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## CM6212\_TDM\_Demo Board User Manual\_v1.00

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## Revision Notes

Revision	Date	Description
v1.00	2024/09/20	First formal release

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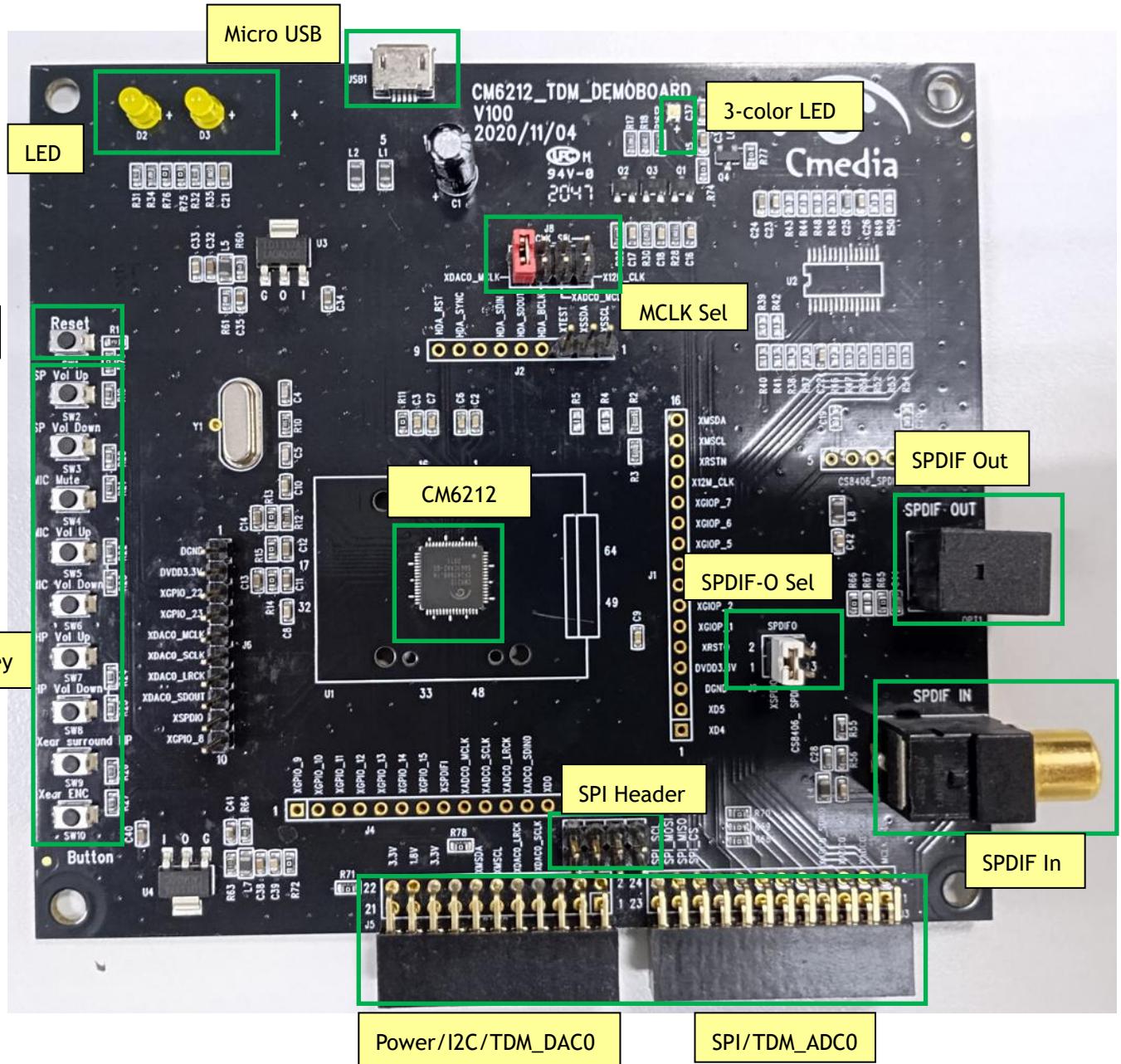
# SECTION 1 OVERVIEW

