

1

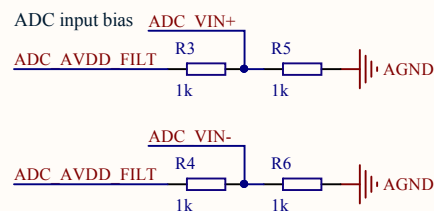
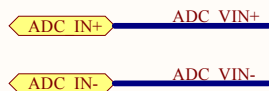
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3

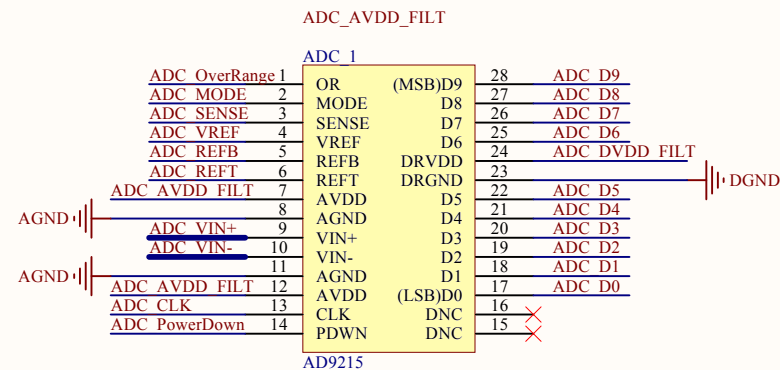
4

A

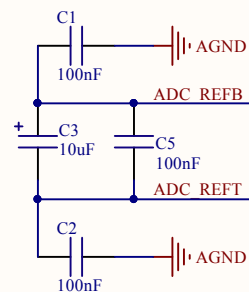
A



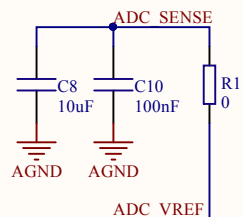
AD9215 Analog Digital Converter
80 MS/s data rate
+3.3V Digital CMOS Logic
10Bit



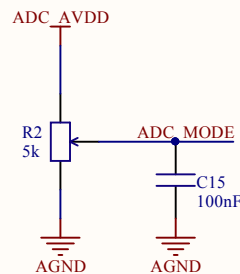
Reference voltage decoupling



Reference voltage selection
ADC_REF=ADC_SENSE => Vpp=1V
AGND=ADC_SENSE => Vpp=2V



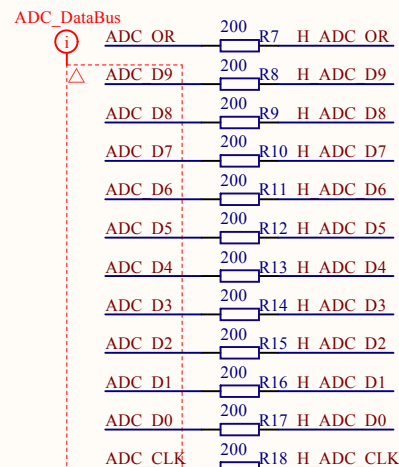
Data format and clock duty cycle stabilizer selection
2Comp, Stabilizer On 2/3AVDD



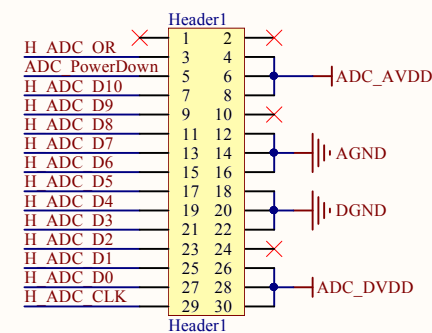
Serial resistor for reflection attenuation
on digital data interface

The final length of the digital lines must be equal

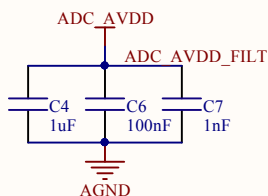
The resistor's placement must not influence the track length difference



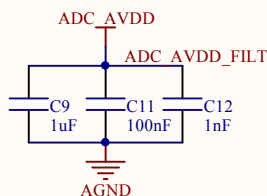
Samtec DIL 90° TH Header
ADC_DVDD = +3.3V
ADC_AVDD = +3.3V



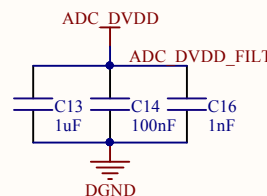
Power Supply Filtering



Power Supply Filtering



Power Supply Filtering



Title
ADC board for signal acquisition

Size	Number	Revision
A4	v1.0	
Date:	2018.09.08.	Sheet of
File:	D:\DIY\HW\ADC_board.SchDoc	Drawn By: Kolos Koblács

