

# SDCard HxC Floppy Emulator

## Product brief

Version 2.1-21/01/12

### Universal Floppy disk drive emulator / replacement solution !

- **Replace 8", 5"1/4, 3"1/2 and 3" floppy disk drive :**
  - Replace 180KB, 360KB, 720KB, 800KB, 1.2MB, 1.44MB disks and many others !
- **Emulate/Replace most of standard & non standard disk formats :**
  - HD (MFM 500K)
  - DD (MFM 250K/300K)
  - SD (FM 250K/300K)
  - Amiga format.
  - E-mu format.
  - And many others !
- **Can emulate TWO floppy disk drives with one emulator !**
- **Support SD/SDHC Card up to 32GB.**
  - FAT32 based : Freely browsable under Windows/Mac OSX/Linux...
- **New ! : 3"1/2 form factor ! (Release date : February 2012 – preorder open !)**

### → Support a large variety of computers / keyboards / samplers / CNC machines

>>>Works with most of computers, musician's keyboards/samplers and industrial robots/machines ! <<<

- Updated support list : [http://hxc2001.free.fr/floppy\\_drive\\_emulator/support.htm](http://hxc2001.free.fr/floppy_drive_emulator/support.htm)

Your hardware is not present in this list ? Please contact us ! Your hardware is probably already supported !

### → Multi Volumes/Floppy Images support

- **Can store thousand of virtual floppy disk on a single SDCard ! Capacitance examples:**
  - More than **8000** 1.44MB floppy disk images on a 32GB SDCard !
  - More than **16000** 720KB floppy disk images on a 32GB SDCard !

### → Advanced User interface

- 2\*16 LCD + 3 buttons :
  - Embedded file image Browser.
  - Embedded file image renaming function.
- Optional **host software browser** available for Amiga, Atari ST and Amstrad CPC computers.
- **Floppy disk drive sound emulation.**

### → Wide software / tool support

- Floppy images manager software : **More than 60 file images types supported !**
- Floppy disk reader/dumper software : **Create floppy disks images from your floppy disks and archive them !**
- VFD support : **Browse DOS/FAT type floppy images under Windows !**

### → Open project

- Support forum : <http://torlus.com/floppy/forum/>
- Wide user community ! : The project exist since 2006 !
  - [http://hxc2001.free.fr/floppy\\_drive\\_emulator/pictures/index.html](http://hxc2001.free.fr/floppy_drive_emulator/pictures/index.html)
- Software / firmware regularly updated ! :
  - [http://hxc2001.free.fr/floppy\\_drive\\_emulator/index.html#download](http://hxc2001.free.fr/floppy_drive_emulator/index.html#download)
- Something is missing ? A special need ? Don't hesitate to contact us ! We are maybe able to develop it !

*Email:*

**[hxc2001@hxc2001.com](mailto:hxc2001@hxc2001.com)**





The SDCard HxC Floppy Emulator is an universal 3", 3"1/2, 5"1/4 and 8" Floppy disk drive emulator based on SDCard. Most of disk format can be emulated by this emulator :

High density (HD – MFM), Double density (DD - MFM) and Single density (SD - FM) floppies are supported. Most of non-standard and standard track/sectors layout are supported. Special track format like Amiga or E-mu track are also supported in both read & write access.

This make this device very versatile and thanks to its flexibility the SDCard HxC Floppy Emulator support most of computers, industrial/CNC machines, musician's keyboards and samplers. Some examples of supported hardware can be found on this page : [http://hxc2001.free.fr/floppy\\_drive\\_emulator/support.htm](http://hxc2001.free.fr/floppy_drive_emulator/support.htm)

The HxC Floppy Emulator software allows you to create/convert your floppy images files or read a floppy disk for the emulator. The floppies images for the emulator can be generated from floppies images, floppy disk read, or from spares files (FAT/DOS floppy generator). The list of supported file images type can be found on this page : [http://hxc2001.free.fr/floppy\\_drive\\_emulator/#FILESSUPPORTED](http://hxc2001.free.fr/floppy_drive_emulator/#FILESSUPPORTED)



## Technical details

### Floppy interface:

HE10 34 pins floppy connector :

- ▶ Shugart compatible mode supported.
- ▶ PC compatible mode supported.
- ▶ Two floppy disk drives emulation.

