

ECL Fanout Module

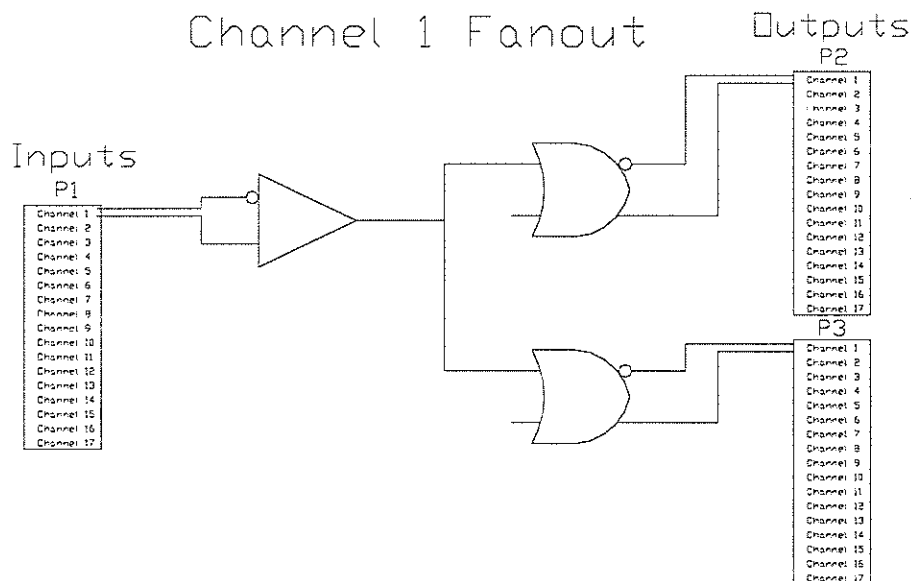
Description

The ECL fanout Module is a 16-channel fanout board packaged into a single width CAMAC module. The fanout will create two output channels for every input signal. The inputs and outputs are both differential ECL signals with an input to output delay of $< 3\text{nS}$.

Specifications

ECL Input : The module has 16 inputs. The inputs use a 34-pin header (the last pair is not used). The input needs to see an differential ECL signal. Normal ECL levels -800milli Volts to -1.7Volts.

ECL Output : The module outputs differential ECL signals out of 2 ports (P2 and P3) making a total of 32 outputs. There are two 34-pin headers for the output signals (the last pair is not used). An input pair (P1) drives two outputs, which are on the corresponding channels on connectors P2 and P3. I.E. Channel 1 (P1) input pins 1 and 2 have outputs (P2) output pins 1 and 2, and (P3) output pins 1 and 2 ECT....

