


TORONTO-4.5 PLANAR (SDR)

VER 0.86 OCT/02/2001

- | | |
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| 34. AUDIO INT MIC | |
| 35. AUDIO CONNECTOR | |
| 36. AUDIO EXT MIC I/F | |
| 37. AUDIO SPK CONN | |
| 38. AUDIO HDP AMP AN17000A | |
| 39. MINI PCI | |
| 40. PCI BUS SWITCH | |

DATE	EC NO.	PART NO.	
OCT/02/01	VER 0.86		
		DEVELOPMENT NO.	Q/M
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DESIGNER	Y.I	10/02/01	PART NO.	
CHECKED				
APPROVED			TITLE TORONTO-4.5	
CLASS			TITLE PAGE	
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EC HISTORY

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VER	DATE	CONTENTS
SIT		
0.55	FEB/21/2001	CHANGED BY TR4P001/002. CHANGED BY EMI REQUIREMENTS.
0.56	FEB/22/2001	CHANGED BY TR4P001/003.
0.57	FEB/23/2001	CHANGED BY TR4P004.
0.58	FEB/26/2001	CHANGED BY TR4P005/006/007 /008.
0.59	FEB/27/2001	CHANGED BY TR4P009.
0.60	FEB/28/2001	CHANGED BY TR4P010.
0.61	MAR/01/2001	CHANGED BY TR4PXXX.
0.62	MAR/02/2001	CHANGED BY TR4P015.
0.63	MAR/06/2001	CHANGED BY TR4P016 AND TR4P017 (AUDIO EC).
0.64	MAR/07/2001	CHANGED BY TR4P019 AND MOVED FL1 AND FL2 TO AGND SIDE.
0.65	MAR/08/2001	CHANGED BY TR4P021/XXX.
0.66	MAR/09/2001	CHANGED BY TR4P024/025.
0.67	MAR/22/2001	CHANGED BY TR4P026/27/28.
0.68	MAR/23/2001	CHANGED BY TR4P029. CHANGED C18/C33 BY GCM REQ.
0.69	MAR/29/2001	CHANGED BY TR4P030.
0.70	APR/04/2001	CHANGED BY TR4P031.
0.71	APR/09/2001	CHANGED BY TR4P032/33.
0.72	APR/13/2001	CHANGED BY TR4P032/34.

SVT		
0.73	APR/18/2001	CHANGED BY TR4P036.
0.74	APR/19/2001	CHANGED BY TR4P035. CHANGED BY TR4P037. CHANGED BY TR4P038.
0.75	APR/23/2001	CHANGED BY TR4P040. CHANGED BY TR4P041. CHANGED BY TR4P042.
0.76	APR/25/2001	CHANGED BY TR4P043. CHANGED BY TR4P044. CHANGED BY TR4P045. CHANGED BY TR4P046. CHANGED BY TR4P047.

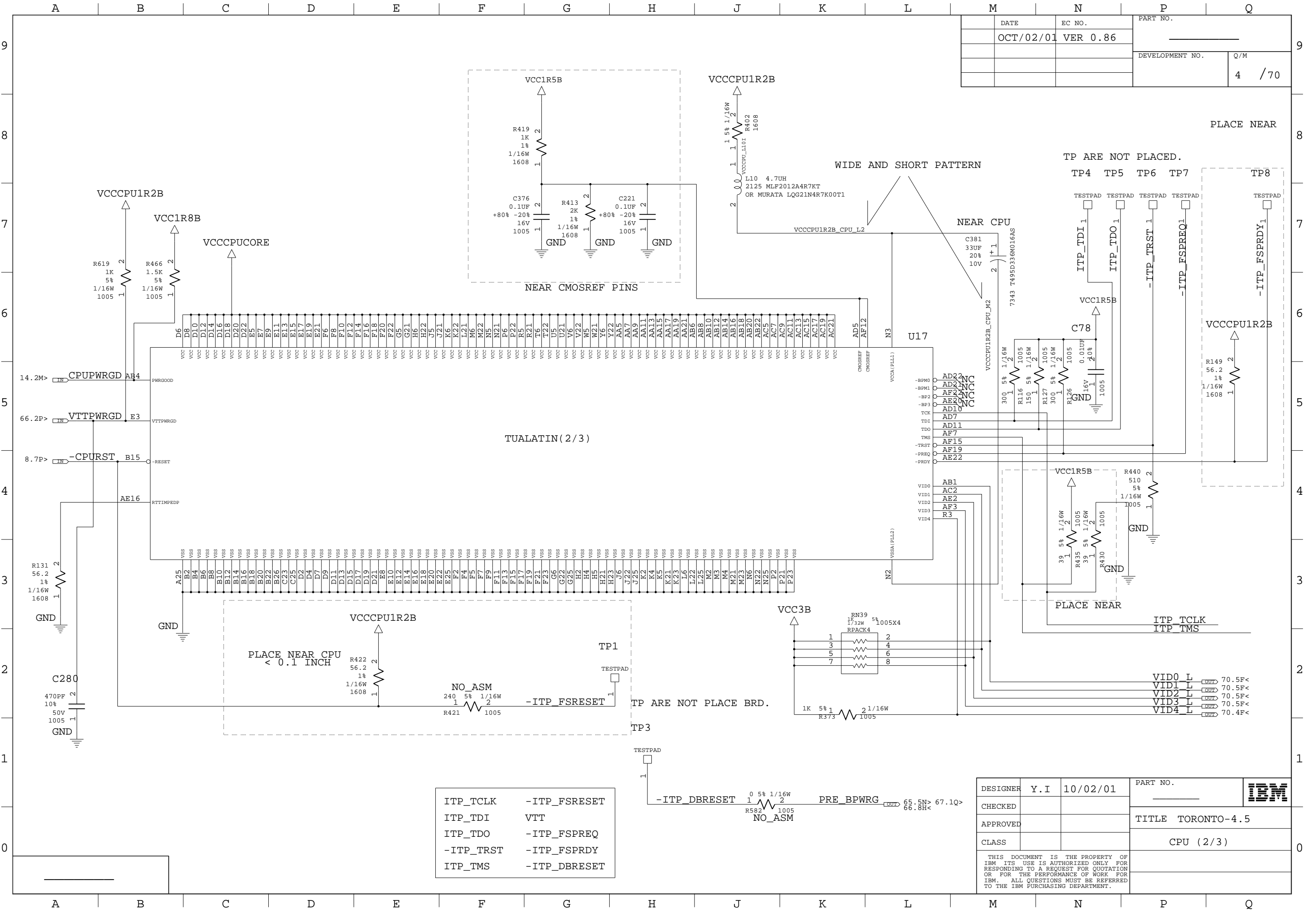
VER	DATE	CONTENTS
0.77	APR/26/2001	CHANGED C658/C659 TO 10%
0.78	MAY/10/2001	CHANGED BY TR4P049/50.
0.79	MAY/11/2001	CHANGED BY TR4P053.
0.80	MAY/24/2001	CHANGED BY TR4P056/57/58.
0.81	MAY/31/2001	CHANGED BY TR4P060.
0.82	JUN/15/2001	CHANGED BY TR4P062.

TR45

0.83	SEP/14/2001	ADD LP3985 P52.
0.84	SEP/17/2001	P38 ADD D43, R394(47K), CHANGE U33 TO MAX4401
		P52 DEL C661, ADD R1(4.7K)
		P56 ADD D78, R392(100)
0.85	SEP/19/2001	P38 CHANGE U33 TO LMV821 DEL R394(47K) CHANGE D43 CONNECTION
0.86	OCT/02/2001	P63 CHANGE Q16/Q18 TO TPC8005_H
		P65 CHANGE R681 TO 10K CHANGE R683 TO 200

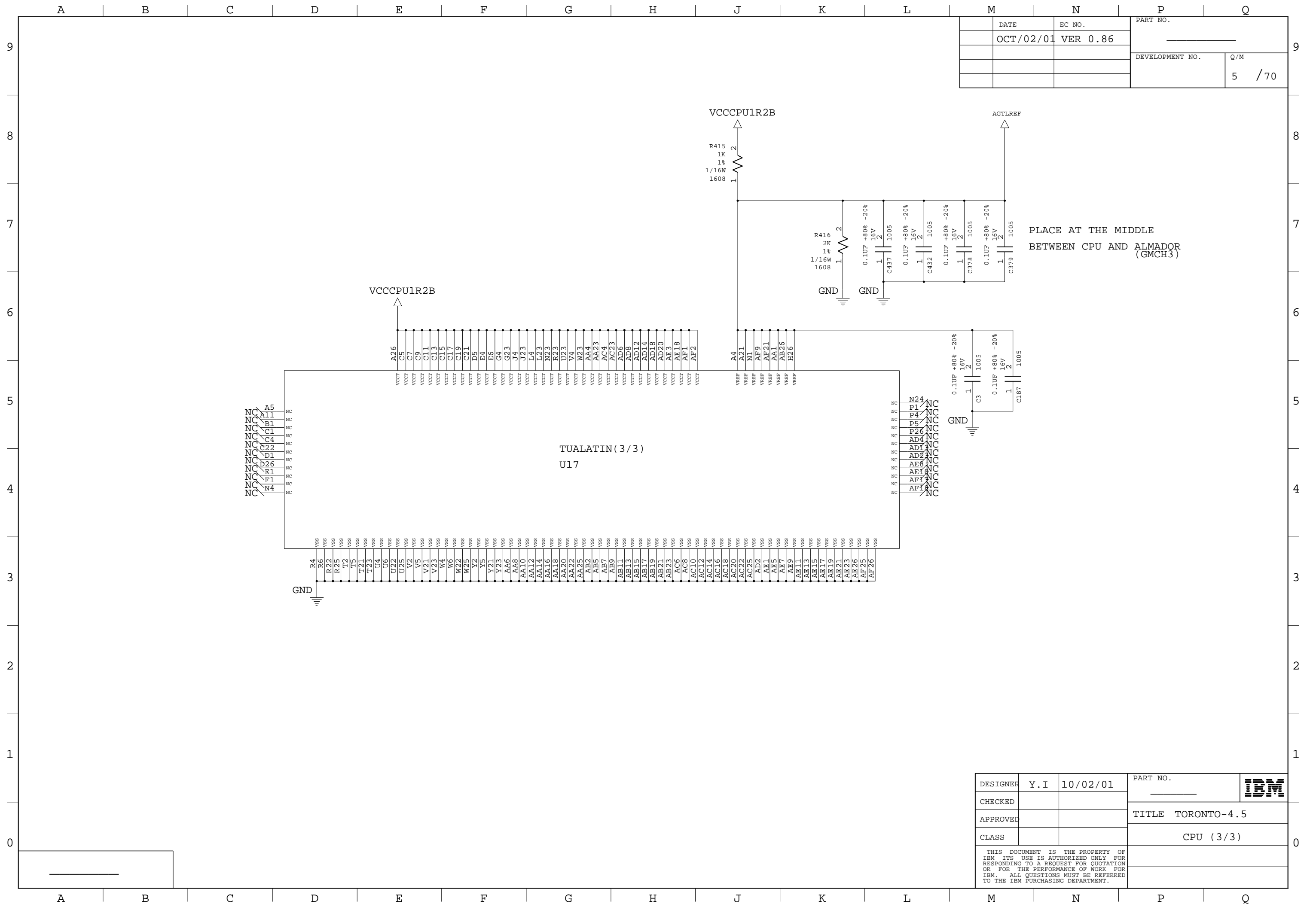
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CLASS			EC HISTORY	
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DEVELOPMENT NO.		Q/M
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ITP_TCLK	-ITP_FSRESET
ITP_TDI	VTT
ITP_TDO	-ITP_FSPREQ
-ITP_TRST	-ITP_FSPRDY
ITP_TMS	-ITP_DBRESET

