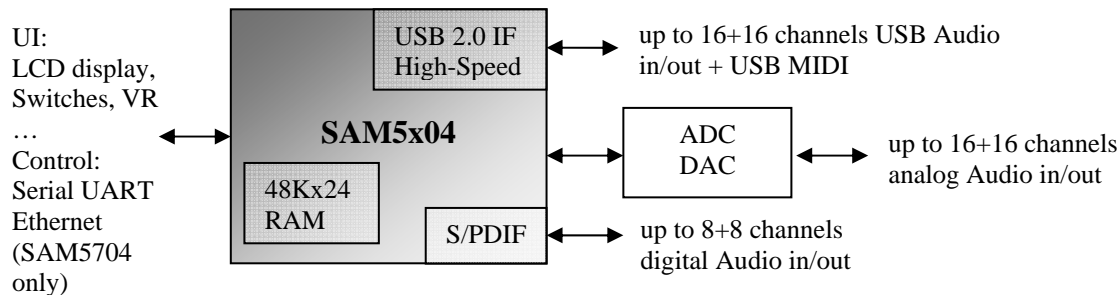


USB 2.0 Audio Interface with SAM5704 or SAM5504



SAM5704/SAM5504 Hardware Features

- Built-in High-Speed USB2.0 I/F controller
- Up to 16 audio in, 16 audio out ports (I²S format), up to 192kHz/24-bit
- Up to 192kHz S/PDIF interface (IEC60958) with clock recovery (concurrent IN/OUT)
- On-die synchronization PWM mechanism controlling external VCXO for audio streaming from external sources
- 10/100 Mbps Ethernet MAC with RMI interface to external PHY (SAM5704 only)
- 2x On-chip UART for external MIDI IN/OUT
- User-Interface (Switches, LED's...) possible w/o additional CPU through GPIO ports

Software Features

- USB 2.0 High-Speed and Full-Speed support
- Class Compliance to USB Audio Device Class Specification 1.0 and 2.0
- Up to 16+16 channels USB audio streaming, sampling rate at 96/88.2/48/44.1kHz, 16-bit or 24-bit resolution
- Up to 8+8 channels USB audio streaming at sampling rate at 192kHz
- 3rd party multi-channel WDM/ASIO2.0 drivers for Windows and MAC OSX available
- USB MIDI Ports (e.g. 1xIN/OUT external, 1xIN/OUT embedded, e.g. for mixing controls)
- Support for firmware update via USB DFU Class (into external low cost serial Flash)
- **New:** Support of up to 8 IN / 8 OUT digital audio of S/PDIF (TDM)

Possible Software Extensions

- On-chip Digital Mixer (up to 16 audio + USB channels into 8 busses / audio out channels) with volume and pan
- Dynamic processing (Compressor, Limiter, Noise Gate) and Parametric Equalizer in audio input channels
- Effects: Reverb, Delay and Mod-FX (Chorus, Flanging, Phaser...) etc.
- Direct Monitoring

Evaluation Boards

5704FX-DK or 5504FX-EK development / evaluation boards available