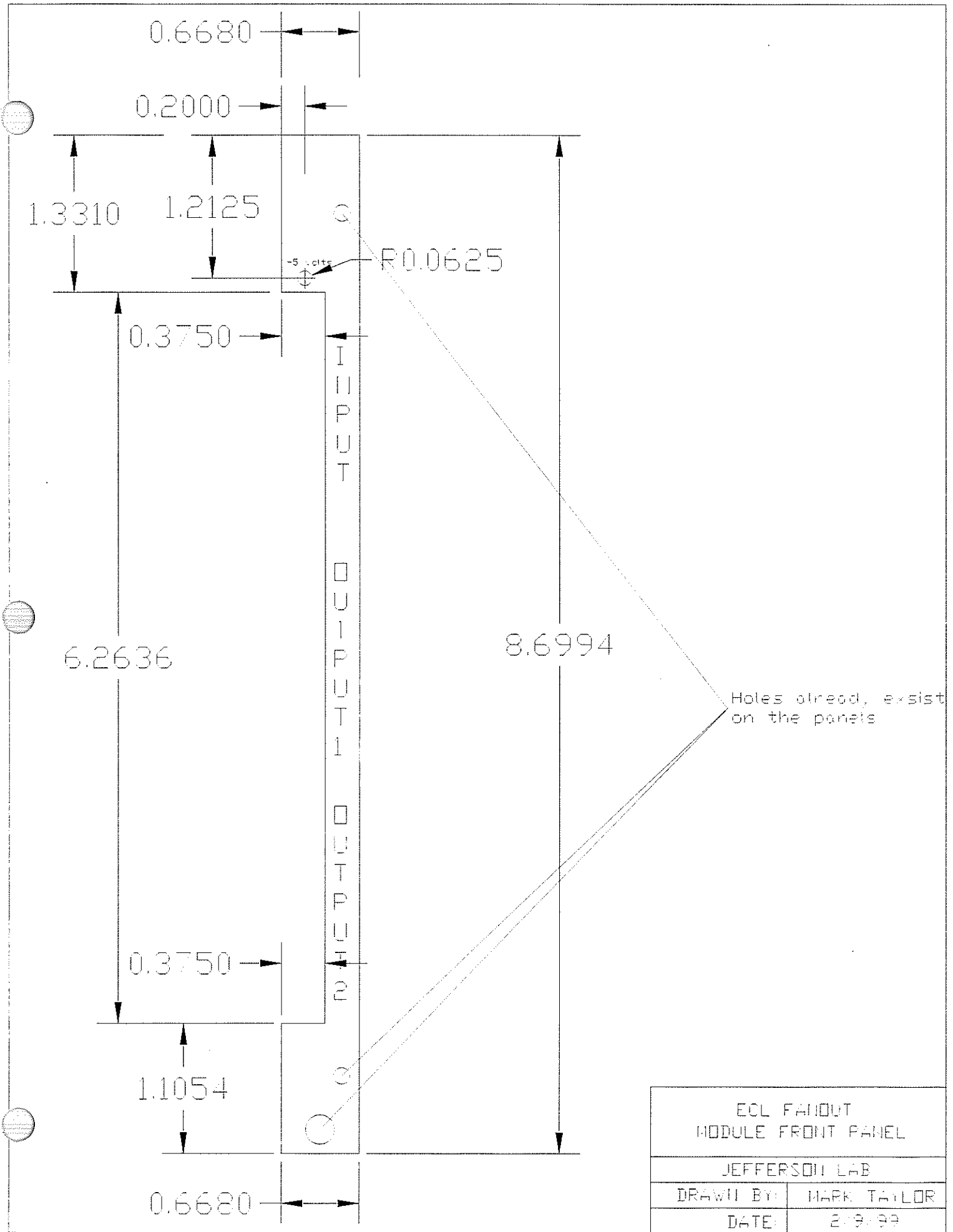


Rate : Tested DC to 80MHZ should be capable of rates $> 200\text{MHZ}$

Delay : ECL input to ECL output 3nS

Power : -6 Volts @ 1290mA (CAMAC Module)

Current Draw : 850mA (use 1A fuse)