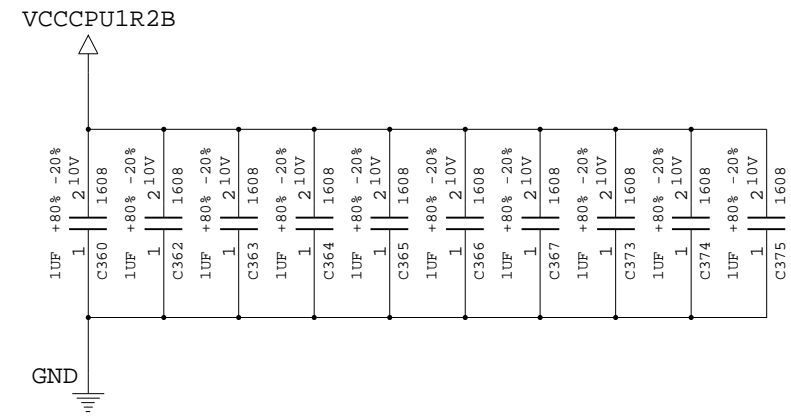
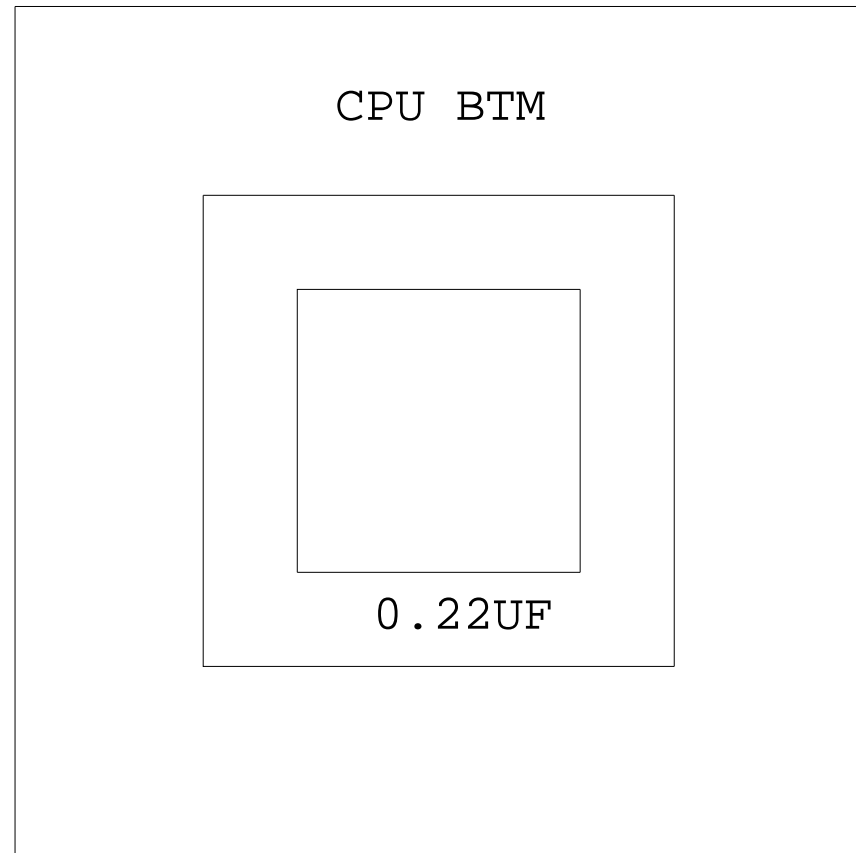
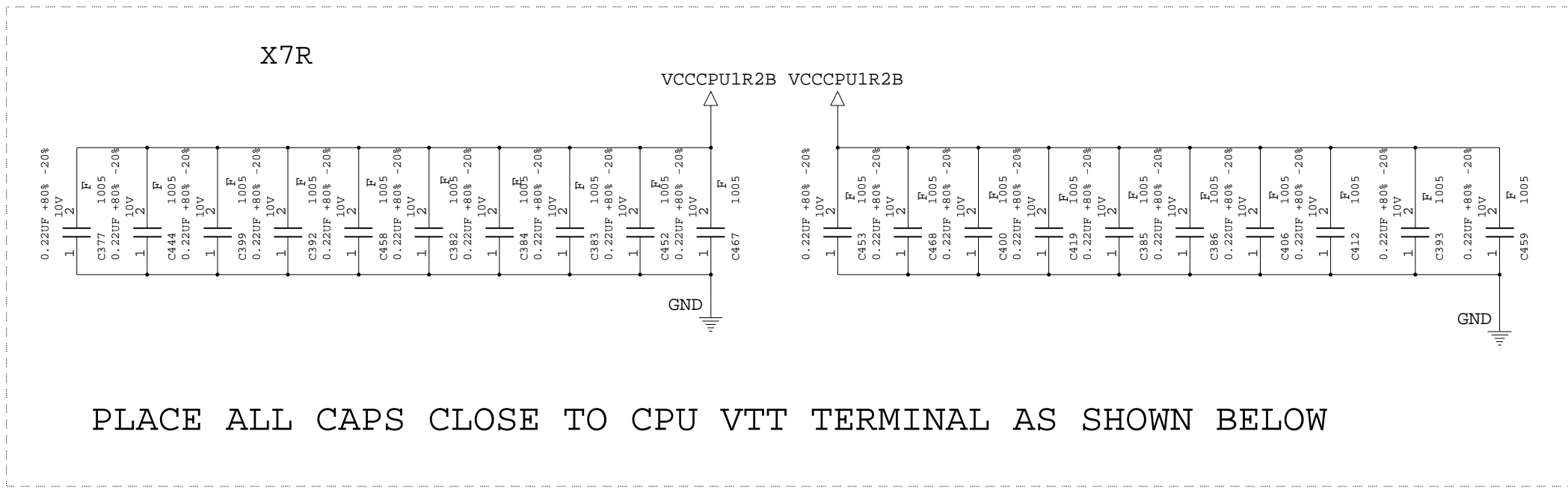
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APPROVED			TITLE	TORONTO-4.5
CLASS				CPU (2/3)
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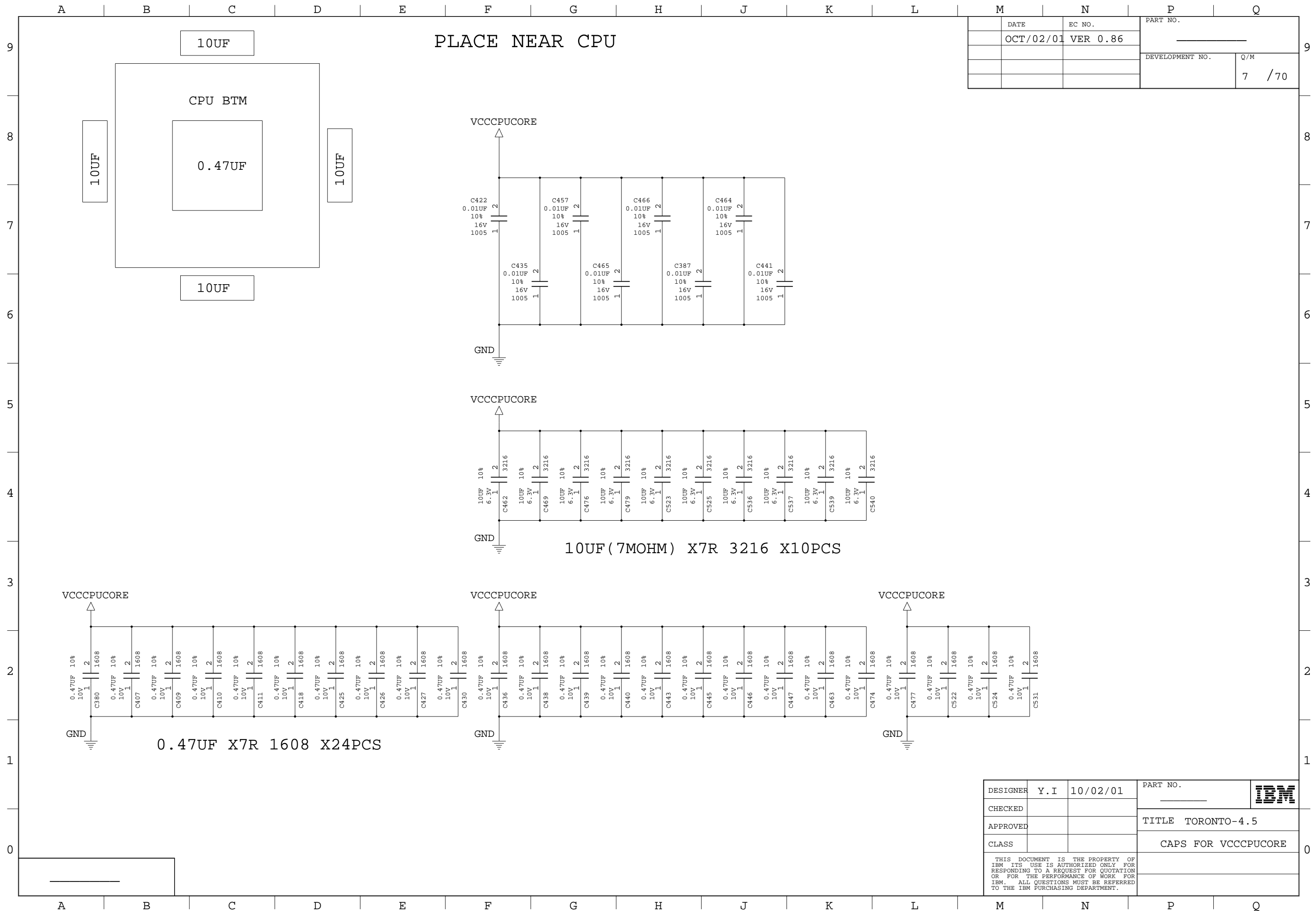
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APPROVED			TITLE TORONTO-4.5	
CLASS			CPU (3/3)	
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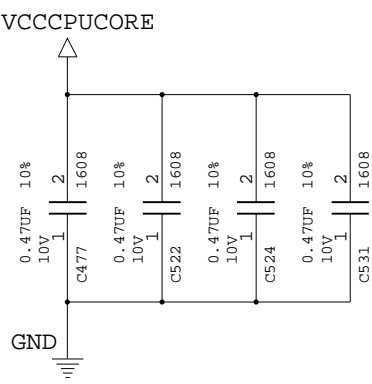
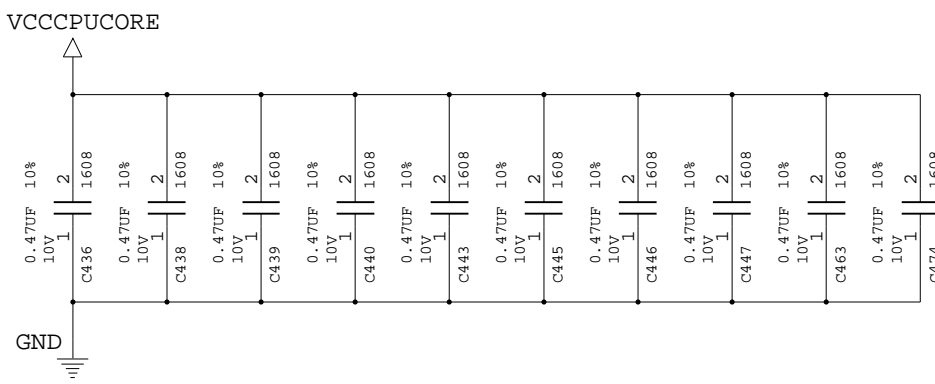
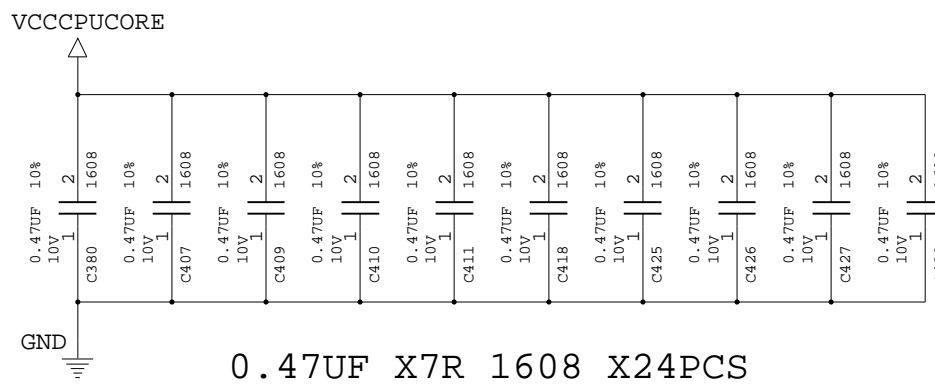


DESIGNER	Y.I	10/02/01	PART NO.	IBM
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APPROVED			TITLE TORONTO-4.5	
CLASS			DECAP FOR VCCCPU1R5B	
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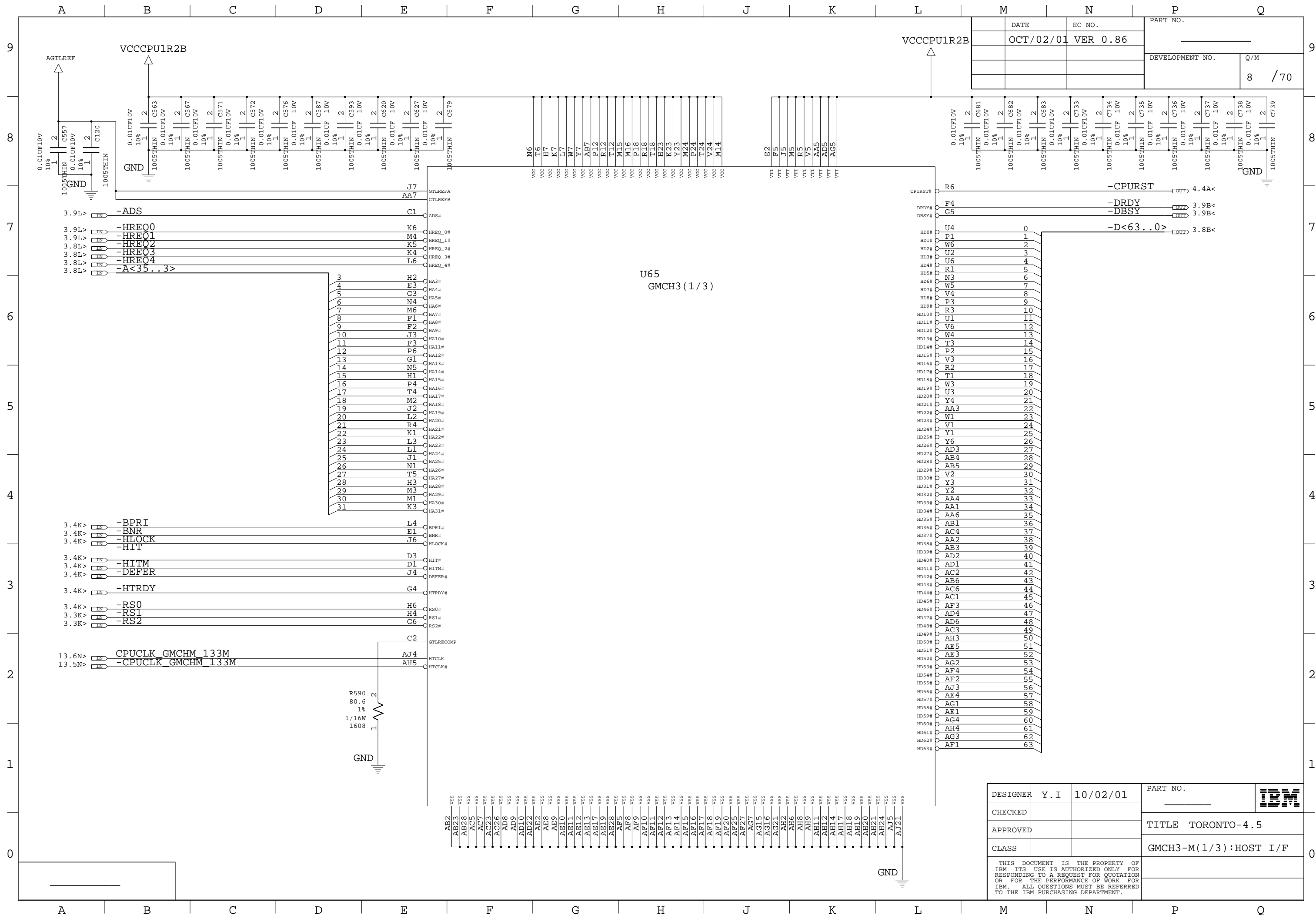


