

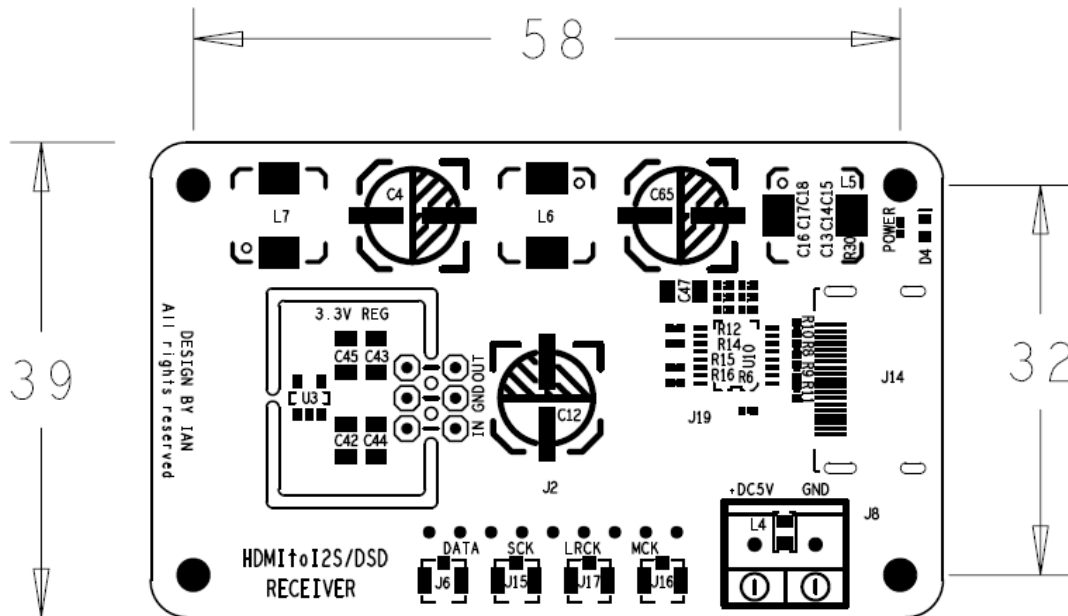
HDMIpi PCM/DSD/DoP receiver user's guide

By Ian Jin May 31, 2019 Ver. 1.0

A. Highlighted Features and Specifications

- Receives balanced LVDS signals from HDMI cable and converts them into PCM/DSD/DoP digital music signals in LVTTTL logic level
- Standard PCM/DSD/DoP to HDMI signal configuration
- Receives PCM signals up to 768KHz
- Receives native DSD signals up to DSD1024
- Receives DoP signals in PCM package up to DSD256
- Outputs digital music signals either in high quality u.fl connectors or in optional SIP connector
- Can pick up power from HDMI cable when works with HDMIpi Transmitter (default)
- Replaceable 3.3V regulator board ready for higher quality power supply upgrade
- DIY friendly design