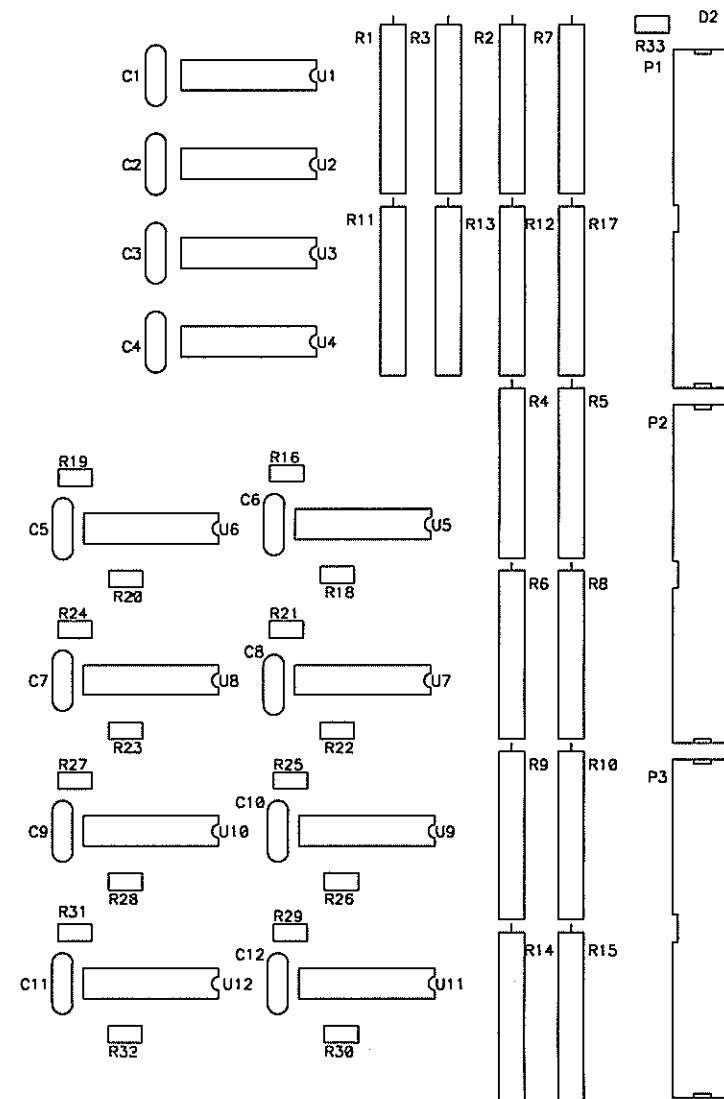
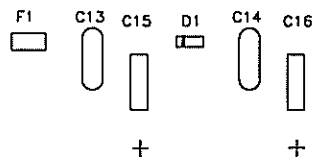


