

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
Gravitation and Cosmology Research Group  
Cambridge, Massachusetts 02139

MIT GRAVITY GRP. FAX #617-253-7014  
CONFIRMATION # 617-253-4824

Facsimile Cover Sheet

Facsimile Cover Sheet

Facsimile Cover Sheet

DATE: 8/15/96 TIME: 11:30am (E.T.)

TO: Dale Ouimette FAX#: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

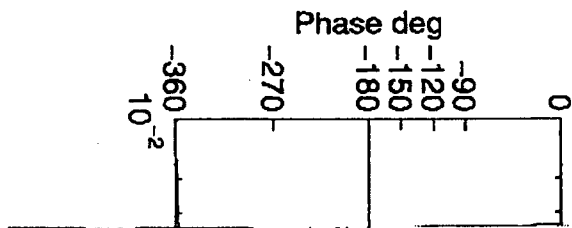
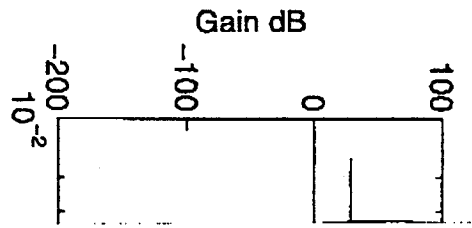
NUMBER OF PAGES (including this cover sheet): 23

FROM: Brian OFFICE #: (617)253-0203

Massachusetts Institute of Technology  
Room 20B-145  
Cambridge, Massachusetts 02139

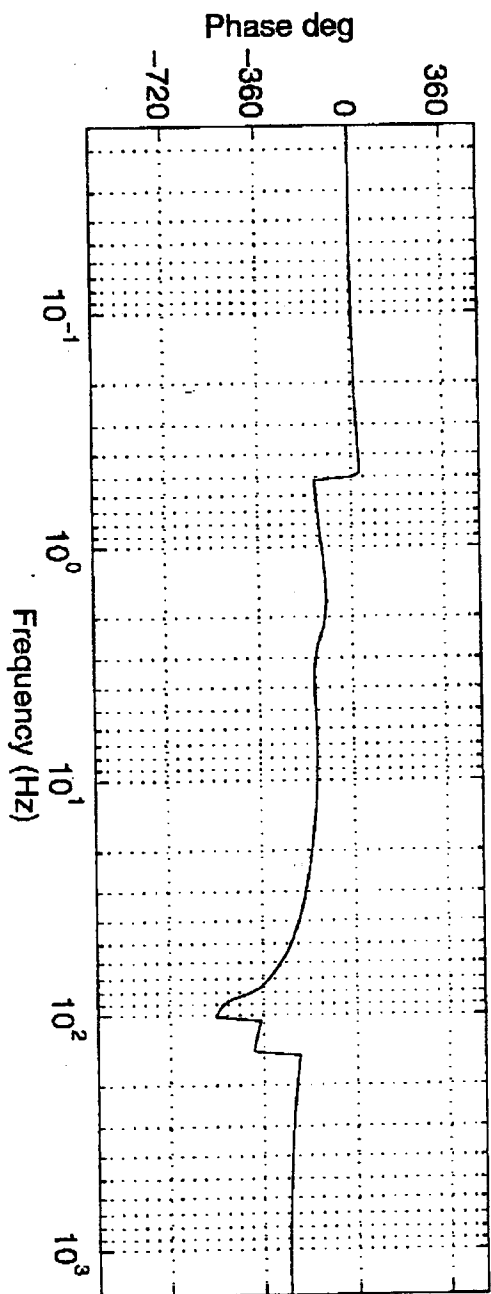
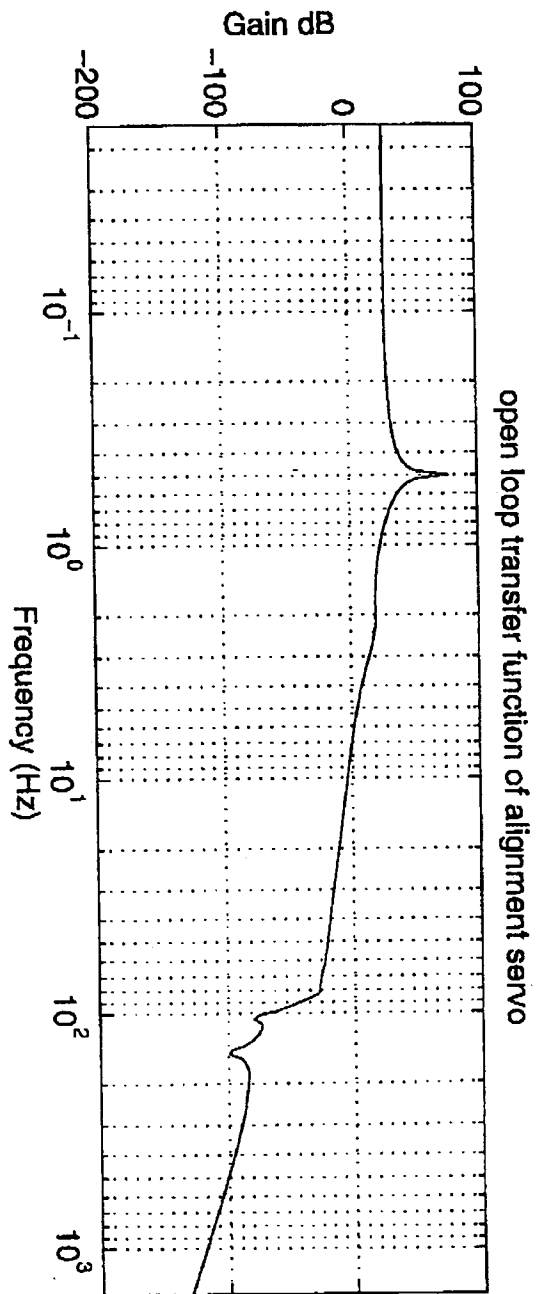
NOTES: Dale, here are a bunch of Transfer  
functions and schematics for the WFS servo.  
I'll also send you some email with a ~~brief~~  
brief description.

Enjoy!  
Brian Lantz  
brian@tristram.mit.edu  
617-253-0203

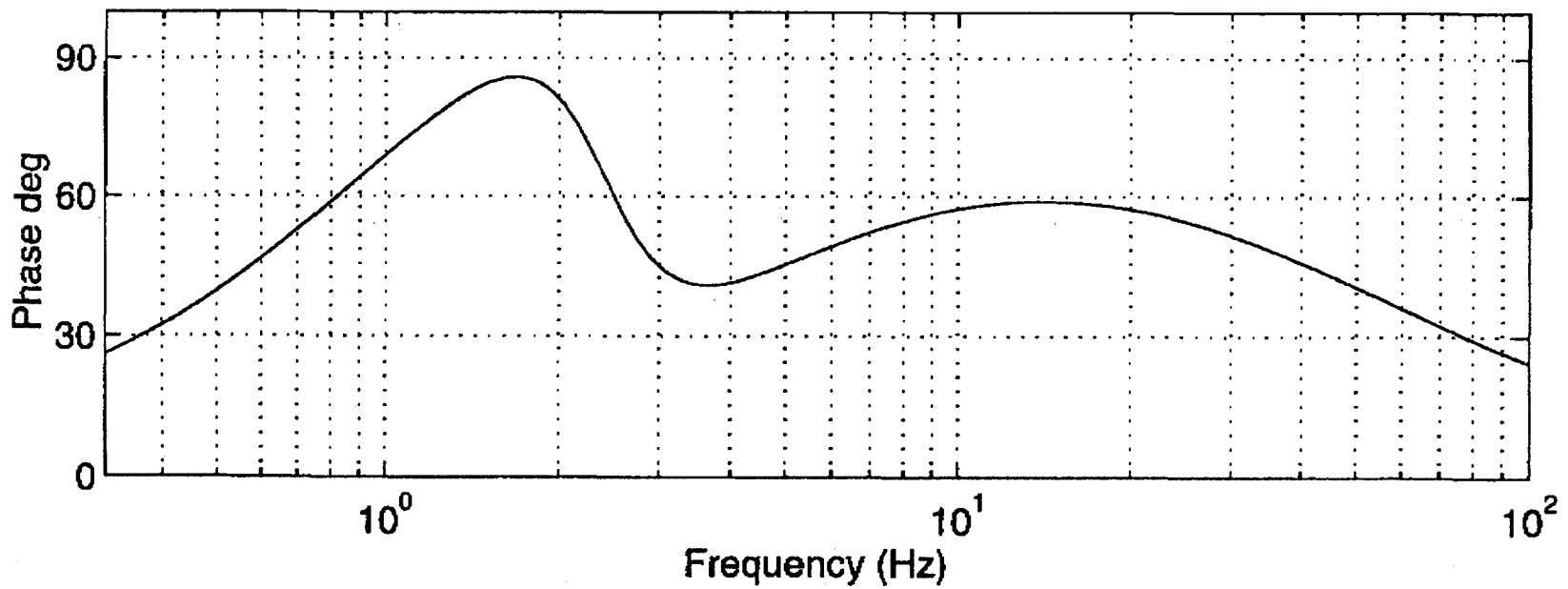
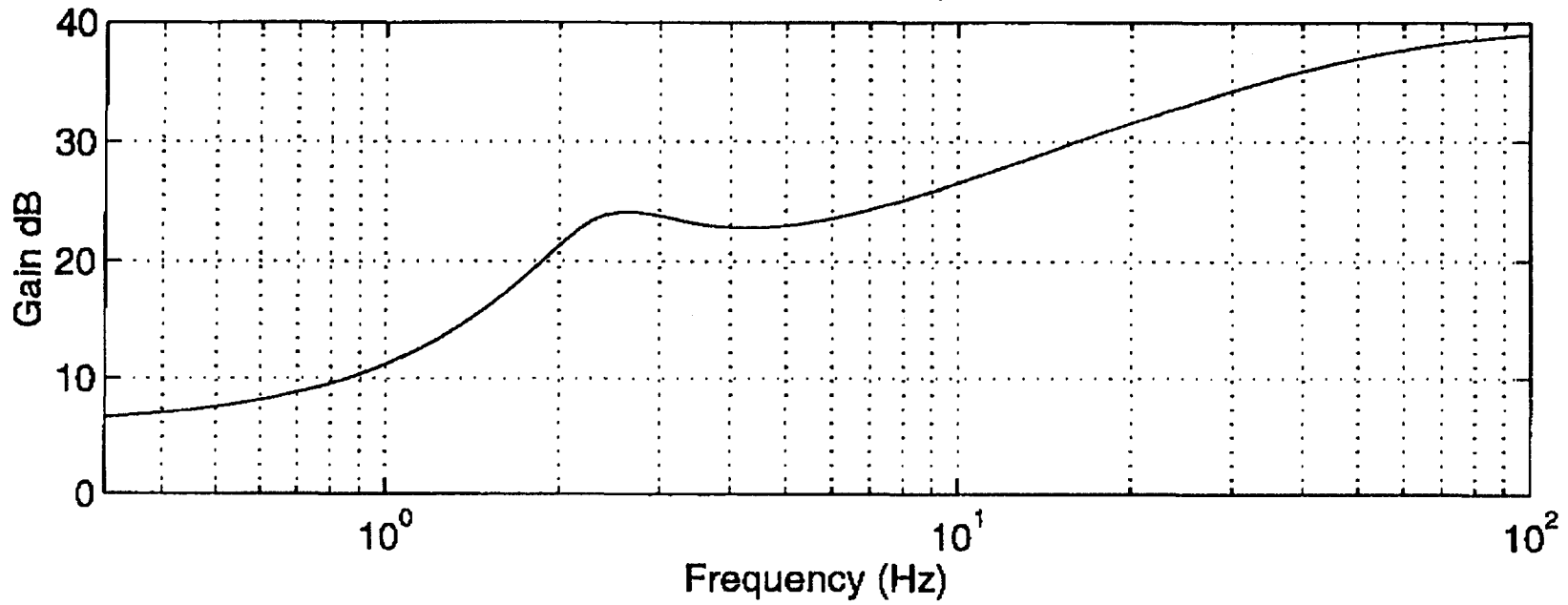