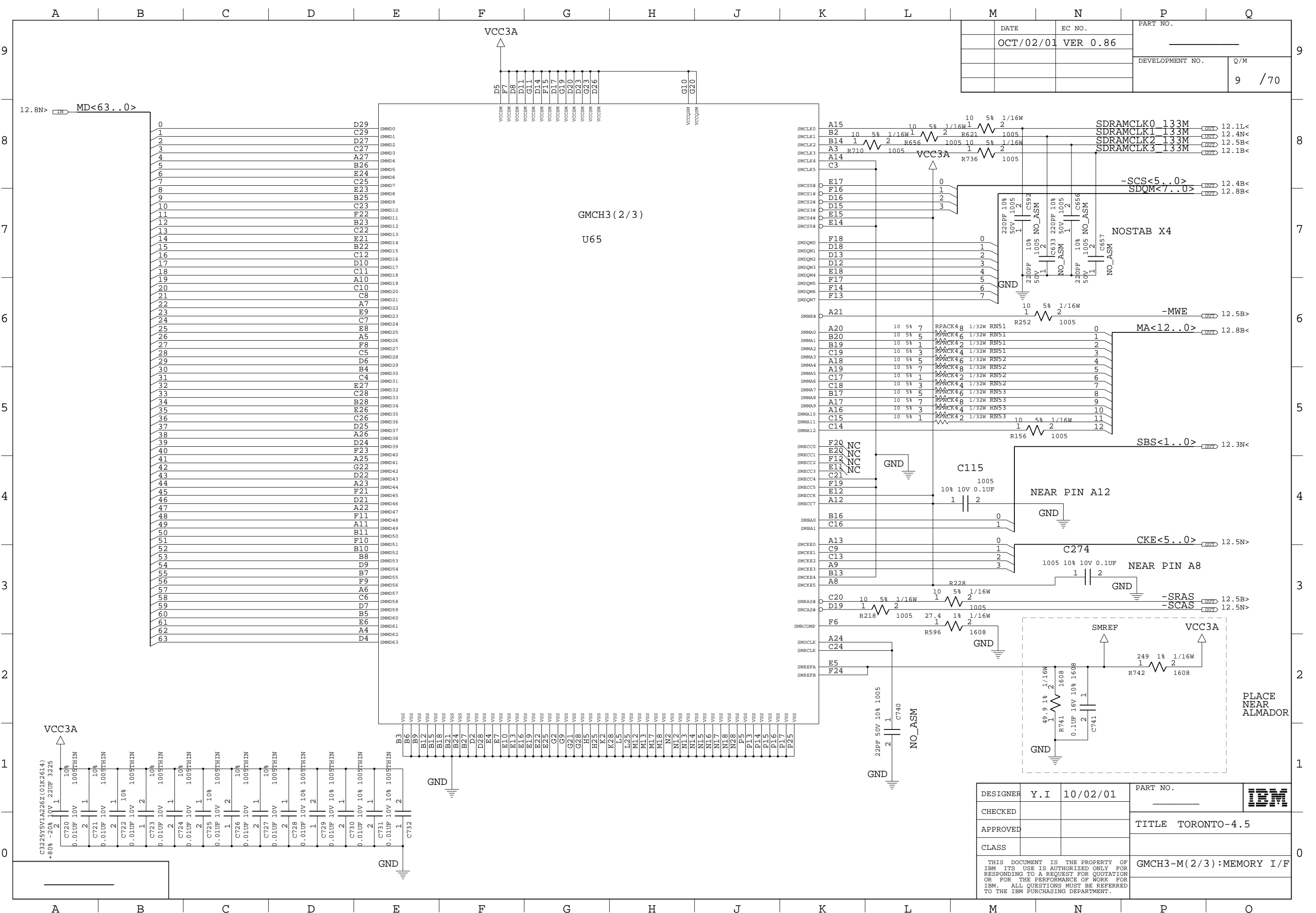
PLACE NEAR CPU

DATE	EC NO.	PART NO.	
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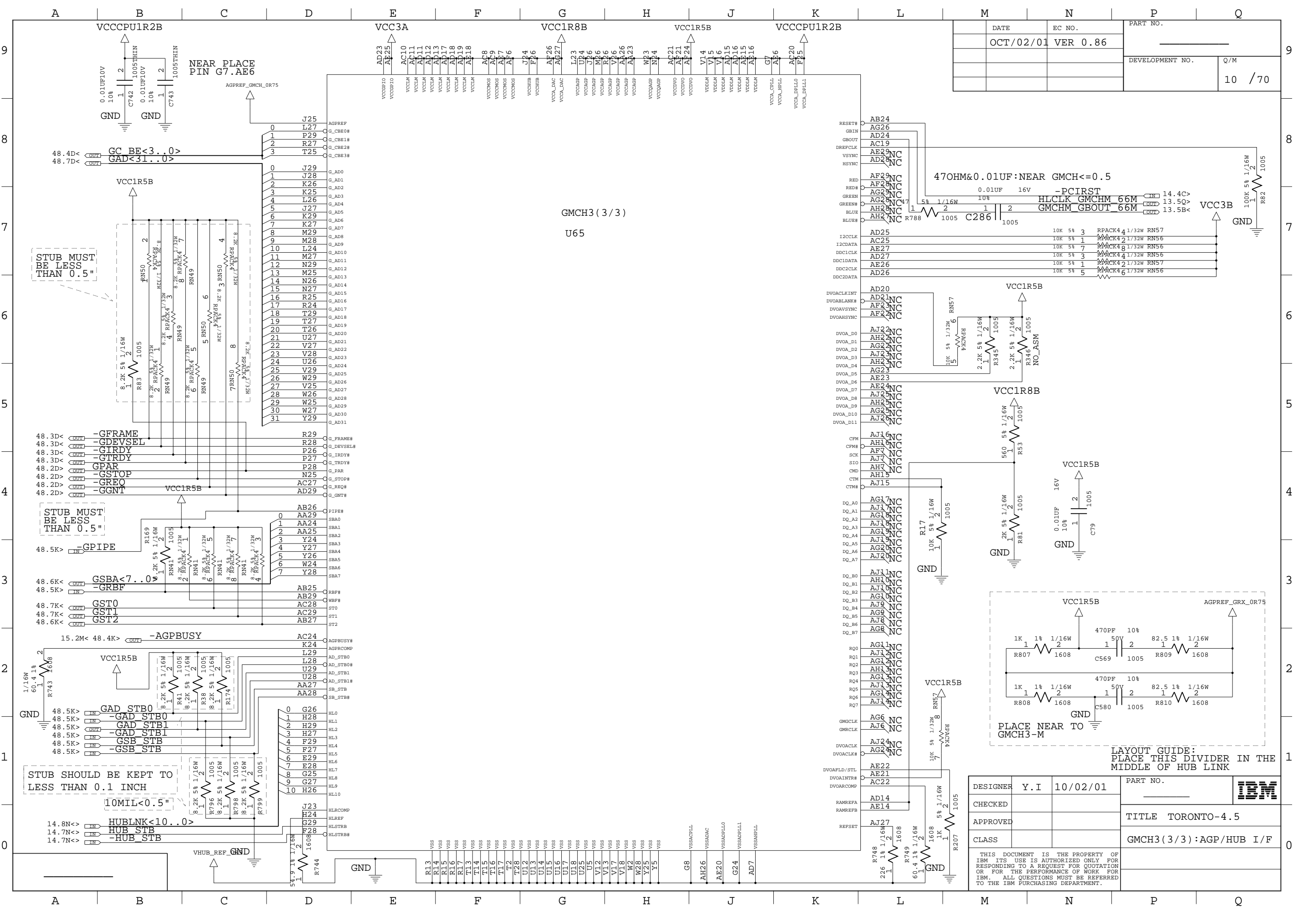
DESIGNER	Y.I	10/02/01	PART NO.	IBM
CHECKED			_____	
APPROVED			TITLE TORONTO-4.5	
CLASS			CAPS FOR VCCCPUCORE	
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APPROVED			TITLE	TORONTO-4.5
CLASS				
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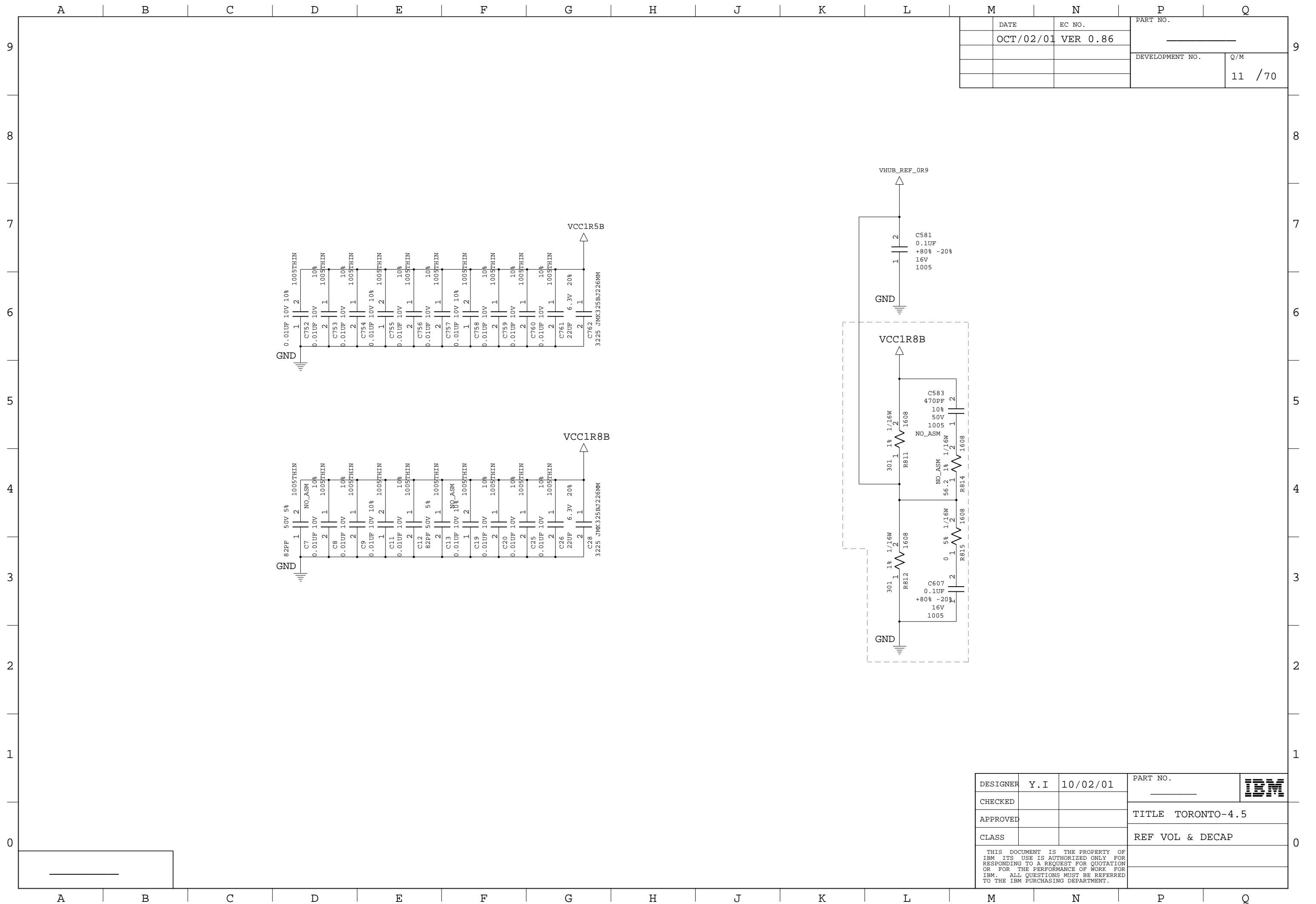
STUB MUST BE LESS THAN 0.5"

STUB MUST BE LESS THAN 0.5"

STUB SHOULD BE KEPT TO LESS THAN 0.1 INCH

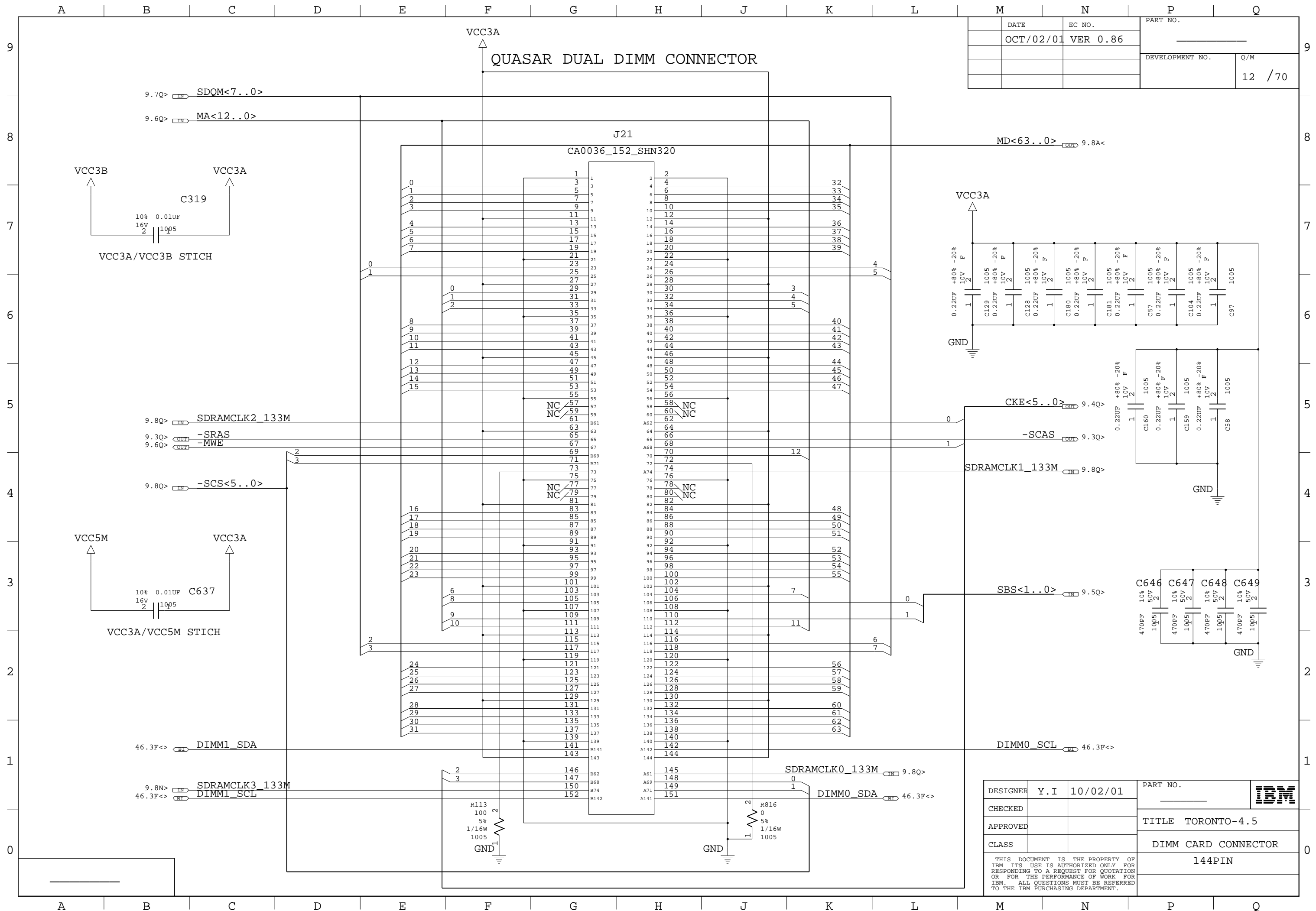
LAYOUT GUIDE: PLACE THIS DIVIDER IN THE MIDDLE OF HUB LINK

DESIGNER	Y.I	10/02/01	PART NO.	IBM
CHECKED			TITLE TORONTO-4.5	
APPROVED			GMCH3 (3/3) : AGP/HUB I/F	
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APPROVED			TITLE TORONTO-4.5	
CLASS			REF VOL & DECAP	
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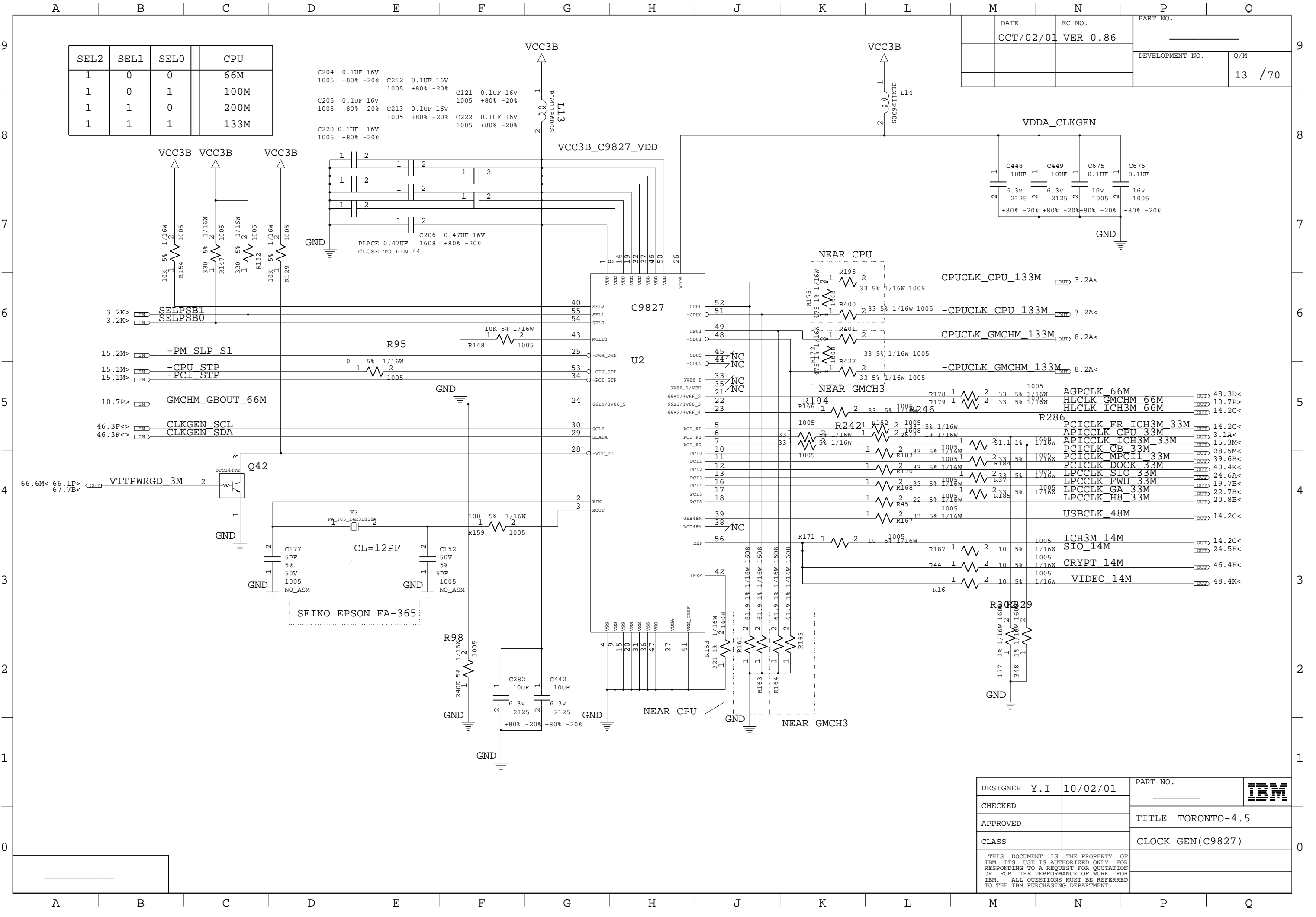
DATE	EC NO.	PART NO.
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DESIGNER	Y.I	10/02/01	PART NO.	
CHECKED			TITLE TORONTO-4.5	
APPROVED			DIMM CARD CONNECTOR	
CLASS			144PIN	
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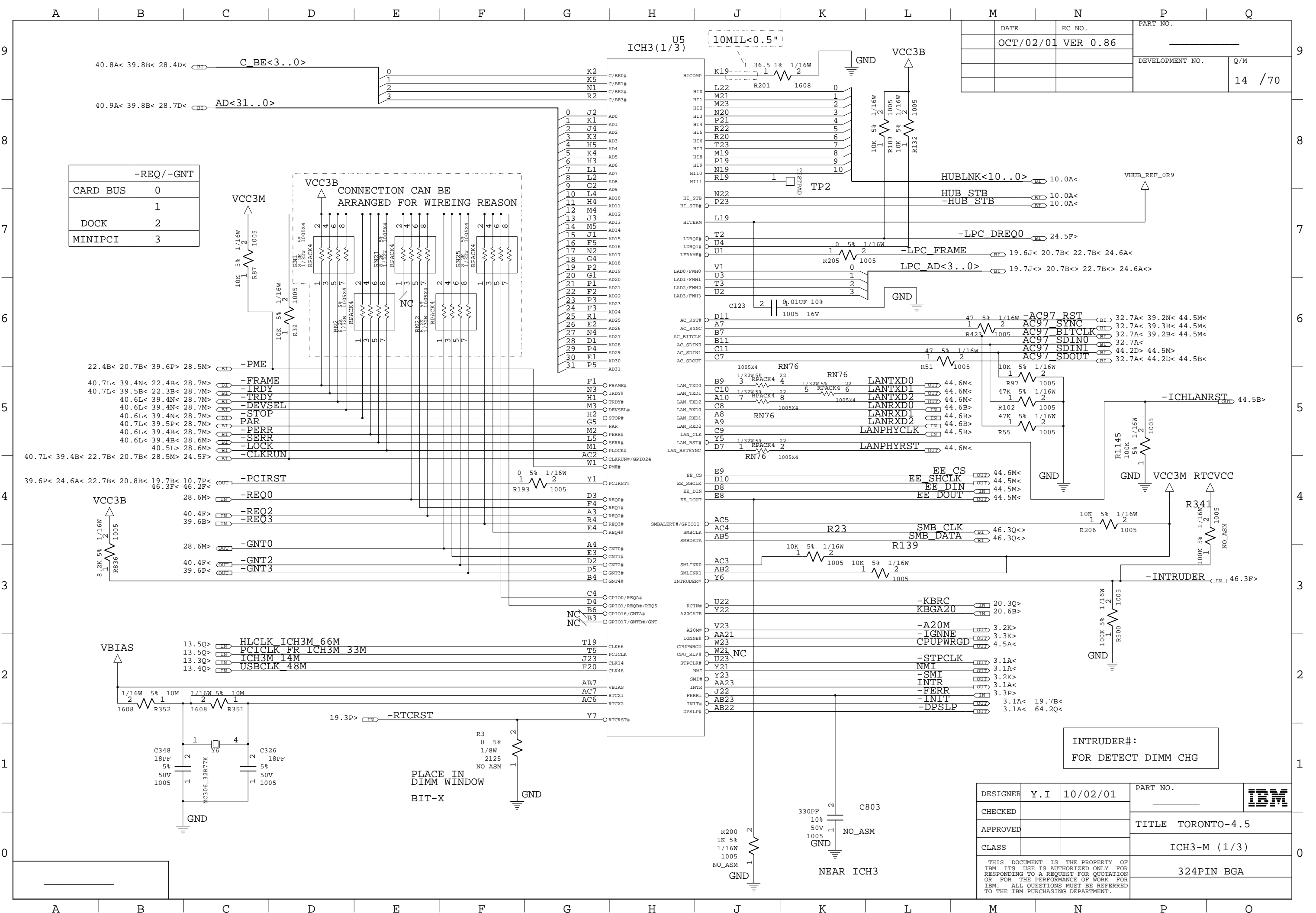
DATE	EC NO.	PART NO.
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DEVELOPMENT NO.		Q/M
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SEL2	SEL1	SEL0	CPU
1	0	0	66M
1	0	1	100M
1	1	0	200M
1	1	1	133M

