HxC2001

SDCard HxC Floppy Emulator

Product brief
Version 2.3-26 Dec 19

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 500)
  - DD (MFM 250 / MFM 300)
  - SD (FM 125 / FM 150 / FM 250)
  - Amiga format.
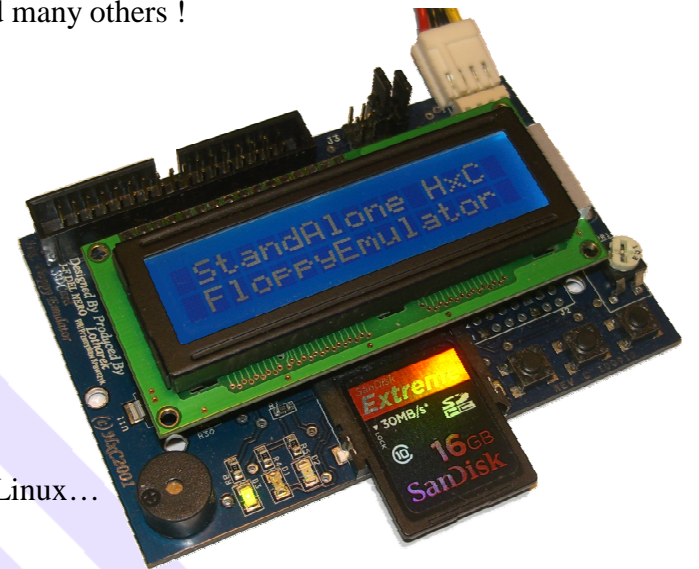 - E-mu format.
  - And many others !

- **Can emulate TWO floppy disk drives with one emulator !**
- **Support SD/SDHC Card up to 32GB.**
  - FAT12,FAT16 & FAT32 based : Freely browsable under Windows/Mac OSX/Linux…
- **3"1/2 form factor !**
- **Slim 3"1/2 form factor !**

➔ 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 : https://hxc2001.com/download/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 SD Card ! Capacitance examples:**
  - More than **8000** 1.44MB floppy disk images on a 32GB SD Card !
  - More than **16000** 720KB floppy disk images on a 32GB SD Card !

➔ 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 !**
- Portable DOS image browser : **Browse DOS/FAT type floppy images under Windows XP,7,8 / MacOS X / Linux !**
- No driver installation needed !

➔ Open project

- Support forum : http://torlus.com/floppy/forum/

- Wide user community ! : The project exist since 2006 !
  - https://hxc2001.com/showroom/index.html

- Software / firmware regularly updated ! :
  - 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

HxC Floppy Drive Emulator
HxC Floppy Emulator Project
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https://hxc2001.com/
http://torlus.com/floppy

LOTHAREK
www.lotharek.pl
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The SD HxC Floppy Emulator is an universal 3", 3"1/2, 5"1/4 and 8" Floppy disk drive emulator based on SD Card. Most of disk formats can be emulated by this emulator :

High density (HD – MFM), Double densisty (DD - MFM) and Single density (SD - FM) floppies are supported. Most of non-standard and standard track/sectors layout are supported. Special track formats 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 SD 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 : https://hxc2001.com/download/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 image can also be formatted by the host machine.

The list of supported file images type can be found on this page : http://hxc2001.free.fr/floppy_drive_emulator/#FILESSUPPORTED

To see the HxC Floppy Emulator in action please visit our Showroom :
https://hxc2001.com/showroom/

LOTHAREK
www.lotharek.pl
lotharek@lotharek.pl

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"," SD Card access LED ").
▶ 3 buttons ("Next","Select/Eject","Previous").
▶ 1 audio transducer. (Head Step and User interface sound).
▶ Detachable (Rev C) 2*16 chars Alphanumerical 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.

Rev C SD HxC Floppy Emulator

SD Card support:
▶SD Card up to 2GB.
▶SDHC Card supported up to 32GB.

SD Card Filesystem :
▶ FAT12, FAT16 & 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.
Mixed sector size and geometry supported.

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

Write support:
Any size ISO MFM (DD/HD) sector write supported. (128/256/512/1024/2048/4096/8192Bytes)
Any size ISO FM (SD)   sector write supported. (128/256/512/1024/2048/4096Bytes)
Any data mark supported : 0xFB, 0xF8, 0xF9, 0xFA
Amiga Write support.
E-mu Write support.

Format support:
The host machine can format the image with the right disk setup exactly as with a real floppy disk !
No need to already have an image with the right format, just make it by formatting it !