Gain dB

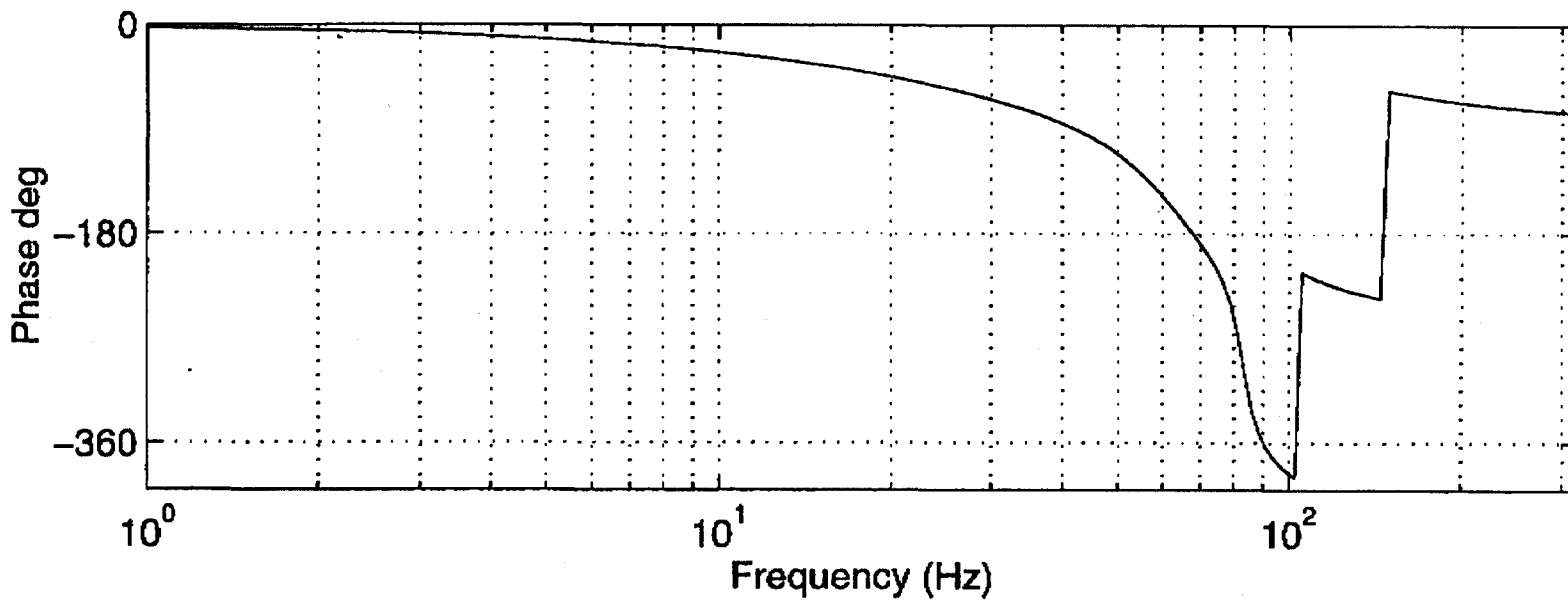
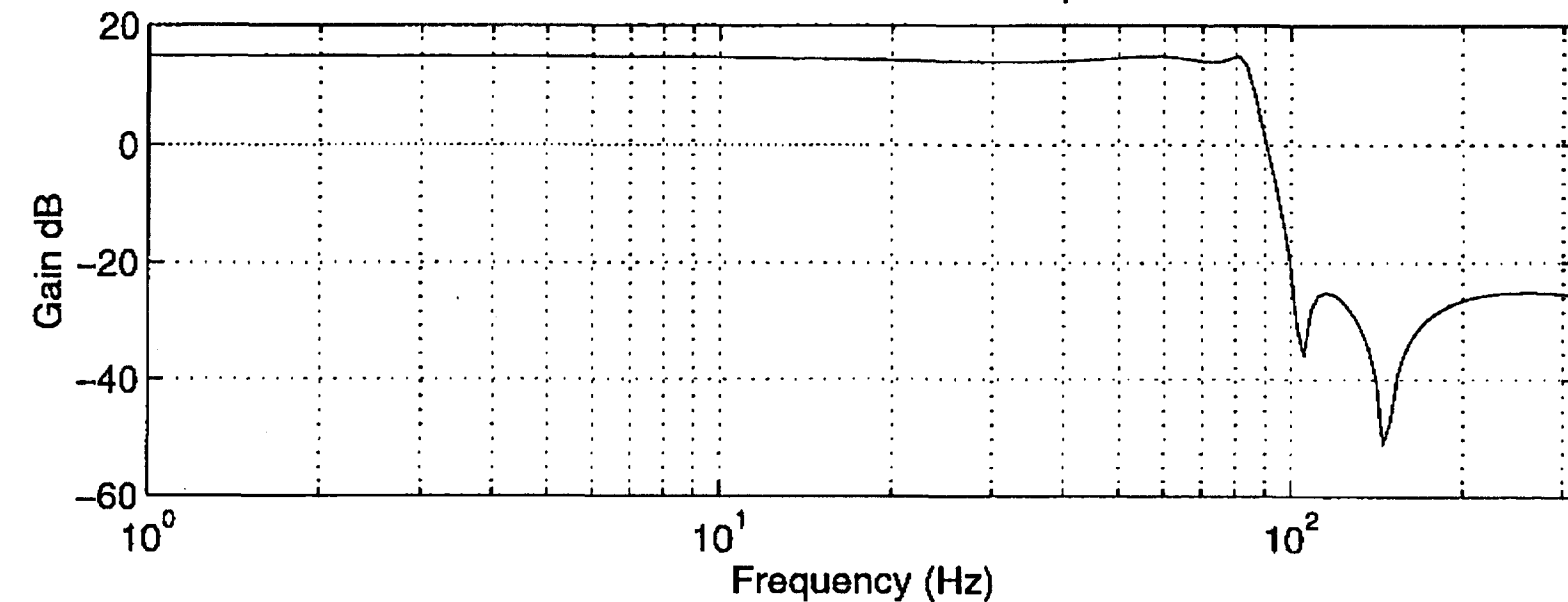
Phase deg

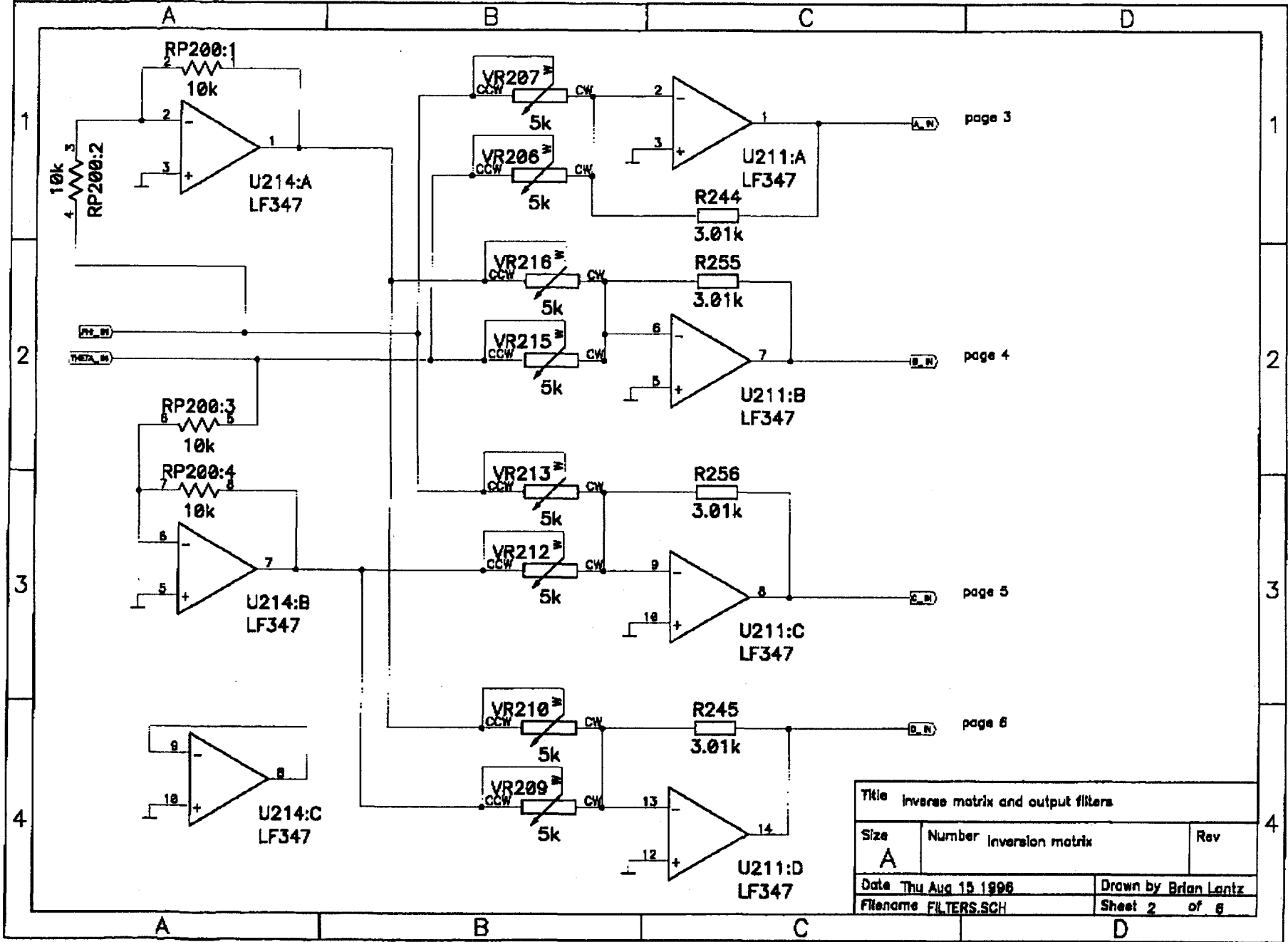


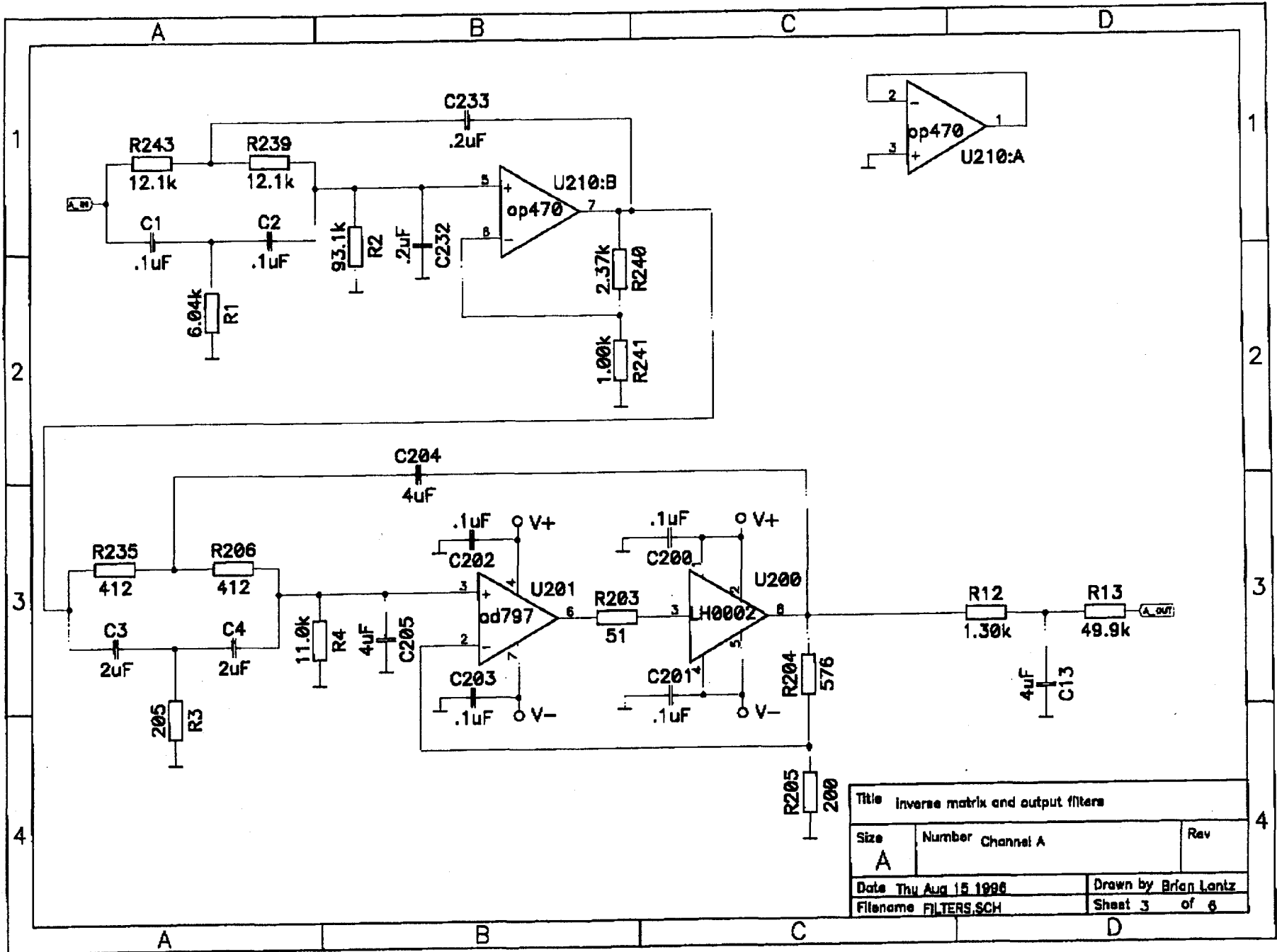
transfer function of servo compensation block