B. Layout and Dimensions (in mm)



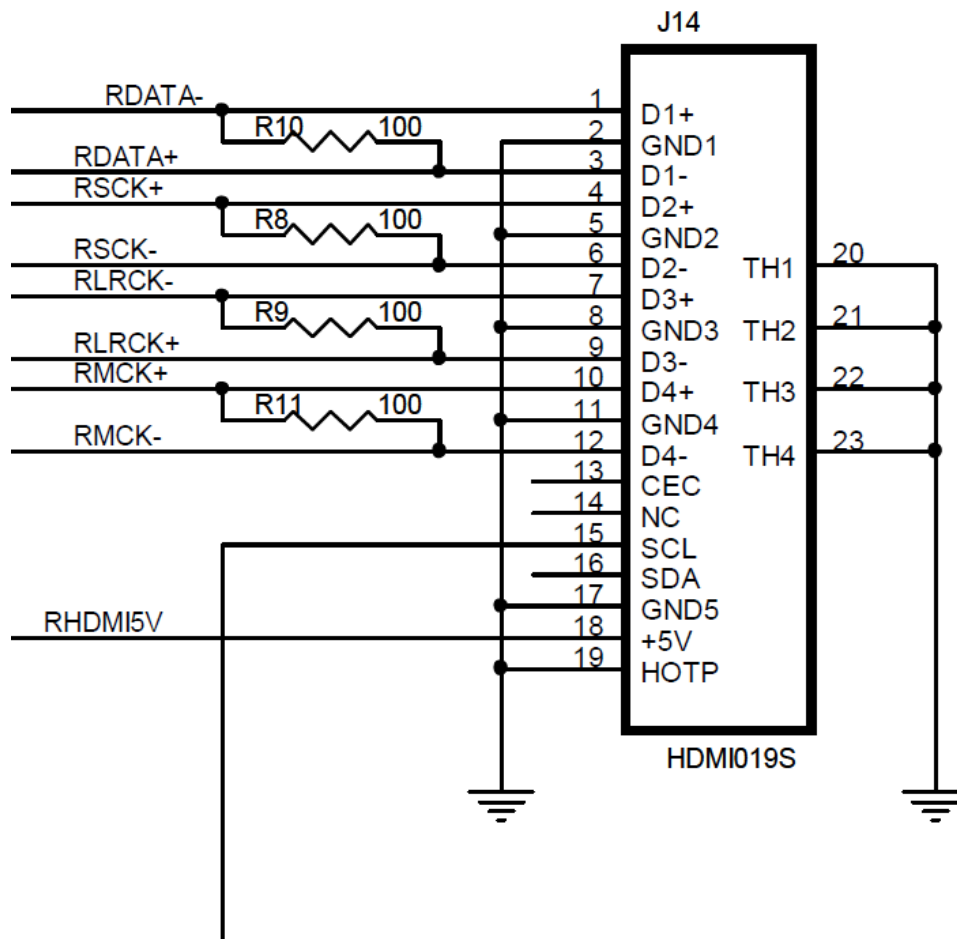
C. Getting start

1. Connect MLK, SCK, LRCK/D1 and SD/D2 signals to your DAC either from high quality u.fl connectors (default) or from SIP connector (J2).
2. Connect HDMI cable from transmitter into HDMI connector J14.
3. Power and run transmitter section normally.

D. Connectors

J14: HDMI input connector

Standard HDMI type A connector. To receive LVDS PCM/DSD/DoP signals from transmitter through HDMI cable. For higher signal quality, high speed HDMI cables version 2.0 or higher are recommended. Please refer the following schematic for signal configurations.



J16: MCK output (u.fl coaxial cable socket)

J15: High quality SCK output (u.fl coaxial cable socket)

J17: High quality LRCK/D1 output (u.fl coaxial cable socket)

J6: High quality SD/D2 output (u.fl coaxial cable socket)

J2: Optional PCM/DSD/DoP output in 9 pins SIP connector

Pin numbers	Signals
2	SD/D2 output
4	SCK output
6	LRCK/D1 output
8	MCK output
1,3,5,7,9	GND

J2 was not installed by default. Please solder the supplied SIP connector into J2 position if need to use.

J8: Optional DC power input

If don't want to pick up power from HDMI cable (default), you can connect a 5V DC / 100mA (minimum) power supply to the 2-pin 5.0mm terminal J3. MAINTAINING CORRECT POLARITY!!! Low noise linear 5V power supply will be good for HDMIpi receiver. Direct-connected 3.3V ultra capacitor / LifePO4 battery power supply can also be used.

J8 was not installed by default. L4 needs to be removed before soldering the supplied terminal block to J8 position.

J19: Optional control output

Reserved optional logic output signal that can be received from the transmitter.

Note: All output/input signals are in LVTTTL (3.3V) logic level except power and ground.