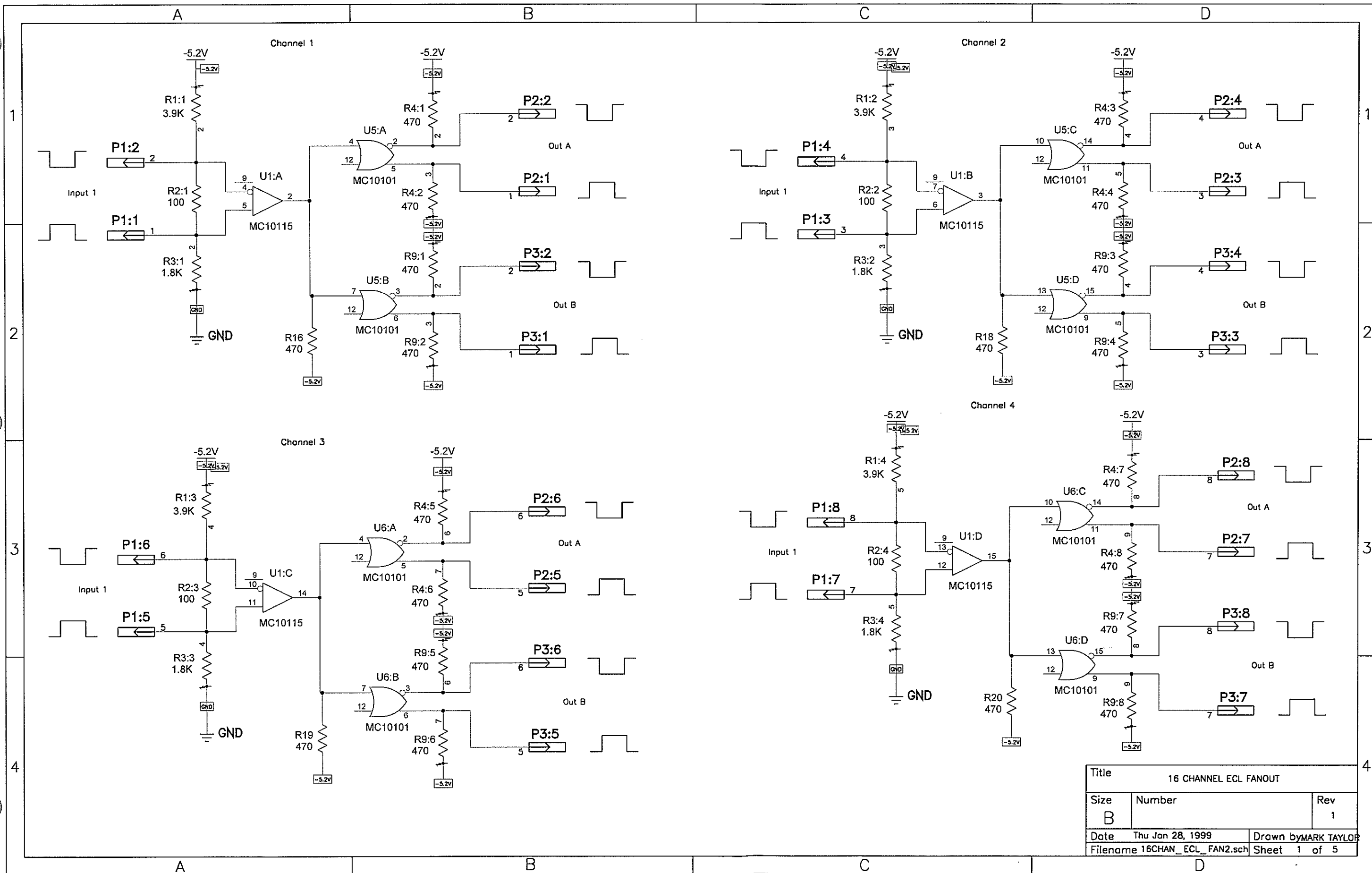
ECL FANOUT MODULE

ITEM	DESCRIPTION	PART NUMBER	VALUE	STOCK #	REFERENCE DESIGNATOR	QTY PER BOARD	QTY NEEDED	IN FEG STOCK	TOTAL ORDER
1	DIODE, GENERAL PURPOSE, 50 VRRM VOLTS	1N4001	1 AMP	5961-20020	D1	1	16	16	0
2	HEADER CONNECTOR	3M PART# 2534-5003UB	NA	NA	P1,P2,P3	3	48	48	0
3	CAPACITORS, MU RATA ERIE	#RPE122X7R104K	.1UF, 100V	5910-20024	C1,C2,C3,C4,C5,C6,C7,C8, C9,C10,C11,C12,C13,C14	14	224	224	0
4	CAPACITORS, SPRAGUE ALUMINUM ELECTROLYTIC	DIGIKEY #P5971-ND	22UF, 16VWDC	NA	C15,C16	2	32	7	25
5	FUSE, PICO II, VERY FAST-ACTING, 251 SERIES	LITTLEFUSE #251001 NEWARK #28F133	1 AMP, 125V	5920-30001	F	1	16	16	0
6	MC10H101, 16 PIN DIP	MC10H101	NA		U5,U6,U7,U8,U9,U10,U11,U12	8	128	71	57
7	MC10H115, 16 PIN DIP	MC10H115	NA		U1,U2,U3,U4	4	64	36	28
8	LED, GREEN, RT. ANGLE PC MOUNT	#5650F5	GREEN	5963-01000	D2	1	16	0	16
9	RESISTOR NETWORK 1.8K OHMS, BUSSED,	BOURNS #4610M-101-182 DALE #MSP10C-01-182-G	1.8K	5905-61440	R3,R12	2	32	23	9
10	RESISTOR NETWORK, 3.9K OHMS, BUSSED	BOURNS #4610M-101-392 DALE #MSP10C-01-392-G	3.9K	5905-61490	R1,R11	2	32	19	13
11	RESISTOR NETWORK, 470 OHMS, BUSSED	BOURNS #4610M-101-471 DALE #MSP10C-01-471-G	470	5905-61370	R4,R5,R6,R8,R9,R10,R14,R15	8	128	32	96
12	RESISTOR NETWORK, 100 OHMS, ISOLATED	BOURNS#4610X-102-101	100		R2,R7,R13,R17	4	64	36	28
13	RESISTOR CARBON COMP, 1/4 WATT 5%TOL	ALLEN BRADLEY#CB1025S	1k	5905-30480	R33	1	16	19	-3
14	RESISTOR CARBON COMP, 1/4 WATT 5%TOL	ALLEN BRADLEY#CB4715S	470	5905-30410	R16,R18,R19,R20,R21,R22,R23,R24, R25,R26,R27,R28,R29,R30,R31,R32	16	256	155	101

