

SDTrans384-Sync-SDT manual

Revision 1.2 2013-08-31

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## **1. Bundled items list**

- (1) SDTrans384-Sync-SDT Rev1.2 completed one substrate
- (2) two 3-pin connector header
- (3) two board fixing spacer
- (4) 3mm $\Phi$  2 screws

## 2. Introduction

### (1) Overview

This substrate is added for realizing a signal transmission SDTrans-Sync mode in SDTrans384

It is a module.

[SDTrans-Sync system]

By placing the master clock source to the nearest DAC chip, the clock signal transfer

While minimizing the deterioration of the quality due to transmission, the transponder in the audio data transfer

Over it is To and construction method that allows clock synchronization of the DAC.

### (2) Abbreviation

The in this manual uses the following abbreviations.

- SDTrans384-Sync-SDT board ⇒ Sync-SDT board (the board)
- SDTrans-Sync-9018D board ⇒ Sync-9018D board (DAC)

### (3) Please design

- to the board of the built-in, you must have some modifications to SDTrans384 board. The contents of this manual  
Well on the check, thank you a reliable work.

- it is undone after incorporating this substrate is possible. In preparation for this case, the pictures before retrofit  
It is recommended that you leave.

Please pay attention to static electricity when handling ○.

#### (1) firmware update

Latest firmware at the moment is **3.25**. If your existing version is older than this  
, Please update to the latest version of the firmware. Especially DAC board SDTrans-Sync-9018D a set  
If you match seen, it requires 3.24 or later.

How to check the version and update method, please refer to the instruction manual of SDTrans384 board.

[Supplement]

In firmware 3.25, DSD / PCM identification signal output has been added. 10 pin of CN14

To, DSD playback = "H", is output at the PCM playback = "L".

#### (2) the exchange of configuration **ROM**

SDTrans384 IC that are stuck in an 8-pin DIP socket of the substrate center is the configuration ROM.

At the same time as the Sync-SDT of built-in, please replace the configuration ROM of Sync-SDT compatible version.

There is no compatibility to Sync-SDT-supported version and a non-compatible version.

The latest compatible version of at the moment is **24**.

#### (3) Jumper change

JP3 is short in the standard setting, but next to the JP4 is open, we will do this in reverse. Implemented in JP3  
It is to remove the jumper has, please soldered to JP4 (photos of state). This jumper 1608  
It is a small surface mount components of the size. Please note the loss of work.

#### (4) **3-pin** connector attachment of the header (**2 places**)

CN1 and CN7, both in the standard setting "I" - "E" between has been the jumper in the plating line. The self  
Remove the ~Yanpa, please to the attached 3-pin connector header soldered.

This work requires a large soldering iron of heat capacity. If it did not go well in DISTRIBUTORS  
Please contact us. There is a risk of damaging the board when the impossible with a small soldering iron.

Three

**(5) Setting the DIP switch**

Set to turn on the SW1-2. This SDTrans384 will be "PCM + DSD mode".

When combined with the DAC board Sync-9018D, distinguish between the WAV file · DFF file without playback can Vinegar.

**(6) Installation of the **Sync-SDT** board**

Finally, attach the Sync-SDT board SDTrans384 body. Using the attached spacer,  
Please firmly fixed.

Four

**4. Before using**

**(1) connection between the **DAC****

Commercially available HDMI cable can be used to connect between this board and the DAC.

On the characteristics of the SDTrans-Sync method, length and material of the HDMI cable, it affects the sound and behavior. There is a possibility. If possible, please try to become to try a variety of length and type of cable.

For reference, we used the cable following the operation check of the development phase.

- ELECOM made HIGH SPEED Slim HDMI cable DH-HD13AS10BK

- (2) power on the order of  
Please on the power in the order of DAC⇒SDTrans384. It can be simultaneous.  
Please SDTrans384 is sure that it does not earlier than the DAC.

(3) power supply monitor **LED**

From SDTrans384 when it is turning on this board through CN7 LED3 lights.

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## 5. Supplementary

(1) **HDMI** connector pin assignment

CN3	Pin name	I / O	Function (During PCM playback)	Function (DSD during playback)
1	SDO-	O	I2S data (SDAT) -	R-ch data (DSDR) -
2	GND	-	Grand	
3	SDO +	O	I2S data (SDAT) +	R-ch data (DSDR) +
4	BCK +	O	Bit clock (DCLK) +	
5	GND	-	Grand	
6	BCK-	O	Bit clock (DCLK) -	
7	LRCK-	O	I2S word clock (LRCK) -	L-ch data (DSDL) -
8	GND	-	Grand	
9	LRCK +	O	I2S word clock (LRCK) +	L-ch data (DSDL) +
10	MCLK +	I	The master clock (MCLK) +	

11 GND	-	Grand
12 MCLK-	I	The master clock (MCLK) -
13 N / C	-	Vacancy
14 N / C	-	Vacancy
15 SCL	I / O	I2C of SCL
16 SDA	I / O	I2C of SDA
17 GND	-	Grand
18 POWER	-	3.3V power supply
19 GND	-	Grand

Because it has adopted a SDTrans-Sync system, MCLK (pin number 10, 12) it has become input.  
PS-Audio and pin assignment is the same, but you will not be able to connect.

The pin number 18 has been output is 3.3V power received from SDTrans384 board. This is  
It is used as an audio data interface unit power of Sync-9018D board.