Audio SRC Bridge Chip

CT-7301

Feature

Key Feature of CT-7301

- SPDIF up to 384KHz / 32 bits
- I2S up to 768KHz / 32 bits
- DSD / DoP to PCM converter
- SRC 32KHz ~ 768KHz

Key Feature of CT-7301

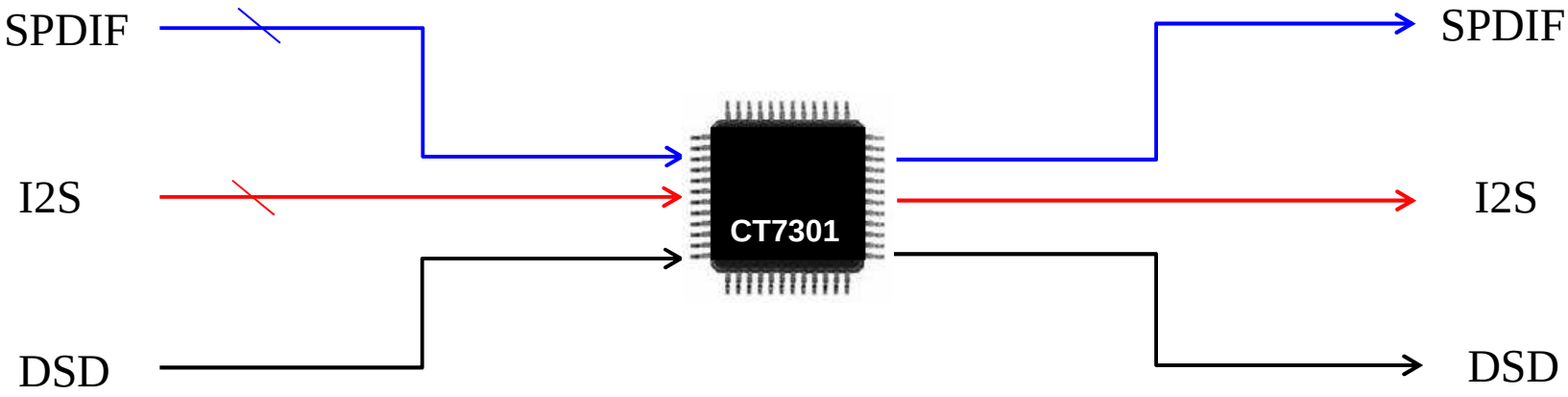
- I2S standard / left justified
- Basic auto De-pop
- Hardware / software mode
- Auto De-emphasis 32 / 44.1 / 48 KHz
- I2C interface / Interrupt function
- Volume control with fading in/out
- SRC 32 bits dynamic range
- SRC THD+N better than 24 bits

PCM

SPDIF up to
384KHz/32bits
5 input

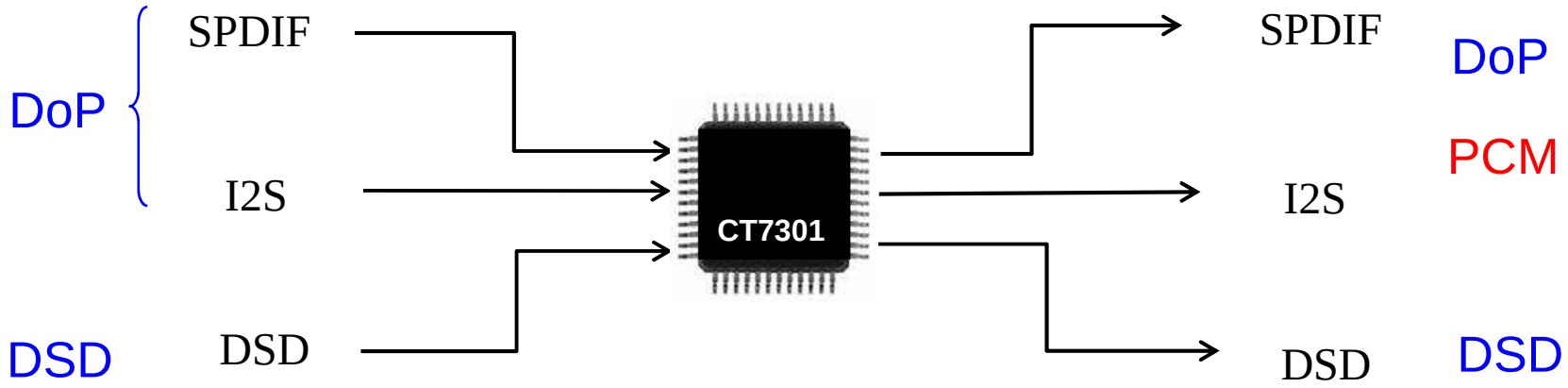
I2S up to
768KHz/32bits
3 input

DSD up to
4x
1 input



DSD / DoP

DSD/DOP To PCM enable



Family

	SPDIF In	I2S	SPDIF	DSD	DOP I2S	DOP SPDIF
CT-7301-C	5	768K 32bit	384K 32bit	4x	4x	2x
CT-7301-E	5	768K 32bit	384K 24bit	4x	2x	2x
CT-7301-S	5	384K 32bit	192K 24bit	2x	2x	1x
CT-5301	2	384K 32bit	192K 24bit	1x	1x	1x

