White Paper

Power Consumption Optimization and Device Cost Reduction in Cutting Edge Embedded Products

ReliSource

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ReliSource's Expertise in Optimizing Power Consumption and Reducing Cost:

Power consumption and manufacturing cost are two of the major factors that determine the products' market value and the developed devices' longivity maintaining an expected users' satisfaction. ReliSource has a decade long experience in developing electronics and IoT products based on embedded systems technologies and firmware engineering. Since the inception, they maintained an industry oriented and ISO standard frameworks to manufacture and deploy cutting edge prototypes while taking cost effectiveness and power consumption issues into account. This allows them to achieve a higher clients' satisfaction rate with much improved credibility, ensuring optimum power usage and affordable cost price range.

How ReliSource Develops Products Maintaining Low Power Consumption & Low Cost:

The key objective we try to envision for at ReliSource, is to maximize the manufactured devices' credibility and market value by engaging more people and help client companies make revenue. Therefore, we mainly focus on using high quality but cost effective apparatus including MCUs and customized PCB boards. Our qualified and experienced R&D and design teams work relentlessly to find out the comparatively lower-cost approximations before developing the products in practical. However, besides applying cost-effective sensors and instrumentation, MCUs and PCB we ensure to deliver the products that would also consume low power. Low power apparatus i.e. low power BLE, STM32 MCU and customized miniatured PCBs are used.

Benefits of Using ReliSource's Low Power and Low Cost Products:

Consumption of power is associated with electrical energy, and for the constant and higher electrical energy usage the users' require to recharge the battery very often. Thus the lifetime of battery is closely related to its capacity and number of times it is recharged before it gets fully discharged. Therefore, using a low power device can ensure comfortability and affordability in terms of recharging the battey for contast use.
Again, a cost-effective product, i.e. utility appliance can ensure a larger outreach with a maximum public coverage. The less the price with broaden features and functionalities, the higher the coverage. Moreover, low-cost product development initiatives help investors (and clients) generate improved revenues by easily assessing the market value and taking risks very often that they hardly do in case for any expensive project.

Conclusion:

After the completion of an embedded development project, you will be able to discover the immediate advantages:

- Improved performance
- Efficiency in R&D and manufacturing cost
- Improved revenue

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Use Case:

- Device cost is usually reduced based on how the bill of materials is prepared
- Choosing cheaper parts but of good quality from popular manufacturers
- Designing the schematics in such a way that it fits customers requirements
- Ensuring using cost effective MCUs (or chipsets) and apparatus
- Low power apparatus are used in all IoT and embedded products
- Maintain optimum V-I ratio to keep the power usage in limit

References:

1. Microcontrollers. Available at: https://microcontroller.com/

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