### Power supply:

- ▶ 5V +/- 10% standard power floppy connector input.
- ▶ 500mA max. (80mA in standby).

### User Interface:

- ▶ 3 LEDs ("Power LED", "Floppy access LED", "SDCard access LED").
  - ▶ 3 buttons ("Next", "Select/Eject", "Previous").
  - ▶ 1 audio transducer. (Head Step and User interface sound).
  - ▶ Detachable (Rev C) 2\*16 chars Alphanumeric LCD.
- (Note : LCD and buttons can be put on an external front panel)
- ▶ On Screen display software available for Amiga, Atari ST and CPC computers.

### SDCard support:

- ▶ SD Card up to 2GB.
- ▶ SDHC Card supported up to 32GB.

### SDCard Filesystem :

- ▶ FAT32 supported. Subdirectory and long name file supported.

### Read / Write support:

Track mode based floppy emulator (Full track pre-encoded in the HFE image file)

#### ▶ Read support:

Most of existing formats (FM/MFM/Amiga/E-mu track...) supported.  
Custom tracks supported.

#### ▶ Write support:

ISO MFM (DD/HD) 128/256/512/1024Bytes sector write supported.

ISO FM (SD) 128/256/512/1024Bytes sector write supported.

Amiga Write support since the revision C.

E-mu Write support since the revision C.

### Floppy bitrate supported:

- ▶ 250/300Kbits/s (SD/DD floppies)
  - ▶ 500Kbits/s (HD floppies)
- (others bitrates possible)

(Note: Variable bitrate not supported for the moment. So protected floppy disk image (IPF and STX file format) file support will be only partial ! If you are looking for a device supporting IPF / STX please have a look to the [USB HxC Floppy Emulator device](#))

### RPM:

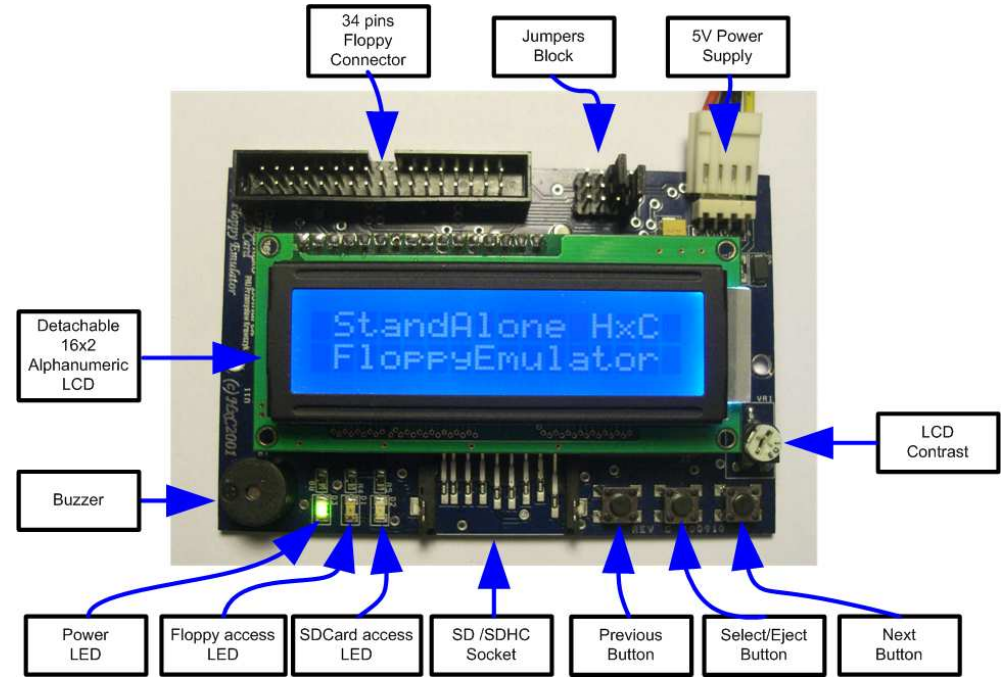
- ▶ 300 RPM , 360 RPM supported. (any others RPM possible).