1x (64x or 2.8M) → 44.1KHz

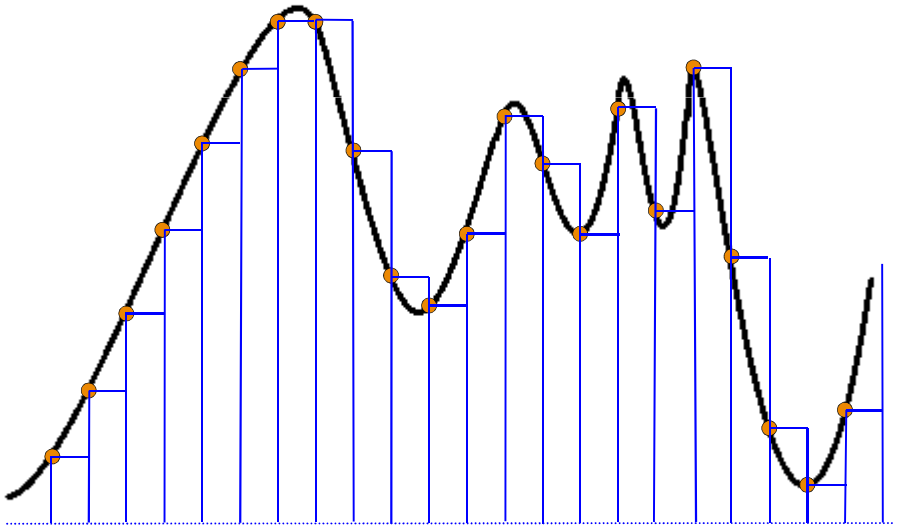
2x (128x or 5.6M) → 88.2KHz

Performance

SRC Function

SRC Mode	Output / Input Synchronous	Reference Clock	Reference Type	Ratio
0	X	ASRC pin	FS	1
1	X	ASRC pin	FS	N
2	X	ASRC pin	MCLK	N
3	X	XTAL	XTAL	LUT
4	√	Input Port	FS	LUT
5	√	Input Port	FS	N
6, 7	√	Bypass	-	-

