

Home video game consoles have long been an indispensable part of life, and because of COVID-19, they have significantly increased the time people spend at home. The demand for video game consoles has also increased sharply. With meticulous customer service and strong SBC (Single Board Computer) development experience, DFI assists customers in quickly completing the product development of modular multi-system game consoles, allowing games on old consoles to regain a new life.

Region: **United States** 

Industry: Gaming

Application: Modular Multi-System Game Console

Solution: Customized SBC

(Single Board Computer)



Old love is always the most beautiful. Video games are also the same way. Not everyone pursues the latest technology.

Although home game consoles continue to introduce new ones, the classic games from consoles in the past, especially the beautiful era that used cassettes as the primary storage medium and occupied countless young people's memories, still give people a sense of timelessness. However, no matter how durable the console is, there will be a day where it will fail, and these digital era antiques are no longer available on the market—leaving behind a large number of classic games and discs that can only be remembered but cannot be relived. Players can only spend so much time installing an emulator that is not guaranteed to work on personal computers.

For this purpose, a game console manufacturer in the United States created a modular multi-system game console that can connect to different modules and support four different old video game consoles. Its operating system uses Linux and is compatible with various physical cartridges and optical discs, and has a function that allows players to use the original controllers of these consoles to operate the game.

Since video game consoles have a longer product life cycle than personal computers, key components such as processors also require more extended delivery periods and higher operating temperature limits. Therefore, this game console manufacturer seeks industrial computer solutions. However, this game console needs to be launched before the end of 2019, and the specifications need to be finalized at the beginning of 2019.

In other words, it is necessary to use the development schedule of consumer products to achieve industrial computer-level reliability, such as the use of industrial-grade SSDs, and to deal with the verification difficulties and supply caused by the system's main memory and storage media built into

the motherboard. The lead time is an extreme test of whether industrial computer manufacturers have time-tested off-the-shelf product designs as the basis for launching ODM projects.

DFI has long enjoyed the advantages of product line integration and wide operating temperature in SBC, covering 2.5 inches, 3.5 inches, and 4 inches, and includes various hardware platforms. It has also successfully won the system motherboard project for this game console. DFI takes the 3.5-inch SBC of the 9th/8th generation Intel desktop Core processor as the starting point and cooperates with the customer's mechanical design and particular module expansion interface to quickly complete product development and verification. According to the

customer's future shipment requirements, four types of BOMs with different memory capacities have been established, corresponding to three types of processors to fully retain the flexibility for customers to modify mass production specifications. DFI also provides security design, including onboard SSD and TPM, so customers' intellectual property rights are not vulnerable to infringement.

|          | DFI  | A Company   | B Company                              | C Company   |
|----------|--|---|--|---|
| 2.5" SBC | 8th Gen Mobile<br>Intel® Core™   |   | 8th Gen Mobile<br>Intel® Core™         | 8th Gen Mobile<br>Intel® Core™                            |
| 3.5" SBC | 9th/8th Gen Desktop Intel® Core™  8th Gen Mobile Intel® Core™  AMD® Ryzen™ V1000/R1000 | 9th/8th Gen Desktop Intel® Core™  8th Gen Mobile Intel® Core™ | 8th Gen Mobile<br>Intel® Core™         | 9th/8th Gen Desktop Intel® Core™  AMD® Ryzen™ V1000/R1000 |
| 4" SBC   | 9th/8th Gen<br>Desktop Intel®<br>Core™   |   | 9th/8th Gen<br>Desktop Intel®<br>Core™ |   |

As the saying goes: opportunities are reserved for those who are ready. Based on the rich experience of SBC, the complete SBC product line, and the customized ability of the mission, DFI assists customers in creating a modular multi-system game console that makes people cherish the memories of the past and make an inconspicuous effort to reduce the psychological pressure of the impact arising from the epidemic.

Please click or scan the QR code to see our website if you would like us to contact you.





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 factory automation, medical, gaming, transportation, smart energy, defense, and intelligent retail.

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