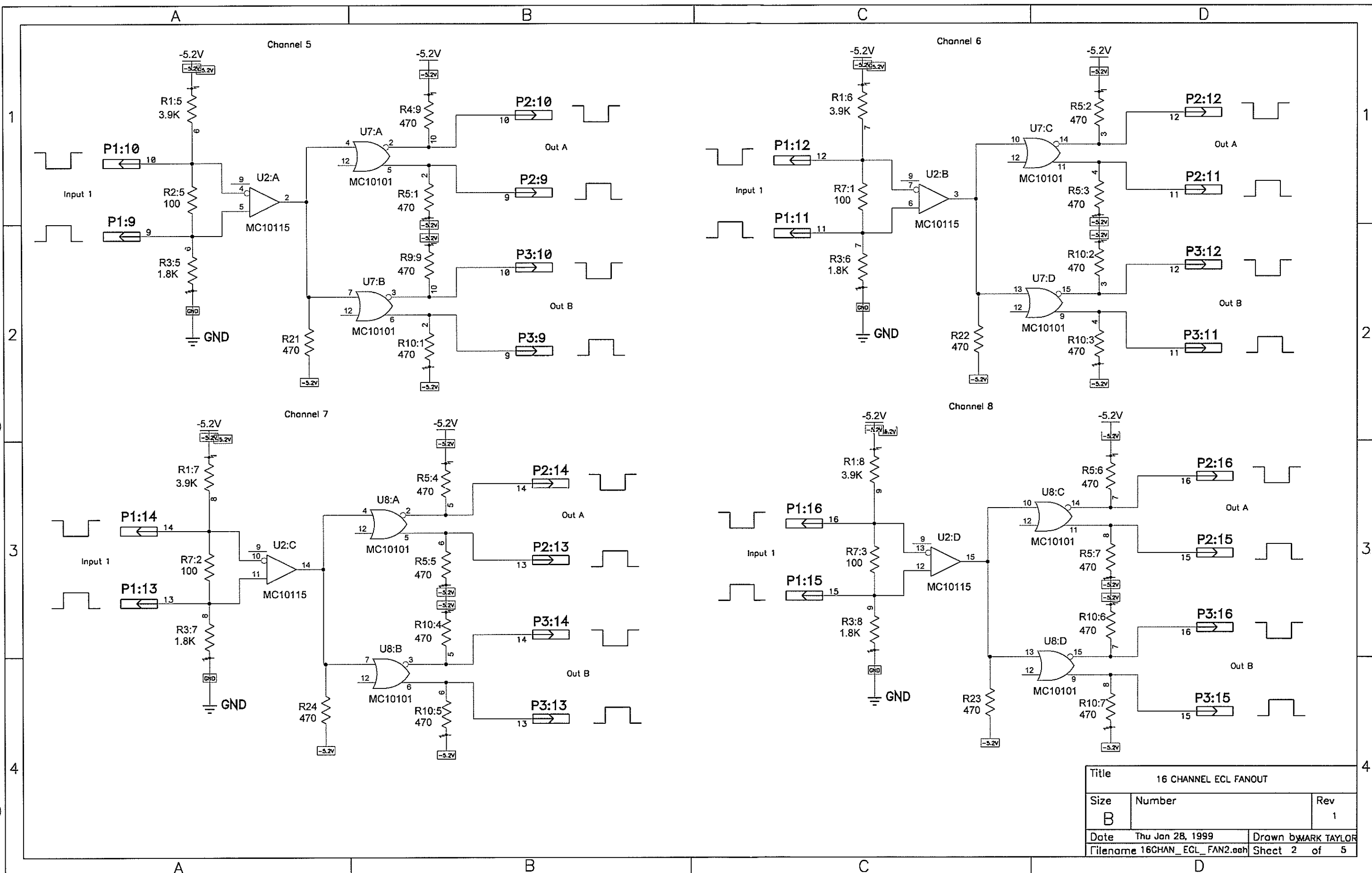
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1A
 3A
 5A
