

Gioteck PS3 HF-2 controller

Operation Principle

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The MP01006 is the main microcontroller for HF-2 controller. It is an 8-bit MCU that interprets keystrokes, controls the LED indicators and motor, provides USB connectivity and communicates with the wireless module. The controller's firmware is stored on the EEPROM. There are four LED indicators on the controller that displays the status of the controller. When the controller is connected to PS3 with a USB cable, it can be used as a wired controller. Furthermore, the pairing is done when connected via USB.

The MARB0060 is a wireless module with integrated MCU that handles the wireless communication between the controller and console. The data rate is at 3Mbps. The non-removable antenna is an embedded PCB antenna and matching is done by using lumped inductors and capacitors. The radio system uses 2.4GHz (the frequency range is 2402 - 2480MHz) FHSS, which consists of 79 channels and the channel spacing is 1MHz.

The controller can be powered by USB bus or 2 AA-size batteries and output voltage is regulated to 3.3V. The total current consumption of controller is about 100mA when connected wirelessly. It will enter sleep mode if no button is pressed after 10 minutes.