

## HSI to USB bridge

Asamalab-HSI-USB is a bidirectional HSI bus bridge, which provides seamless connection between a PC host and an HSI compliant sub-system via USB. With a rich set of configuration options, the dongle is a perfect companion for HSI subsystem development and verification.



*New Firmware*



### Features

- A 1.2 to 3.6V MIPI HSI 1.1.00 to USB interface, USB powered.
- Connects with high-speed USB2.0 bus, allowing low latency and high data throughput.
- Size[mm] 100x80x40.

### Kit includes

- Module hardware
- Linux kernel 2.6 compatible driver with GPL C source code
- Linux user-space example GPL C source code
- Documentation & limited technical on-line support

Evaluation kit price: 1050EUR/145000yen  
(including standard shipping rate and export duties. Contact us for other shipping options)



**AsamaLab**  
PROGRESS HAS NO PATIENCE

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## Preliminary technical specifications

### General

Parameter	Value	Notes
Size	100x80x40mm	Aluminum housing. Minimal EMC.
Weight	156g	
Supply voltage/current	5.0V/100mA (via USB)	
USB	High-speed (2.0), full-speed (1.1)	
HSI interface	2x8 pin four-wall header	Compatible with most IDC receptables.
HSI signals	Single-ended LVCMOS compatible, 1.8V logic.	Logic voltage adjustable from 1.2V to 3.6V.
NoTA L_down	Available later	
Bridge firmware	Uploaded to HW via USB after power-up.	Easy firmware version upgrading. Firmware is excluded from GPL. Source code is not included.
Linux driver	Compatible with 2.6 kernels. Plain C. Under GPL. Optimized for performance.	Interrupt context processing kept at minimum. Works in SMP systems too. Windows, MacOS drivers are not currently available.
Linux driver user API	File I/O for data stream, ioctl and procfs for configuration/status	Kernel API is available as an option.

### Transmitter

Parameter	Value	Notes
Bit rate	750kbps to 192Mbps	Set synchronously with data stream.
Address bits	0 to 4	Set synchronously with data stream.
Data flow	Synchronous, pipeline, real-time	
Transmission mode	Stream, Frame, Break	Set synchronously with data stream.
Configuration parameters	Frame statistics, frame burst count, forced data/flag, wake pin control.	

### Receiver

Parameter	Value	Notes
Bit rate	0kbps to 128Mbps	With sampling front-end. Up to 250Mbps with source synchronous front-end (Data integrity not guaranteed).
Address bits	0 to 4	
Data flow	Synchronous, pipeline, real-time	
Transmission mode	Stream, Frame, Break	
Configuration parameters	Frame statistics, break detection counter, timeout error counter, overflow error counter, forced ready, wake pin status, tailing-bit counter, sampling or source-sync front-end.	

Note that the above specification is still preliminary. Optional features presented may affect to the unit price. Due to bridge's flexible platform, other features not presented here may be available. Consult us for further information.