 7A
 9A
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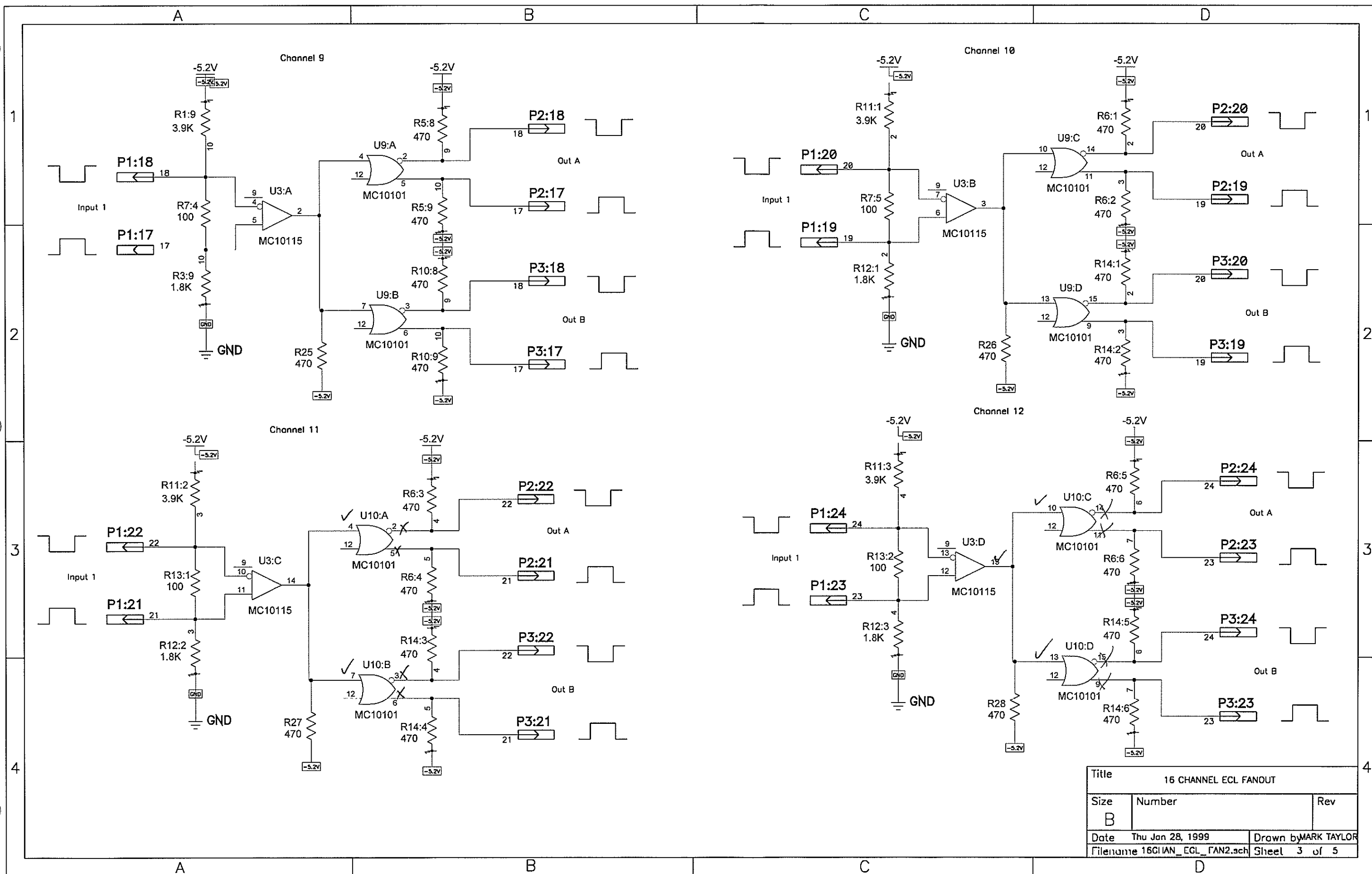