- C204 0.1UF 16V 1005 +80% -20%
- C212 0.1UF 16V 1005 +80% -20%
- C205 0.1UF 16V 1005 +80% -20%
- C213 0.1UF 16V 1005 +80% -20%
- C220 0.1UF 16V 1005 +80% -20%
- C221 0.1UF 16V 1005 +80% -20%
- C222 0.1UF 16V 1005 +80% -20%



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CHECKED			TITLE	TORONTO-4.5
APPROVED			CLOCK GEN(C9827)	
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DESIGNER	Y.I	10/02/01	PART NO.	
CHECKED			TITLE	TORONTO-4.5
APPROVED			CLASS	ICH3-M (1/3)
				324PIN BGA

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	-REQ/-GNT
CARD BUS	0
DOCK	2
MINIPCI	3

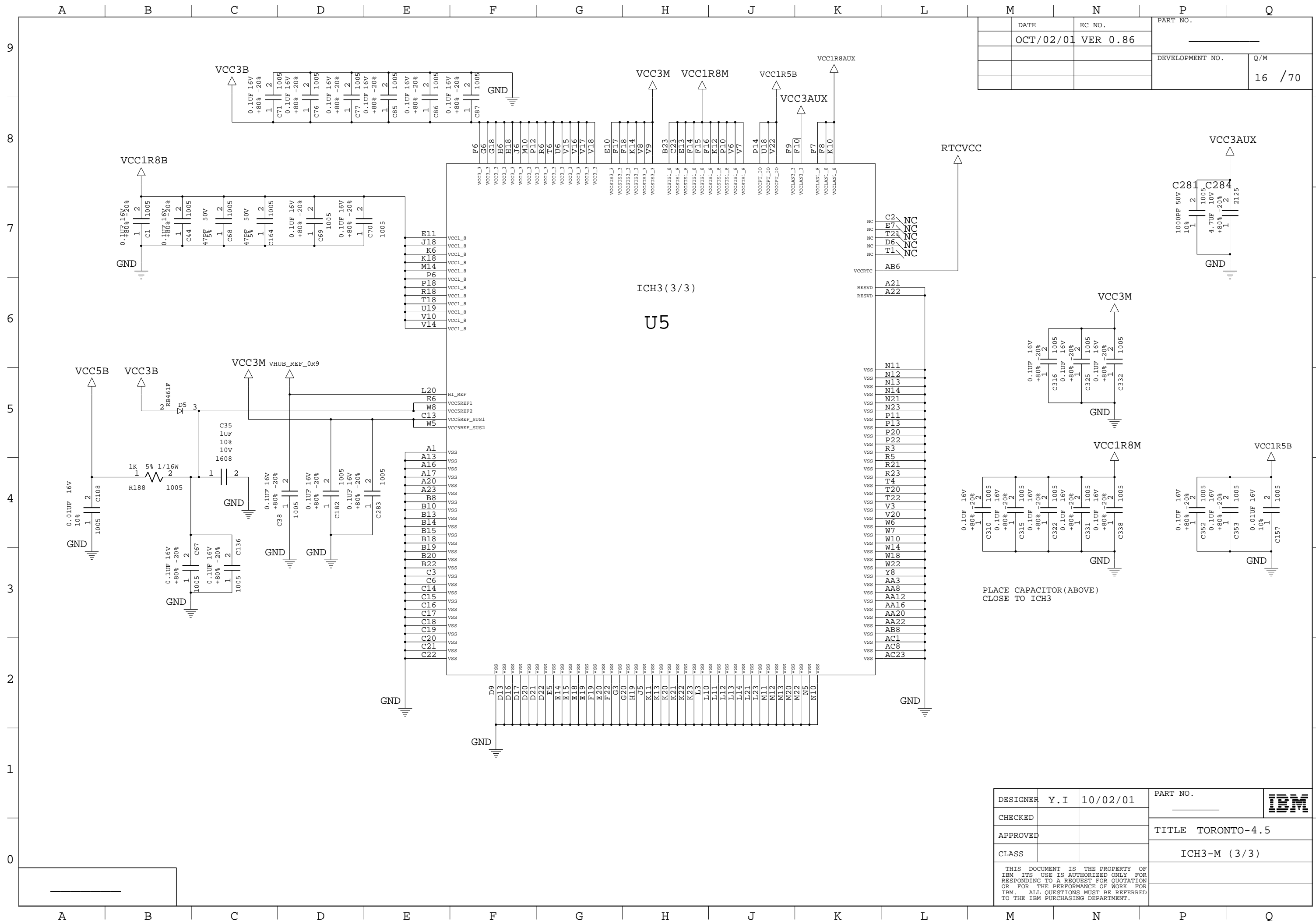
CONNECTION CAN BE ARRANGED FOR WIRING REASON

PLACE IN DIMM WINDOW BIT-X

INTRUDER#:
FOR DETECT DIMM CHG

DESIGNER	Y.I	10/02/01	PART NO.	
CHECKED			TITLE	TORONTO-4.5
APPROVED			CLASS	ICH3-M (1/3)
				324PIN BGA

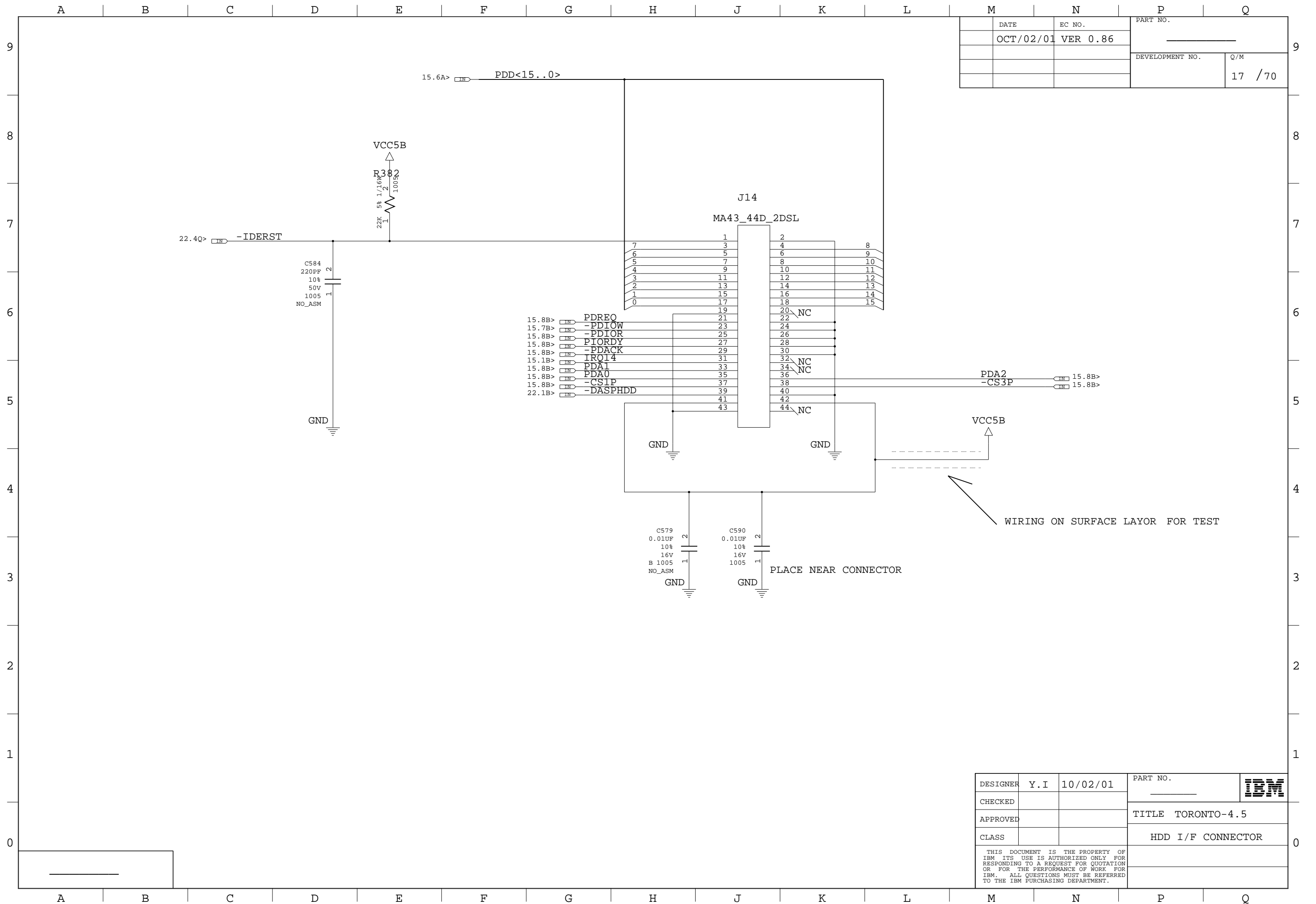
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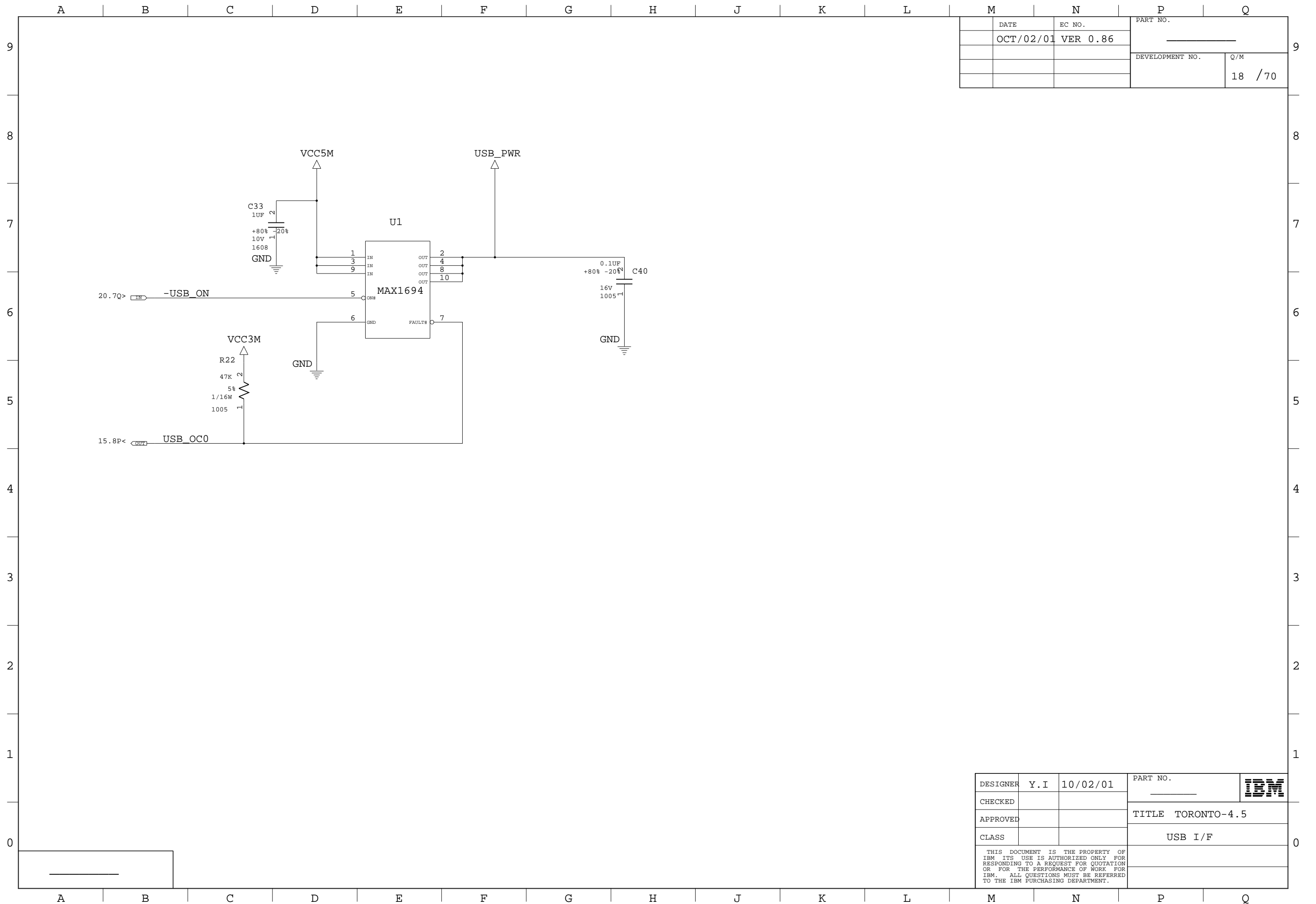
PLACE CAPACITOR (ABOVE)
CLOSE TO ICH3