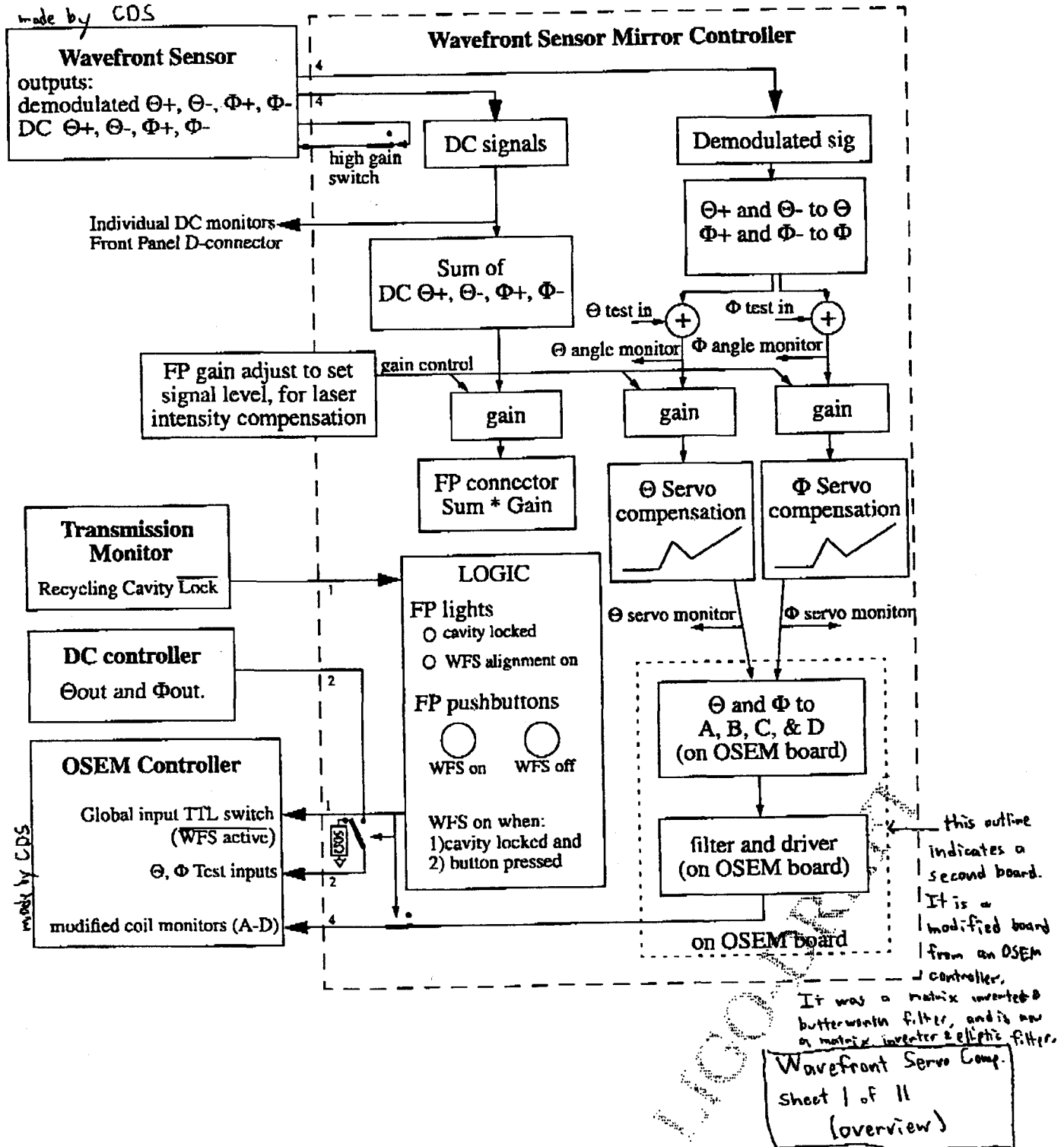
transfer function of 5th order elliptic filter

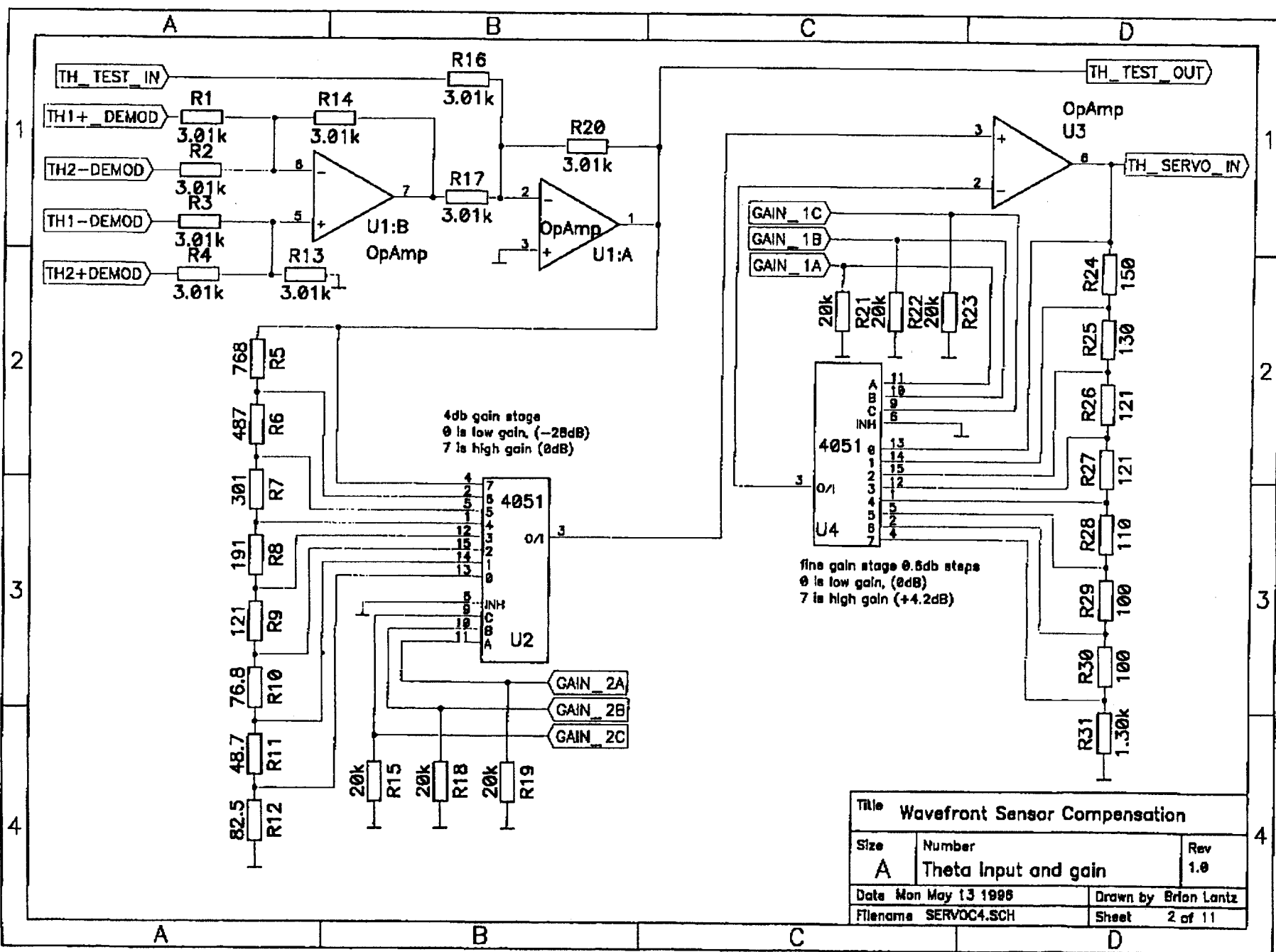






Title Inverse matrix and output filters		
Size A	Number Channel A	Rev
Date Thu Aug 15 1996	Drawn by Brian Lantz	
Filename FILTERS.SCH	Sheet 3 of 6	