## 1.1 Introduction

The CM6212 is a USB 2.0 high-speed audio processor that supports USB Audio Device Class 1.0 and 2.0. The CM6212 provides standard HDA, I2S TDM and S/PDIF digital audio interface. The maximum outputs are 12 channels with 8 channels TDM, 2 channels I2S and 2 channels S/PDIF and the maximum inputs are 12 channels with 8 channels TDM, 2 channels I2S and 2 channels S/PDIF. Moreover, the CM6212 supports I2C, SPI and GPIOs to communicate with external device.

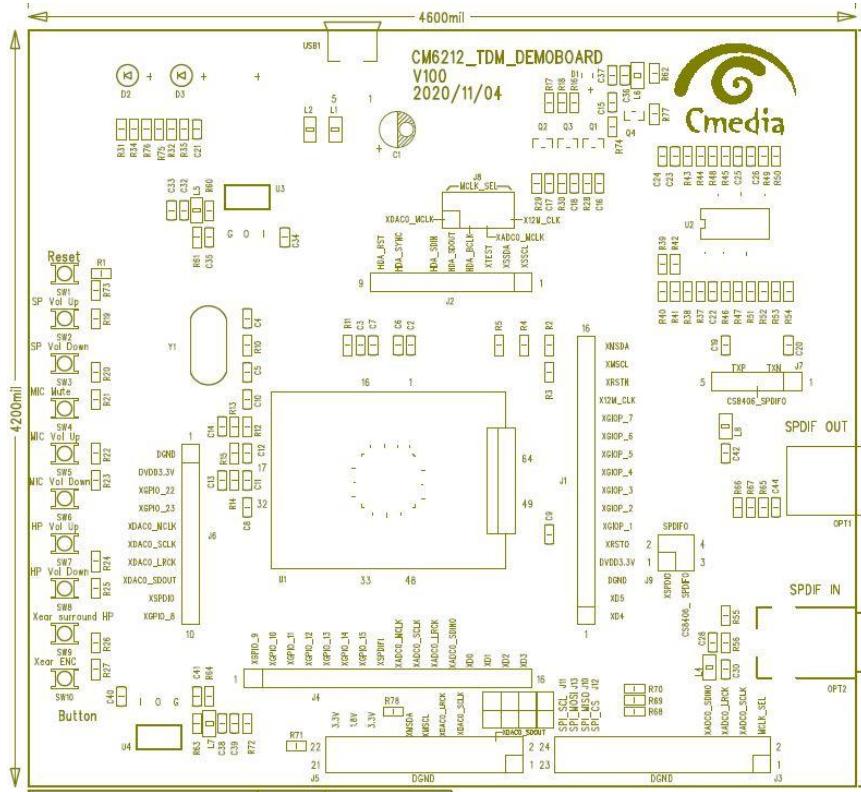
## 1.2 Overview of the Demo Board

The CM6212 USB Audio controller evaluation board has several hardware features. With each feature's description in figure, the feature's location can be clearly identified.