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CLASS			ICH3-M (3/3)	
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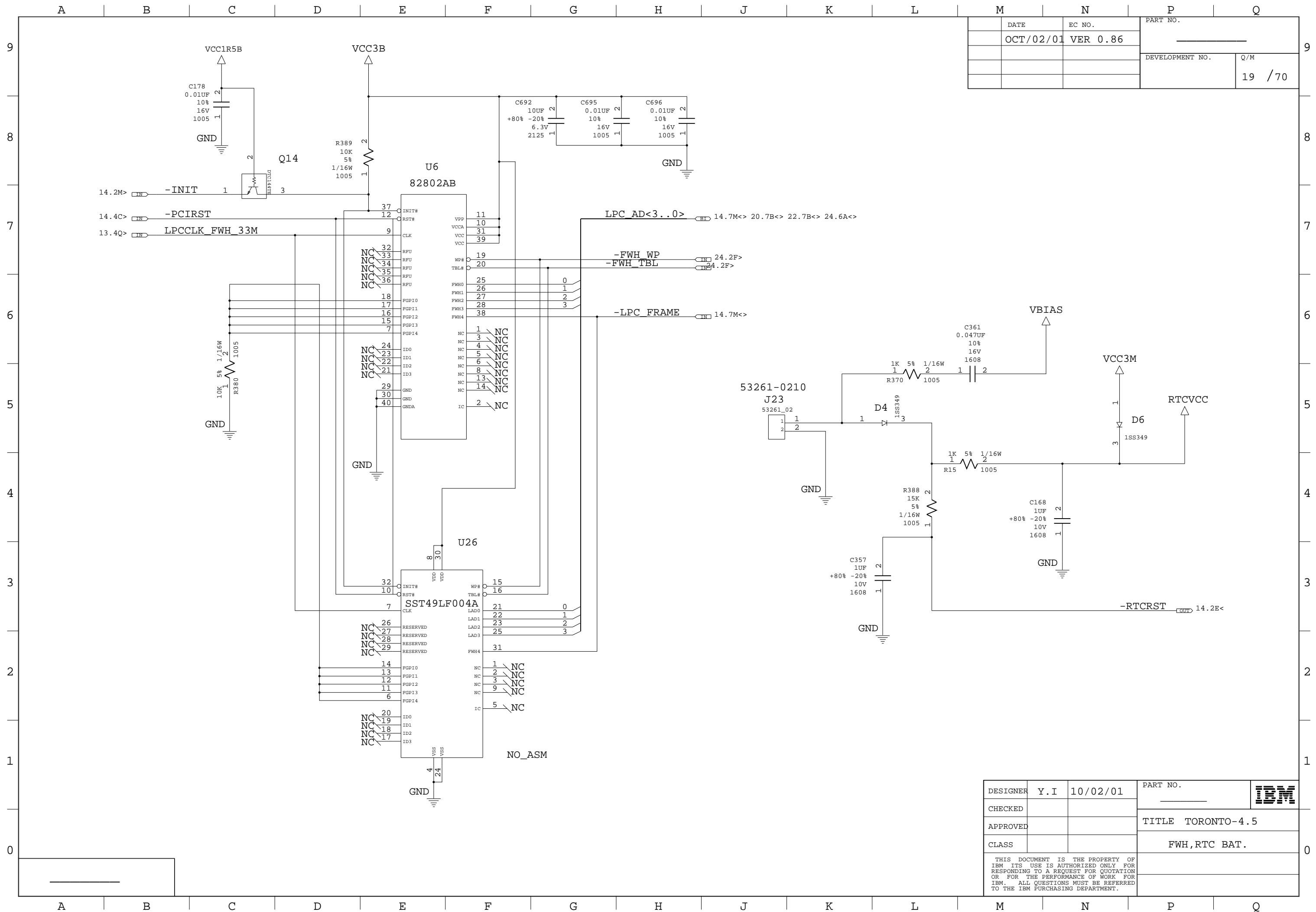
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DESIGNER	Y. I	10/02/01	PART NO.	IBM
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APPROVED			TITLE TORONTO-4.5	
CLASS			HDD I/F CONNECTOR	
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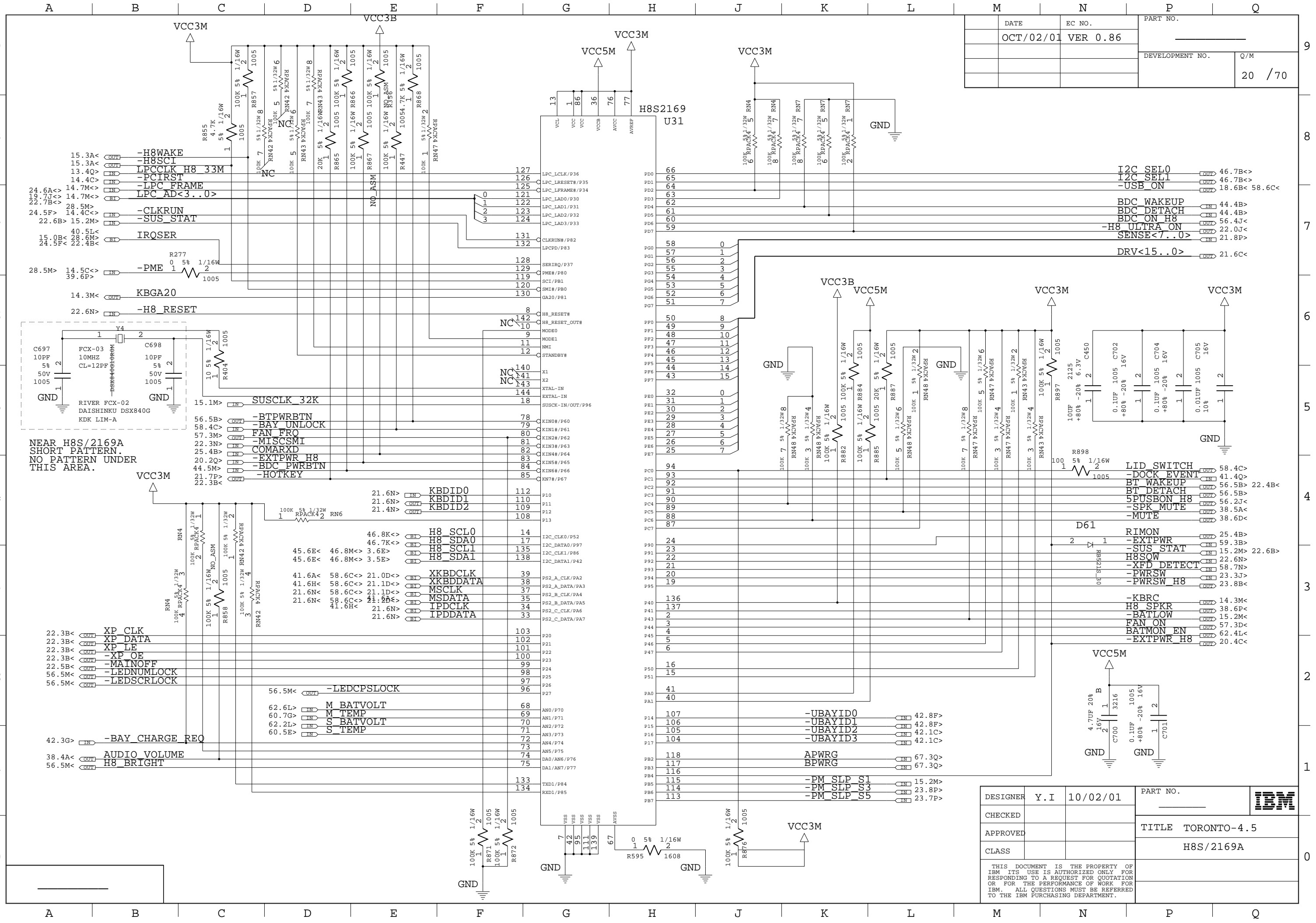
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APPROVED			TITLE TORONTO-4.5	
CLASS			USB I/F	
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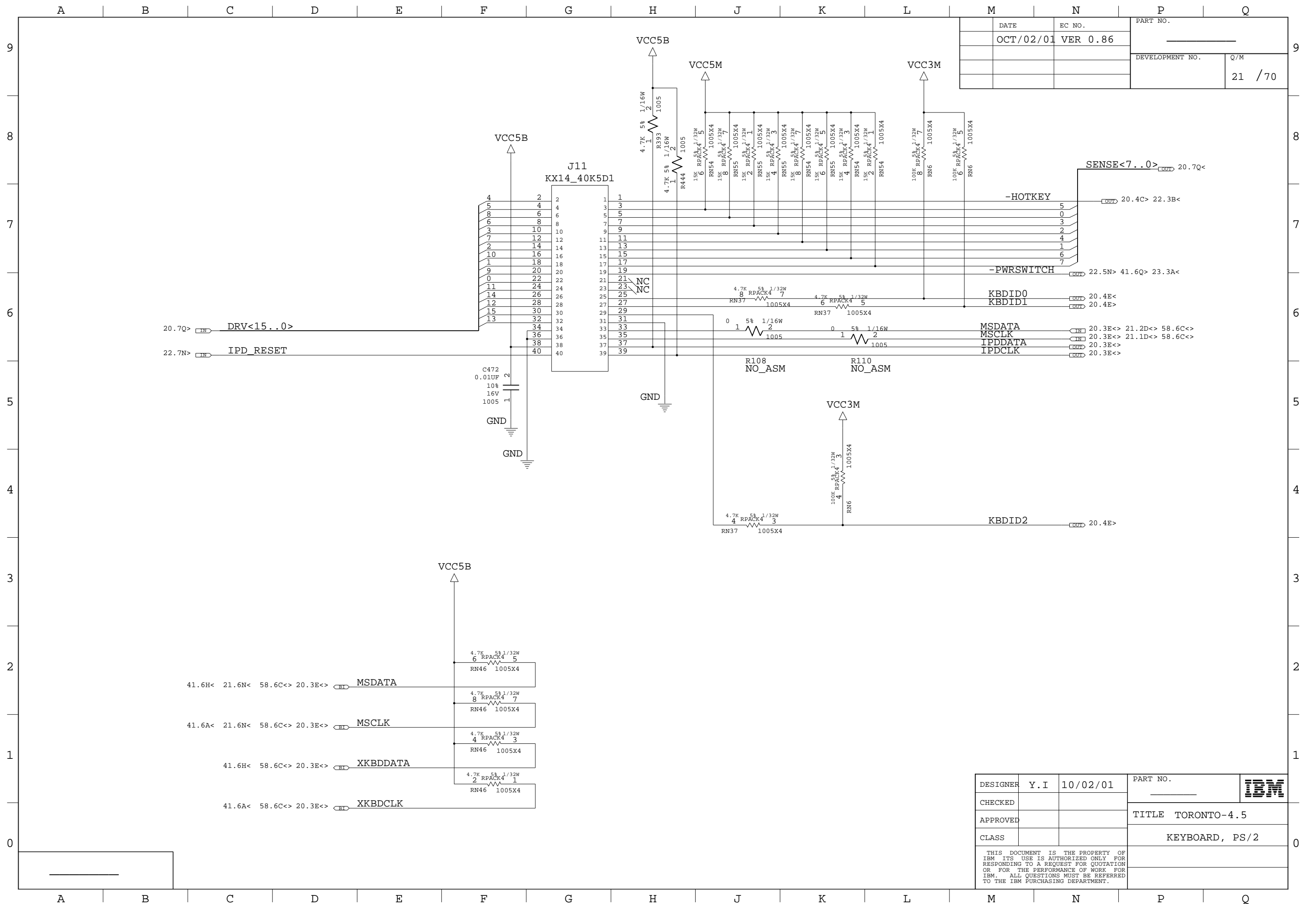
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CLASS			FWH, RTC BAT.	
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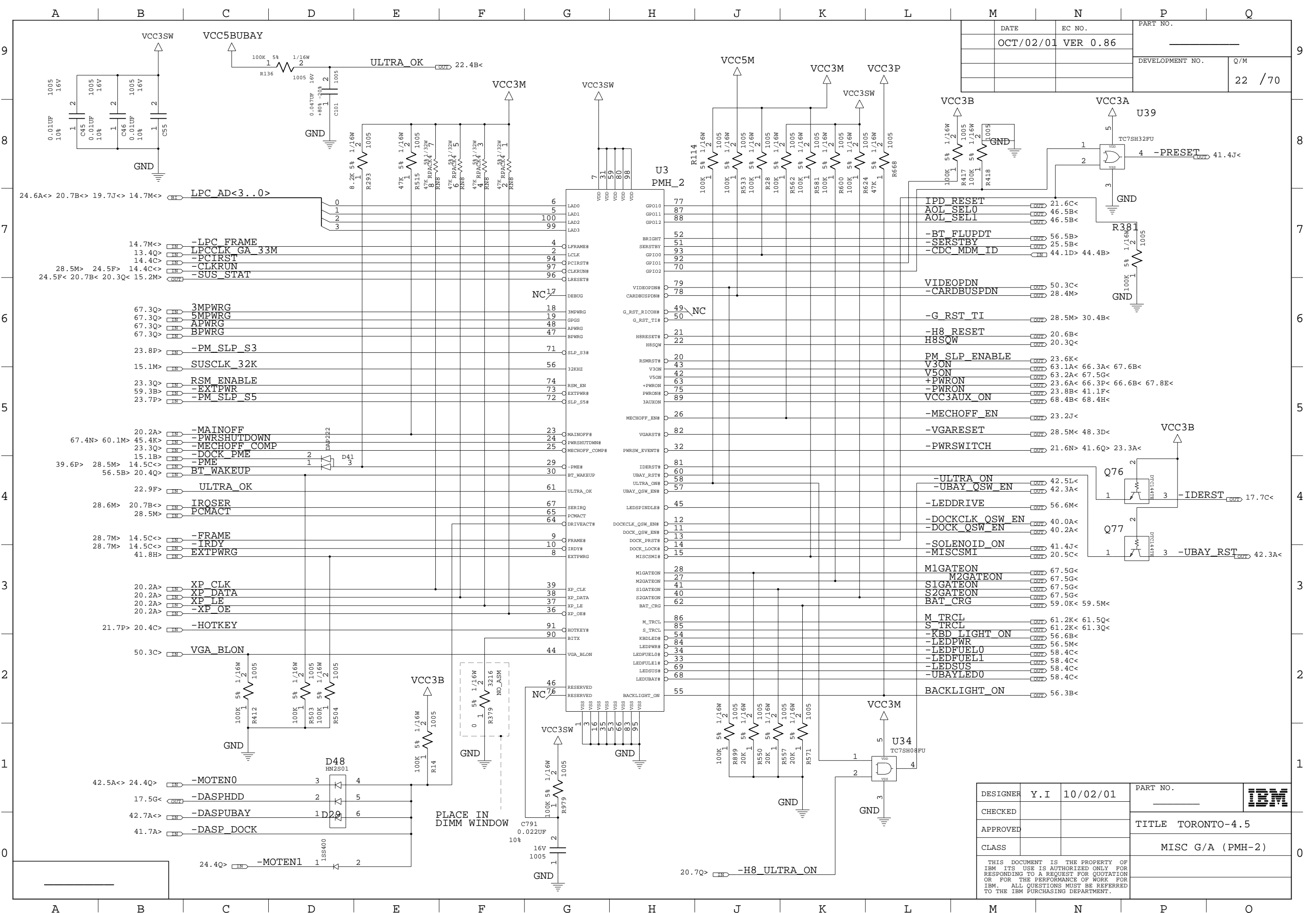
NEAR H8S/2169A
SHORT PATTERN.
NO PATTERN UNDER
THIS AREA.