1

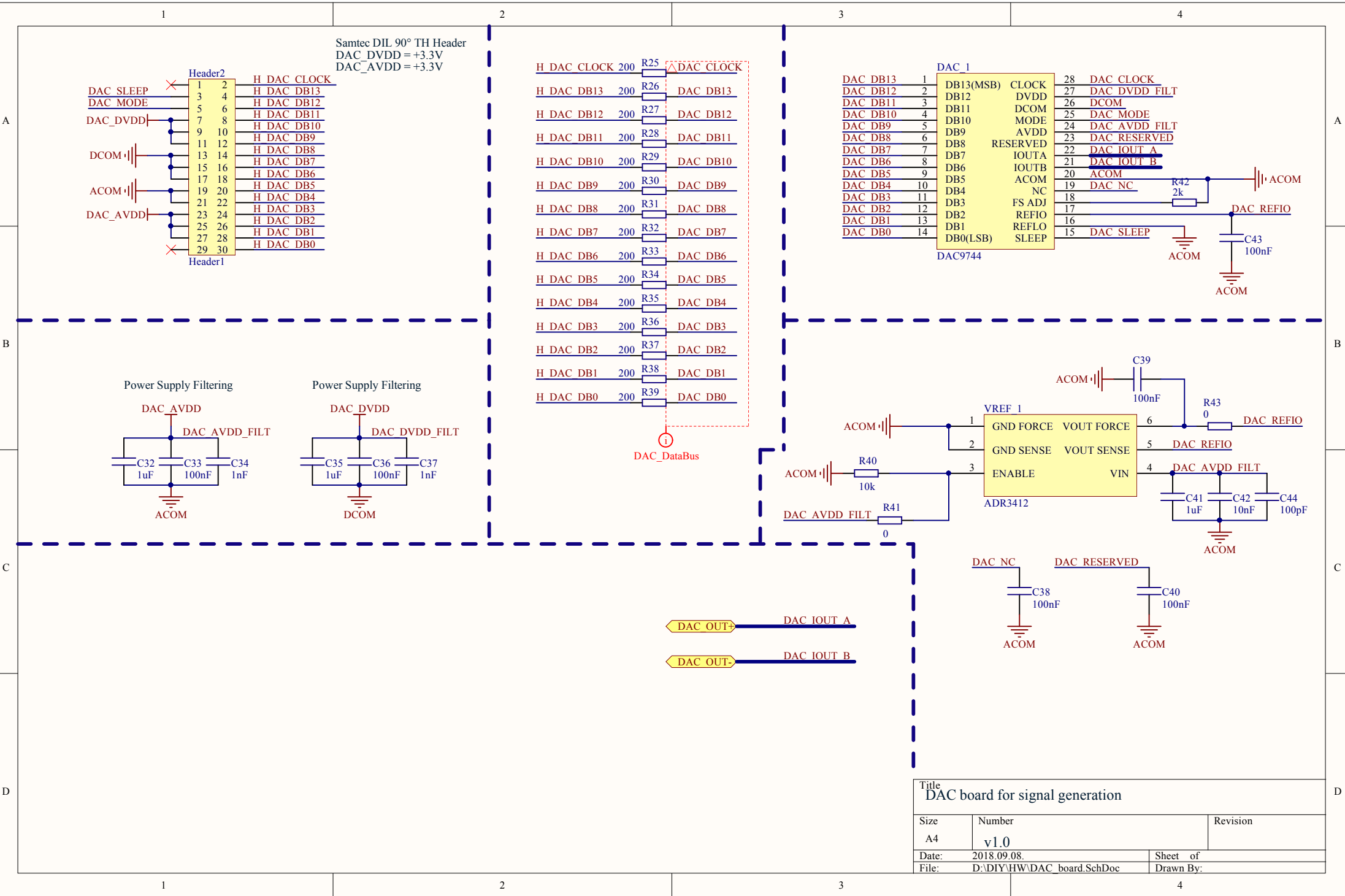
2

3

4

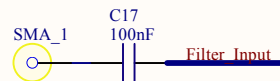
D

D



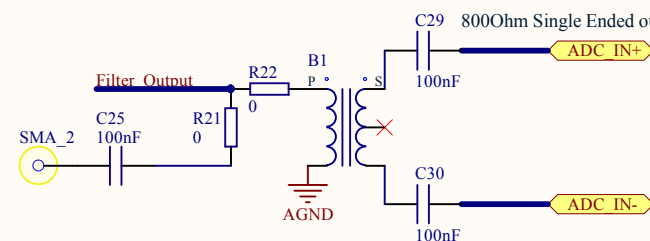
Title		
DAC board for signal generation		
Size	Number	Revision
A4	v1.0	
Date:	2018.09.08.	Sheet of
File:	D:\DIY\HW\DAC_board.SchDoc	Drawn By:

Mixer Board Interface
50Ohm Single Ended input

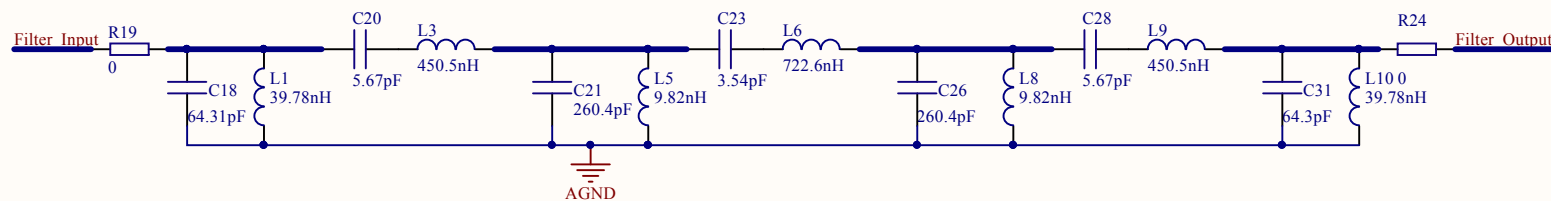


ADC interface

800Ohm Single Ended output

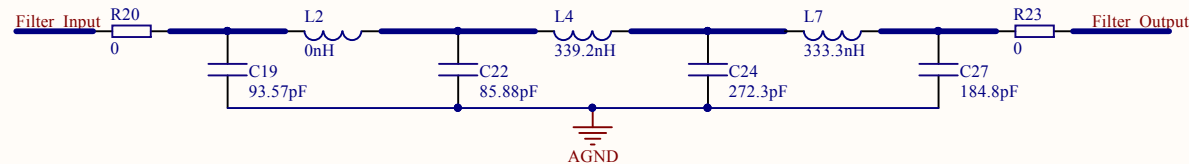


Band Pass Filtered signal path



Fstart=90MHz
Fstop=110MHz

Low Pass Filtered signal path



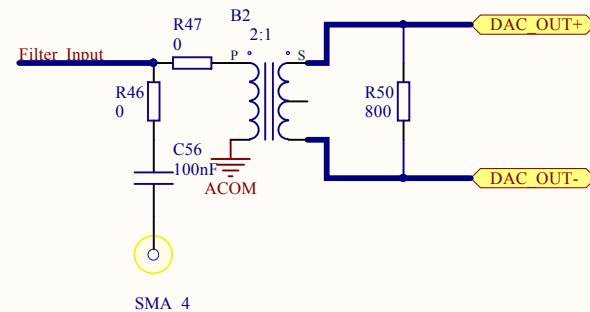
Fstart=0.3MHz
Fstop=30MHz

Title ADC Filter for antialiasing		
Size A4	Number v1.0	Revision
Date: 2018.09.08.	Sheet of	
File: D:\DIY\HW\ADC_Filter.SchDoc	Drawn By:	Kolos Koblász

