Community,  
Longhua Street, Longhua District,  
Shenzhen, China  
Tel: +86 (0755) 2372-9390/2372-9391  
www.dfi.com



**DFI** Desire  
For  
Innovation

Founded in 1981, DFI is a global leading provider of high-performance computing technology across multiple embedded industries. With its innovative design and premium quality management system, DFI's industrial-grade solutions enable customers to optimize their equipment and ensure high reliability, long-term life cycle, and 24/7 durability in a breadth of markets including Industrial Automation, Medical, Gaming, Transportation, Energy, Mission-Critical, and Intelligent Retail.