DESIGNER	Y.I	10/02/01	PART NO.	IBM
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APPROVED			TITLE	TORONTO-4.5
CLASS				H8S/2169A
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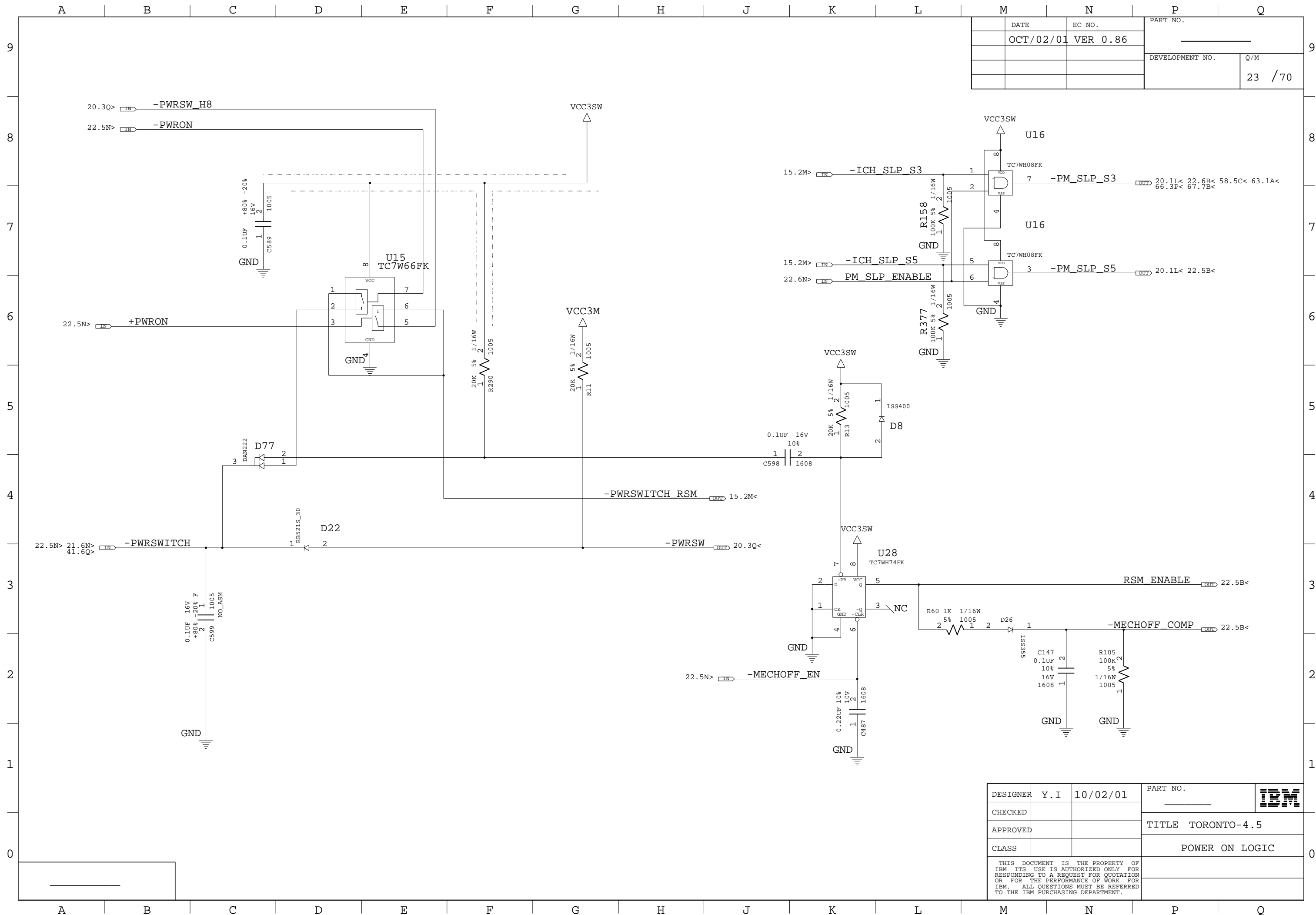
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CHECKED				
APPROVED			TITLE TORONTO-4.5	
CLASS			KEYBOARD, PS/2	
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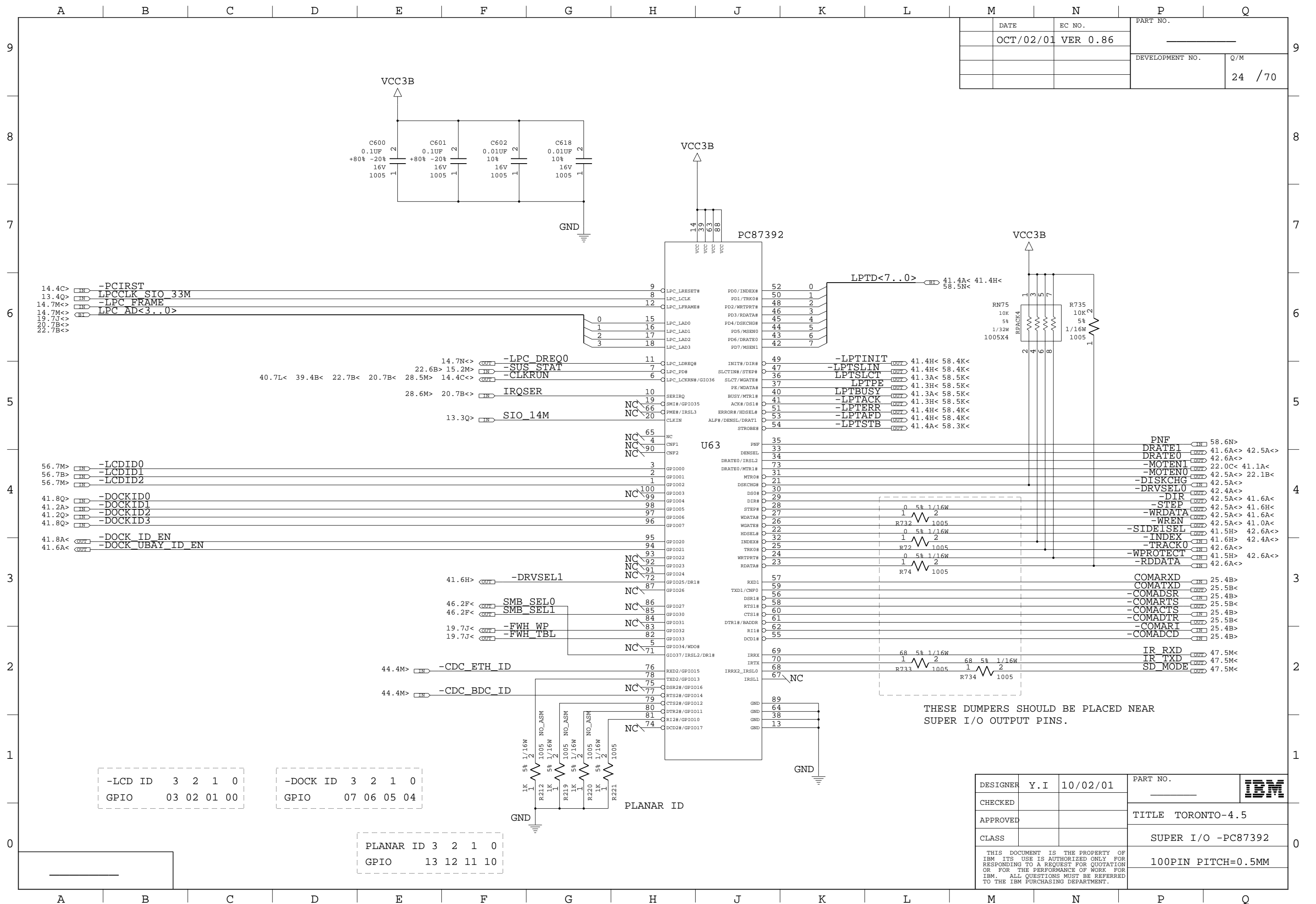
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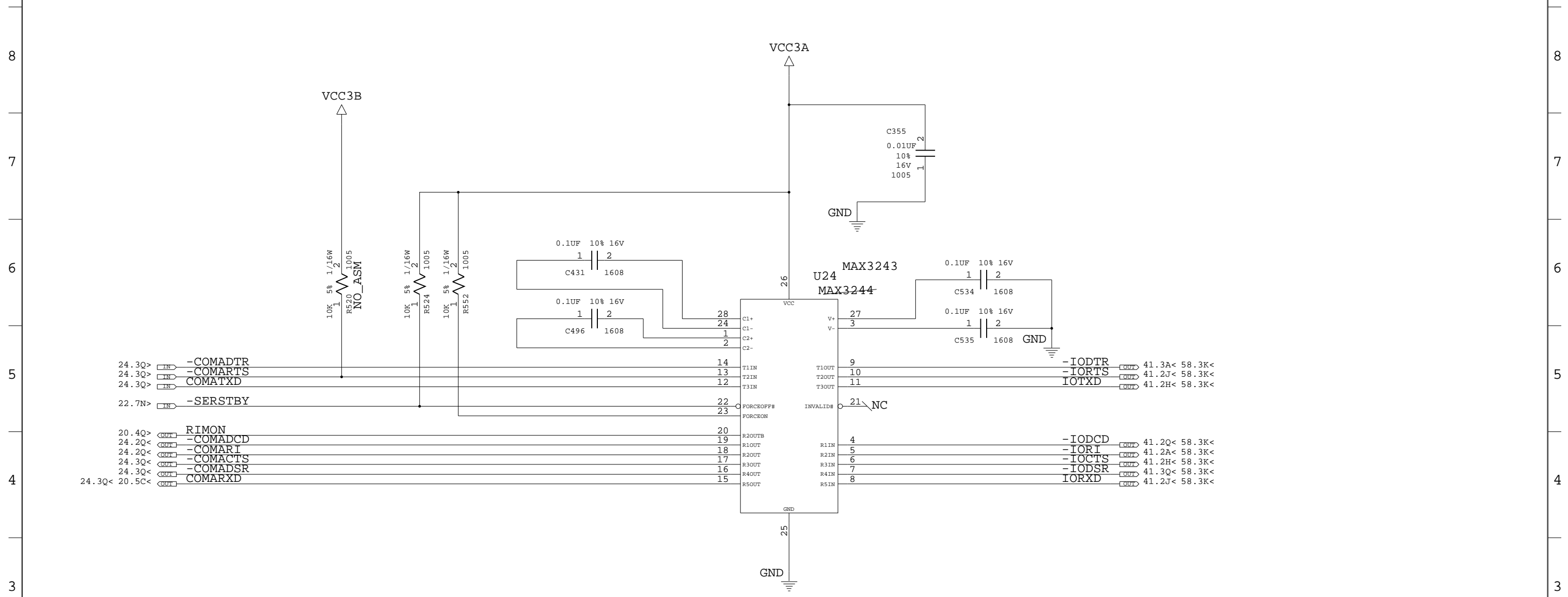
DESIGNER	Y.I	10/02/01	PART NO.	IBM
CHECKED			TITLE TORONTO-4.5	
APPROVED			MISC G/A (PMH-2)	
CLASS				
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DESIGNER	Y. I	10/02/01	PART NO.	IBM
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CLASS			POWER ON LOGIC	
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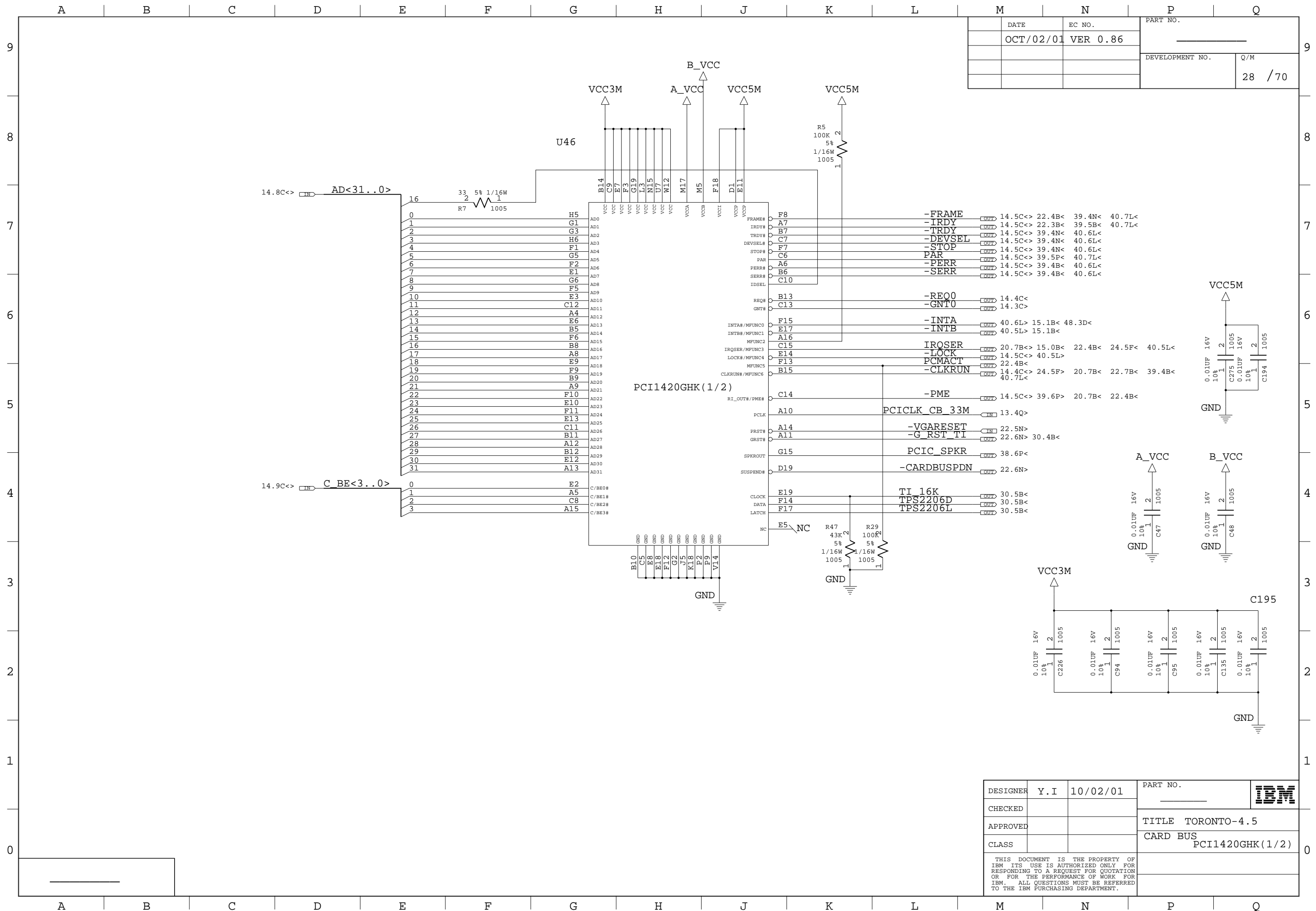


R1IN/R2IN/R3IN/R5IN HAVE INTERNAL PULLDOWN(5K OHM).
 DO NOT WIRE SIGNALS UNDER PINS (1/2/3/24/25/26/27/28)
 CHARGE PUMP CAPACITOR SHOULD BE PLACED NEAR PINS(1/2/3/24/27/28)
 ADD GND SHILED UNDER CHARGE PUMP CIRCUIT TO
 PROTECT POWER LINE NOISE
 CAPACITORS FOR CHARGE PUMP SHOULD BE USED TYPE B AND LOW ESR TYPE.

	NOMAL MODE	POWER DOWN MODE	AUTO POWER DOWN MODE
FORCEON	HIGH	DO NOT CARE	LOW
FOCEOFF	HIGH	LOW	HIGH

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APPROVED			TITLE TORONTO-4.5	
CLASS			SERIAL I/F	
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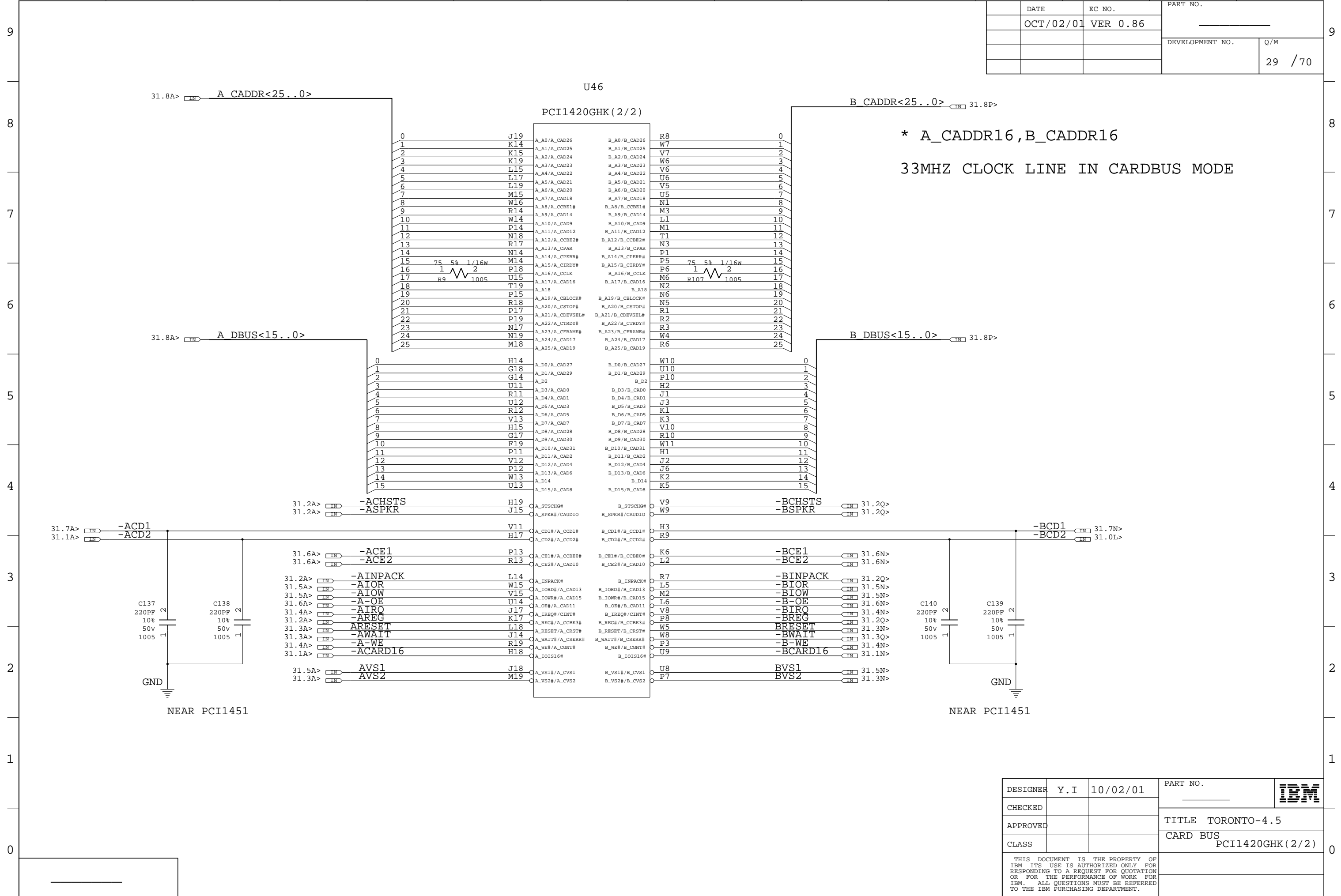
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											OCT/02/01	VER 0.86		
													DEVELOPMENT NO.	Q/M
														26 /70
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											CLASS			PARALLEL PORT
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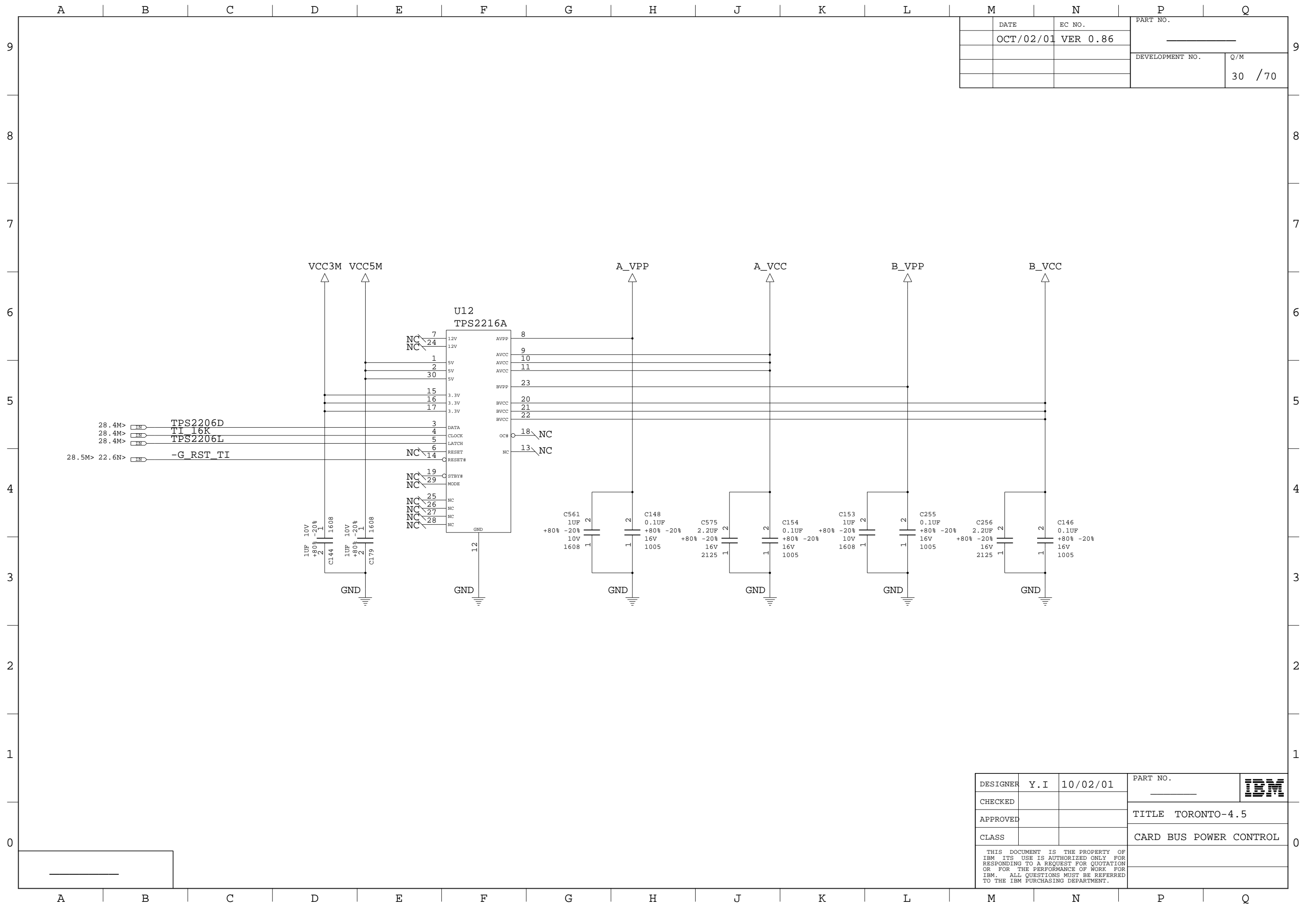
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OCT/02/01	VER 0.86	
DEVELOPMENT NO.		Q/M
28 / 70		