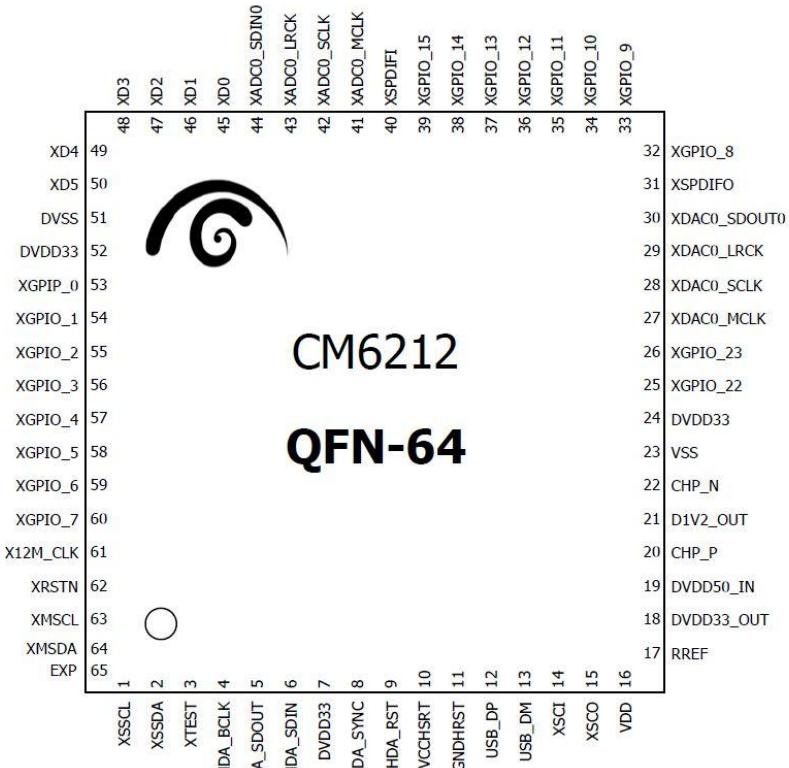


## Component placement

Top



## Pin Out Diagram



## SECTION 2 GETTING STARTED

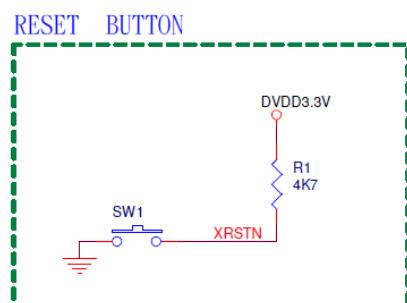
### 2.1 USB Audio Device

Connect to the host by plugging the Micro USB cable.



Micro USB connector

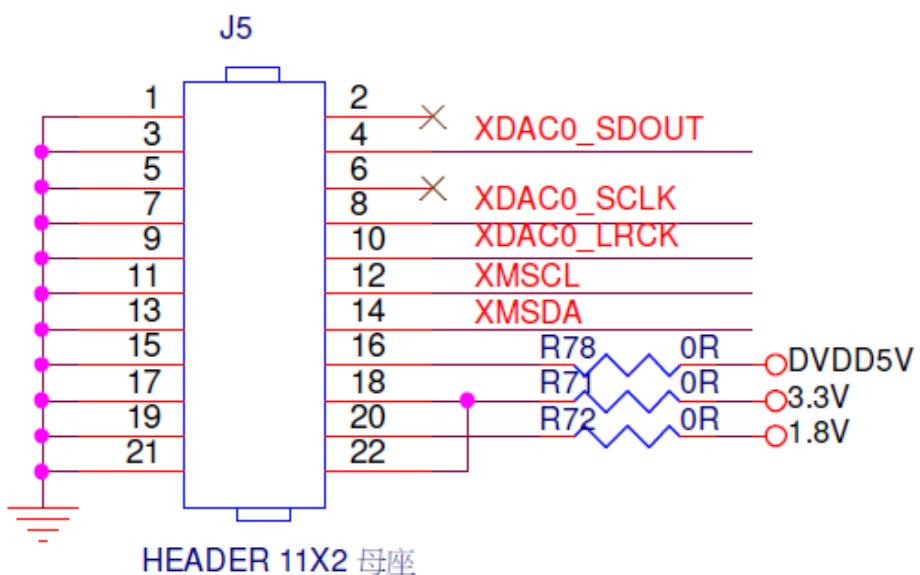
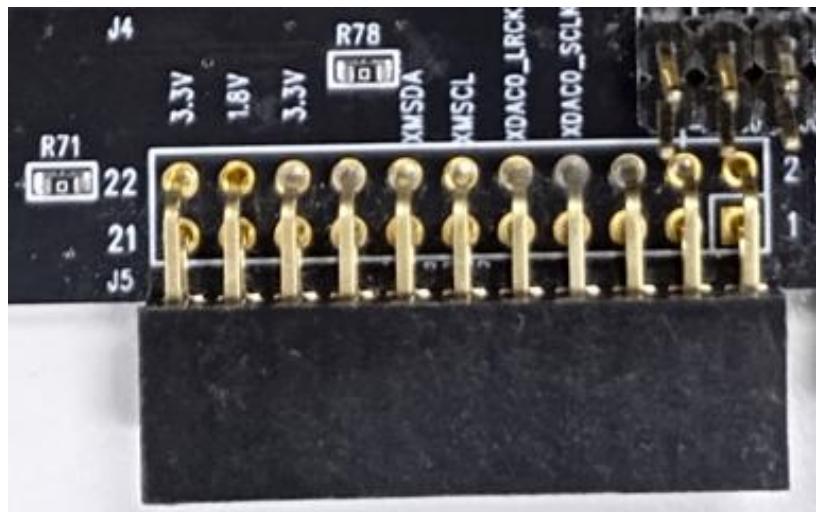
#### Chip Reset