High performance SRC

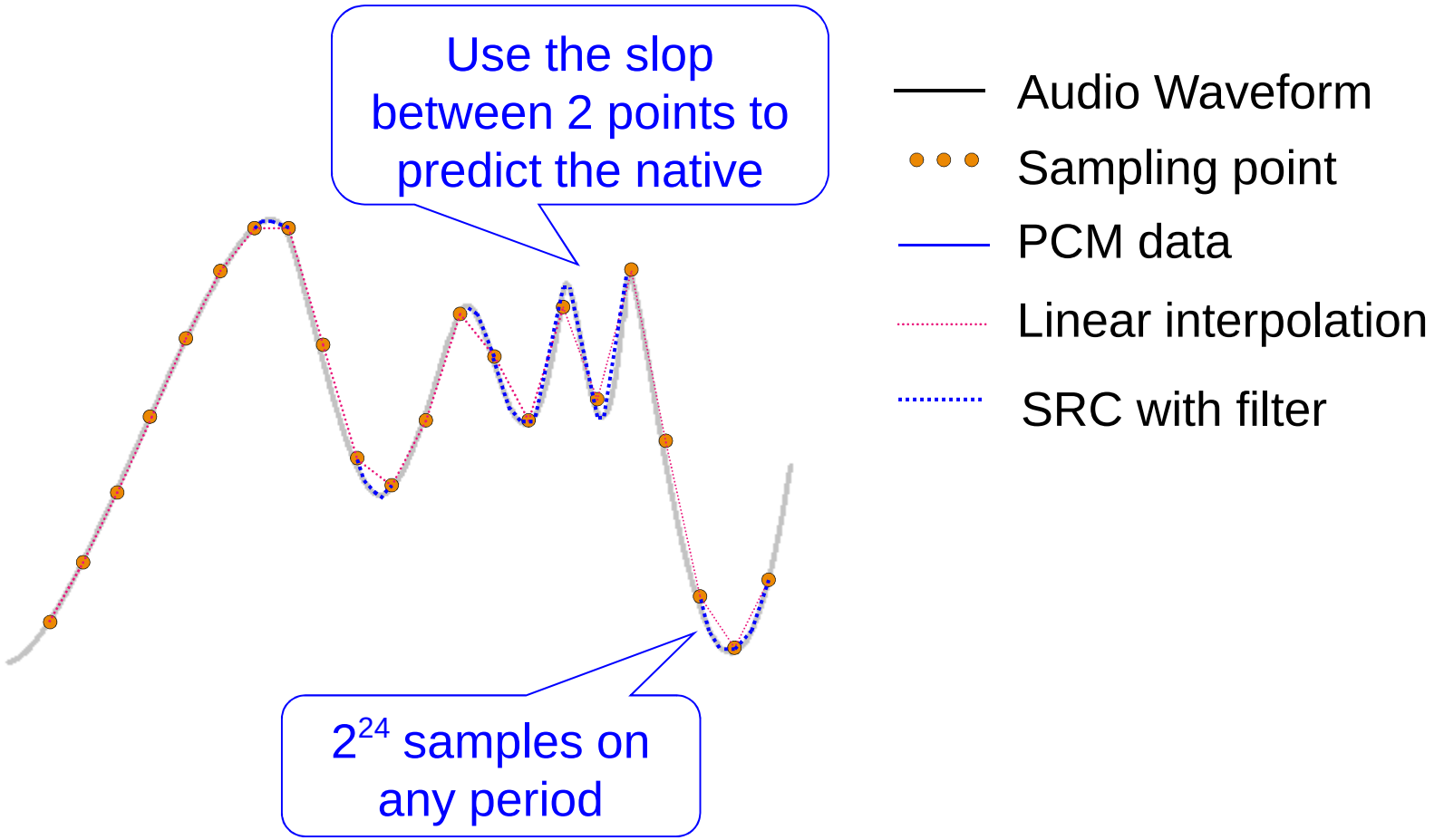


Audio Waveform

Sampling point

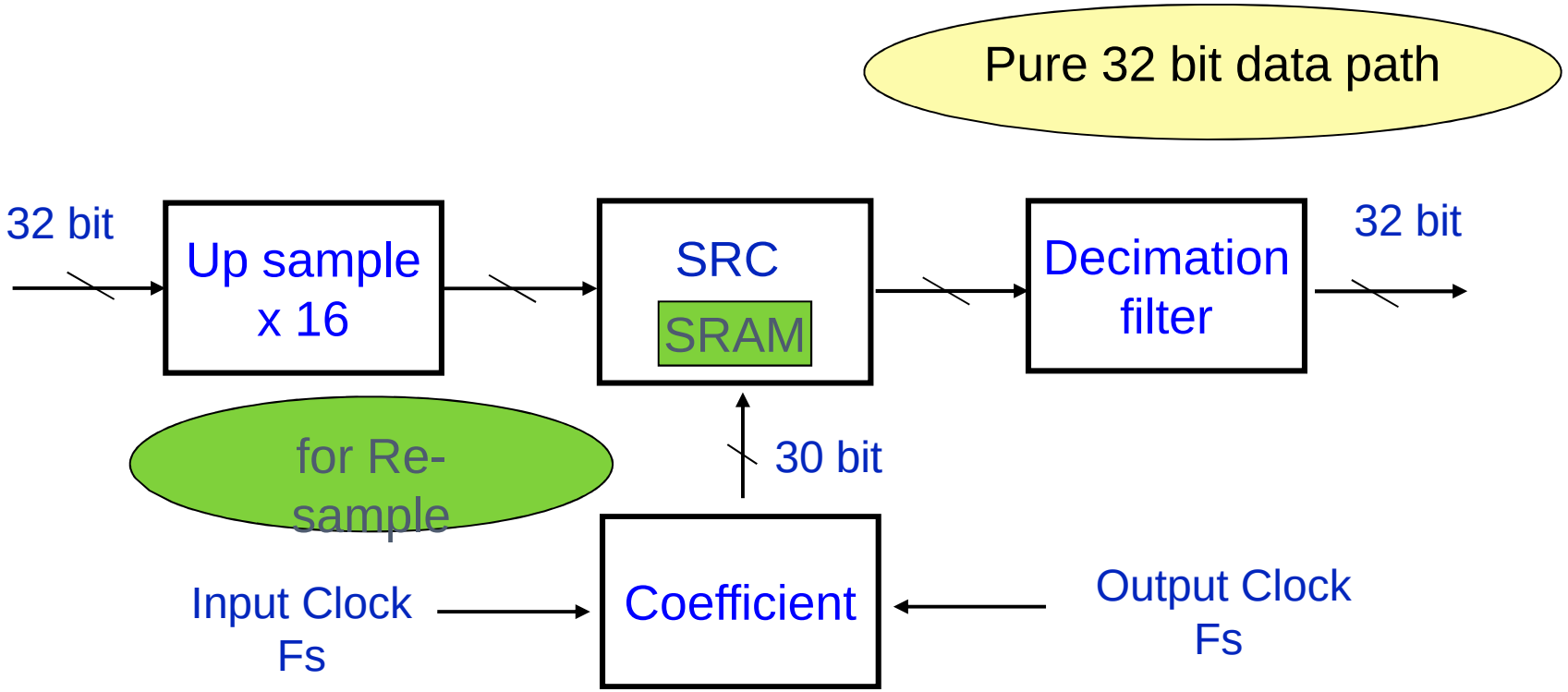
PCM data