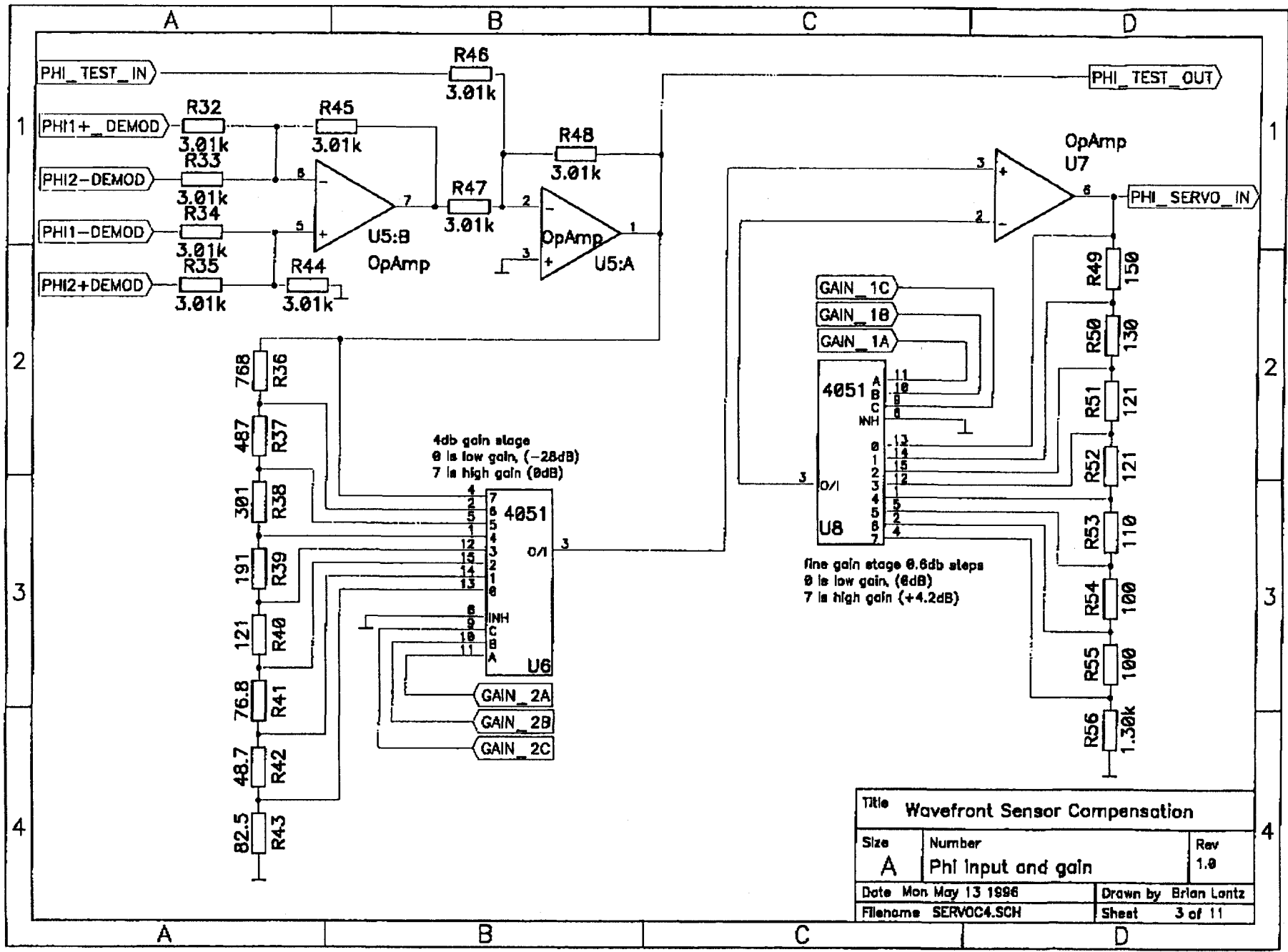




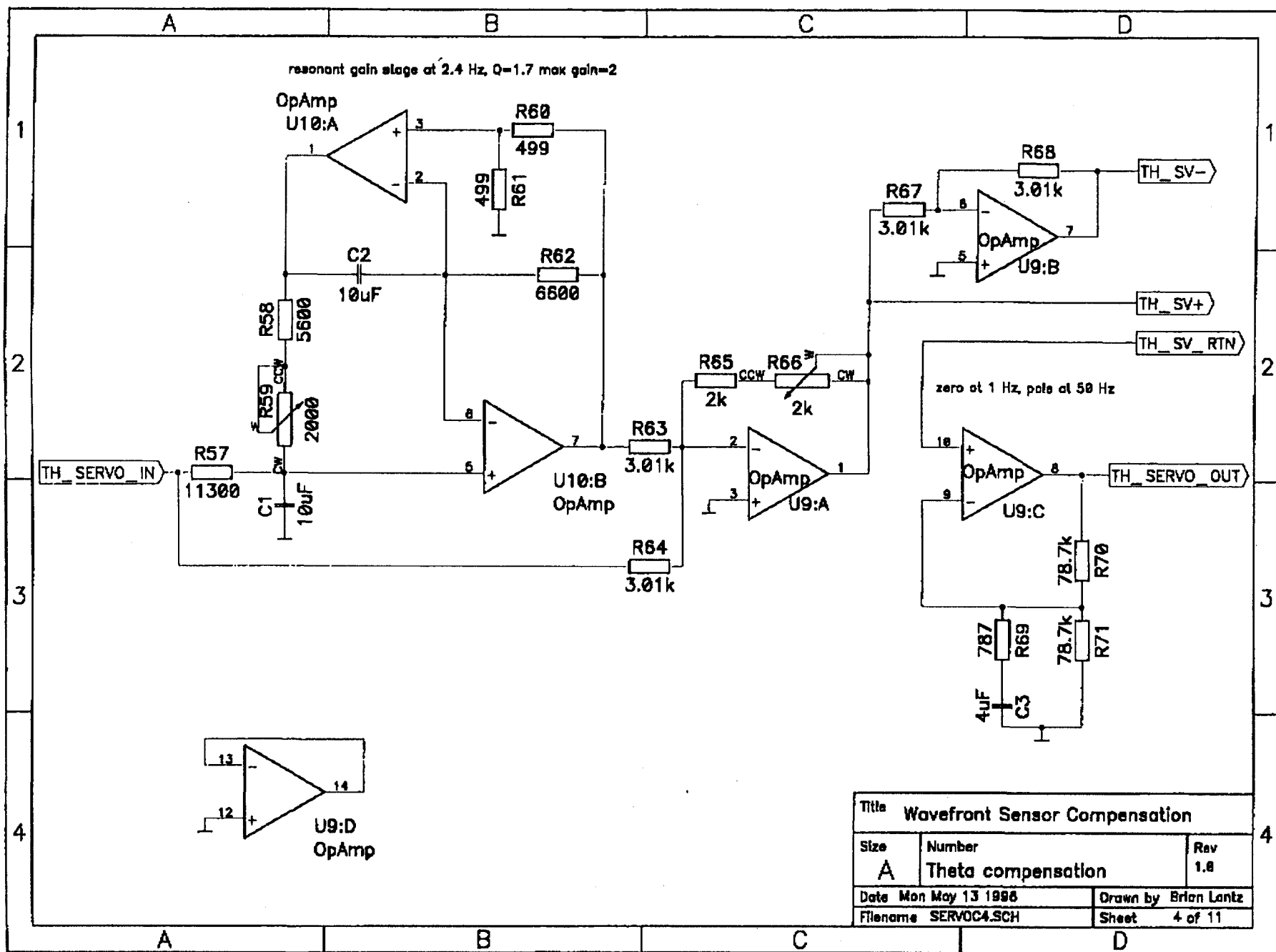
at max gain, DC gain is from max/1st v<sub>0</sub> = 2.5.6 = 11.2

Title Wavefront Sensor Compensation		
Size A	Number Theta Input and gain	Rev 1.0
Date Mon May 13 1996	Drawn by Brian Lantz	
Filename SERVOC4.SCH	Sheet 2 of 11	

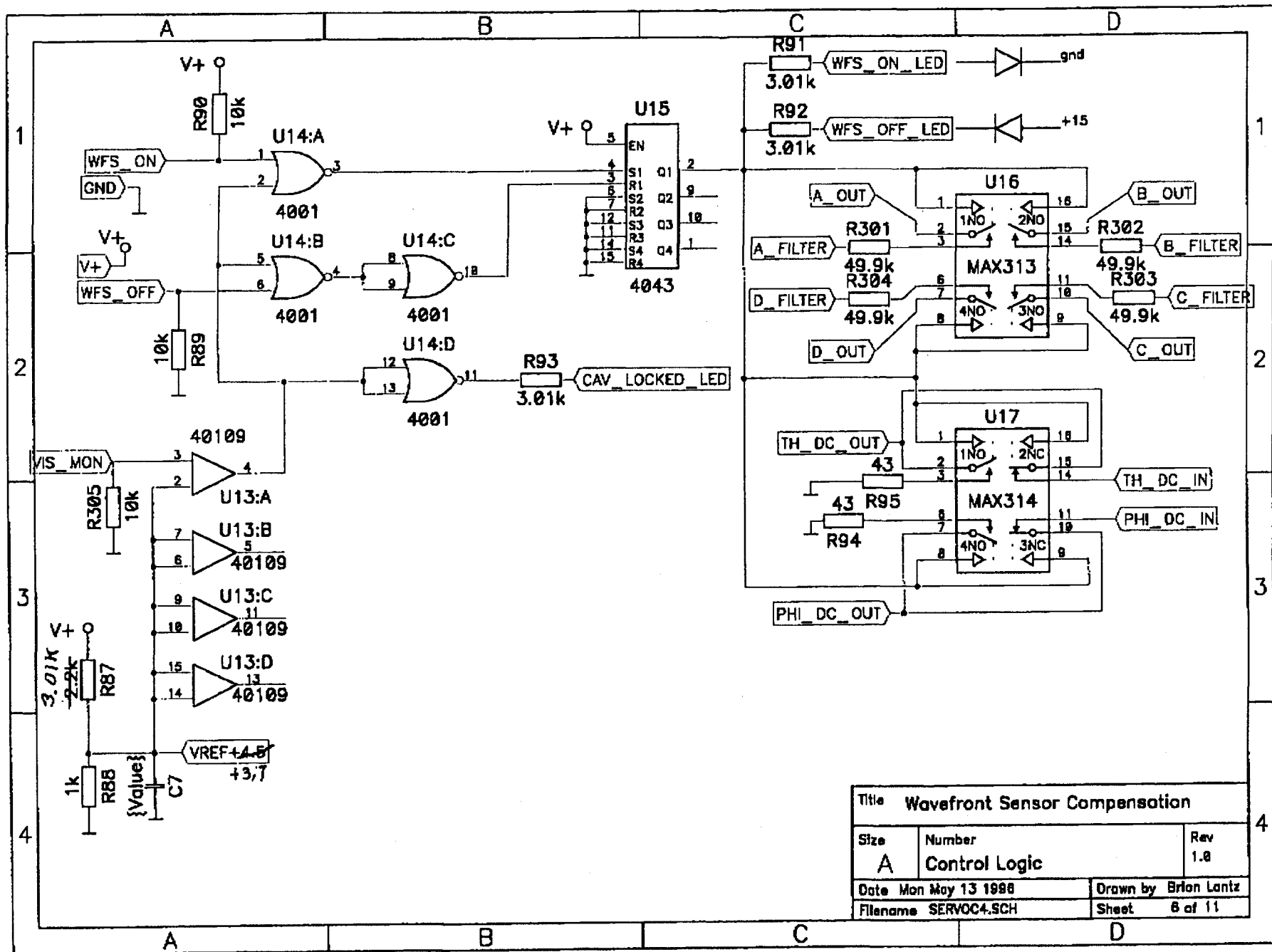




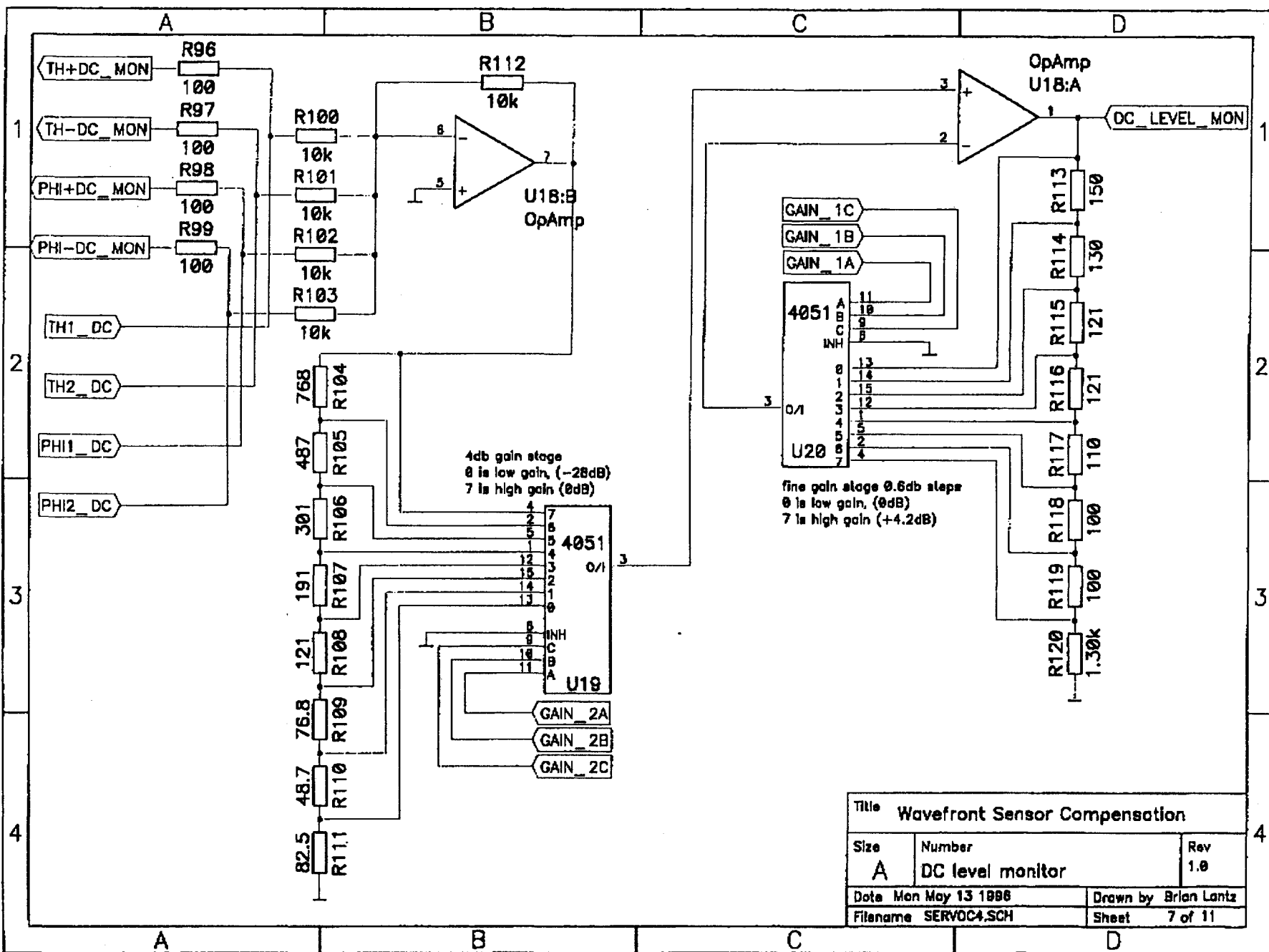
Title Wavefront Sensor Compensation		
Size A	Number Phi Input and gain	Rev 1.0
Date Mon May 13 1996	Drawn by Brian Lentz	
Filename SERVOC4.SCH	Sheet 3 of 11	

