Specialization Project - Weekly meeting

Fredrik Feyling

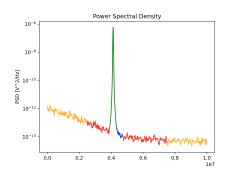
August 28, 2020

Since last week

This is a text in first column.

$$E = mc^2$$

First item
Second item



Timeline

Activity\Week	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	Comments
Understand behaviour																			
Control-Bounded ADC																			
Python Simulation C-B ADC																			
First Python Sim Ready		П		х															
Optimize analog		П																	
filter/digital control		Ц																	
Second Python Sim		П				х													
Implement building blocks		П																	To obtain estimate for power
in Cadence																			consumption
Synthesize Verilog for		П																	To obtain estimate for power
digital estimation	_	ш																	consumption
First Power Estimate	l	П						х											
Ready	_	Ш						^											
Cadence implementation																			Full analog part and digital control
Final Simulation Results		П																	
ready													Х			Ι.	<u> </u>		
Report writing																			
Report deadline		П																х	19.12.2020

Today

Timeline

Activity\Week	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	Comments
Understand behaviour																			
Control-Bounded ADC																			
Python Simulation C-B ADC																			
First Python Sim Ready		П		х															
Optimize analog		П																	
filter/digital control		Ц																	
Second Python Sim		П				х													
Implement building blocks		П																	To obtain estimate for power
in Cadence																			consumption
Synthesize Verilog for		П																	To obtain estimate for power
digital estimation	_	ш																	consumption
First Power Estimate	l	П						х											
Ready	_	Ш						^											
Cadence implementation																			Full analog part and digital control
Final Simulation Results		П																	
ready													Х			Ι.	<u> </u>		
Report writing																			
Report deadline		П																х	19.12.2020

Today

Specs

Table: ADC Specs

Parameter	Symbol	Value	Comment
Carrier Frequency	f_c	5 MHz	_
Bandwidth	${\cal B}$	5 MHz	2.5-7.5 MHz
Effective number of bits	ENOB	> 10 bits	
Noise density	$\overline{V_n}$	$< 10\mathrm{nV}/\sqrt{\mathrm{Hz}}$	NF=3dB
Supply Voltage	V_{dd}	< 0.8V	
Power Consumption	P_{tot}	$< 50\mu W$	$500{\rm aJ/c.s^{12}}$



 $^{^1 \}mbox{Walden FOM}$

²Hårete mål