High performance SRC



High performance SRC

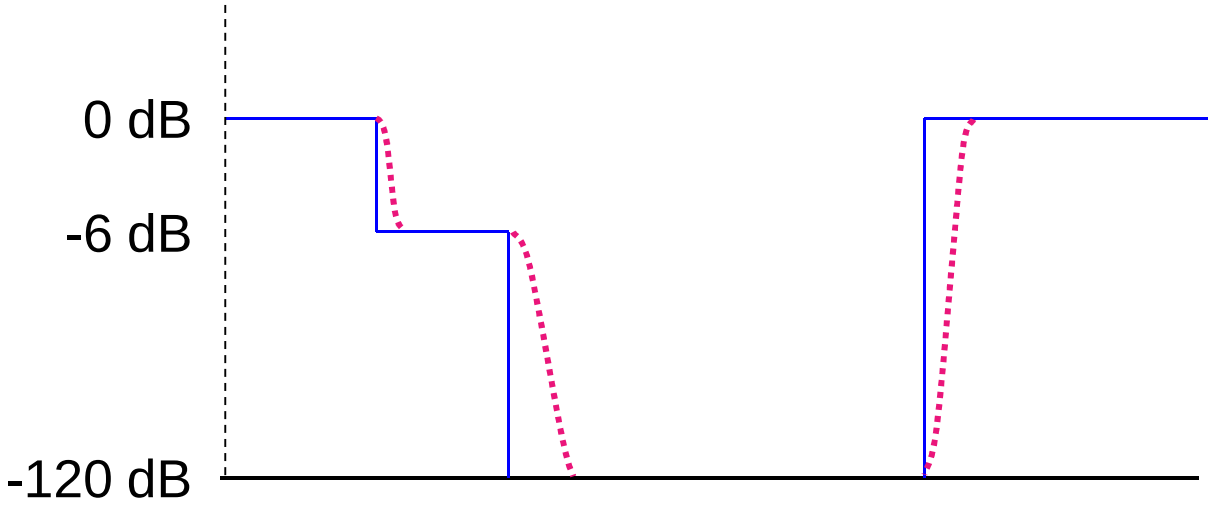
230 MIPS DSP x 3



Volume Control

12 bit resolution

0.03125 dB per step