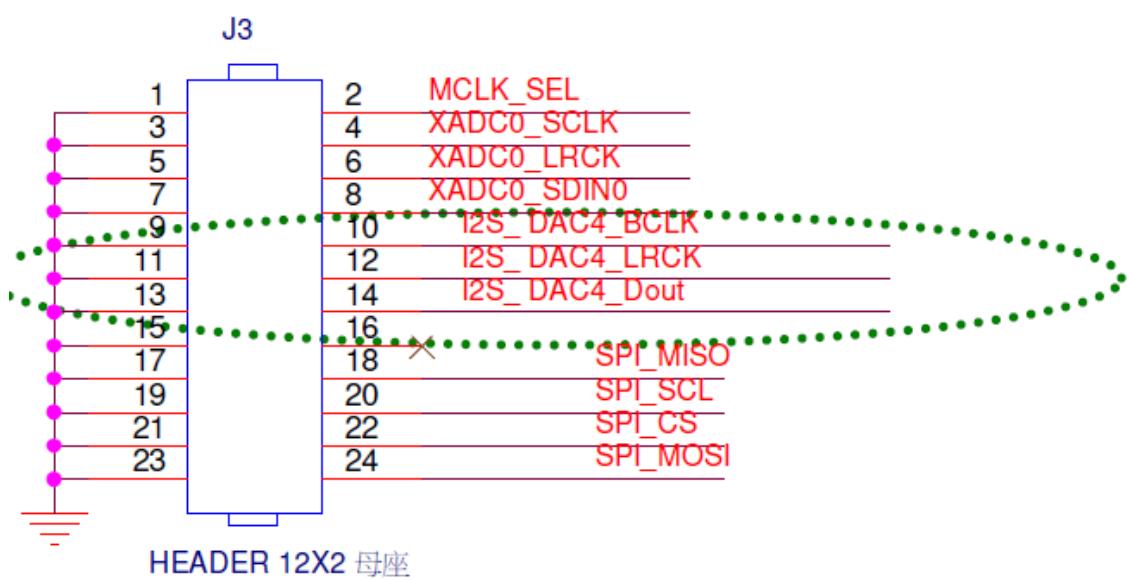
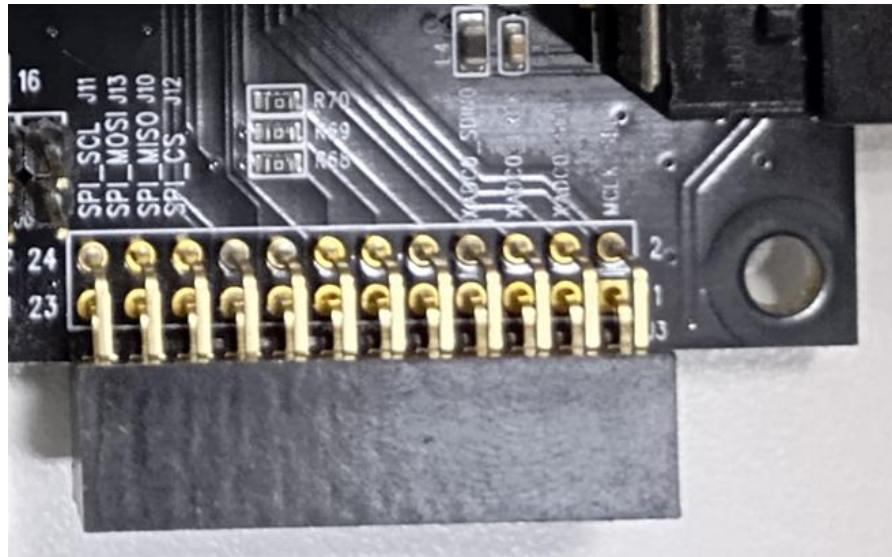