Floppy bitrate supported:
▶ 125/150/250Kbits/s (FM/SD floppies)
▶ 250/300Kbits/s (MFM/DD floppies)
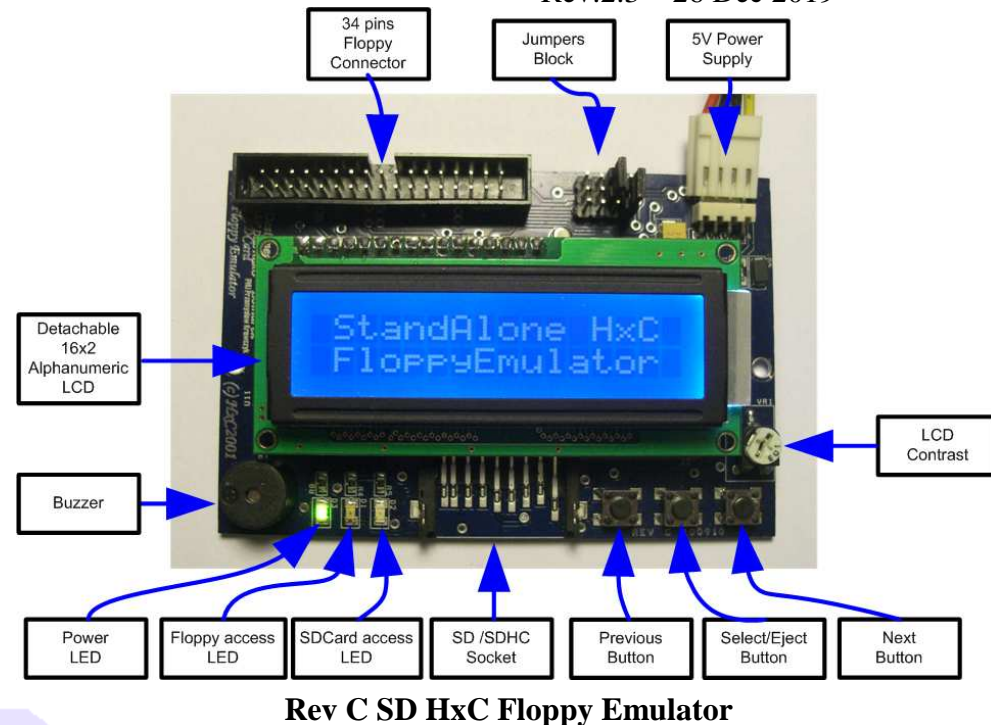▶ 500Kbits/s (HD floppies)
(others bitrates possible)

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 SD Card.
▶ Last Loaded Floppy Image autostart at power up.
▶ Fast floppy image loading (<<1second), no conversion time.
▶ Floppy Emulator ready at power up! Boot sequence possible right after the power up !
▶ SD Card Direct Access mode : Direct Floppy to SD bridging.
▶ Host control : The host machine can send a command to the emulator to change the current selected image.
▶ Supersized DOS Floppy emulation! : Up to 5 MB free per floppy image file !
▶ Data integrity security of the original system respected ! : CRC fields present into the HFE images !
   No direct usage of not secured IMG/IMA/"ISO" images or direct flash media bridging without CRC in floppy emulation mode !

**Slim SD HxC Floppy Emulator
Slim 3"1/2 Form factor**

HxC Floppy Drive Emulator

HxC Floppy Emulator Project
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Some videos showing the device in action

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Sales points :

This product is manufactured and sold by Lotharek : http://www.lotharek.pl

Ebay : **https://www.ebay.com/usr/lotharek1977**

SD Floppy Emulator REV F 3"1/2 (Black) : https://lotharek.pl/productdetail.php?id=27

SD Floppy Emulator REV F 3"1/2 (White) : https://lotharek.pl/productdetail.php?id=28

Slim SD Floppy Emulator 3"1/2 (cased HE10-34 connector): https://lotharek.pl/productdetail.php?id=41

Slim SD Floppy Emulator 3"1/2 (cased ZIF connector): https://lotharek.pl/productdetail.php?id=94

Slim SD Floppy Emulator 3"1/2 (Board only HE10-34 connector): https://lotharek.pl/productdetail.php?id=38

SD Floppy Emulator REV C : https://lotharek.pl/productdetail.php?id=30
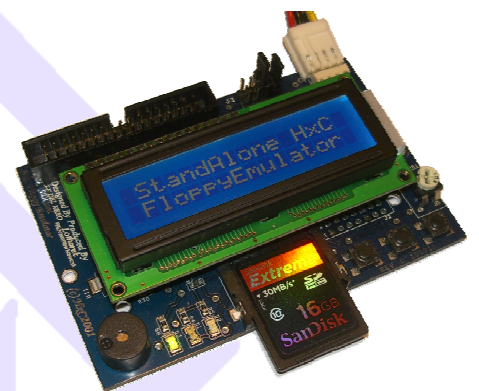
Contact / Project page

Project page:
https://hxc2001.com/

Project/Support Forum:
http://www.torlus.com/floppy/forum

**HxC Floppy Emulator project initiator,
Software development, Hardware design, Technical support :**

Email :
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The official producer and distributor of the HxC Floppy Emulators is Lotharek :

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