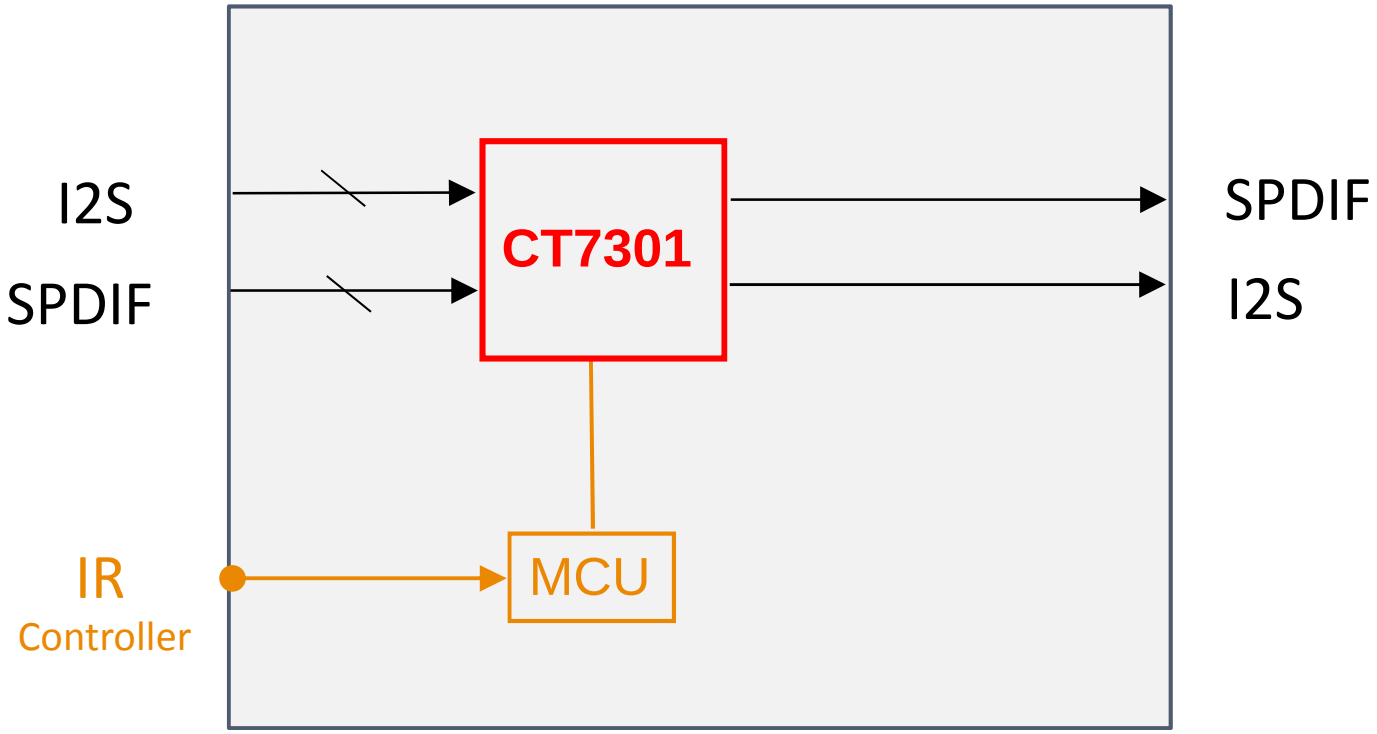


Digital volume control

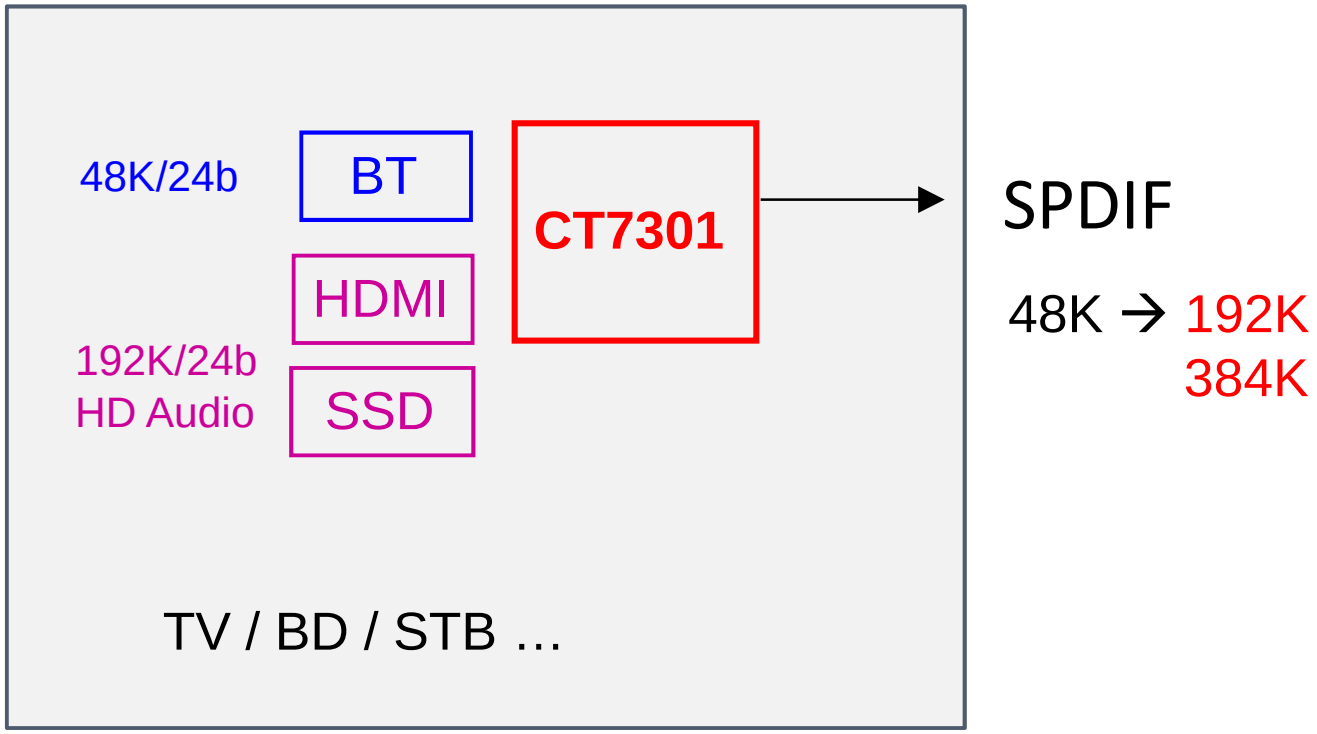
Auto Fading in/out

Application

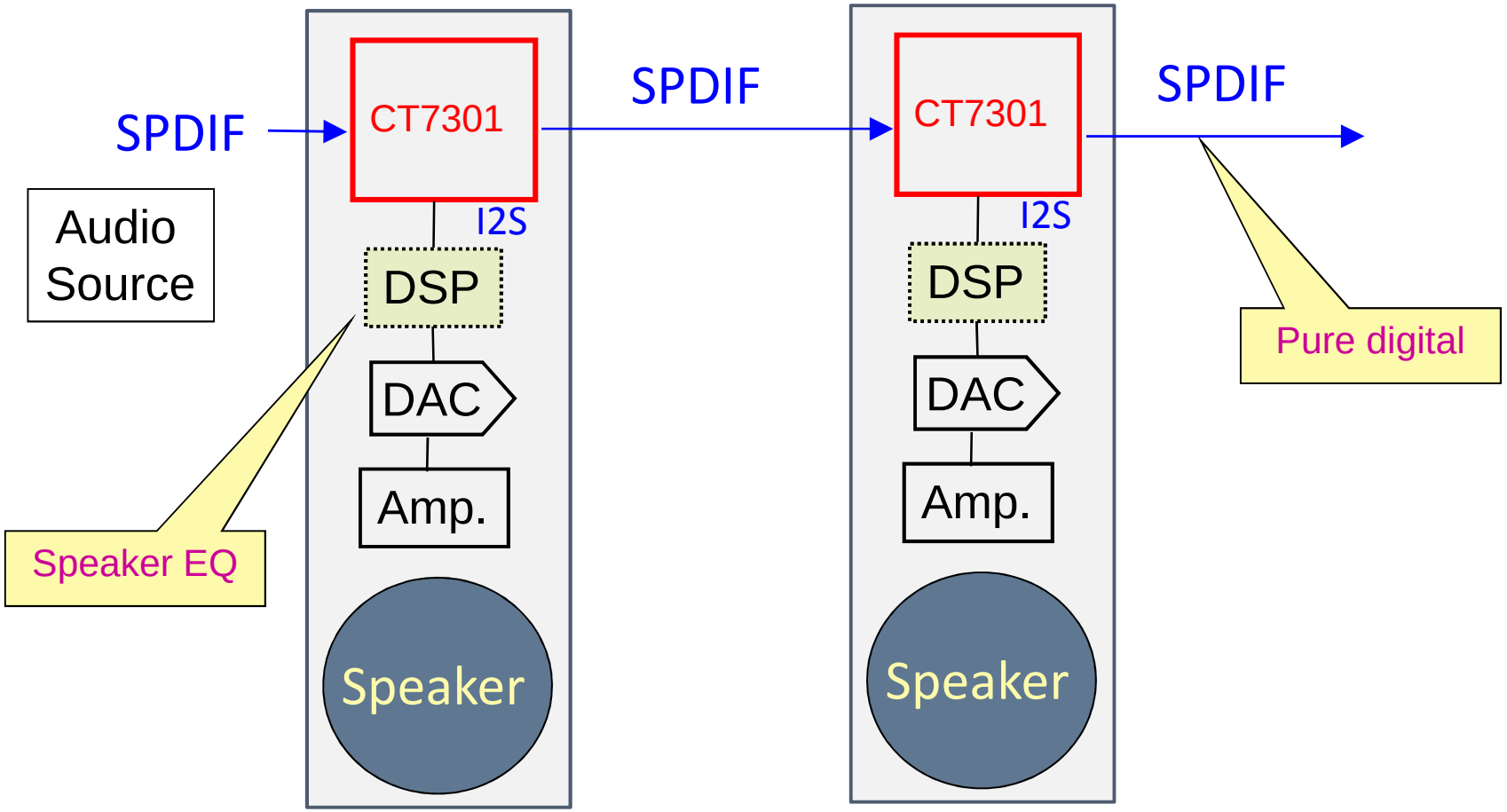