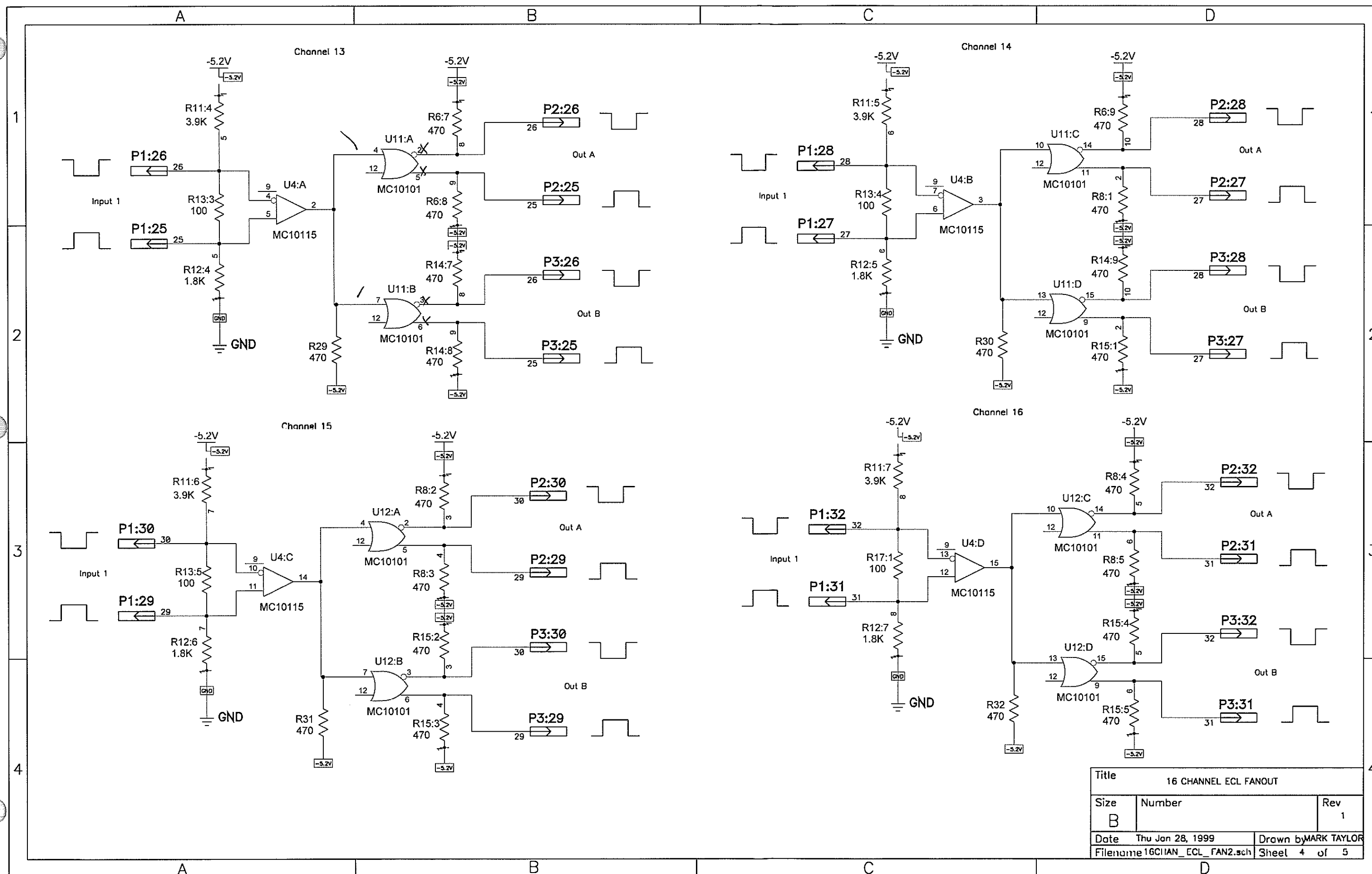
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Size B	Number	Rev 1
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Filename 16CHAN_ECL_FAN2.sch	Sheet 1 of 5	