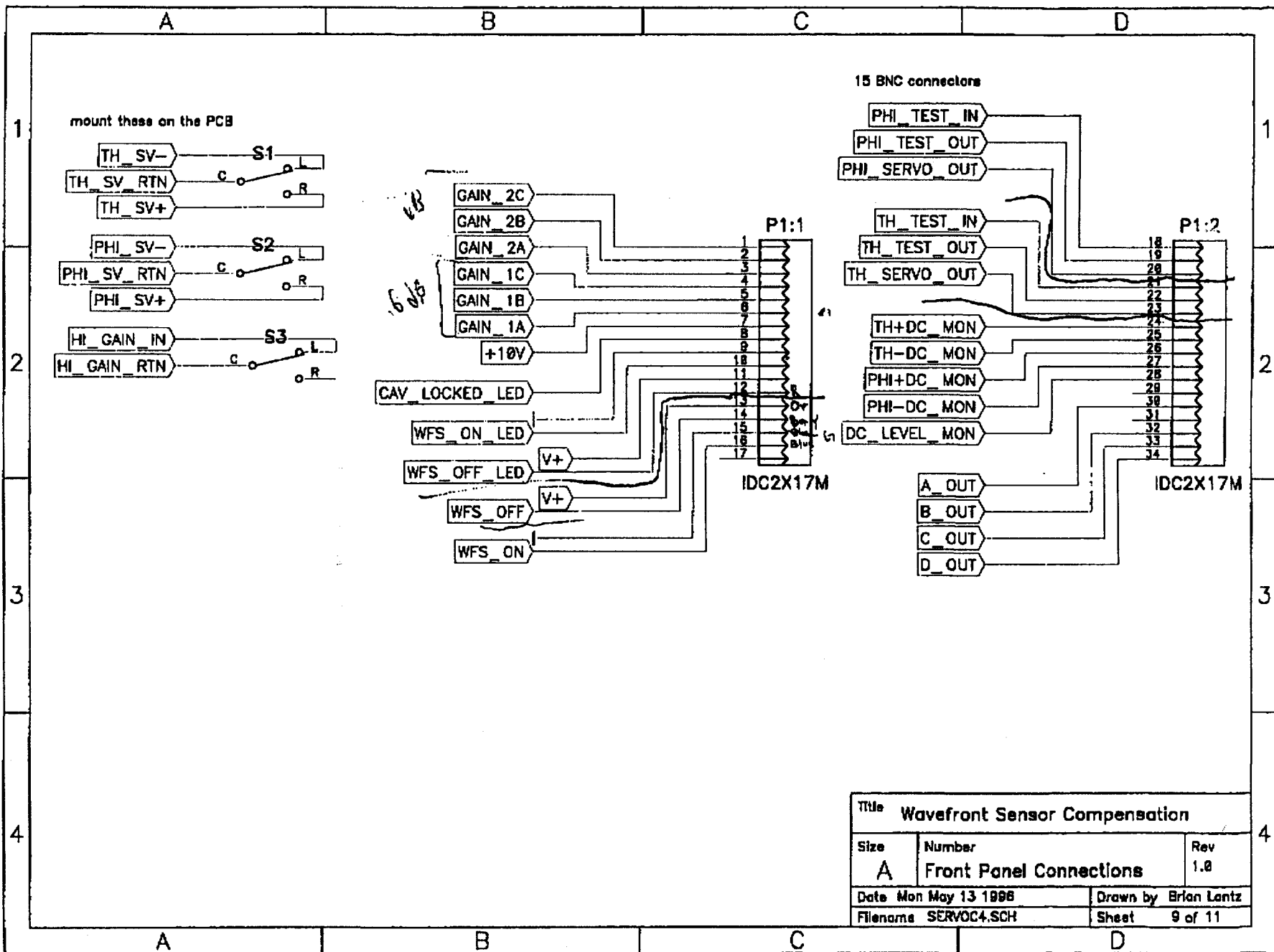


Title Wavefront Sensor Compensation		
Size A	Number Theta compensation	Rev 1.8
Date Mon May 13 1986	Drawn by Brian Lantz	
Filename SERVOC4.SCH	Sheet 4 of 11	

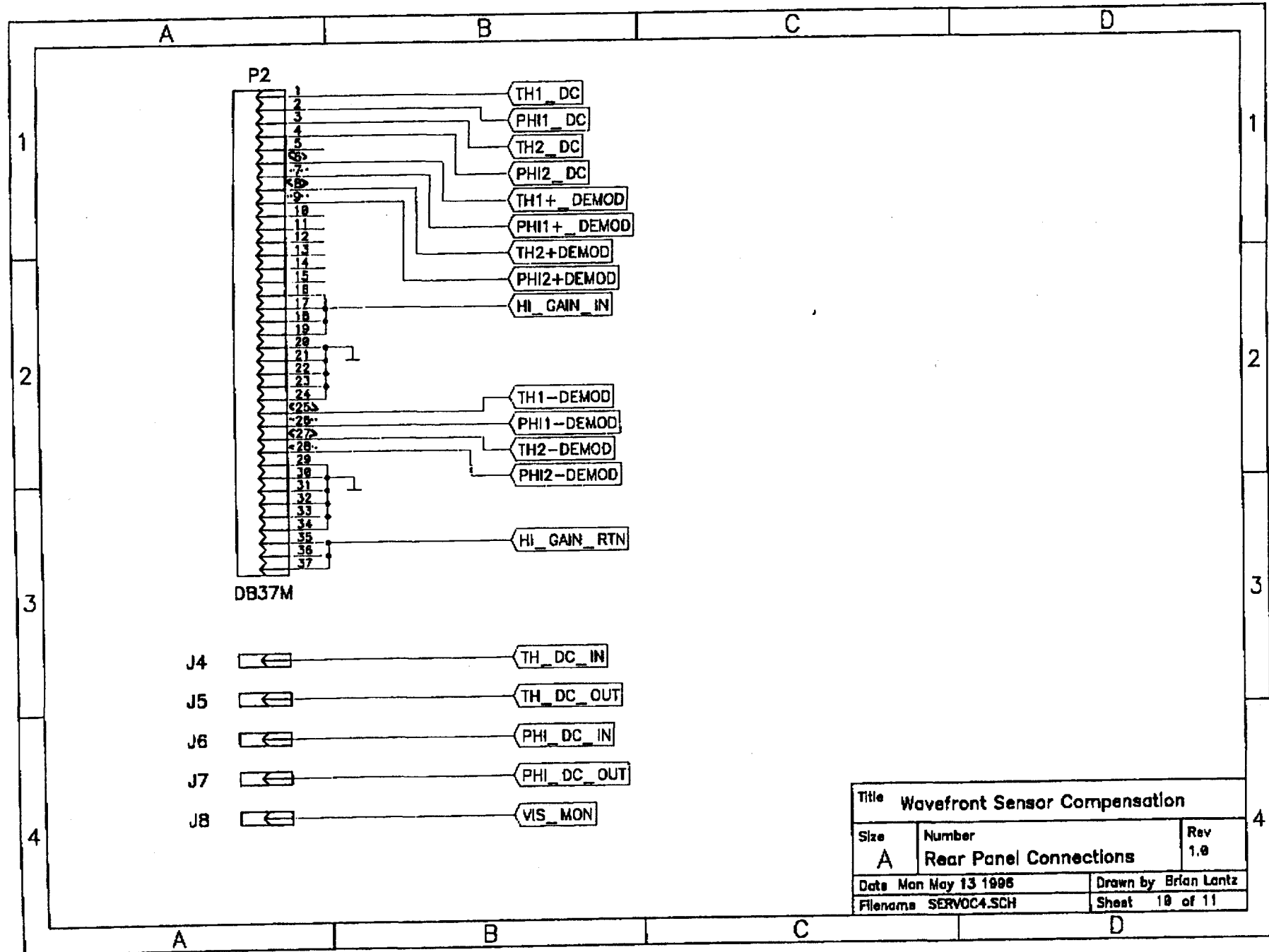


Title Wavefront Sensor Compensation		
Size A	Number Control Logic	Rev 1.0
Date Mon May 13 1996	Drawn by Brian Lantz	
Filename SERVOC4.SCH	Sheet 6 of 11	



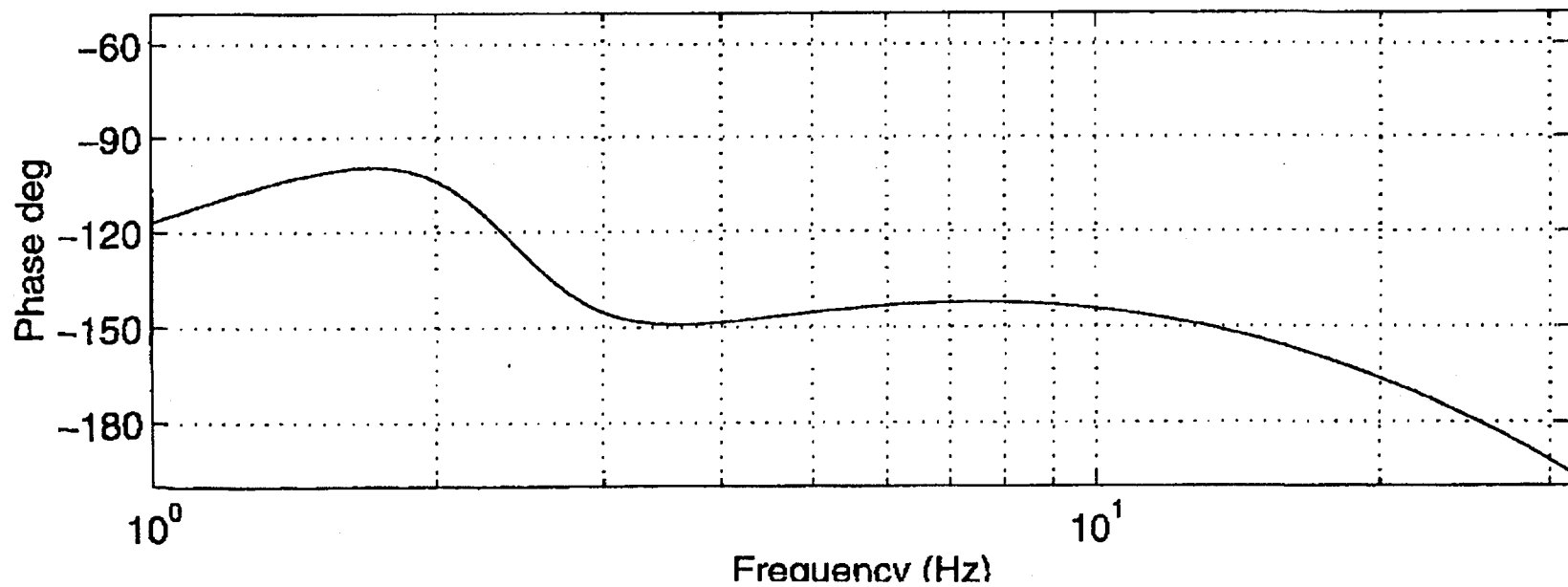
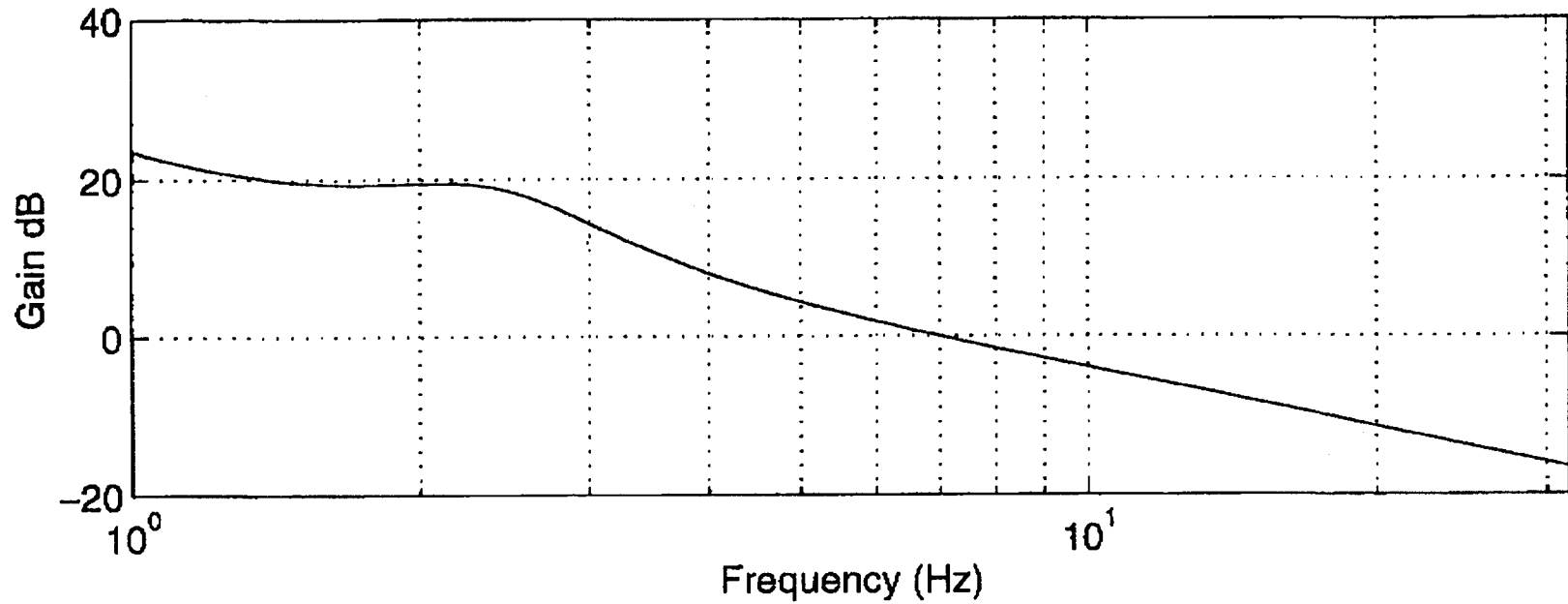


