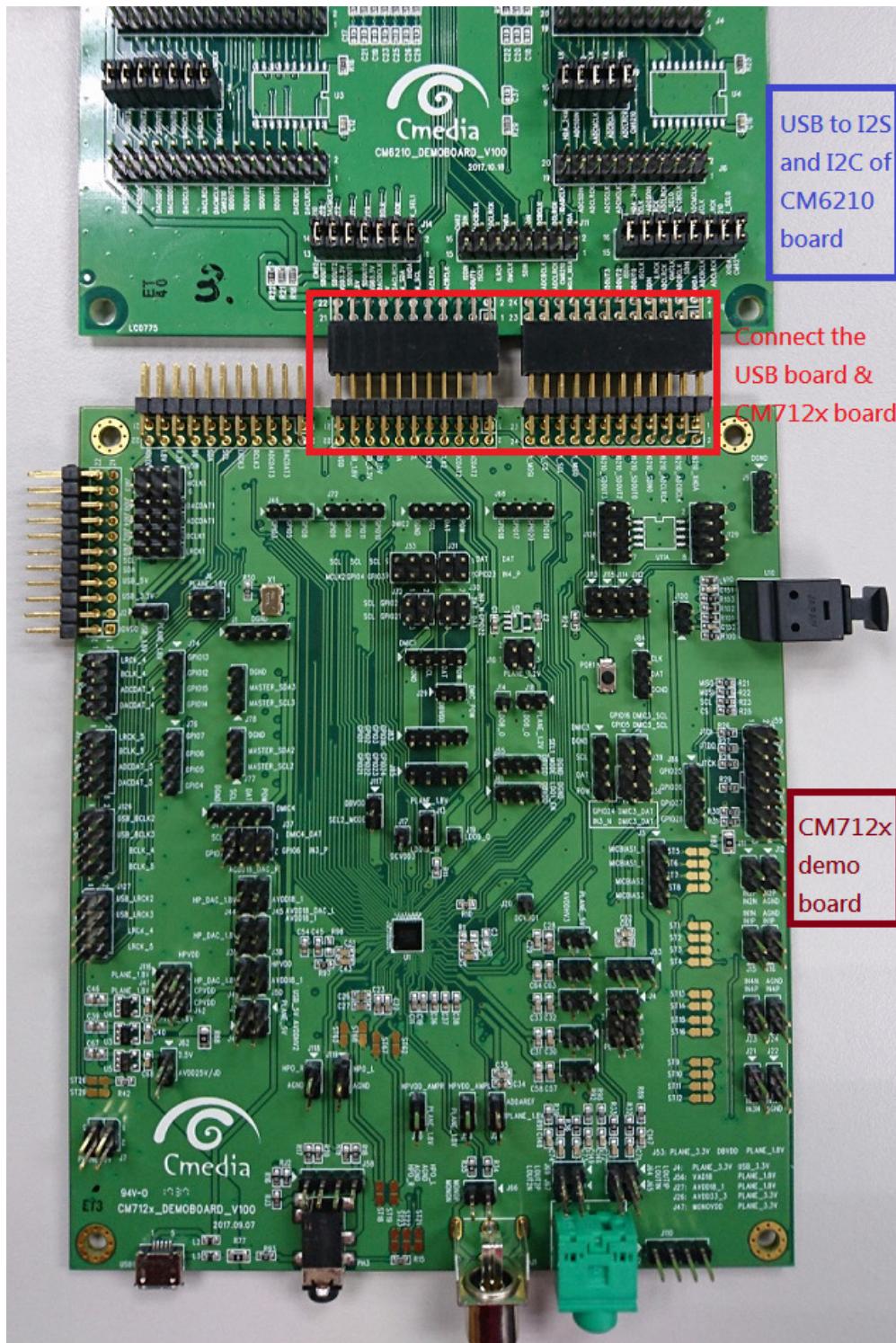


# **CM712x Audio DSP & CODEC Hub System**

## **User Guide**

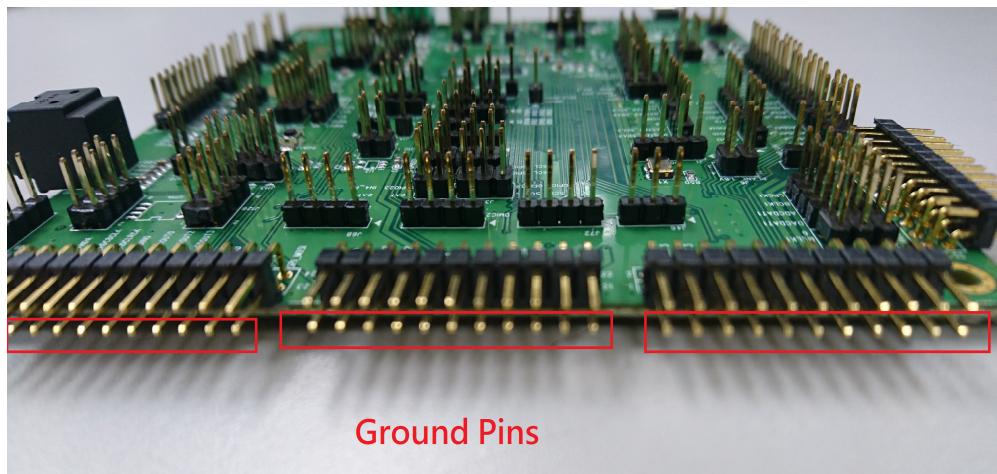
**Dec. 18, 2017**

## 1. Connect the USB audio control board and CM712X Demo Board

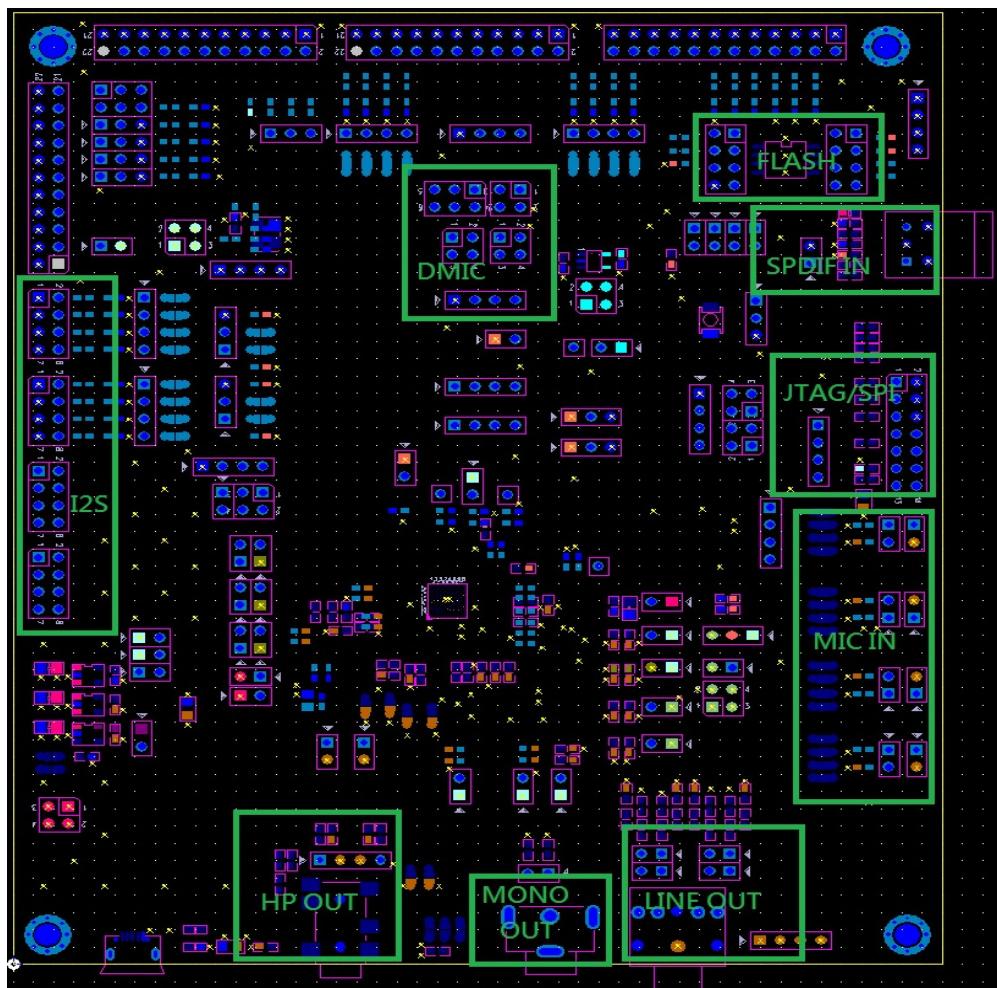


## 2. Definition of the pin header

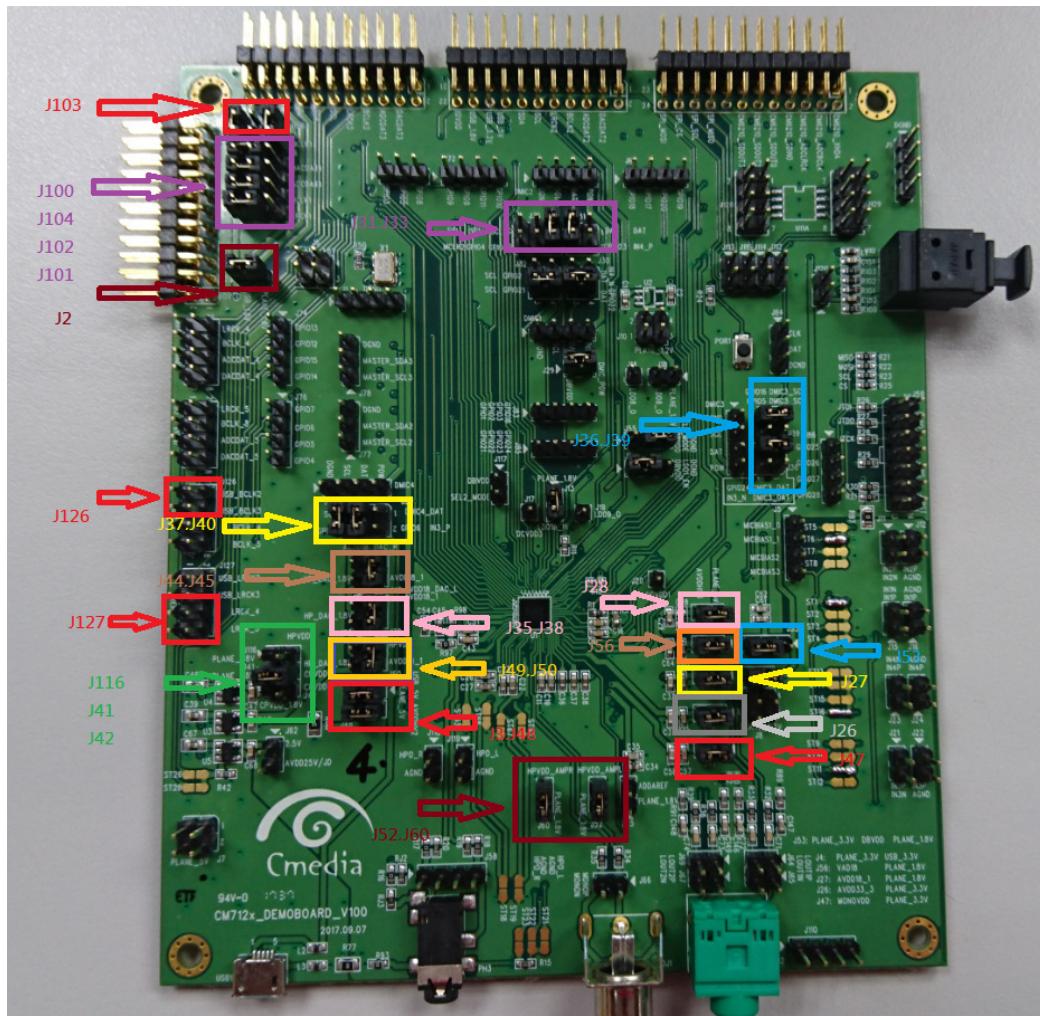
### (a).Ground pins



### (b).Main Function



(c).The default jumpers position of CM712x demo board



**Setting:** External 5V, 3.3V, 1.8V power, I2S signal, I2C ,SPI of CM712x are from J91, J92, J93, J121 inputs .

All the powers are from J91 (USB Audio Board) or J92 (from CM6210) and J121 (from CM6210), J93.

Please insert the jumpers as following:

**J103 (MCLK selection):**

Connect pin 1 to pin 2, the signal is from J91's signal.

Connect pin 5 to pin 6, the signals is from the J121 of CM6210 MCLK)

**J100 (DACDAT1 signal from J91, connect pin1 to pin2, align left)**

**J104 (ADCDAT1 signal from J91, connect pin1 to pin2, align left)**

**J102 (BCLK1 signal from J91, connect pin1 to pin2, align left)**

**J101 (LRCK1 signal from J91, connect pin1 to pin2, align left)**

**J2 (connect 1.8V power, please insert a jumper)**

J126 (share BCLK to BCLK1~4)  
J127 (share LRCK to LRCK1~4)  
J45 (AVDD18\_DAC\_R 1.8V, please insert a jumper)  
J38 (AVDD18\_DAC\_L 1.8V power, please insert a jumper)  
J50 (HPVDD 1.8V power, please insert a jumper)  
J3 (connect 5V power, please insert a jumper)  
J48 (5V for AVDDHV2, please insert a jumper)  
J41 (1.8V for CPVDD, please insert a jumper)  
J52 (1.8V for HPVDD\_AMPL, please insert a jumper)  
J60 (1.8V for HPVDD\_AMPR, please insert a jumper)  
J13 (1.8V for LDO18\_IN, please insert a jumper)  
J55 (SEL1\_MODE, pull-down is selected I2C mode)  
J61 (LDO1\_EN)  
J30 (GPIO22 is selected for DMIC1 data, please connect pin3 to pin4)  
J32 (GPIO21 is selected for DMIC1 clock, please connect pin3 to pin4)  
J31 (GPIO23 is selected for DMIC2 data, please connect pin3 to pin4)  
J33 (GPIO3 is selected for DMIC2 clock, please connect pin1 to pin2)  
J36 (GPIO24 is selected for DMIC3 data, please connect pin3 to pin4)  
J39 (GPIO16 is selected for DMIC3 clock, please connect pin3 to pin4)  
J37 (GPIO6 is selected for DMIC4 data, please connect pin3 to pin4)  
J40 (GPIO7 is selected for DMIC4 clock, please connect two points only)  
J29 (DMIC 3.3V Power)  
J53 (DBVDD selection, please select 3.3V power, insert a jumper aligning left)  
J4 (connect 3.3V power, please insert a jumper)  
J28 (5V for AVDDHV3, please insert a jumper)  
J56 (1.8V for VAD18, please insert a jumper)  
J26 (connect 3.3V power to AVDD33\_3, please insert a jumper)  
J27 (connect 1.8V power to AVDD18\_1, please insert a jumper)  
J47 (MONOVDD 3.3V power, please insert a jumper)

Notes:

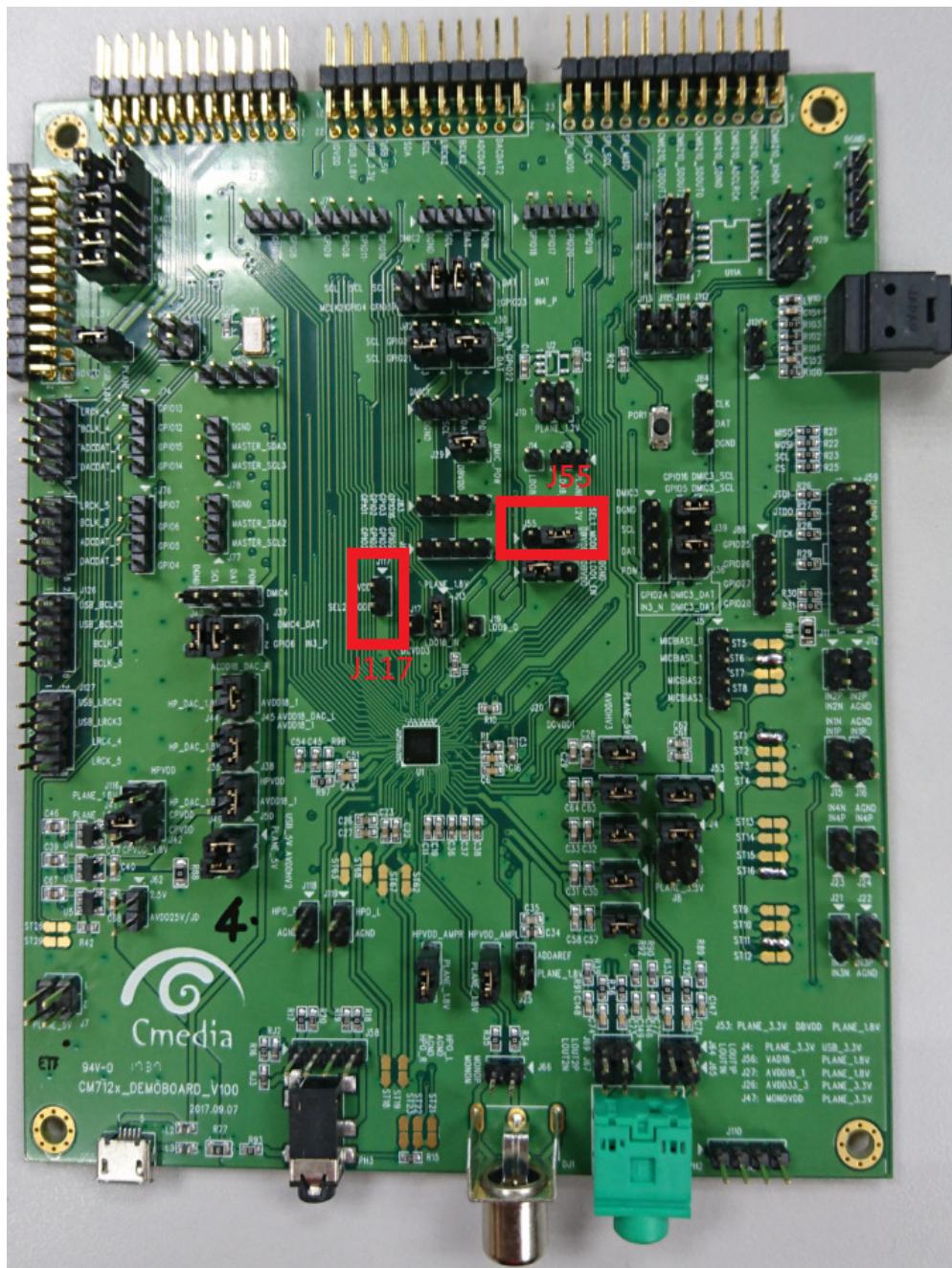
J103 (MCLK selection:

Connect pin 3 to pin 4, the signal is from the oscillator (12.288MHZ) of CM7120 PCB board.

### **3. Especial Attention Control :**

a).J55(SEL1\_MODE) , J117(SEL2\_MODE)

SEL2_MODE	SEL1_MODE	
Low	Low	I2C Control
Low	High	Flash Boot
High	Low	SPI Control
High	High	SLIMBUS Control



b).J53 of DBVDD should be connected to 3.3V, Because DBVDD is also shared with the pin 8 of U11A(W25Q16JV Flash),this pin is needed 3.0~3.6V power 。