### Tracks / Side:

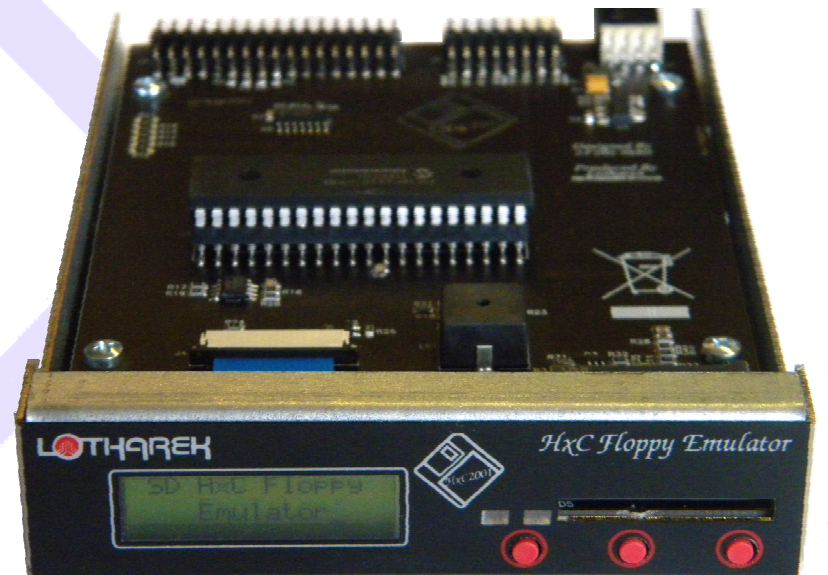
- ▶ Up to 255 tracks per floppy.
- ▶ 1 or 2 sides.

### Additional features:

- ▶ Firmware update via the SDCard.
- ▶ Last Loaded Floppy Image autostart at power up.
- ▶ Fast floppy image loading (<<1second), no conversion time.