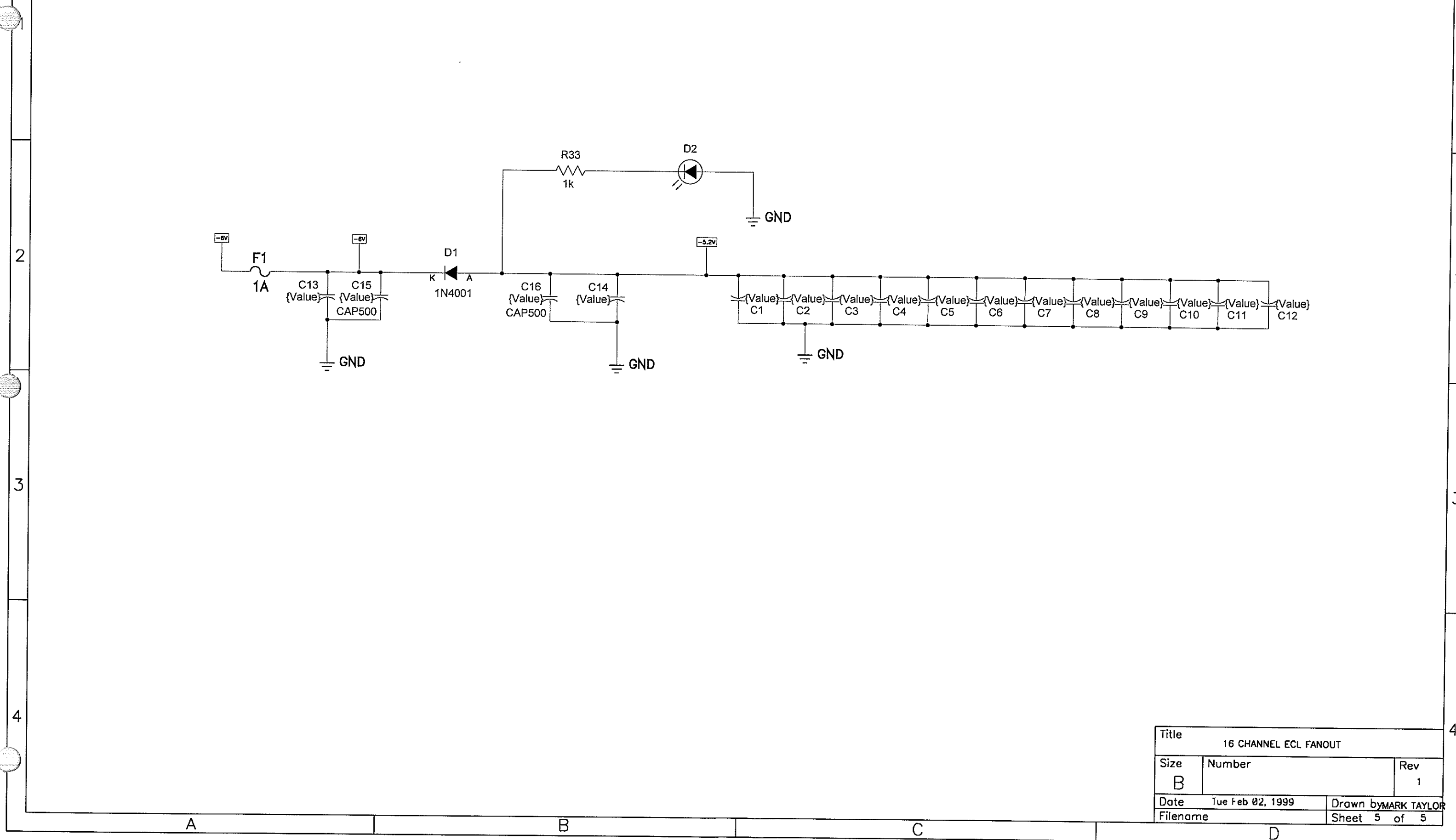
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B		1
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Title			16 CHANNEL ECL FANOUT		
Size	Number			Rev	1
B					
Date	Tue Feb 02, 1999			Drawn by	MARK TAYLOR
Filename				Sheet	5 of 5