USB Interface

Last edited by **Ruben Volkmer** 2 days ago

Connection parameter

USB serial interface (COM Port)
Baud rate: 57600
Partiy: None
Stop Bit: 1

Host -> HILMux

Send control command to HILmux via USB serial interface.

Syntax

Command:
`<HEADER> <CMD>`
Response:
`<HEADER> <STATUS>`

Header: ASCII "HMUX" => 0x48 0x4d 0x55 0x58

CMD:

- CMD_SET_U1_MODE =0x00
- CMD_SET_U2_MODE =0x01
- CMD_LOCK_MODE= 0x02
- CMD_GET_U1_MODE= 0x03
- CMD_GET_U2_MODE= 0x04
- CMD_GET_LOCK_MODE= 0x05
- CMD_GET_SERIAL_NUMBER= 0x06,
- CMD_ENTER_BL= 0x07,
- CMD_LAST_ELEMENT= 0x08
- CMD_BL_ENTER_LOADER = 0xFF

STATUS:

- UC_STATE_DISCONNECTED= 0x00
- UC_STATE_XETK= 0x01
- UC_STATE_LB= 0x02,
- UC_STATE_INVALID= 0x03

examples set UC1 modes:

- CMD_SET_U1_MODE UC_STATE_XETK: 0x48 0x4d 0x55 0x58 0x00 0x01 => 48 4d 55 58 00 01
- CMD_SET_U1_MODE UC_STATE_LB: 0x48 0x4d 0x55 0x58 0x00 - 0x02 => 48 4d 55 58 00 02
- CMD_SET_U1_MODE UC_STATE_DISCONNECTED: 0x48 0x4d 0x55 0x58 0x00 0x00 => 48 4d 55 58 00 00

examples set UC2 modes:

- CMD_SET_U2_MODE UC_STATE_XETK: 0x48 0x4d 0x55 0x58 0x01 0x01 => 48 4d 55 58 01 01
- CMD_SET_U2_MODE UC_STATE_LB: 0x48 0x4d 0x55 0x58 0x01 0x02 => 48 4d 55 58 01 02
- CMD_SET_U2_MODE UC_STATE_DISCONNECTED: 0x48 0x4d 0x55 0x58 0x01 0x00 => 48 4d 55 58 01 00

examples set lock states:

- CMD_SET_LOCK_MODE LOCK_STATE_UNLOCKED: 0x48 0x4d 0x55 0x58 0x02 0x00 => 48 4d 55 58 02 00
- CMD_SET_LOCK_MODE LOCK_STATE_LOCKED: 0x48 0x4d 0x55 0x58 0x02 0x01 => 48 4d 55 58 02 01

HILMux -> Host:

Receive status from HILmux via USB serial interface

Header: ASCII "HMUX" => 0x48 0x4d 0x55 0x58

enum STATUS:

- STATUS_U1_MODE: 0x00
- STATUS_U2_MODE: 0x01

- STATUS_LOCK_MODE: 0x02
- STATUS_ALIVE_SERIAL_NUMBER= 0x03,
- STATUS_LAST_ELEMENT: 0x04
- STATUS_BL_KEEPALIVE = 0xFF

examples get UC1 modes:

- CMD_SET_U1_MODE UC_STATE_XETK: 0x48 0x4d 0x55 0x58 0x00 0x01 => 48 4d 55 58 00 01
- CMD_SET_U1_MODE UC_STATE_LB: 0x48 0x4d 0x55 0x58 0x00 - 0x02 => 48 4d 55 58 00 02
- CMD_SET_U1_MODE UC_STATE_DISCONNECTED: 0x48 0x4d 0x55 0x58 0x00 0x00 => 48 4d 55 58 00 00

examples get UC2 modes:

- CMD_SET_U2_MODE UC_STATE_XETK: 0x48 0x4d 0x55 0x58 0x01 0x01 => 48 4d 55 58 01 01
- CMD_SET_U2_MODE UC_STATE_LB: 0x48 0x4d 0x55 0x58 0x01 0x02 => 48 4d 55 58 01 02
- CMD_SET_U2_MODE UC_STATE_DISCONNECTED: 0x48 0x4d 0x55 0x58 0x06 0x00 => 48 4d 55 58 01 00

examples get lock states:

- CMD_SET_LOCK_MODE LOCK_STATE_UNLOCKED: 0x48 0x4d 0x55 0x58 0x02 0x00 => 48 4d 55 58 02 00
- CMD_SET_LOCK_MODE LOCK_STATE_LOCKED: 0x48 0x4d 0x55 0x58 0x02 0x01 => 48 4d 55 58 02 01

examples get serial number:

- CMD_GET_SERIAL_NUMBER: 0x48 0x4d 0x55 0x58 0x06 => 48 4d 55 58 06

examples enter bootloader:

- CMD_ENTER_BL: 0x48 0x4d 0x55 0x58 0x06 => 48 4d 55 58 07