DDDAC1543 mk2

Modular system NOS DAC

with

SPDIF input
and /or
USB input

USB to SPDIF / I2S converter

By Doede Douma
Updated December 1st 2005

http://www.dddac.de/
Notes:
All I2S Signals to the TDA1543 Towers are Buffered with 74VHC125
The 74VHC125 uses a separate 3.5 Volt Power supply
to properly interface with both Receivers
*) Alternatively a 11.2896 MHz Clock can be used
Notes:
In case a 11.2896 MHz Clock is used, use following Outputs from 74VHC4040:
   BCK ~
   FS ~
NB: The PCB has an option to choose between both kind of clocks by patching wirebridges

DDDAC 1543 DAC-mkII

Update: 05-09-2005   Author: Doede Douma
Revision: 5.0   Built: YES
Design ready: YES   Page: 2 # 7
Output Selection Receiver PCB

External I2S Input

SPDIF

External I2S / SPdif
Open – Closed –

Outside Main PCB

DDDAC 1543 DAC-mkII

Update: 05-09-2005  Author: Doede Douma
Revision: 5.0  Built: YES  Design ready: YES  Page: 3 # 7
**Notes:**

In case more than 1 DAC TOWER is used, Rload on MAIN DAC board need to be changed 
Rload ~
The Output DC Bias Voltage can be tweaked to optimum 3.85 Volt by slightly changing the Rload
Output Capacitor should always be changed to one of own personal choice ! This is the best tweak possible
DDDAC personal Choice is 470 nF Mundorf Silver in Oil

**DDDAC 1543 DAC-mkII**

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Design ready: YES
Page: 5 # 7
Power Supply DAC Tower PCB

To slave DAC Boards

Notes:
IC3 must be cooled with min 10K/W element (SK104-50)

DDDAC 1543-mkII
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USB I2S Receiver & DAC

Notes:
Bridge appropriate jumpers for X-tall or Tent clock
I2S / DAC Select: When “select” is pulled “LOW” I2S output is enabled. When “select” is left open, Internal DAC is enabled

USB I2S receiver & DAC
Update: 25-11-2005  Author: Doede Douma
Revision: 1.2  Built: YES  Design ready: YES  Page: 1 # 3
Typical SETUP for the DDDAC1543 MK2

USB in

SPDIF in

DDDAC LF OUT

R-Load =
Tweak R-load for optimum DC Bias (3.85V)

Do NOT install R-load at the slave board

Master Board

Slave Board

LED Status LED Connections

DC Power 12V

Jumper Tent Clock Frequency select

Switch open: SPDIF Receiver I2S to DAC Board
Switch closed: USB Receiver I2S to DAC Board

Switch open: LF Output from internal DAC and dataline output is SPDIF Signal
Switch closed: LF Output mute and I2S signal to DDDAC