

HIB Library Functions Reference Manual

version 0.0

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Abstract

In this document we give full description of the library functions of Host Interface Bridge (HIB).

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1 Reference for HIB Library Functions

1.1 Synopsis

```
/* Hib descriptor */
typedef struct {
    /*
     * card attributes
     */
    int type;                // 0x1:HIB_GRAPE7X 0x2:HIB_GRAPE7E
    int backend_design;      // 0x0:DESIGN_EMPTY 0x1:DESIGN_G5 0x2:DESIGN_G6
    char devname[256];       // device name (eg. /dev/grape7x)

    /*
     * address space mapped to the user space
     */
    // HIB local memory space:
    UINT32 *local_reg;       // local register
    UINT64 *piow_dblbuf;     // double buffer for PIO write transfer
    UINT64 *backend;         // backend space

    // kernel space:
    UINT64 *dmar_buf;        // buffer for DMA read transfer (host -> backend mem) .
    UINT64 *dmaw_buf;        // buffer for DMA write transfer (host <- backend mem).

    /*
     * HIB local register address
     */
    unsigned long boardinfo;
    unsigned long dma0lsb;
    unsigned long dma0msb;
    unsigned long dma0size;
    unsigned long dma0cmd;
    unsigned long dma1lsb;
    unsigned long dma1msb;
    unsigned long dma1size;
    unsigned long dma1cmd;
    unsigned long dmastat;
    unsigned long mailbox;
    unsigned long dmamisc;
} Hib;
```

```

/*
 * global function(s)
 */
Hib *hib_openMC(int devid);
void hib_closeMC(int devid);
void hib_set_test_modeMC(int devid, int mode);
void hib_sendMC(int devid, int size, UINT64 *buf);
void hib_set_sendfuncMC(int devid, int func);
void hib_piowMC(int devid, int size, UINT64 *buf);
void hib_dmarMC(int devid, int size, UINT64 *buf);
int hib_recvMC(int devid, int size, UINT64 *buf);
int hib_dmawMC(int devid, int size, UINT64 *buf);
void hib_start_dmawMC(int devid, int size, UINT64 *buf);
int hib_finish_dmawMC(int devid);
UINT32 hib_config_readMC(int devid, UINT32 addr);
void hib_config_writeMC(int devid, UINT32 addr, UINT32 value);
UINT32 hib_mem_readMC(int devid, UINT32 addr);
void hib_mem_writeMC(int devid, UINT32 addr, UINT32 value);

```

1.2 Description

To be filled soon.

Modification History

version	date	description	author(s)
0.0	15-Jan-2007	Created.	AK