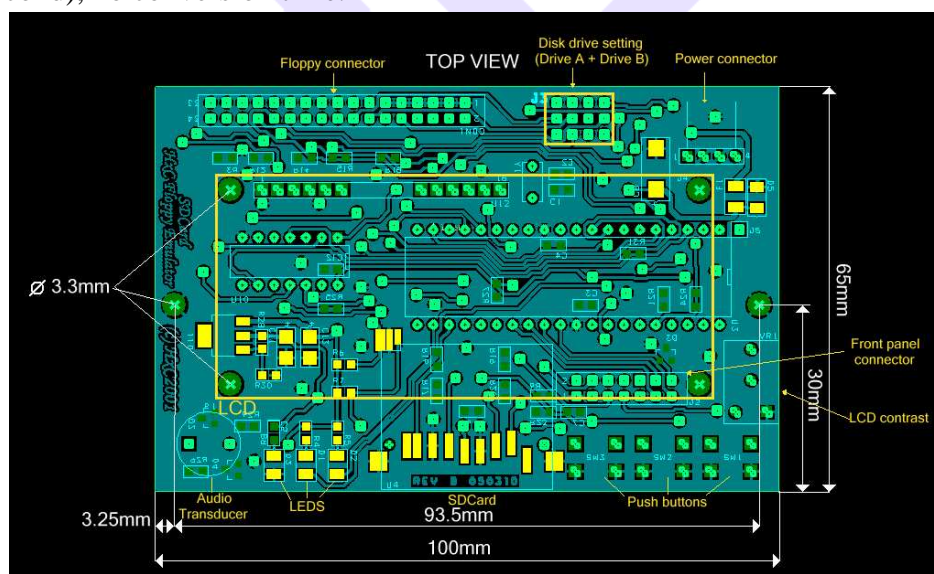


Rev C SD HxC Floppy Emulator



Rev F SD HxC Floppy Emulator  
3 1/2 Form factor

## Mechanical drawing (Rev C) :



## Some videos showing the working device

**The SDCard HxC Floppy Emulator on E-mu Emulator-I and Emulator-II :**

<http://www.youtube.com/watch?v=txjYrfLht64>

**The SDCard HxC Floppy Emulator on E-mu SP1200:**

<http://www.youtube.com/watch?v=P61z11-LP2k>

<http://www.youtube.com/watch?v=TMf3xJdrGGc>

<http://www.youtube.com/watch?v=AVfzvunjUIyw>

**The SDCard HxC Floppy Emulator on Korg DSS-1:**

[http://www.youtube.com/watch?v=X9C3\\_NzXHs](http://www.youtube.com/watch?v=X9C3_NzXHs)

**The SDCard HxC Floppy Emulator on Ensoniq EPS 16+:**

<http://www.youtube.com/watch?v=Bm7avjMSviU>

<http://www.youtube.com/watch?v=r09ZJPwi3eU>

<http://www.youtube.com/watch?v=-MoR3G4LKDc>

<http://www.youtube.com/watch?v=yM2o0W5Y0pI>

**The SDCard HxC Floppy Emulator on Ensoniq Mirage:**

<http://www.youtube.com/watch?v=x7lGq6uIFWA>

[http://www.youtube.com/watch?v=pSksCv\\_KOde](http://www.youtube.com/watch?v=pSksCv_KOde)

**Roland W-30 and HxC SD Floppy Drive Emulator:**

<http://www.youtube.com/watch?v=8lQBq2kYlKA>

**SD Floppy Emulator Roland G-800 Megafloppy:**

<http://www.youtube.com/watch?v=eaV7ZJaFgDE>

**The SDCard HxC Floppy Emulator on Oberheim DPX-1:**

<http://www.youtube.com/watch?v=5G9UBxyhbOU>

**HxC SD Card Floppy emulator + Akai MPC 2000 Classic Demo:**

<http://www.youtube.com/watch?v=TIbilD63qK0>

**Akai S950 with external SD Cardreader HxC Floppyemulator plus internal Floppydrive :**

<http://www.youtube.com/watch?v=kYXwhYYvA2g>

**SDCard HxC floppy emulator on TI99/4A:**

<http://www.youtube.com/watch?v=caKsYLdswCg>

<http://www.youtube.com/watch?v=I4C2wng7vt4>

**SDCard HxC floppy emulator on Amiga:**

<http://www.youtube.com/watch?v=XGVptbkK86U>

<http://www.youtube.com/watch?v=p1zP6p9SBLw>

<http://www.youtube.com/watch?v=CzuHIM45jX8>

**SDCard HxC floppy emulator on Atari ST:**

<http://www.youtube.com/watch?v=8O74GgYcA3w>

**Dragon 64 connected to a HxC 2001 Floppy Emulator:**

[http://www.youtube.com/watch?v=pB\\_\\_S8HuzOA](http://www.youtube.com/watch?v=pB__S8HuzOA)

**SDCard HxC Floppy Drive Emulator on a Jumberca Circular Knitting Machine:**

<http://www.youtube.com/watch?v=Q-YTY7ziph8>



## Sales points :

This product is manufactured and sold by Lotharek :



Ebay : <http://search.ebay.co.uk/?sass=lotharek1977&ht=-1>



SD Floppy Emulator REV C : <http://www.lotharek.pl/product.php?pid=13>



SD Floppy Emulator REV C cased black : <http://www.lotharek.pl/product.php?pid=18>



SD Floppy Emulator REV F 3 1/2 : <http://www.lotharek.pl/product.php?pid=42>

## Contact / Project page

Project page:

<http://hxc2001.com/>

Project/Support Forum:

<http://www.torlus.com/floppy/forum>

*Email :*

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