



Desire
For
Innovation

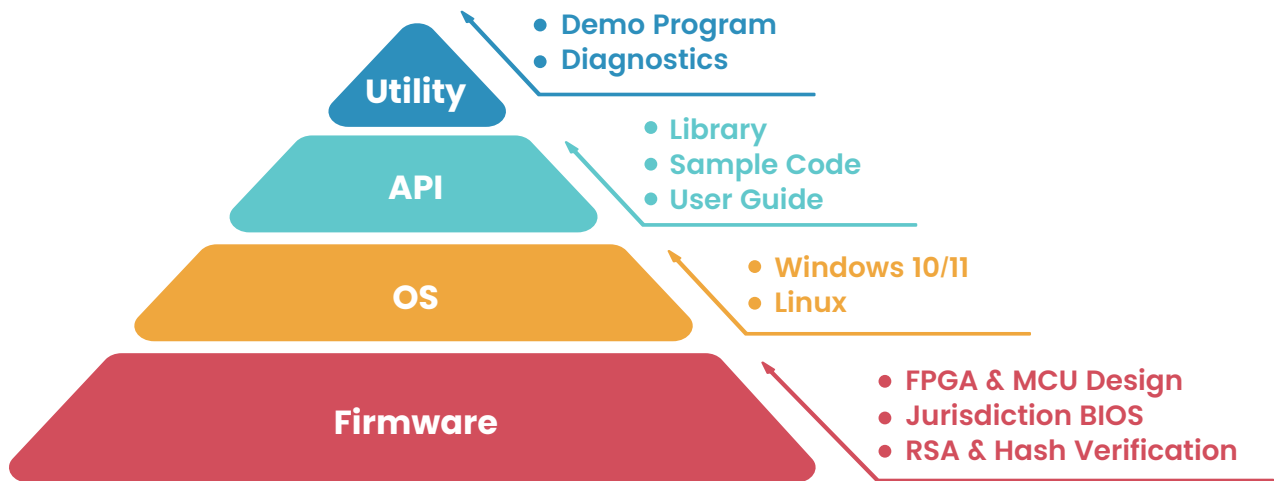


Innovative Agile Infotainment Solutions

Exceptional Experience for
Unmatched Success

Extensive Computing Solutions for Infotainment 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 infotainment 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 infotainment enterprises around the globe. With a deep well of industry expertise, we are committed to driving the future of infotainment technology.



Product Guide

Infotainment IO Board GM903

| | | | |
|----------------------------|---|---------------------|--|
| FPGA + MCU | FPGA & MUC implementation of the infotainment features controller | Serial | 2 x RS232 Header (one support ccTalk) |
| Gold finger | 2 x PCIe x1 slot (side) (PCIe + General IO singals) 1 x PCIe x1 slot (vertical) | Audio | Stereo 6W+6W Class D Audio AMP Output |
| UART | Pin header for UART signal input | SRAM (NVRAM) | 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 |
| USB | Pin header for USB 2.0 signal input | EEPROM | EEPROM 2KB |
| I2C | Pin header for I2C signal input | Coin battery | 3 x CR2032 Lithium 3V/220mAh with socket type; 2 of them shared by two SRAM; 1 for MCU |
| Intrusion Detection | 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 | iButton | Support iButton 1-wire protocol |
| DI/DO | 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 |
|------------------------|--------------------|-----------|--------------------|--------------------|------------------------------|------------|
| Type | A | B | A | A | A | B+ |
| Core | Turing Pascal | Turing | Ampere | Ampere | Ampere | Ampere |
| Life cycle | ~2025 | ~2025 | ~2028 | ~2027 | ~2028 | ~2028 |
| CUDA core | 896 | 1920 | 2048 | 2560 | 2048 | 5888 |
| TFLOPS | 2.6 | 5.3 | 6.66 | 8.25 | 6.54 | 18.55 |
| Power | 50W | 80/65W | 35/60W | 60W | 35W | 125W |
| OP. temp | 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 |
| Graphics memory | GDDR6 4GB | GDDR6 6GB | GDDR6 4GB | GDDR6 8GB | GDDR6 4GB | GDDR6 16GB |
| Remark | - | - | - | - | No display Acceleration only | - |

