Kernel driver for the NXP Semiconductors PN544 Near Field Communication chip

General

The PN544 is an integrated transmission module for contactless communication. The driver goes under drives/nfc/ and is compiled as a module named "pn544".

Host Interfaces: I2C, SPI and HSU, this driver supports currently only I2C.

Protocols

In the normal (HCI) mode and in the firmware update mode read and write functions behave a bit differently because the message formats or the protocols are different.

In the normal (HCI) mode the protocol used is derived from the ETSI HCI specification. The firmware is updated using a specific protocol, which is different from HCI.

HCI messages consist of an eight bit header and the message body. The header contains the message length. Maximum size for an HCI message is 33. In HCI mode sent messages are tested for a correct checksum. Firmware update messages have the length in the second (MSB) and third (LSB) bytes of the message. The maximum FW message length is 1024 bytes.

For the ETSI HCI specification see http://www.etsi.org/WebSite/Technologies/ProtocolSpecification.aspx