Bridge



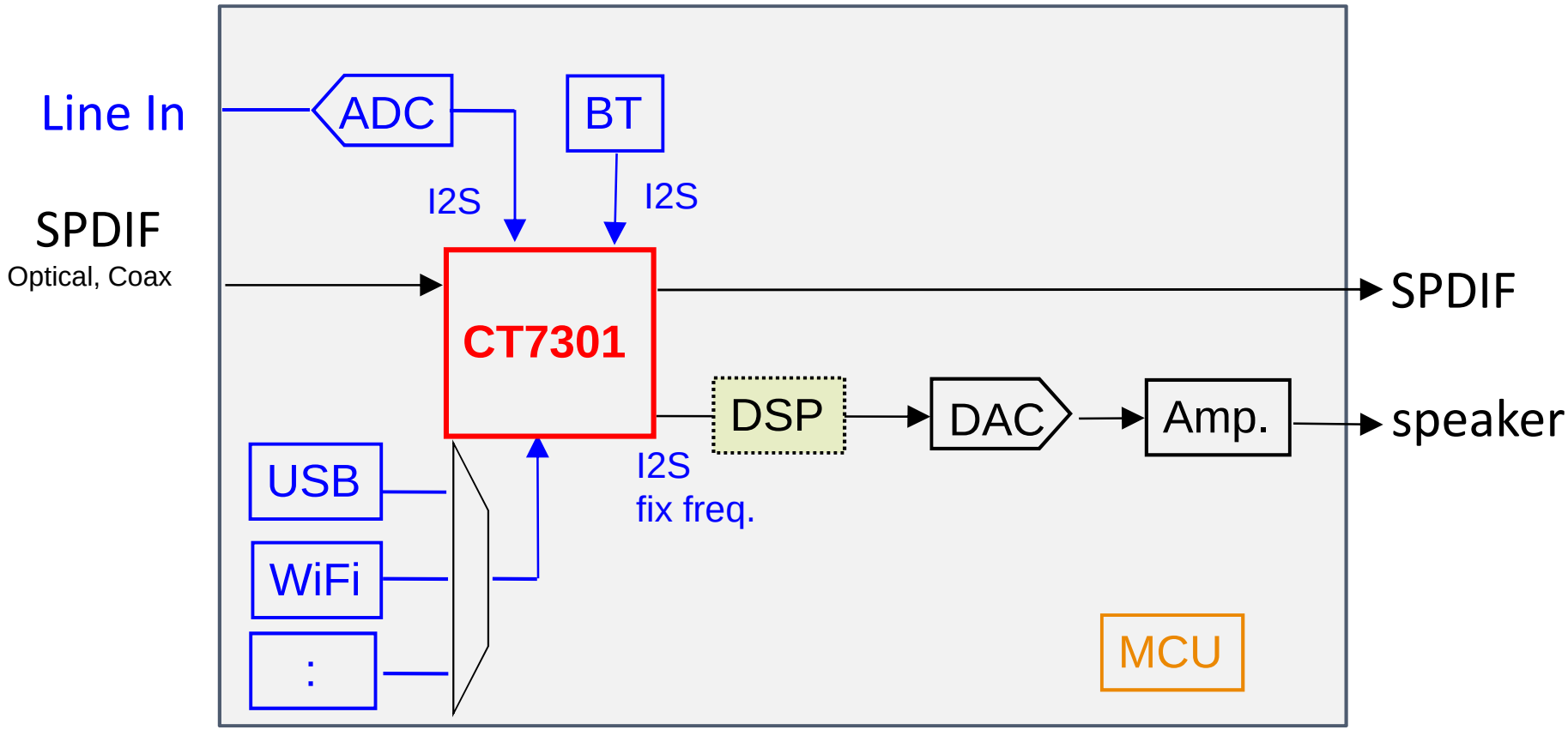
Audio Source



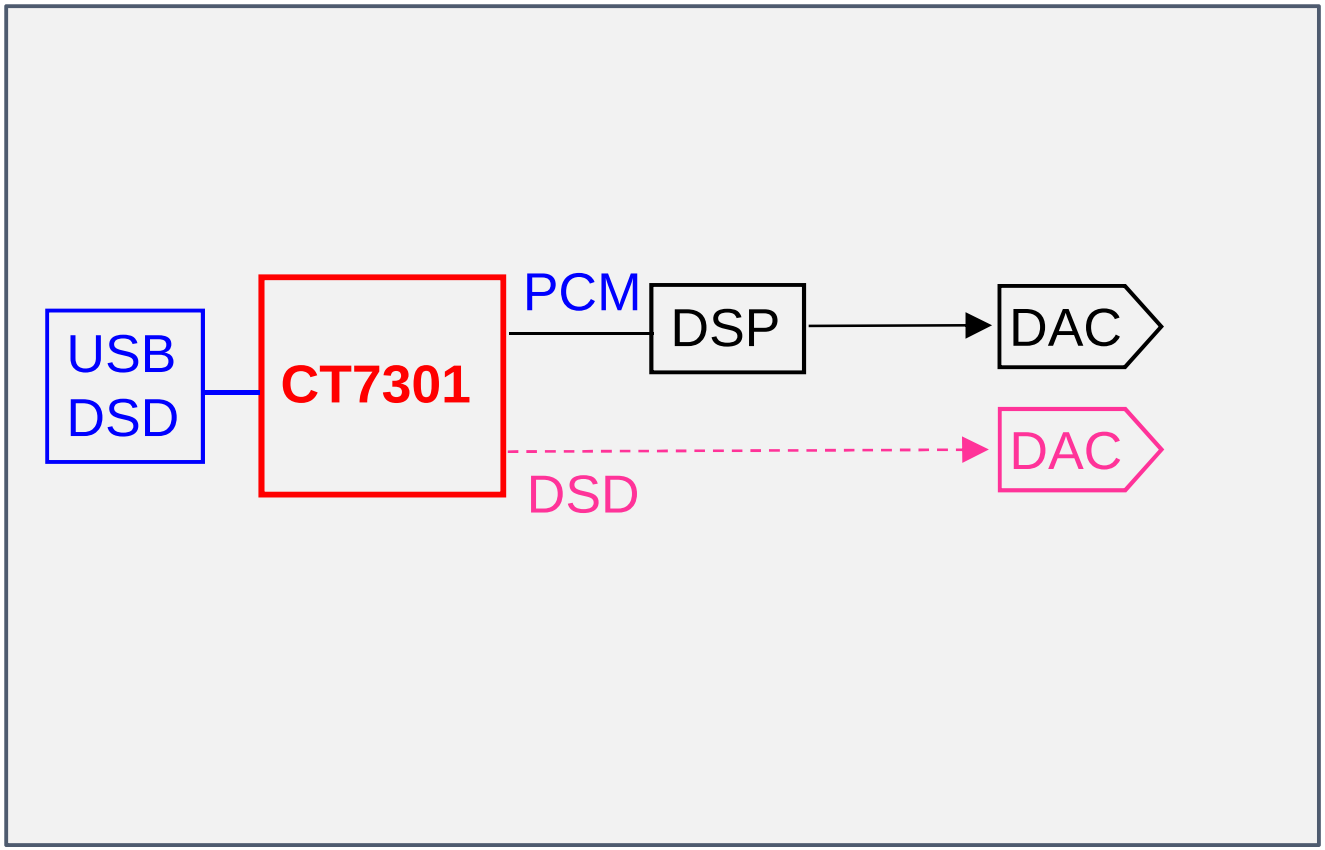
Active Speaker



