

A2016I card is used in TSMC factory

TSMC is famous semiconductor company to make IC for Apple. Because the production period for one IC is very important for Apple to release and sell end product (ex, iPhone), so it is very important for TSMC to confirm the production period.

In March 2018 a half-hour power outage at Samsung's factory near Pyeongtaek, South Korea disrupted production and damaged tens of thousands of processed wafers. Media reports claim that the outage destroyed 3.5% of global NAND flash supply for March.. So one semiconductor's company can not afford to loss time, money, and market share through production losses due to power quality events such as voltage sags and power outages.

Every day semiconductor facilities face a potential risk from voltage events. Often we do not read about them in the news, except when a major event occurs as above. So power management system is very important to protect the semiconductor industry against voltage sags and interruptions. Due to cost consideration we may have different solution in different utilities. Some critical utilities we may need high performance UPS to ensure protection from power quality events, such as deep sags or short-term outage. The other less critical utilities we may need active voltage conditioner to correct sags and swells for premium power. We may have back-up power generator upon power outage condition.

Due to the power management system computer may connect with power equipment in long distance, so we may use RS422 or RS485 interface to connect. And it is not so simply in GROUND system for each utility, so we need to have GROUND isolated feature in each connection.

When we need less than 8 GROUND isolated RS422/RS485 serial ports product, you may be easy to find support. When you need more than 8 GROUND isolated RS422/RS485 serial ports solution, it is not easy to find solution. And the power management system in TSMC need 16 GROUND isolated RS422/RS485 serial ports.

A2016I card is one PCIe card to support 16 GROUND isolated RS422/RS485 serial ports and you can be easily to expand for 24 or 32 GROUND isolated RS422/RS485 serial ports later. So TSMC use A2016I card in power management system firstly.