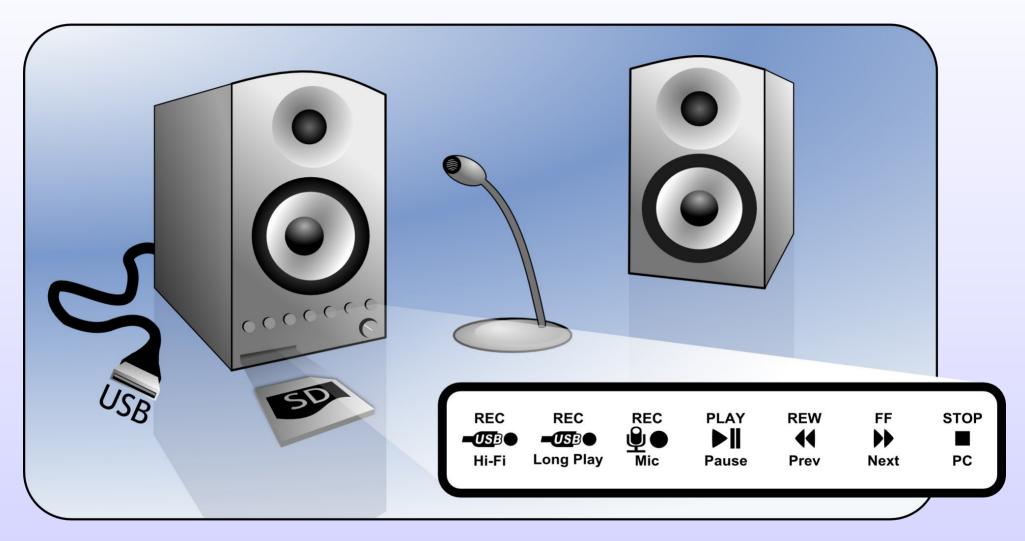


# VS1000 USB Recorder Application

## USB Recorder... and more!



- USB Speakers + Microphone
- USB SD Card Reader/Writer
- Record audio from USB or mic
- Play audio from SD card with no PC

### Overview

- Low cost because of high integration
- Uses SD or SDHC card
- Lossless recording to SD card
- 3 recording modes:
  - **USB** Hi-Fi quality 44.1 kHz stereo
  - **USB** Long Play quality 22 kHz mono
  - Microphone 11 kHz mono
- Plays WAV or Ogg files from the SD card
- Simultaneous USB Audio and USB mass storage functionality



## Applications

- USB speakers for PC
- Web radio recording with PC
- Audio backup copying
- USB headset
- Portable music player
  - Modern version of "tape recorder"
- Voice memo recorder

### **Features**

- CD quality record / playback
- Long recording buffer
  - CD quality recording even with large MLC based SD cards
- Supports MMC, SD, SDHC cards
- Supports Nand Flashes with integrated SD controller
- Integrated headphone amplifier
- Voice quality microphone preamplifier and ADC
- Can be powered for example with 4 NiMH cell batteries when not connected to PC

## Options

#### \* Microphone not needed?

> Op-amp can be removed

#### \* Recording not needed?

Nand Flash (SLC or MLC) can then be used instead of SD card > SPI flash not needed

#### \* Speakers not needed?

If only headphones are used, then the speaker amplifier can be removed

# VS1000 Chip Features

- High Quality sigma-delta D/A converter
- Integrated headphone amplifier
- Low power design
- Integrated voltage regulators
- Good signal-to-noise ratio
- USB Port
- License-free Ogg Vorbis decoding
- EarSpeaker spatial sound enhancement

# Do you have customization requirements?

Our support will help you

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