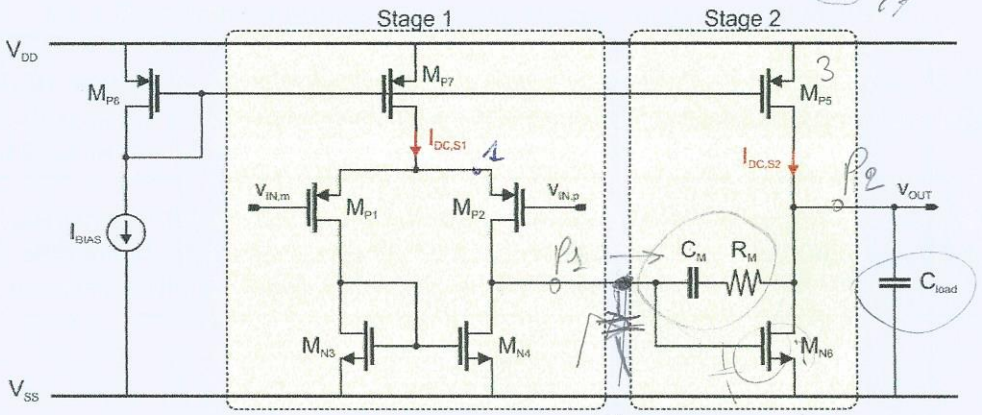
Analog Electronic Circuits – 2015-2016
Design Project Report

1. Group data

Group number	8
Name – Student 1	Nathan Dwek
Name – Student 2	Gauthier Duchene
Name – Student 3	Sacha Maes

2. Circuit Schematic



3. Performance summary

Metric	Units	Specification	Matlab	Spectre
C_{load}	pF	50		
DC gain	dB	48		
f_{GBW}	MHz	70		
Phase margin	°	760		
Output swing	V	70.8		
Dominant pole	kHz			
Input common mode range	V			
Current consumption ($I_{DC,S1}$+ $I_{DC,S2}$)	A			
FoM ($f_{GBW}.C_{load}/(I_{DC,S1}+ I_{DC,S2})$)	MHz.pF/mA	Maximize		

4. Device sizes and bias point parameters

Device	W [µm]	L [nm]	I_{ds} [µA]	$V_{overdrive}$ [V]	g_m [S]	g_{ds} [S]	g_m/g_{ds} [-]	$V_{ds,sat}$ [V]	V_{ds} [V]
M_{p1}									
M_{p2}									
M_{n3}									
M_{n4}									
M_{p5}									
M_{n6}									
M_{p7}									
M_{p8}									