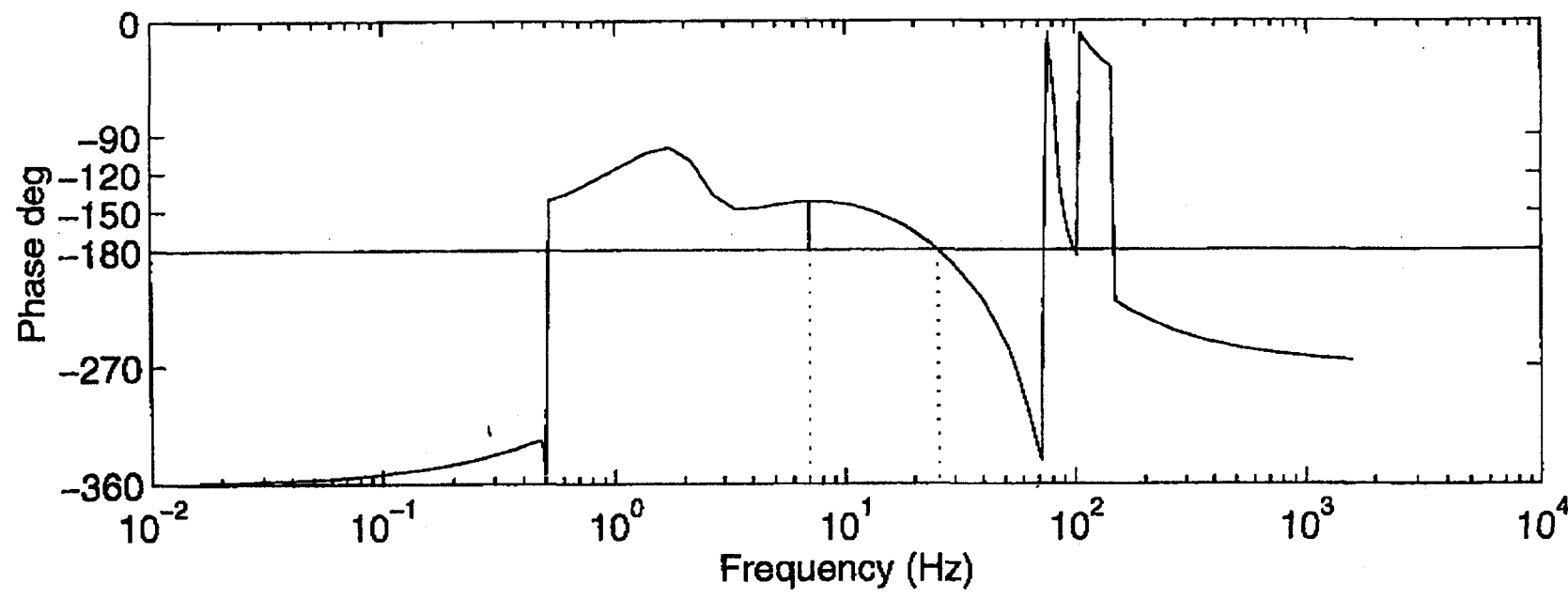
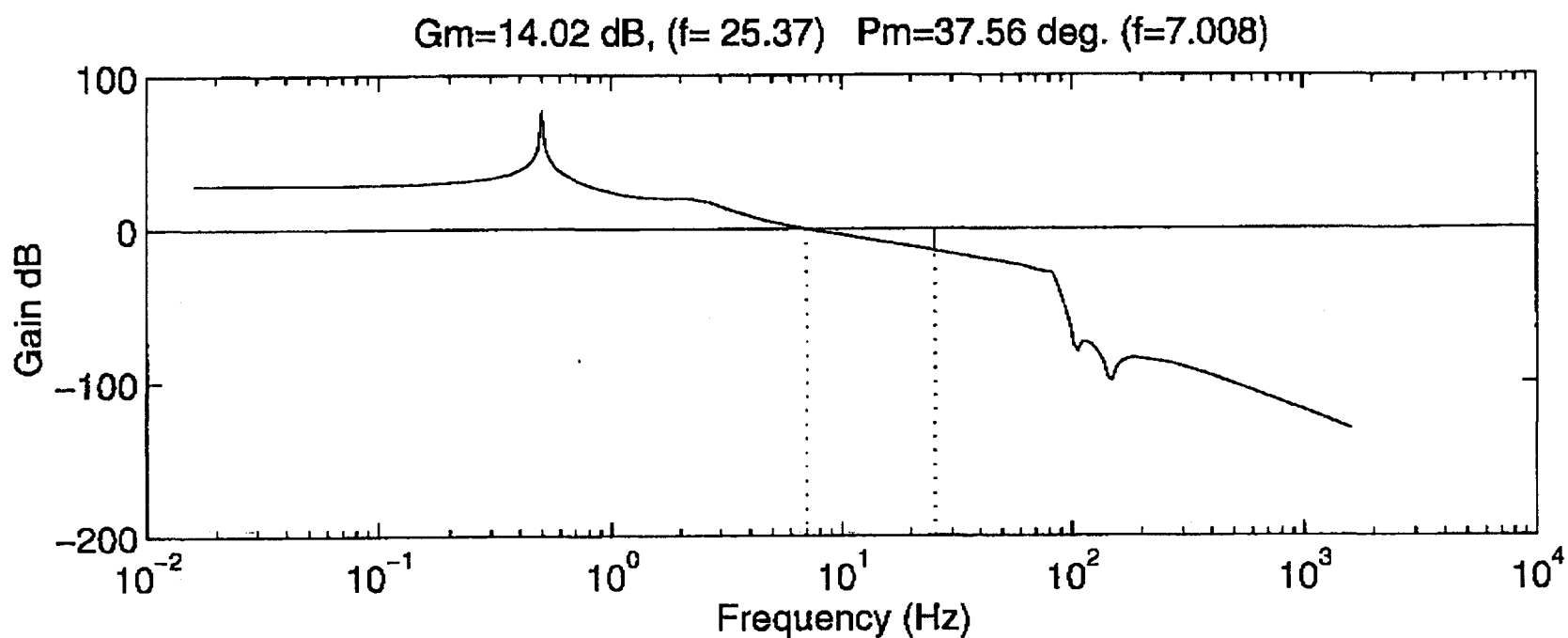
Title		
Wavefront Sensor Compensation		
Size	Number	Rev
A	Front Panel Connections	1.0
Date	Mon May 13 1996	Drawn by Brian Lantz
Filename	SERVOC4.SCH	Sheet 9 of 11



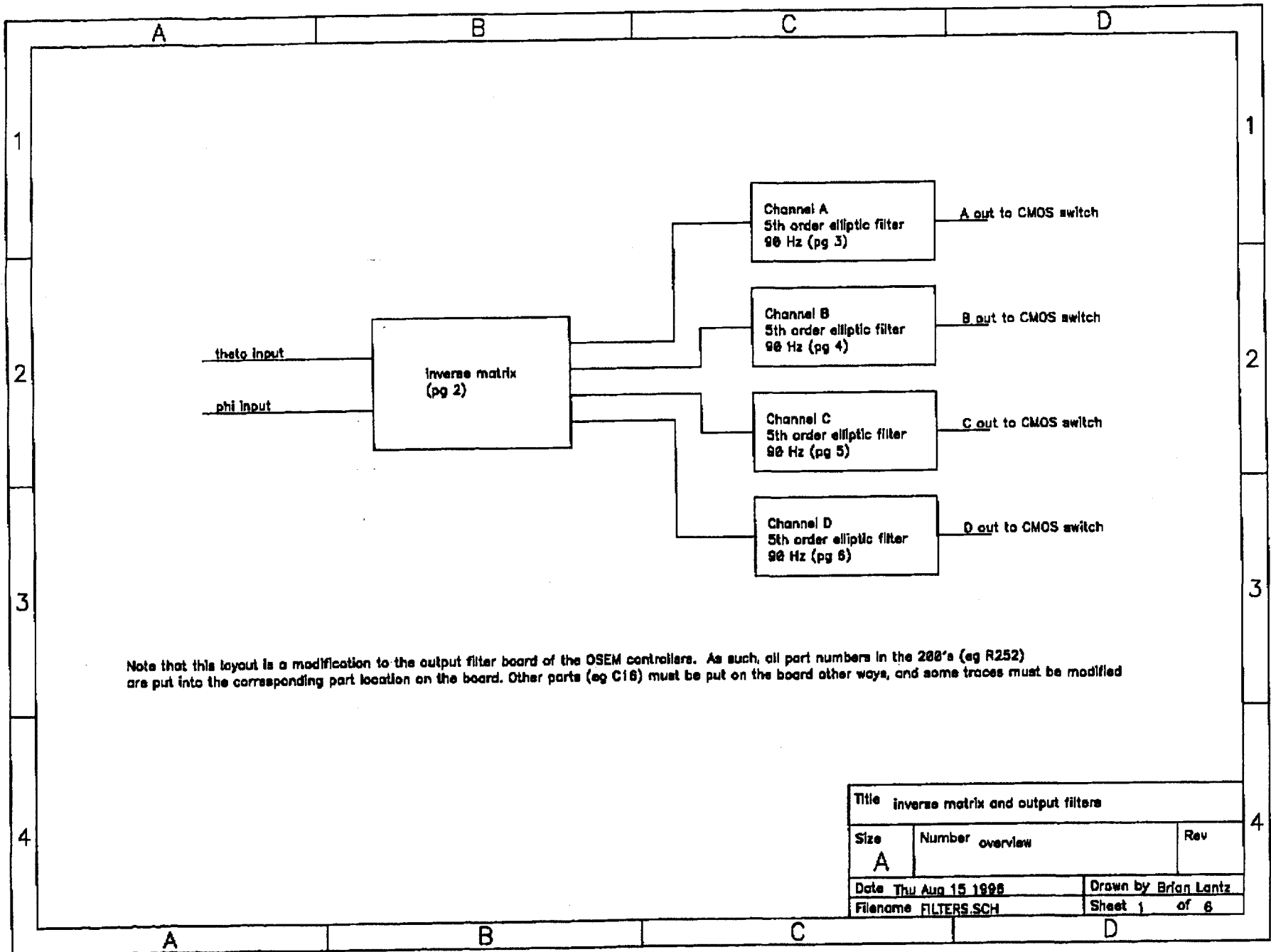
Title Wavefront Sensor Compensation		
Size A	Number Rear Panel Connections	Rev 1.0
Date Mon May 13 1996	Drawn by Brian Lantz	
Filename SERVOC4.SCH	Sheet 10 of 11	