SW1 Reset button, low active

## 2.2 Pin Header Description

**J5:** (3.3V,1.8V,5V)Power / I2C / TDM\_DAC0

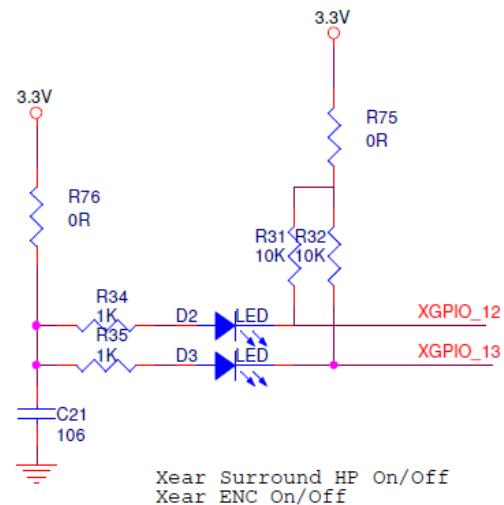
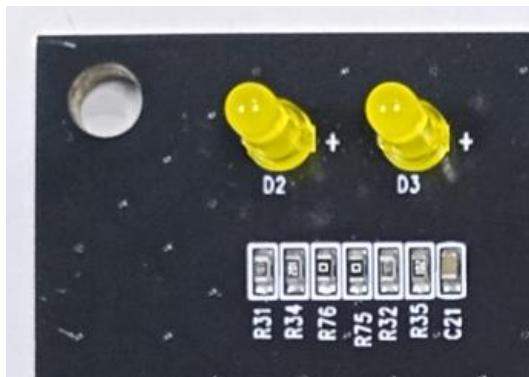


**J3: SPI / I2S / TDM\_ADC0 / MCLK-Out**

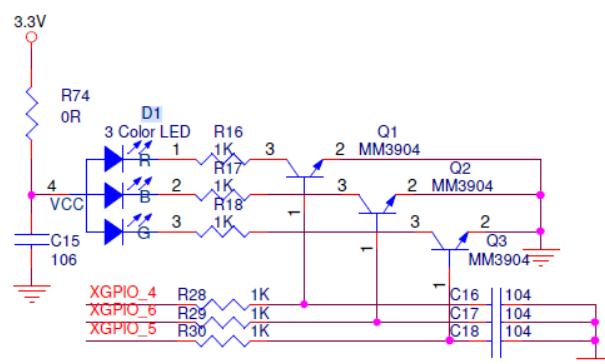
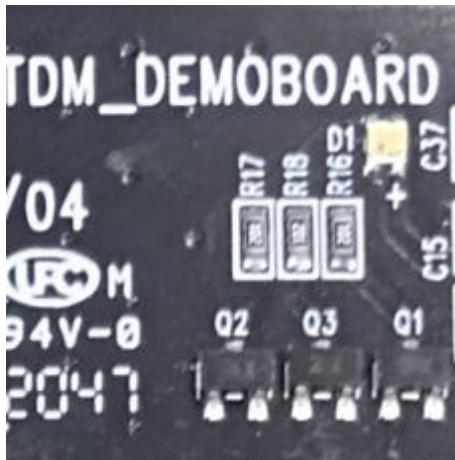
## 2.2.1 LEDs

