

Value analysis & value engineering of an in-vitro diagnostic device

Holistic Value Engineering leading to 35% reduction in BOM cost of blood coagulation analyzer

Scope

- Redesigned enclosure for size reduction (40%) and changed material (metal to plastic conversion) for weight reduction (35%)
- Reduced electrical BOM cost by – making single board design, replaced SD cards with flash memories, and replaced FPGA with STM32 microcontroller
- Replaced in-built thermal printer with high speed USB 2.0 interface for external thermal printers
- Enabled rechargeable battery backup
- Compliance oriented design & DHF for Japan, Korea, China and other ASEAN countries