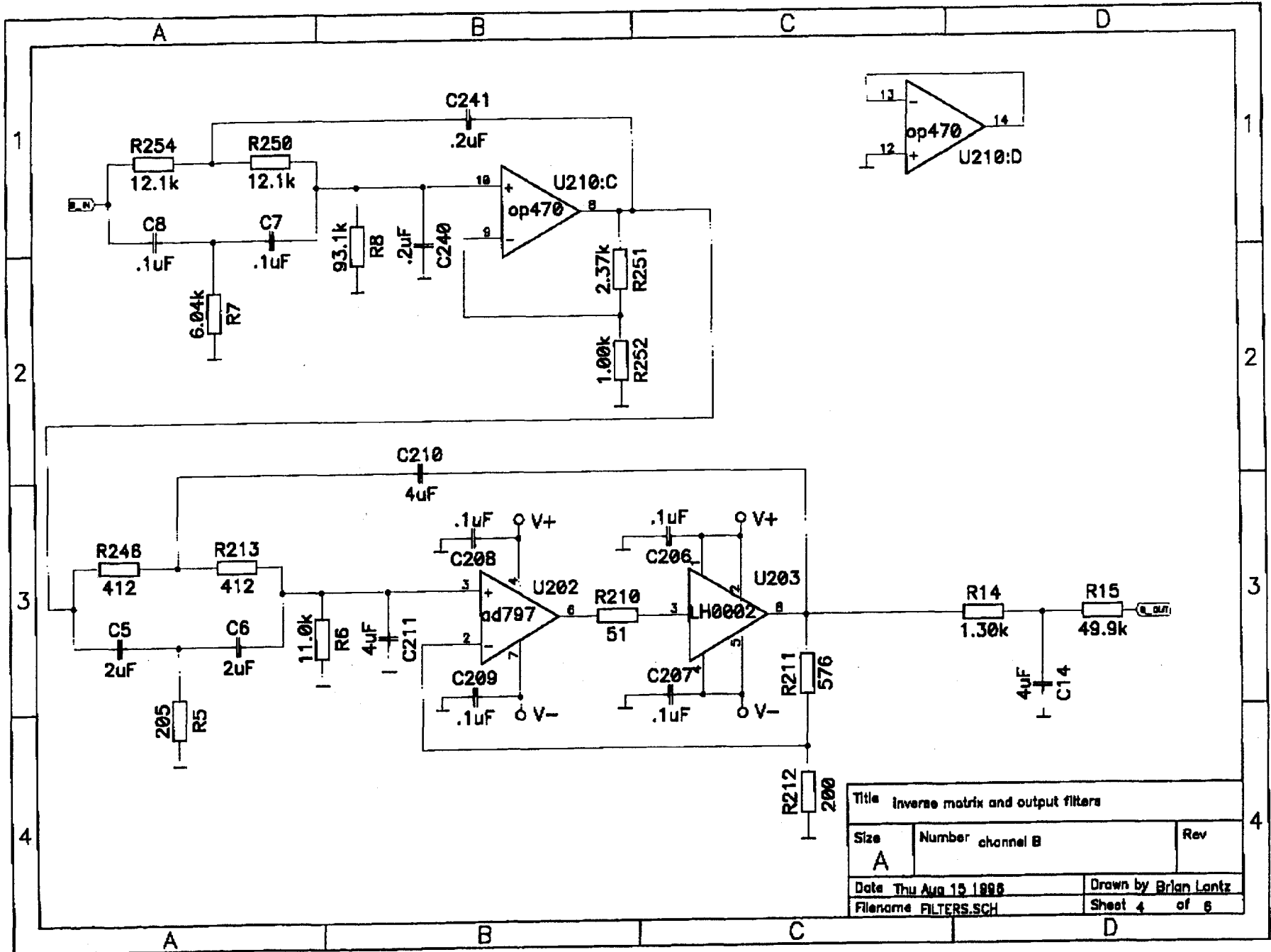
detail from open loop transfer function



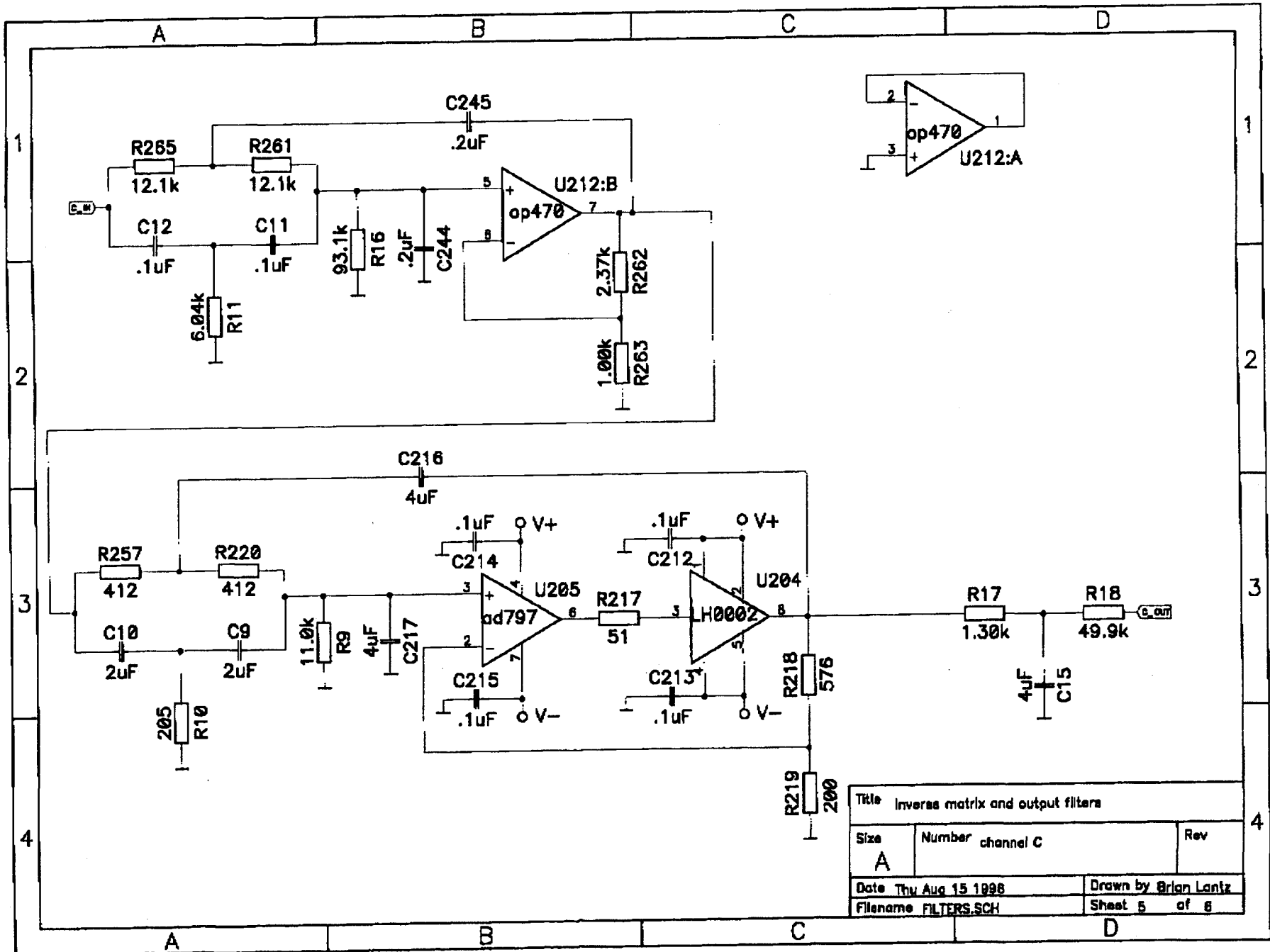




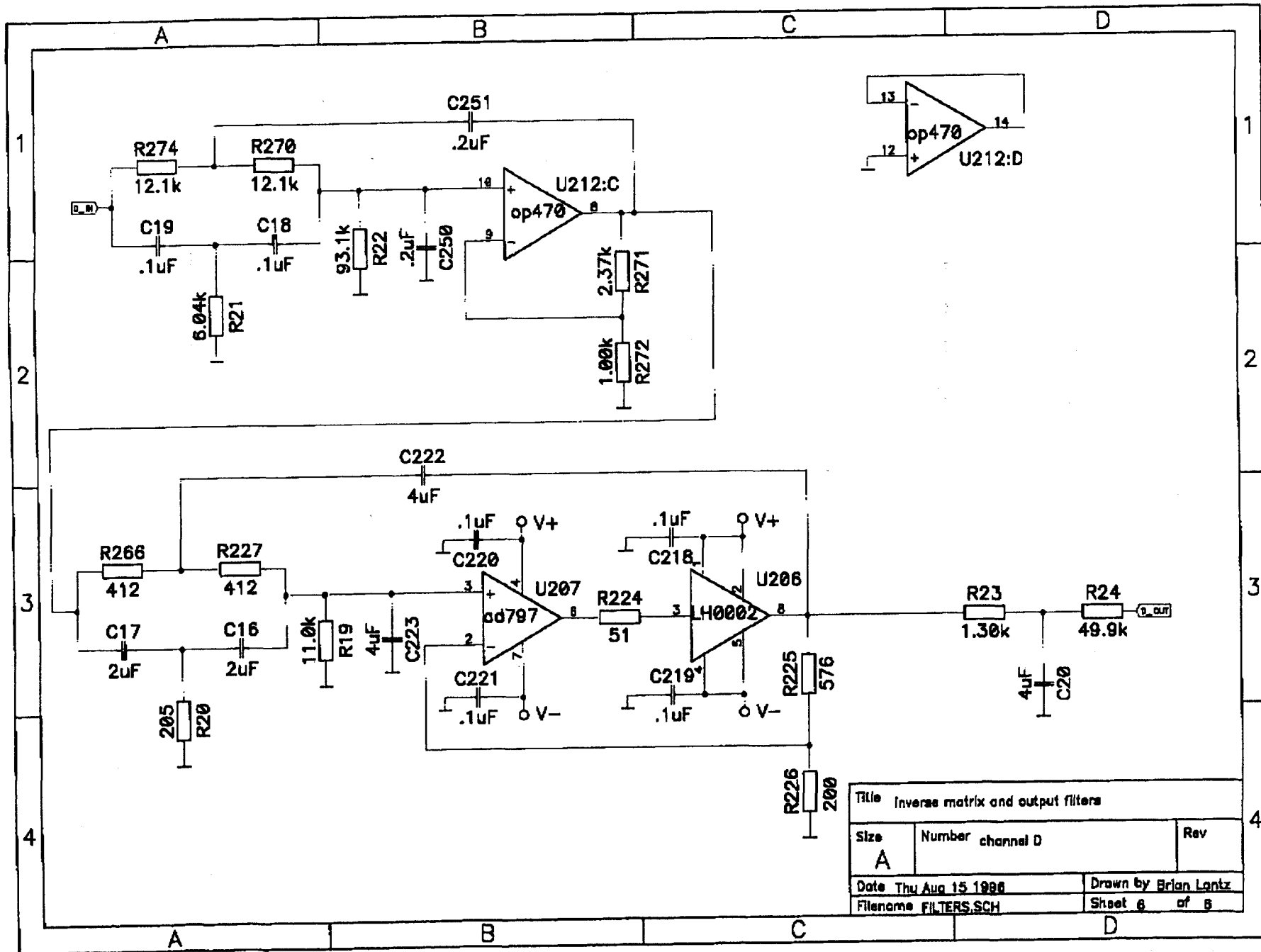




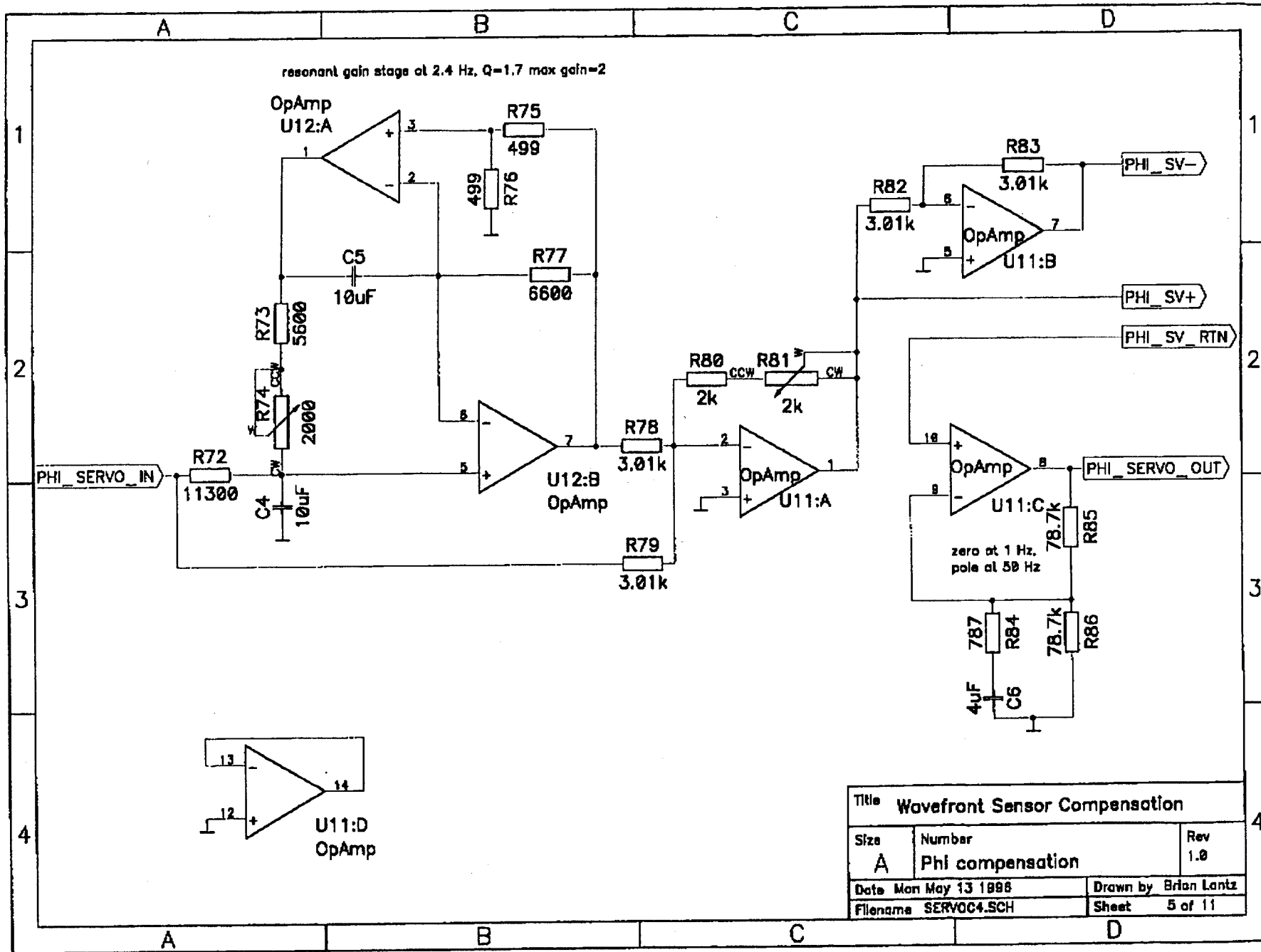
Title Inverse matrix and output filters		
Size A	Number channel B	Rev
Date Thu Aug 15 1996	Drawn by Brian Lantz	
Filename FILTERS.SCH	Sheet 4 of 6	

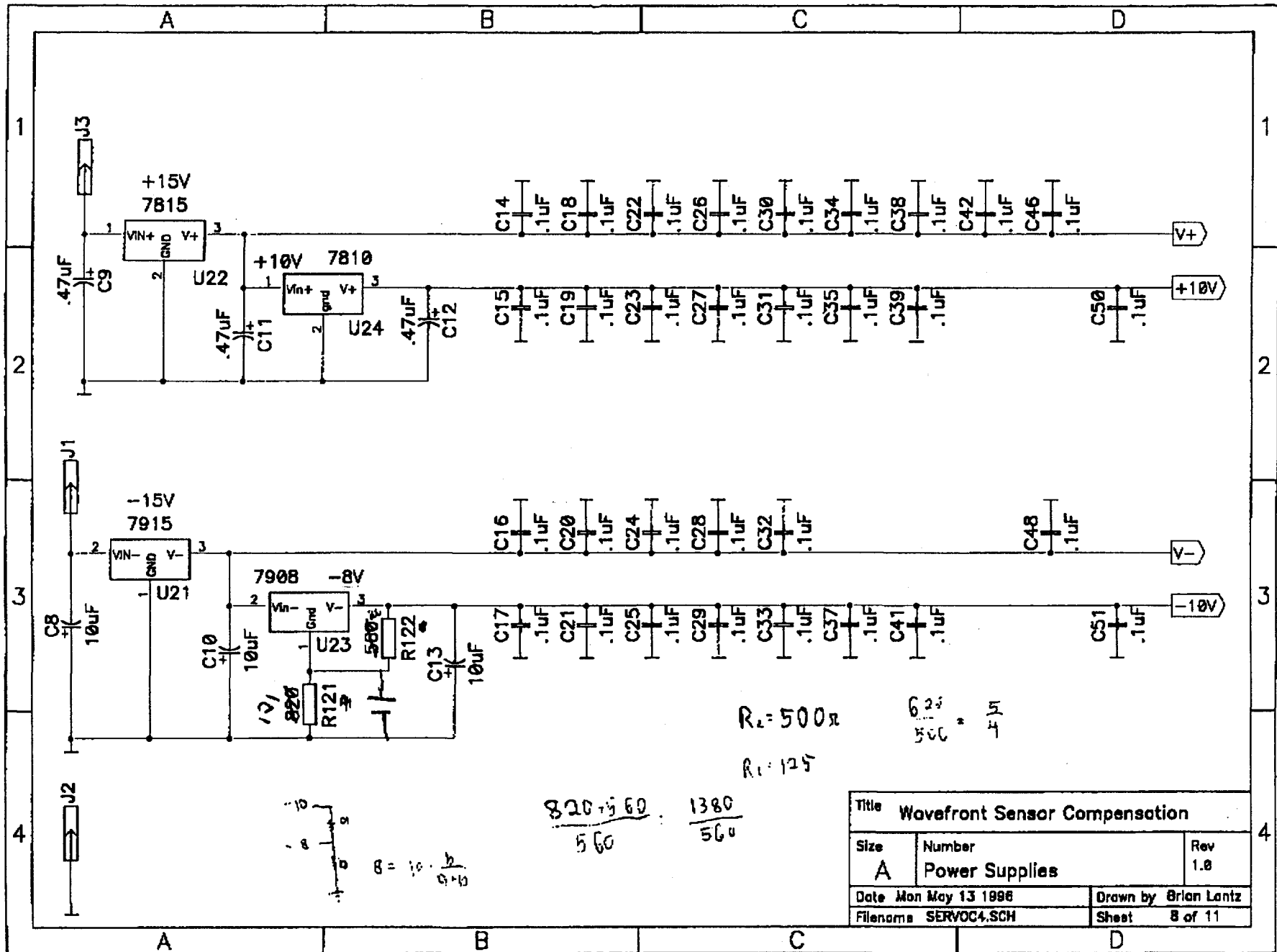


Title Inverse matrix and output filters		
Size A	Number channel C	Rev
Date Thu Aug 15 1996	Drawn by Brian Lantz	
Filename FILTERS.SCH	Sheet 5 of 8	

