

**SYNCUSTECH**

CASE STUDY

# B.S. Technology - HDD Tester



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A few global companies dominate the HDD industry, and most of them are U.S. firms (Seagate, Western Digital, and Maxtor). The production volumes are significantly larger, so that the function test procedure creates a bottleneck. All of them have similar demands and the market segment is quite big. The manufacturers of other PC peripherals such as storage devices, memory blocks, printers, and scanners have similar needs, which makes the market even larger.

## PROJECT SCOPE



BSTech is a storage device test equipment manufacturer, whose clients are HDD and SSD manufacturers such as Samsung Electronics and Seagate. BSTech needed low power and small sized main boards, because a large number of main boards (30 to 80 pieces) had to be installed on the test equipment.

## CLIENT'S CHALLENGE



The ODM main board had to be a high performance and low power platform that supported high-speed data bus. Extended DIO (digital input and output) was necessary for user applications. The main board had to accommodate customized power supply. As a whole, the narrow inner space of test equipment was a difficult condition for developing ODM boards.

## SOLUTION AND IMPLEMENTATION



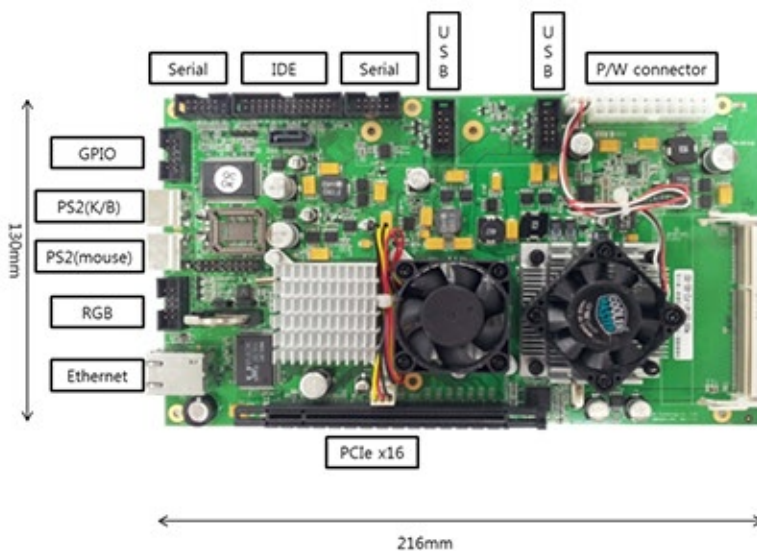
Based on the AMD mobile processor of dual core level and chipset, which supports the PCI-express x 16-bit data bus and 8-bit GPIO (General Purpose Input and output), SyncusTech developed the ODM main board EMB-9000B for BSTech to mount the PCI-e RAID card and demonstrate higher application performance. Furthermore, low-power mobile platforms reduced system power consumption drastically. Because of the limited space, pin header ports were prepared on the board for a USB-type DOC storage device. In order to adapt a customized power supply, SyncusTech implemented DC-DC power circuits on the board.



## CONCLUSION AND BENEFITS



The demand for the EMB-9000B was around 1,000 per a year. This volume usually does not motivate ODM manufacturers to supply main boards, given the development time and cost. SyncusTech proposed a cooperative scheme that consisted of covering direct cost for development and the guarantee of mass purchasing. The project was successful. Since then, both parties have benefitted from minimized costs for system upgrades, because the main board was a platform that was easily maintained and only necessary parts were revised.



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