Open Frame Series



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

Infotainment Testing & Demo Fixture

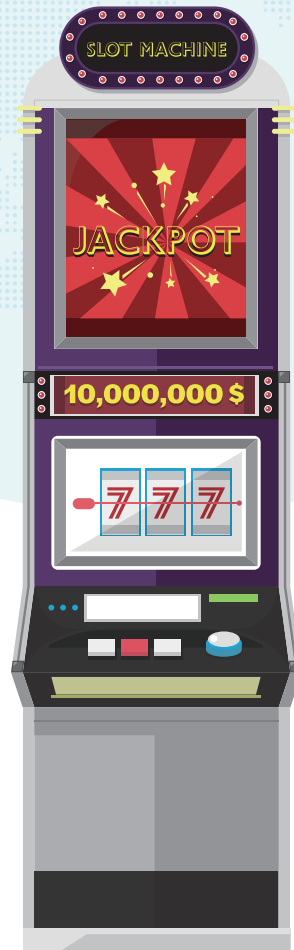
| Board | Purpose |
|----------------|--|
| GM900 | Testing fixture for DI/DO/Intrusion |
| GM900-1 | Demo fixture for DI/DO/Intrusion/Meter |

Extensive Computing Solutions for Infotainment 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 Infotainment Technology

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

Wide-Range Solutions for Diverse Infotainment Applications



Explore Our Success Cases



**Modular
Multi-System
Game Console**



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**Smart
Infotainment**



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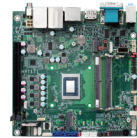
**Slot
Machine**



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Product Guide

Board



| Model | GH171 | RNO171 | RAP310-B650 | HPT171 |
|---------------------|--|--|---|---|
| Processor | 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) |
| Memory | 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 |
| Storage | 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) |
| Display | 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 |
| Expansion | 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) |
| I/O | 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) |
| Infotainment | 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 |
| Security | TPM2.0 | TPM2.0 | TPM2.0 | TPM2.0 |
| OS | Win10/ Linux | Win10/ Linux | Win10/ Windows 11 Enterprise/ Linux | Win10/Windows 11 Enterprise/Linux |

Product Guide

System



| Model | GM850-RPF | GM840-RNF | GM841-HPF | GM310-8MM |
|---------------------|--|--|--|--|
| Processor | 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 |
| Memory | 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 |
| Storage | 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 |
| Display | 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) |
| Expansion | 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 |
| I/O | 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) |
| Infotainment | 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 |
| Security | TPM 2.0 | TPM 2.0 | TPM 2.0 | TPM 2.0 |
| OS | WIN10/WIN11/Ubuntu 20.04/Infotainment SDK | WIN10/Ubuntu 20.04/Infotainment SDK | WIN10/WIN11/Ubuntu 22.04/Infotainment SDK | Linux Yocto 2.5 (Kernel 4.14.98) |



System

| Model | GM831-CSF | EC70A-ADN | GM341-GHF |
|---------------------|--|--|--|
| Processor | 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 |
| Memory | 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 |
| Storage | 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) |
| Display | DP++, DVI-D, HDMI | 1 HDMI, 1 Type-C DP | 4 x DP++ |
| Expansion | 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) |
| I/O | 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 |
| Infotainment | 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 |
| Security | TPM 2.0 | TPM 2.0 | TPM 2.0 |
| OS | WIN10/Ubuntu 20.04/Infotainment SDK | WIN10/Ubuntu 20.04 | WIN10/Ubuntu 20.04/Infotainment SDK |

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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, Infotainment, Transportation, Energy, Mission-Critical, and Intelligent Retail.