FreeMotion™ Interface

Social media, new entertainment and digital media are creating new applications and new markets. By incorporating sensors commonly found in smart phones, Sensor Platforms' FreeMotion enabled remote controls allow viewers to order movies, surf the web, or control their A/V systems by pointing and making simple gestures to navigate a set of menus and selections on screen. This lets TV, streaming media, and set-top box manufacturers update their user interfaces and offer customers access to a large array of entertainment media and increase their revenue per user.

Designing with FreeMotion is as simple as adding the necessary sensors to any RF remote control design and a FreeMotion controller in the host, e.g. television, set-top box, or streaming media player. Sensor Platforms provides reference design, sample code and software utilities to make the adoption simple and seamless.
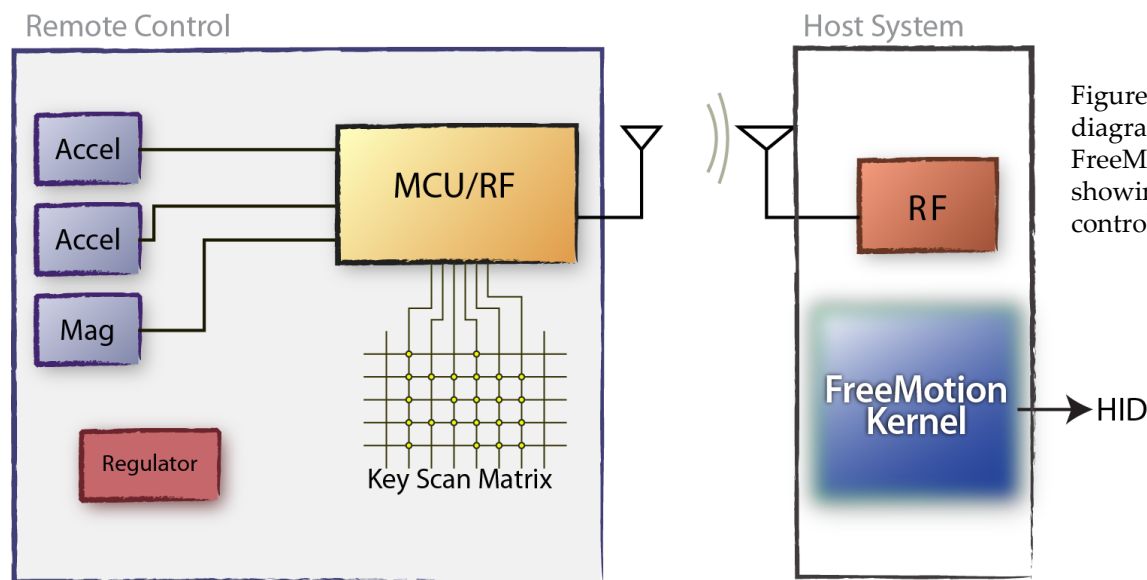

Figure 1. Block diagram of a FreeMotion interface showing a remote control and the host.

Features

- Smooth motion sensing able to resolve fine rotation down to 0.2°
- Roll and flick gestures support
- Long battery life (1 year on 2 AA batteries)
- Use low cost commodity sensors: accelerometers and magnetometer
- Works with generic HID mouse and keyboard drivers, proprietary driver optional
- Wake on use: remote enters low power mode automatically when not in use
- Self calibrates to adjust to changing environments and/or sensor aging

Applications

- Advanced remote controls for TV, set-top boxes, DVD, and streaming media players
- Infinite reality gaming

Product Support

- Hardware reference design
- Remote control firmware porting guide and sample codes
- Design, debug and tuning (DDT) utilities

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