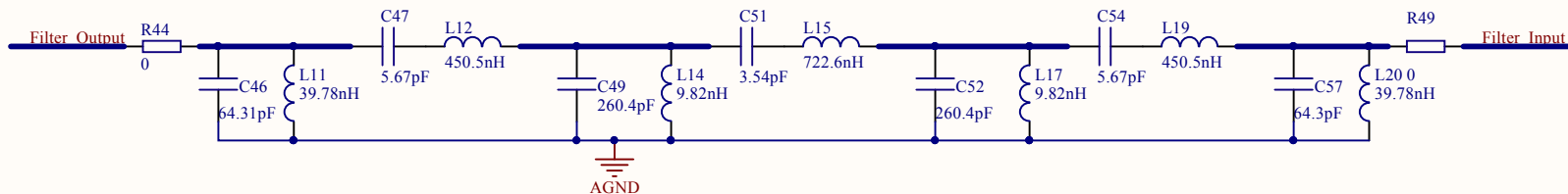
Mixer Board Interface



DAC interface

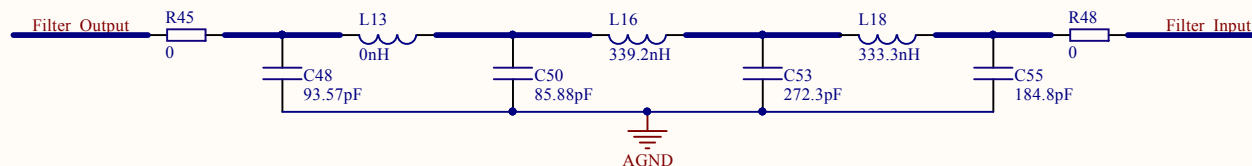


Band Pass Filtered signal path



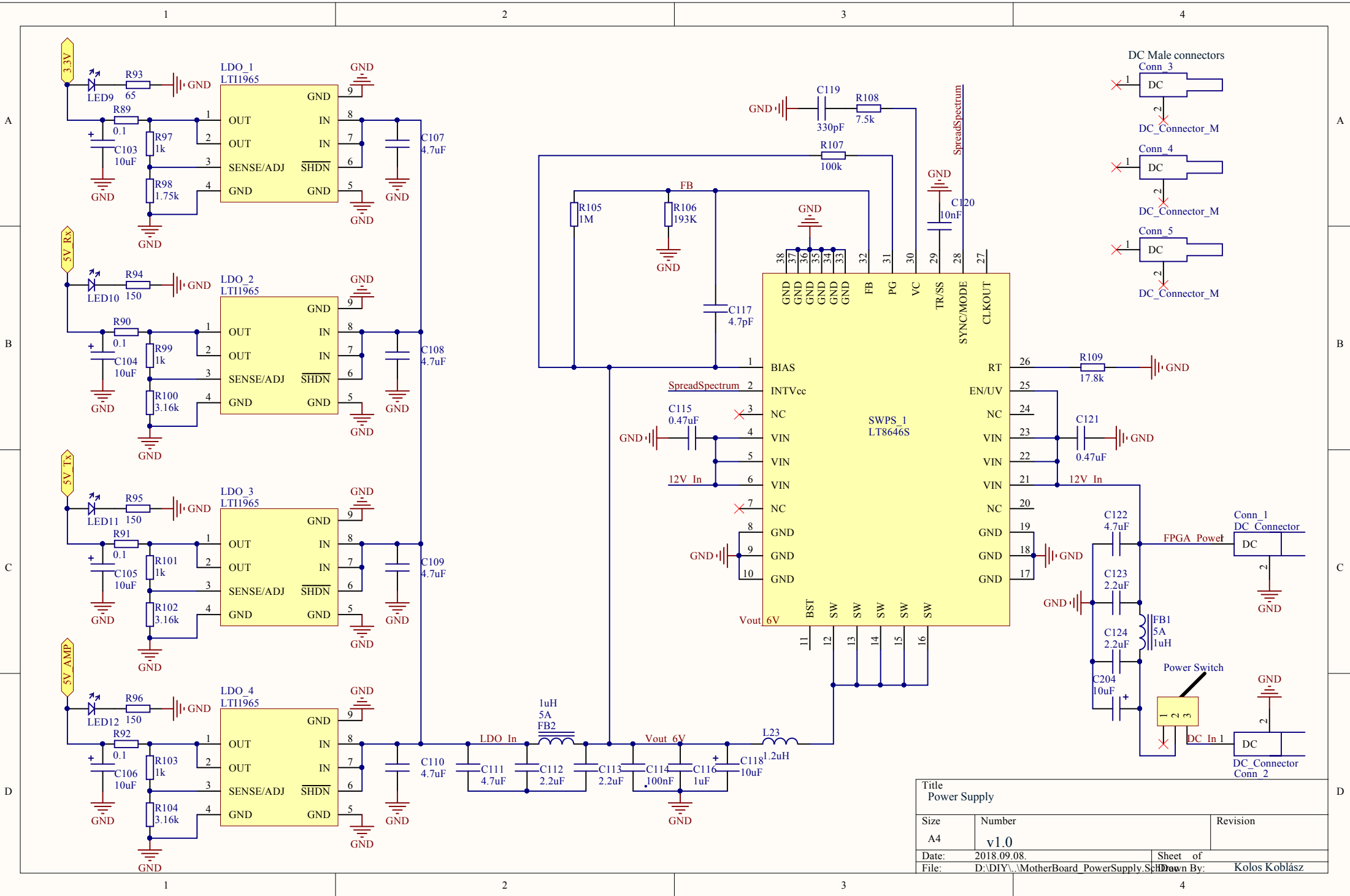
Fstart=90MHz
Fstop=110MHz

Low Pass Filtered signal path



Fstart=0.3MHz
Fstop=30MHz

Title DAC Filter for signal reconstruction			
Size	Number		Revision
A4	v1.0		
Date:	2018.09.08.	Sheet of	
File:	D:\DIY\HW\DAC_Filter.SchDoc	Drawn By:	Kolos Koblász



Title		
Power Supply		
Size	Number	Revision
A4	v1.0	
Date:	2018.09.08.	Sheet of
File:	D:\DIY\MotherBoard PowerSupply.Sch	Drawn By: Kolos Koblász

A

B

C

D

A

B

C

D

