

# USB Solutions

Indesign has a thorough understanding of USB standards, requirements, features and protocols for use in products requiring a USB interface. We have developed class-specific designs for a number of different end products and applications. Our engineers have implemented designs using solutions from a number of different semiconductor providers and can optimize a solution for your application. Our experience includes device and host products that are USB 1.1 and 2.0 low-speed, full-speed and high-speed compliant.

Indesign's engineering team is comprised of engineers with expertise in hardware and software design that can assist you in choosing the appropriate solutions for your application. We are well suited to modify existing solutions and customize them to your exact specifications and product requirements. We have state of the art protocol analyzers and tools to verify that the product performs as desired.

## Proven Experience:

### USB Device Classes

- Audio
- HID
- Mass Storage
- Vendor Defined

### Semiconductor Experience

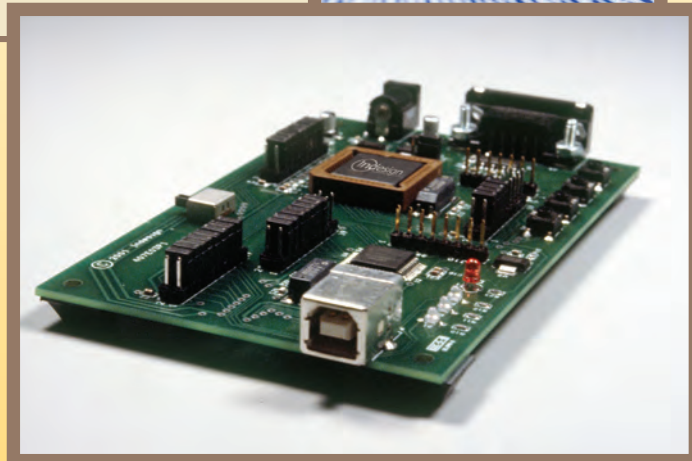
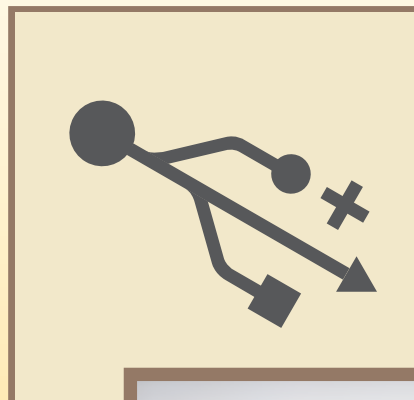
- ARM 7
- ARM 9
- Atmel
- Cypress
- Freescale
- ST Microelectronics
- Texas Instruments

### Custom Features

- Ethernet interfaces/translators
- Firmware download – custom, bulk and host solutions
- Flash card interfaces
- Multi-channel audio
- USB power management
- Virtual COM ports

### Product Applications

- Consumer Electronics
- Bluetooth modules
- Custom test tools
- Game Controllers
- High-end, full-duplex audio devices
- Industrial products
- Medical devices
- Telephony



## About Indesign:

Indesign is a multi-discipline engineering design firm that provides full turnkey electronic product development to allow clients to get their new product ideas into the market quickly. Indesign offers complete product development capabilities, starting with a product concept and finishing with a ready-to-manufacture design. Indesign has an ISO certified product development process and a proven track record for on-time, on-budget, high quality product realization.

Indesign provides specific design engineering services and expertise in electrical design, RF/wireless design, embedded software design, and mechanical design. Indesign also provides engineering services and expertise in a variety of other technical areas including systems engineering, human factors, project management and product validation testing. Indesign engineers can complement a client's in-house design engineering staff, working in partnership with clients on joint development projects.



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