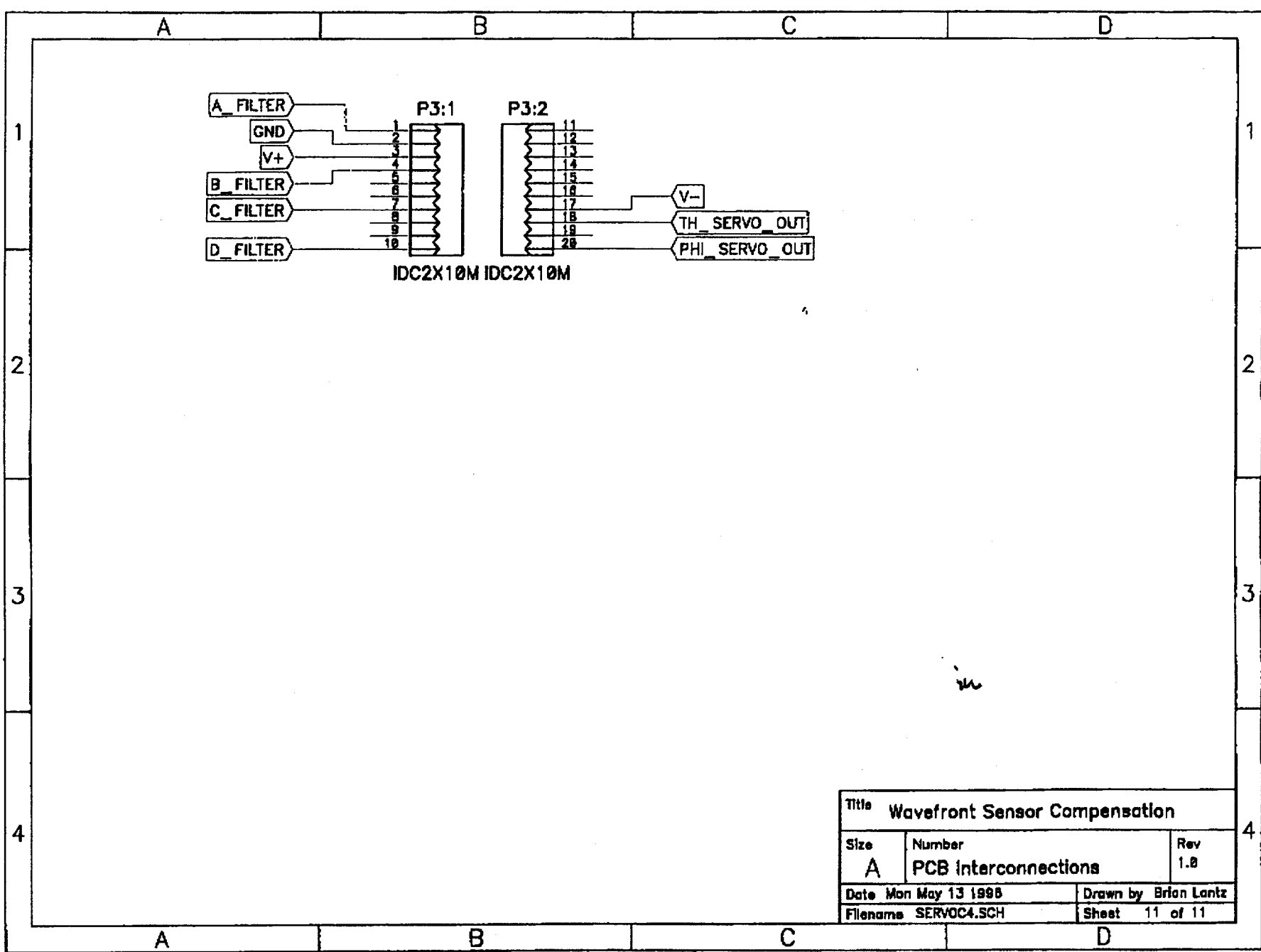


Title Inverse matrix and output filters		
Size A	Number channel D	Rev
Date Thu Aug 15 1996	Drawn by Brian Lantz	
Filename FILTERS.SCH	Sheet 6 of 8	





Title			Wavefront Sensor Compensation
Size	Number	Rev	
A	Power Supplies	1.0	
Date		Mon May 13 1996	
File name		SERVOC4.SCH	
Drawn by		Brian Lantz	
Sheet		8 of 11	



Title Wavefront Sensor Compensation		
Size A	Number PCB Interconnections	Rev 1.0
Date Mon May 13 1996	Drawn by Brian Lantz	
Filename SERVOC4.SCH	Sheet 11 of 11	