DESIGNER	Y.I	10/02/01	PART NO.	IBM
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APPROVED			TITLE	TORONTO-4.5
CLASS			CLASS	CARD BUS
			PART	PCI1420GHK (1/2)
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DEVELOPMENT NO.		Q/M	
		29 / 70	

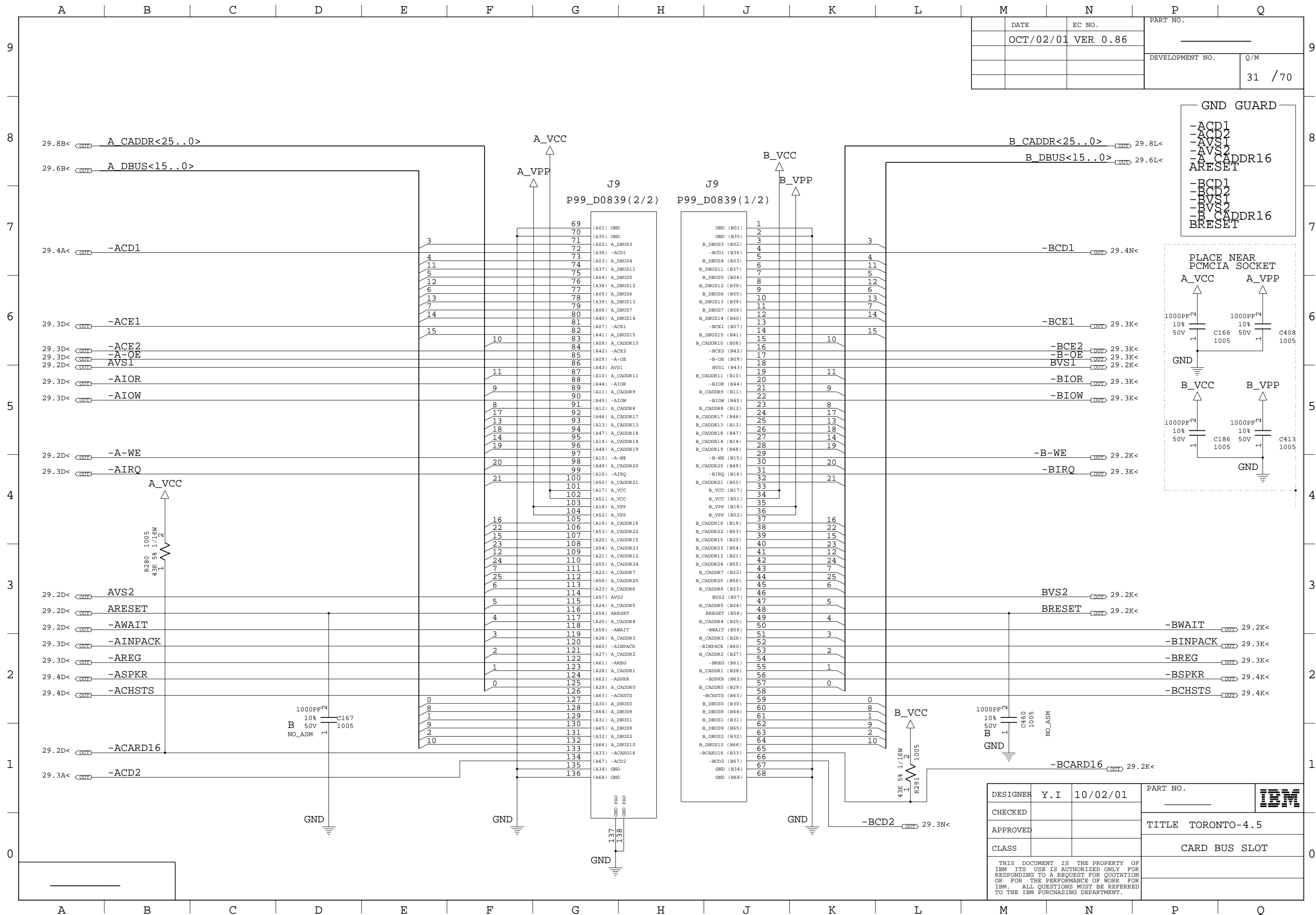


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APPROVED			TITLE TORONTO-4.5	
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			30 / 70

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APPROVED			TITLE TORONTO-4.5	
CLASS			CARD BUS POWER CONTROL	
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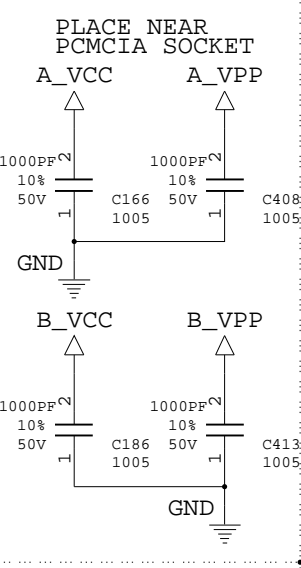


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OCT/02/01	VER 0.86	
DEVELOPMENT NO.		Q/M
		31 / 70

GND GUARD

-ACD1
-ACD2
-AVS1
-AVS2
-A_CADDR16
ARESET

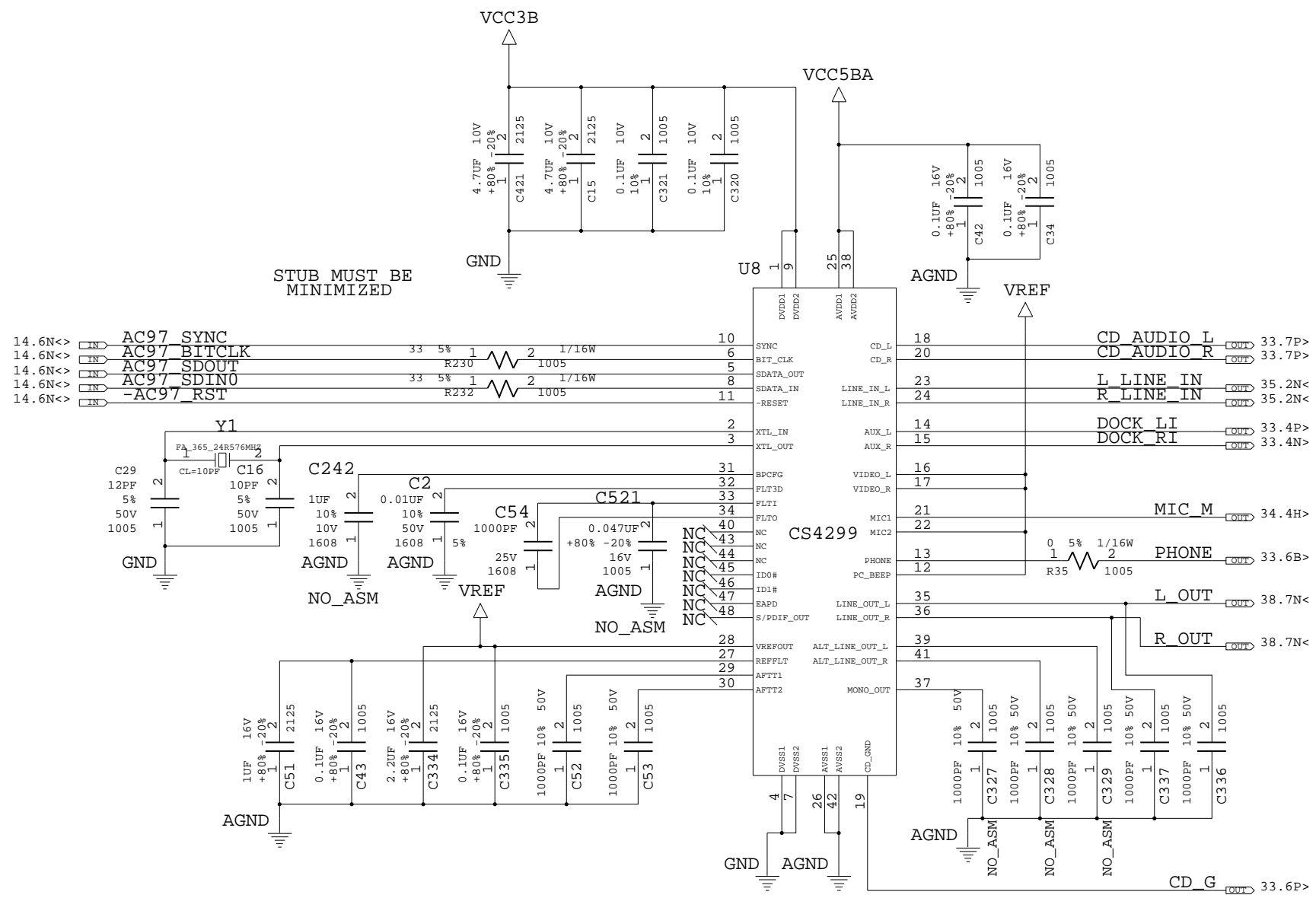
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-BCD2
-BVS1
-BVS2
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CHECKED			TITLE TORONTO-4.5	
APPROVED			CARD BUS SLOT	
CLASS				

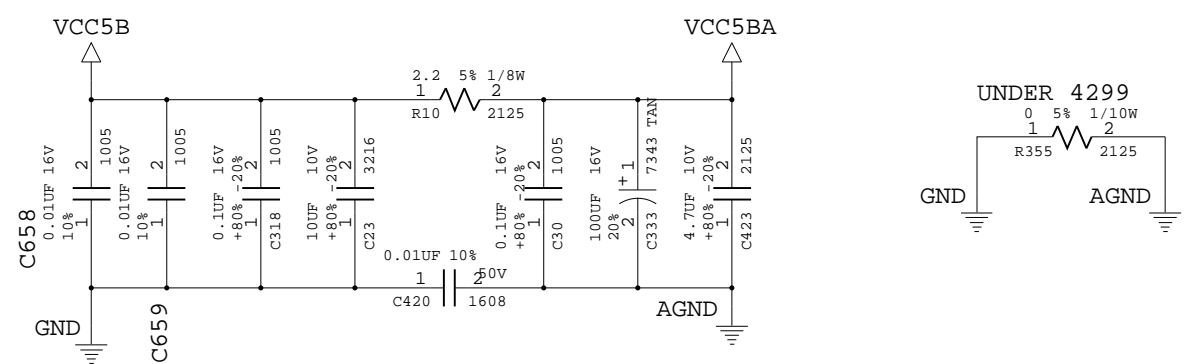
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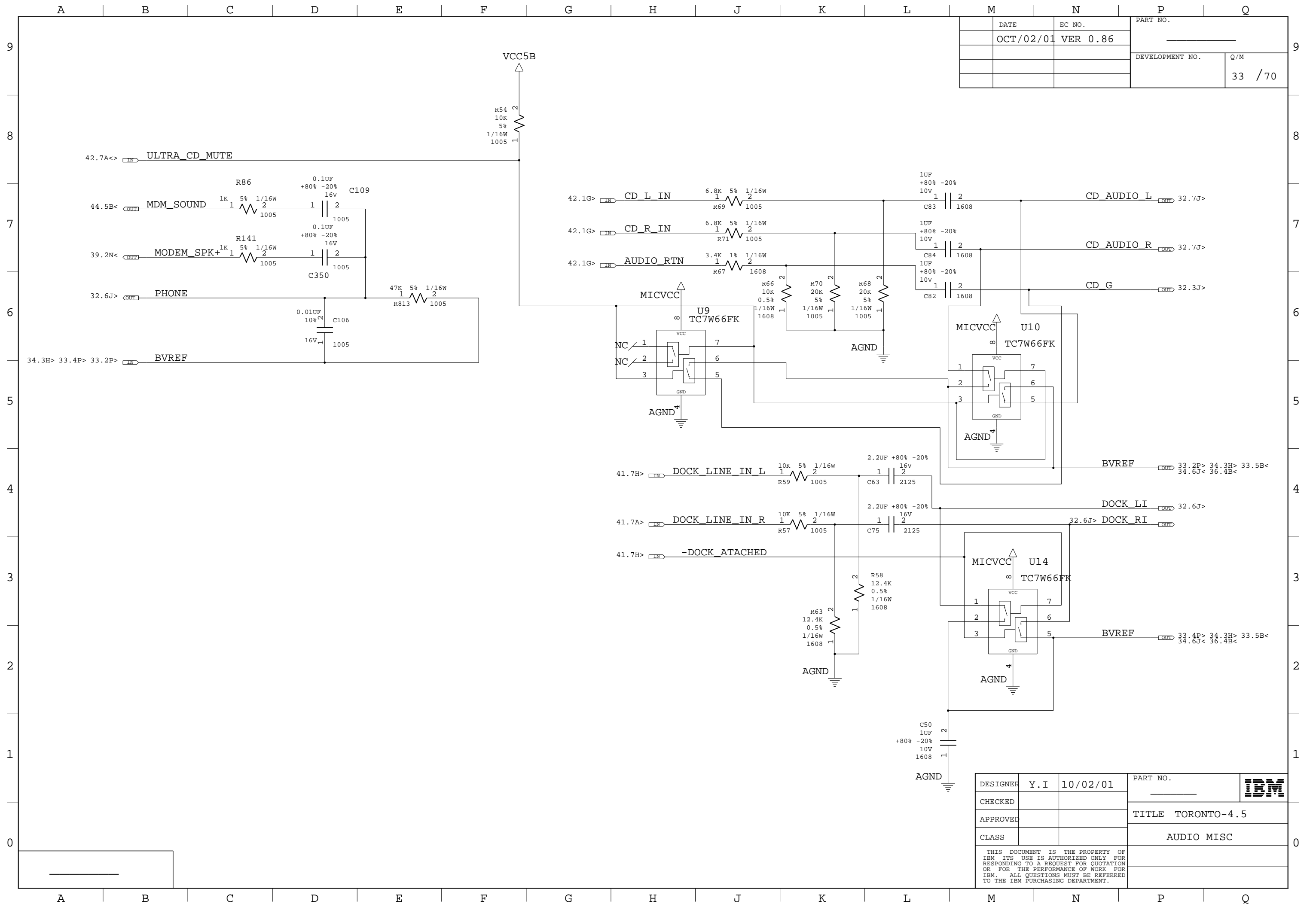


LOGIC VALUE IS SET FOR CS4299

	AD1881A	CS4299
C2	1UF, 10%, 10V, 1608	0.01UF, 10%, 1608, 50V
C51	4.7UF, 10V, 2125	1UF, 2125, 16V
C52, C53	270PF, 50V, 10%, 1005	1000PF, 50V, 10%, 1005
C54	0.1UF, 10V, 1608	1000PF, 5%, 1608, 25V
C336, C337	270PF, 50V, 10%, 1005	1000PF, 50V, 10%, 1005
C242	1UF, 10%, 10V, 1608	NO-ASM
C521	0.047UF, 16V, 1005	NO-ASM