D2: Xear Surround HP On/Off

D3: ENC On/Off

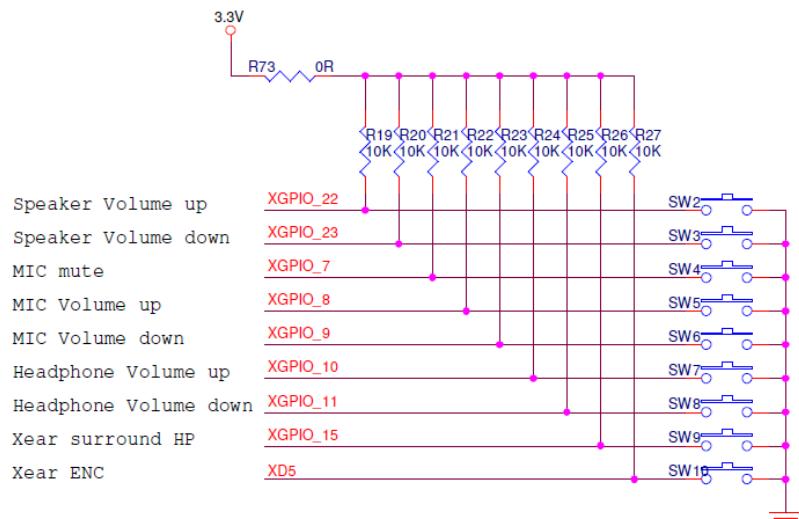


D1: 3- Colors LED



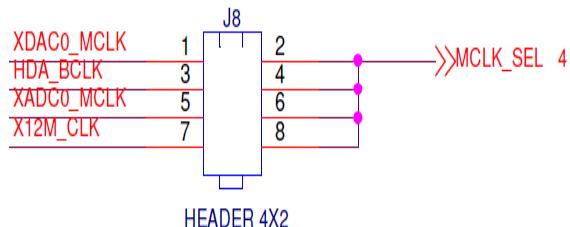
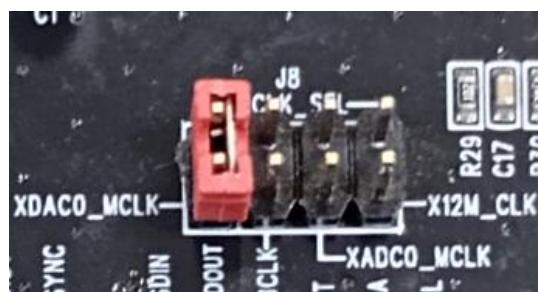
## 2.2.2 HID Buttons

### SW2~SW10



## 2.2.3 Others

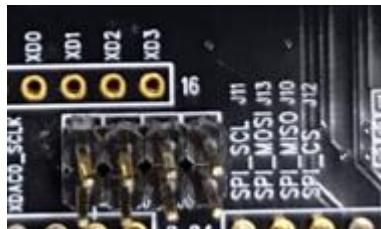
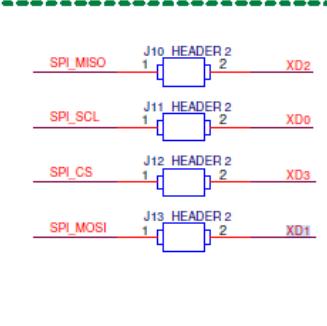
### J8: MCLK source selection



### J10~J13

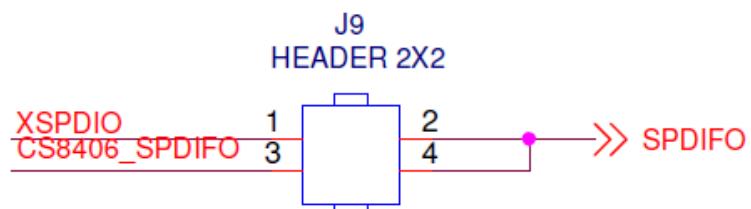
Installed: J3 SPI function available

#### SPI jumper



### 2.2.3 Others

J9: Optical SPDIF-Out source selection



J9 pin1.2 shorted: SPDIF-Out source from CM6212 (XSPDIO)

J9 pin3,4 shorted: SPDIF-Out source for CS8406