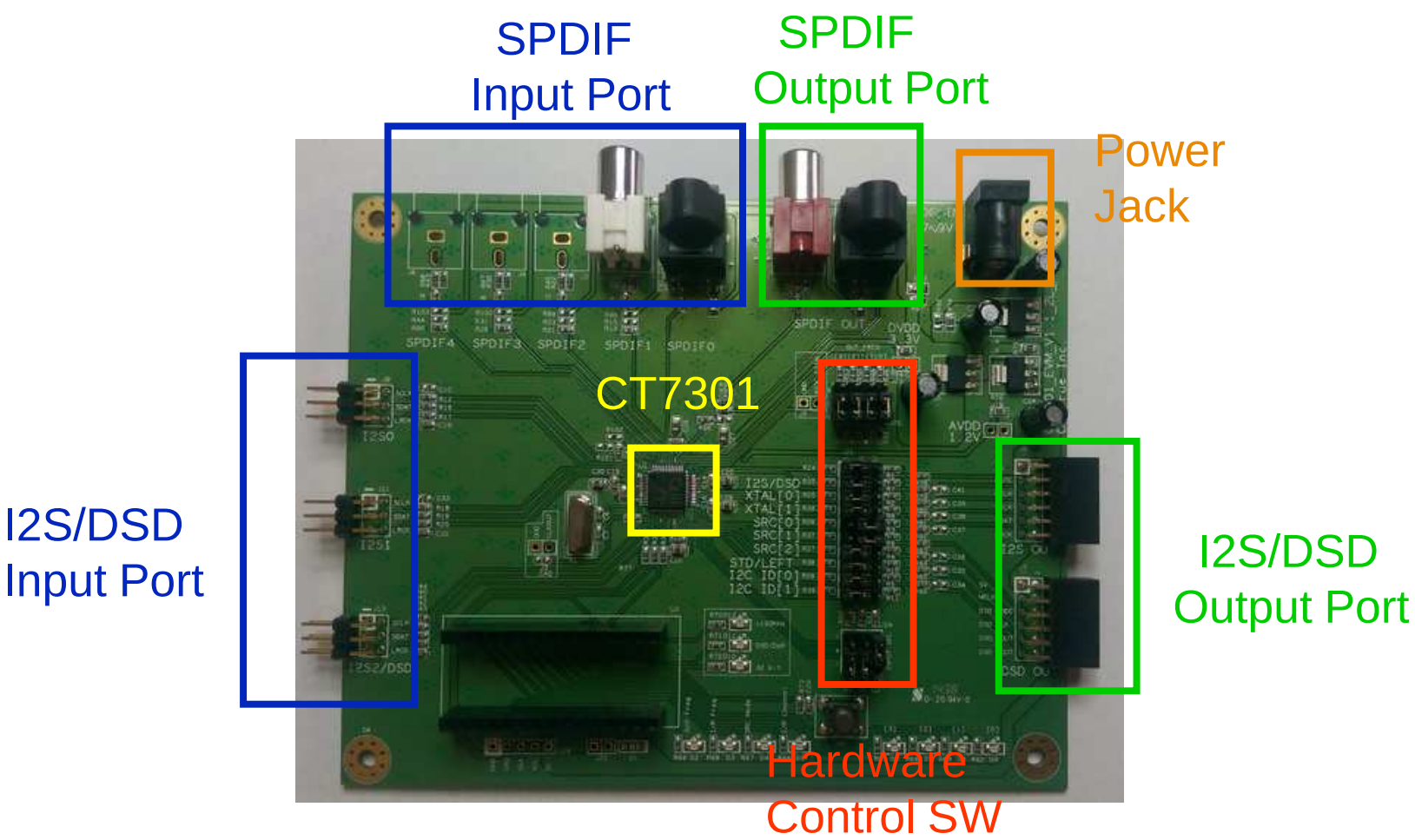
Audio System



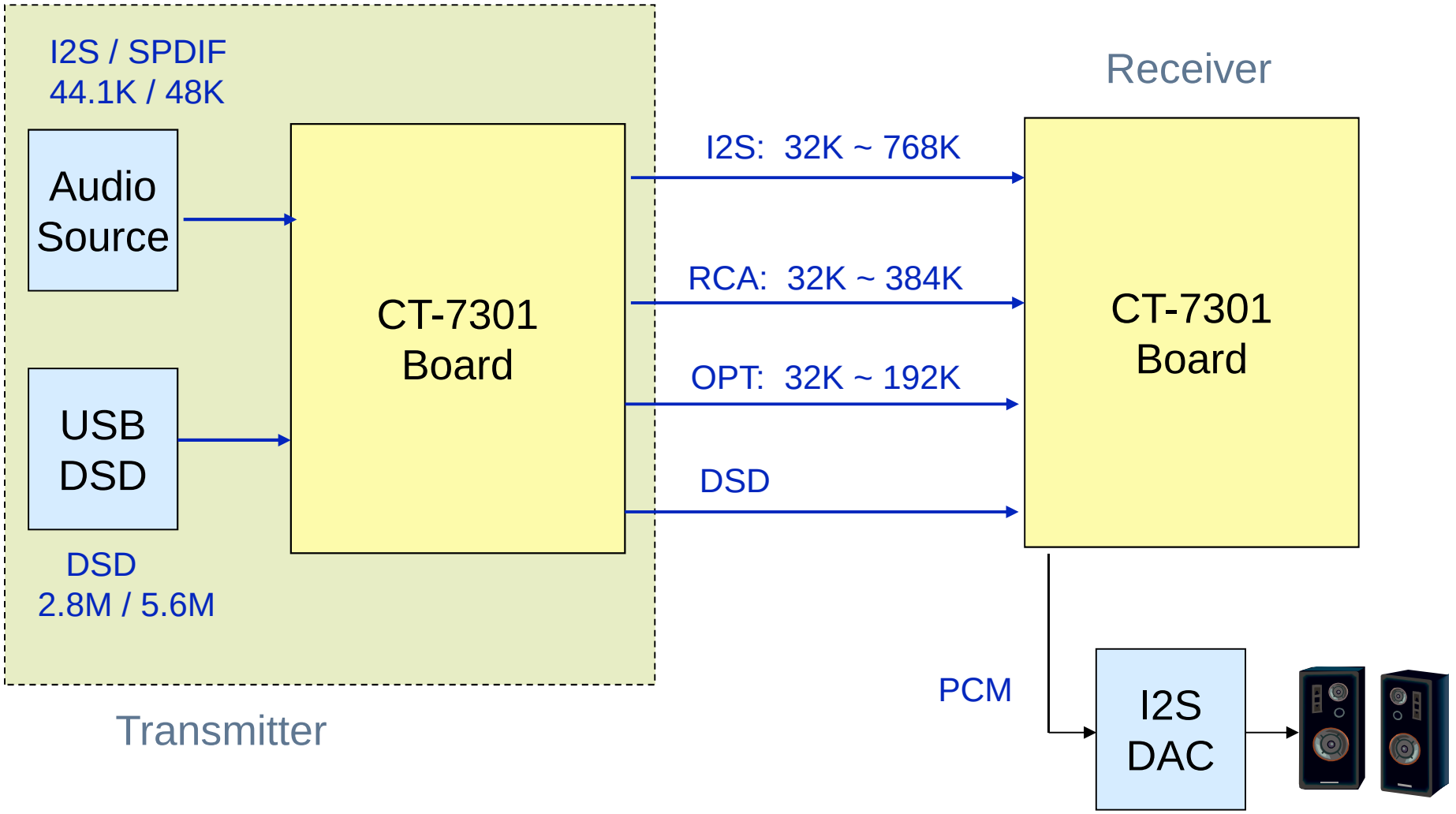
DSD To PCM



Demo Board Overview



Demo System Structure