E. LED indicator

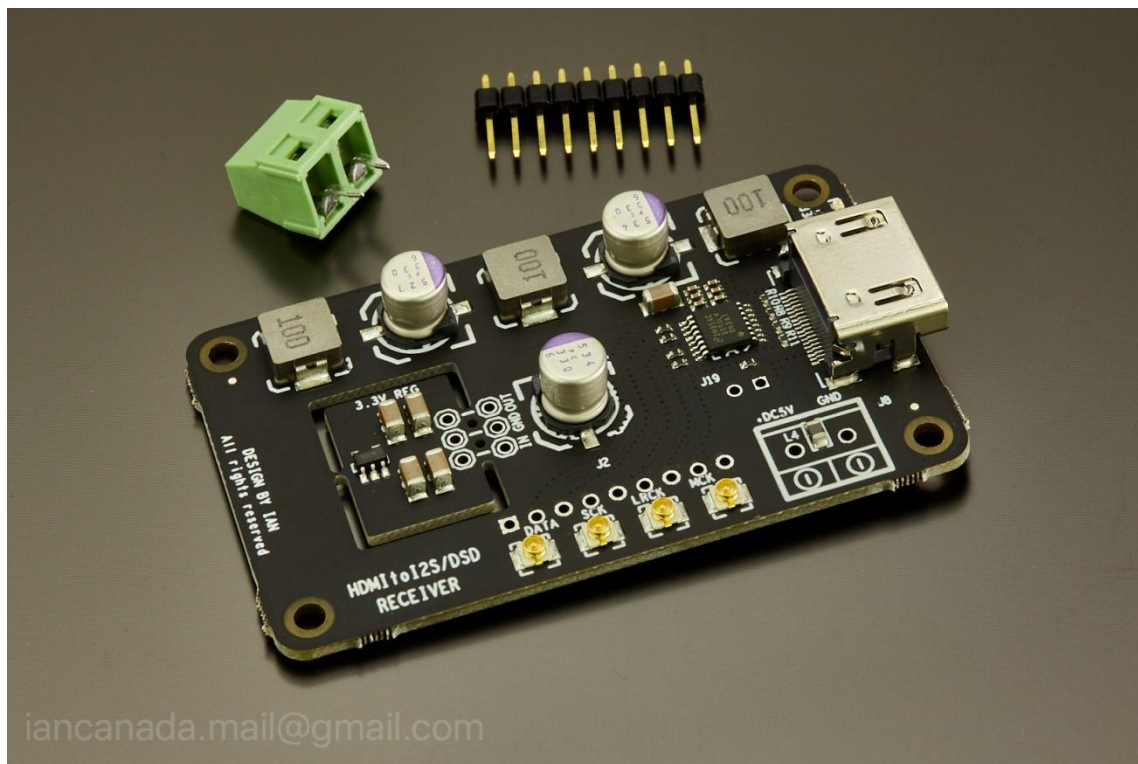
D4: Power indicator

F. Upgrade options

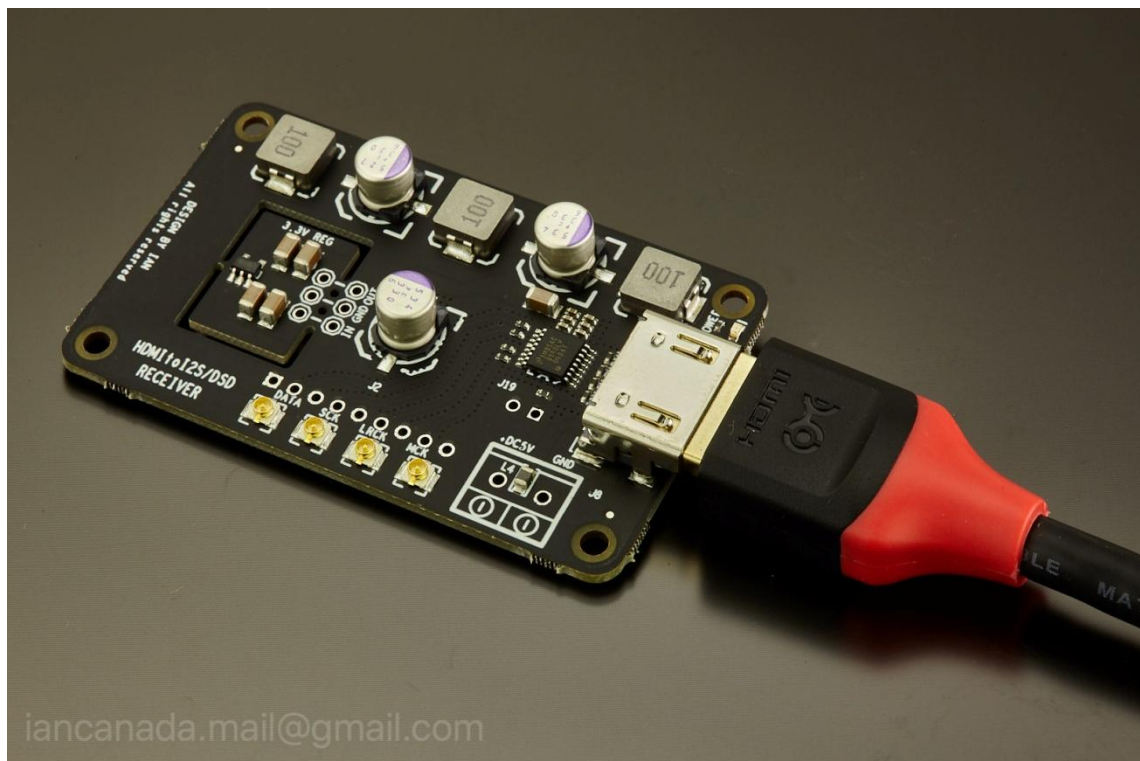
1. Replace on-board 3.3V regulator with ultra-low noise regulator board such as LT3042/LT3045 or so on.
2. Using independent high quality power supply through J8 rather than picking up power from HDMI cable. Need to remove L4 first, and then solder the supplied terminal power connector to the J8 position.
3. Use Direct-connected 3.3V ultra capacitor / LifePO4 battery power supply. In this setup, 3.3V regulator board can be removed with IN and OUT pins bridged together.

G. Pictures of HDMIpi PCM/DSD/DoP receiver

1. HDMIpi PCM/DSD/DoP receiver as shipped



2. HDMIpi PCM/DSD/DoP receiver with HDMI cable



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