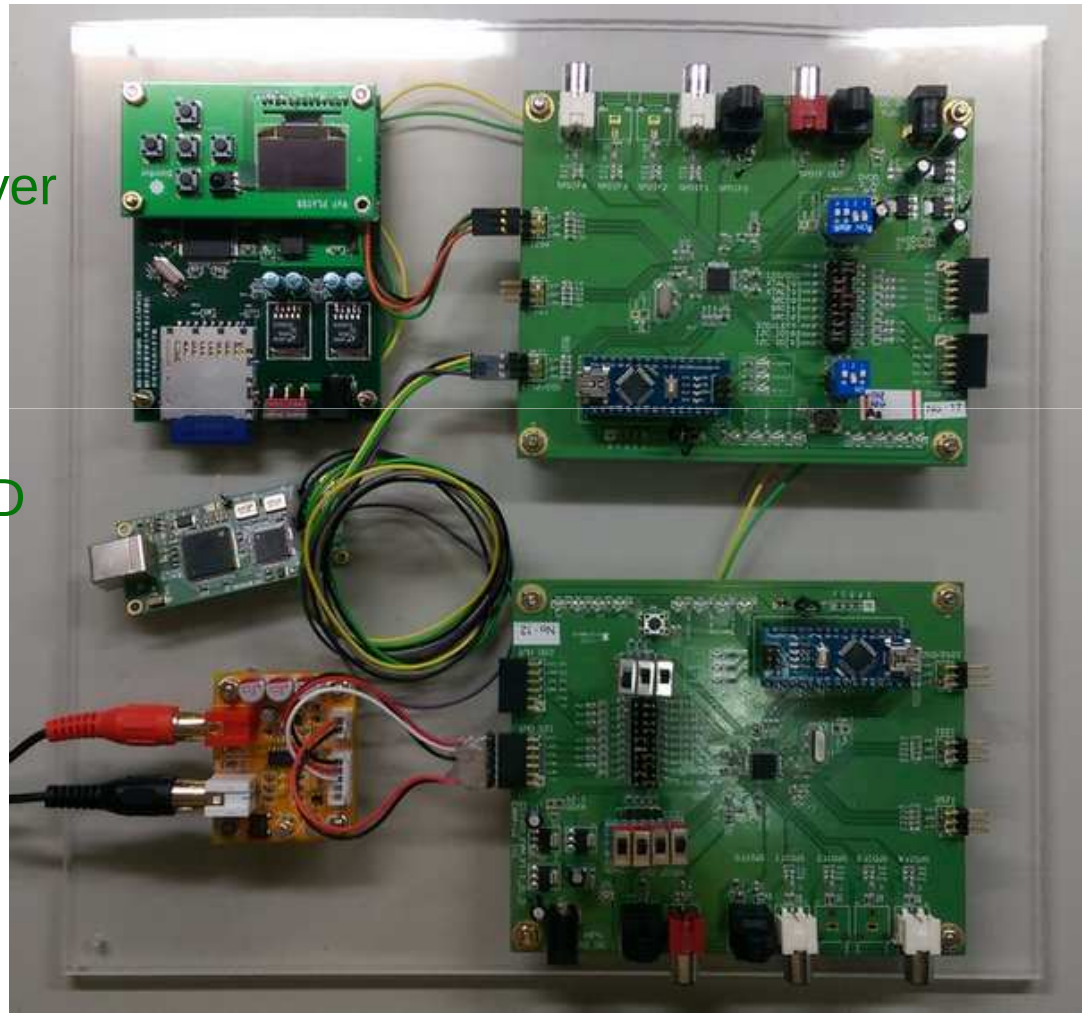


Demo System Structure

Audio Player
I2S Out

USB DSD
I2S Out

DAC



CT- 7301C
Source

CT- 7301C
Receiver

Thank You

ComTrue Inc.