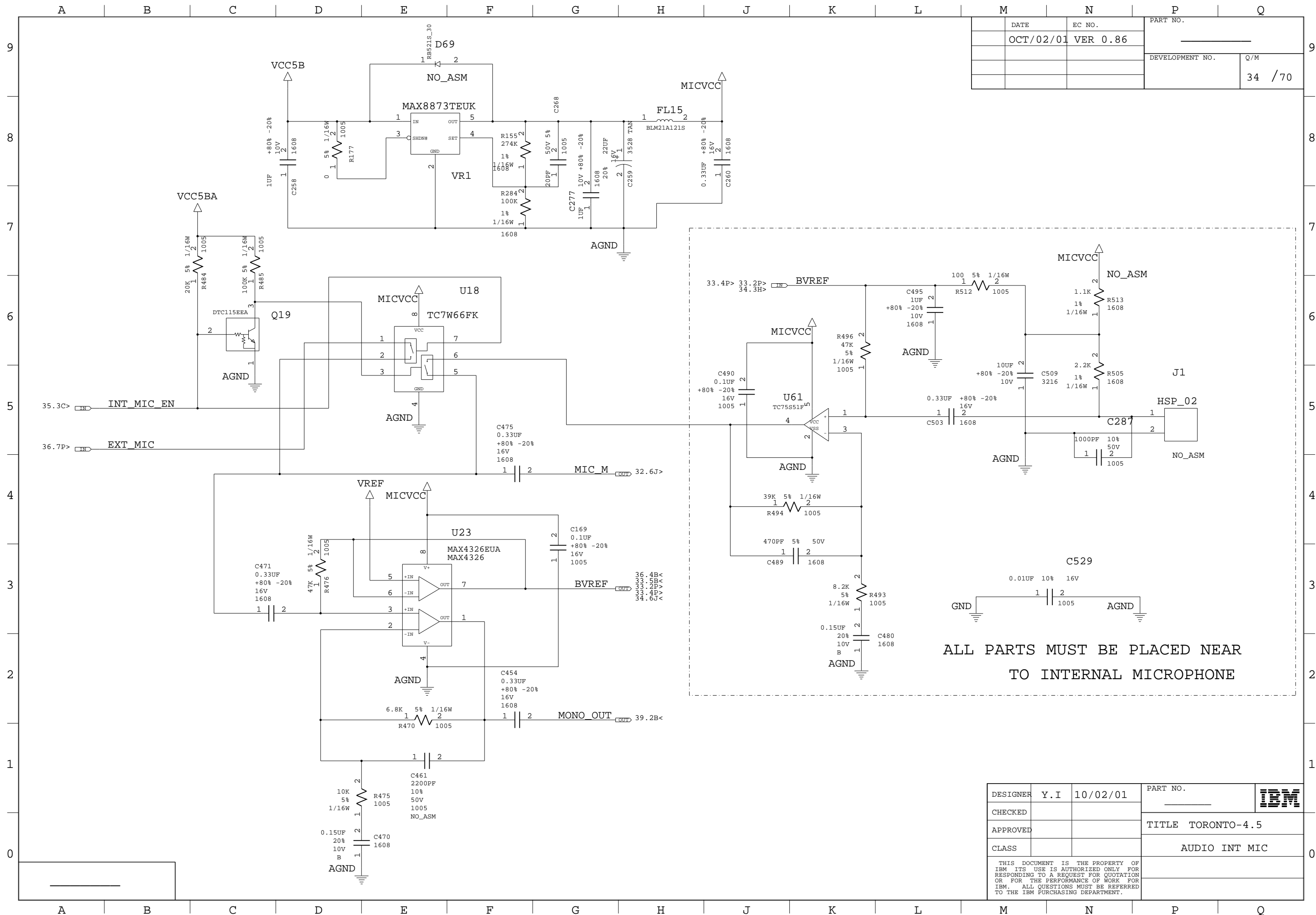


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APPROVED			TITLE TORONTO-4.5	
CLASS			AUDIO CS4299	
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DEVELOPMENT NO.		Q/M
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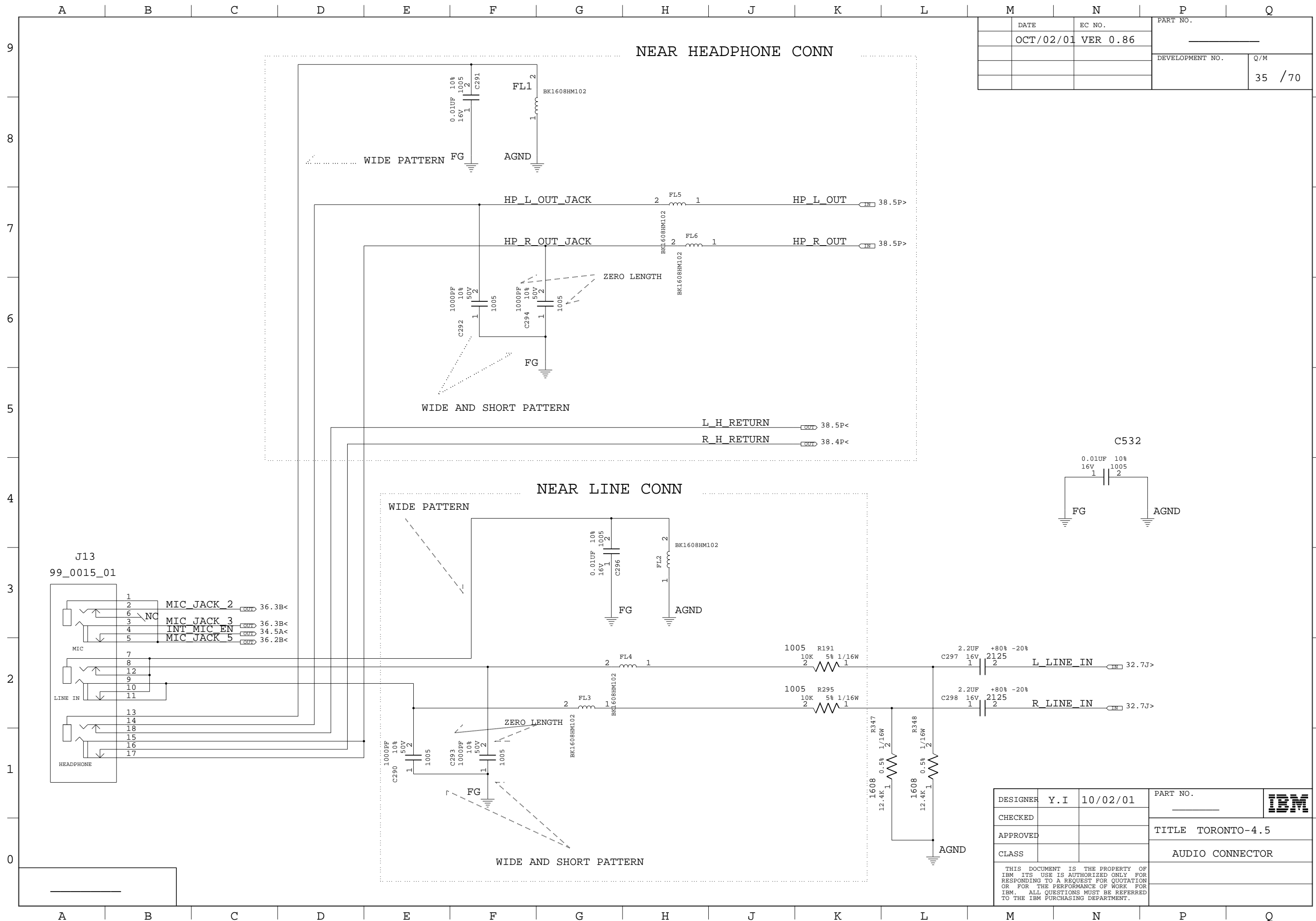
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DATE	EC NO.	PART NO.
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DEVELOPMENT NO.		Q/M
		34 / 70

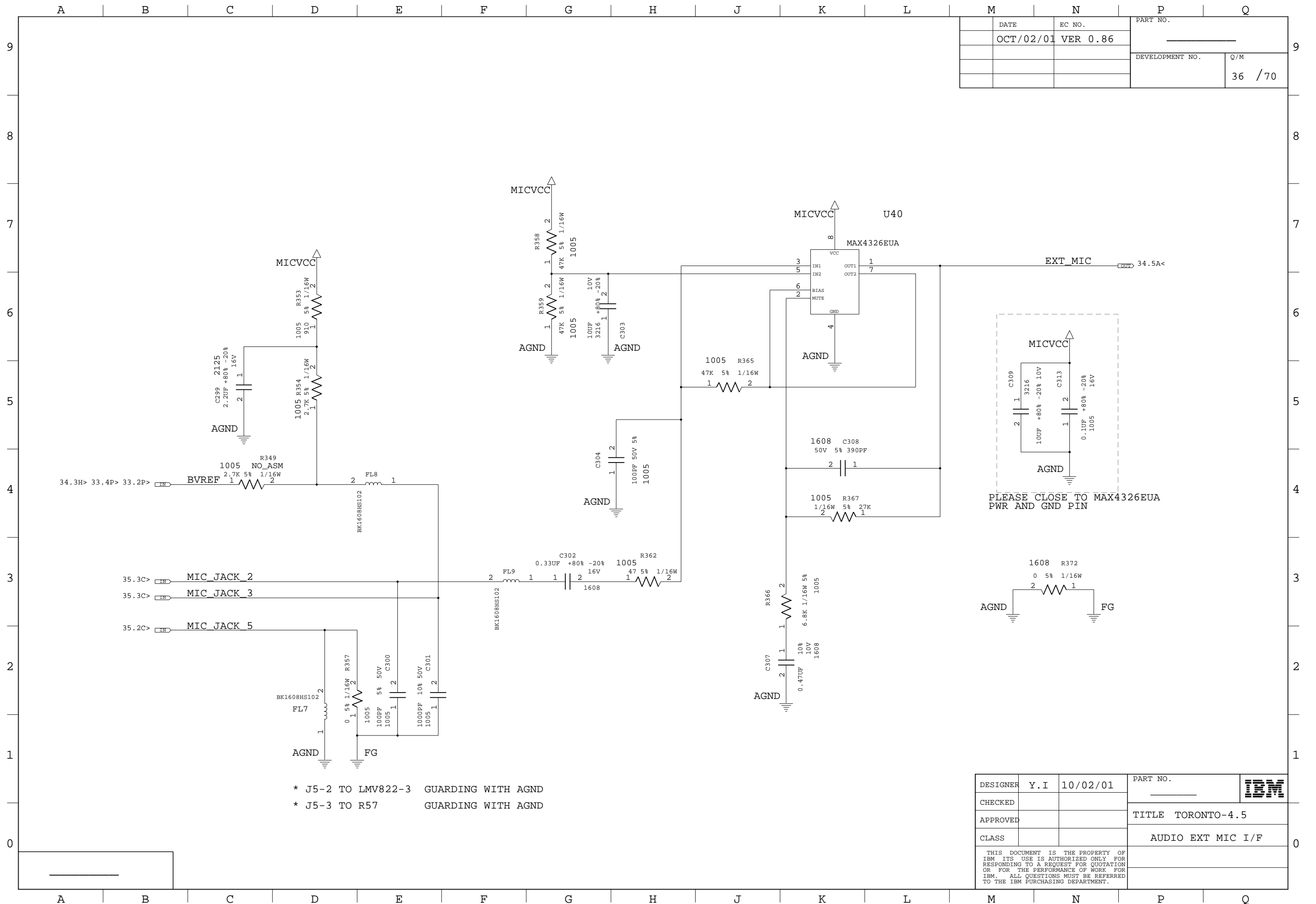
ALL PARTS MUST BE PLACED NEAR TO INTERNAL MICROPHONE

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CHECKED			TITLE TORONTO-4.5	
APPROVED			CLASS	
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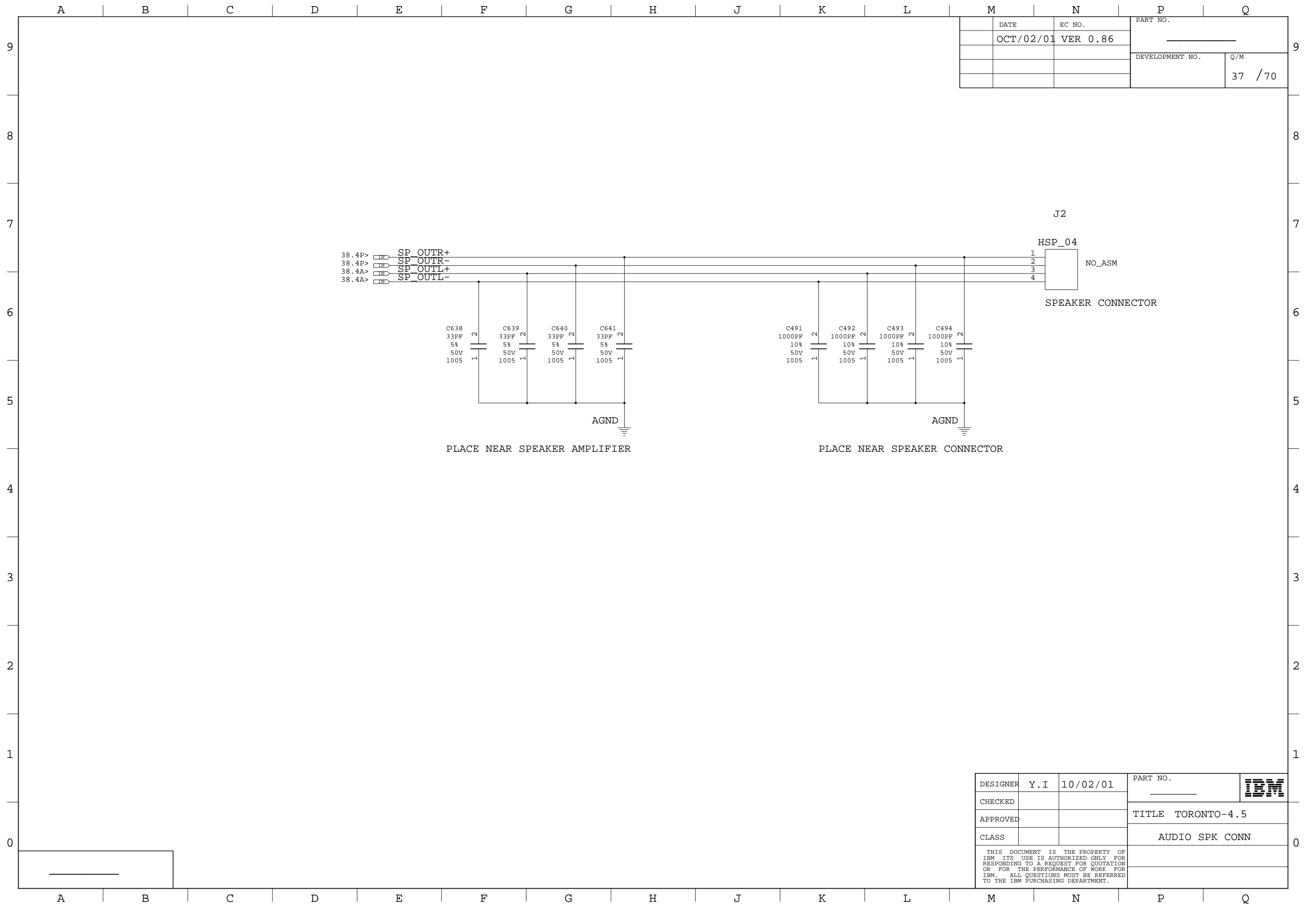
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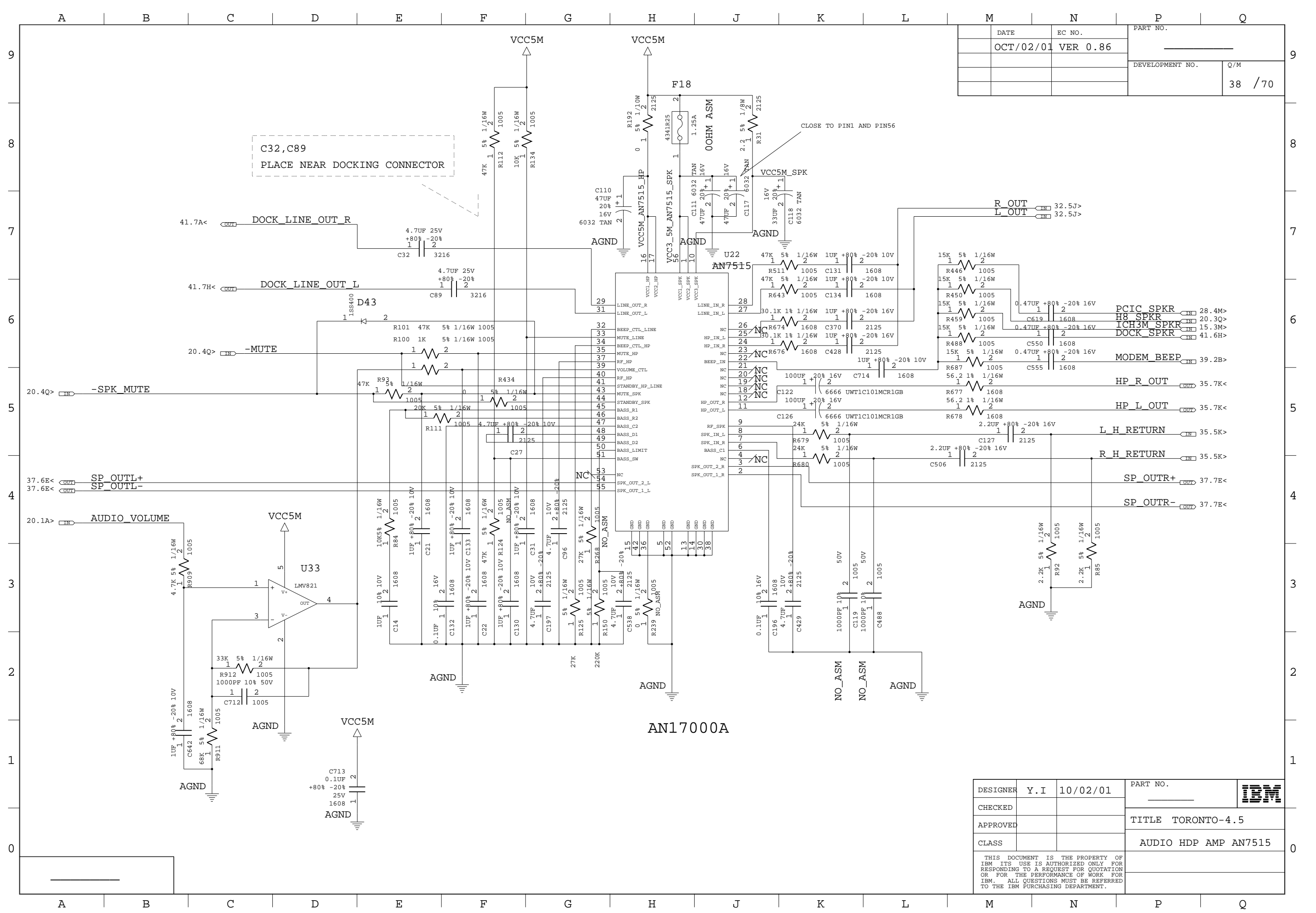
* J5-2 TO LMV822-3 GUARDING WITH AGND
 * J5-3 TO R57 GUARDING WITH AGND

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APPROVED			TITLE TORONTO-4.5	
CLASS			AUDIO EXT MIC I/F	
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CLASS			AUDIO SPK CONN	
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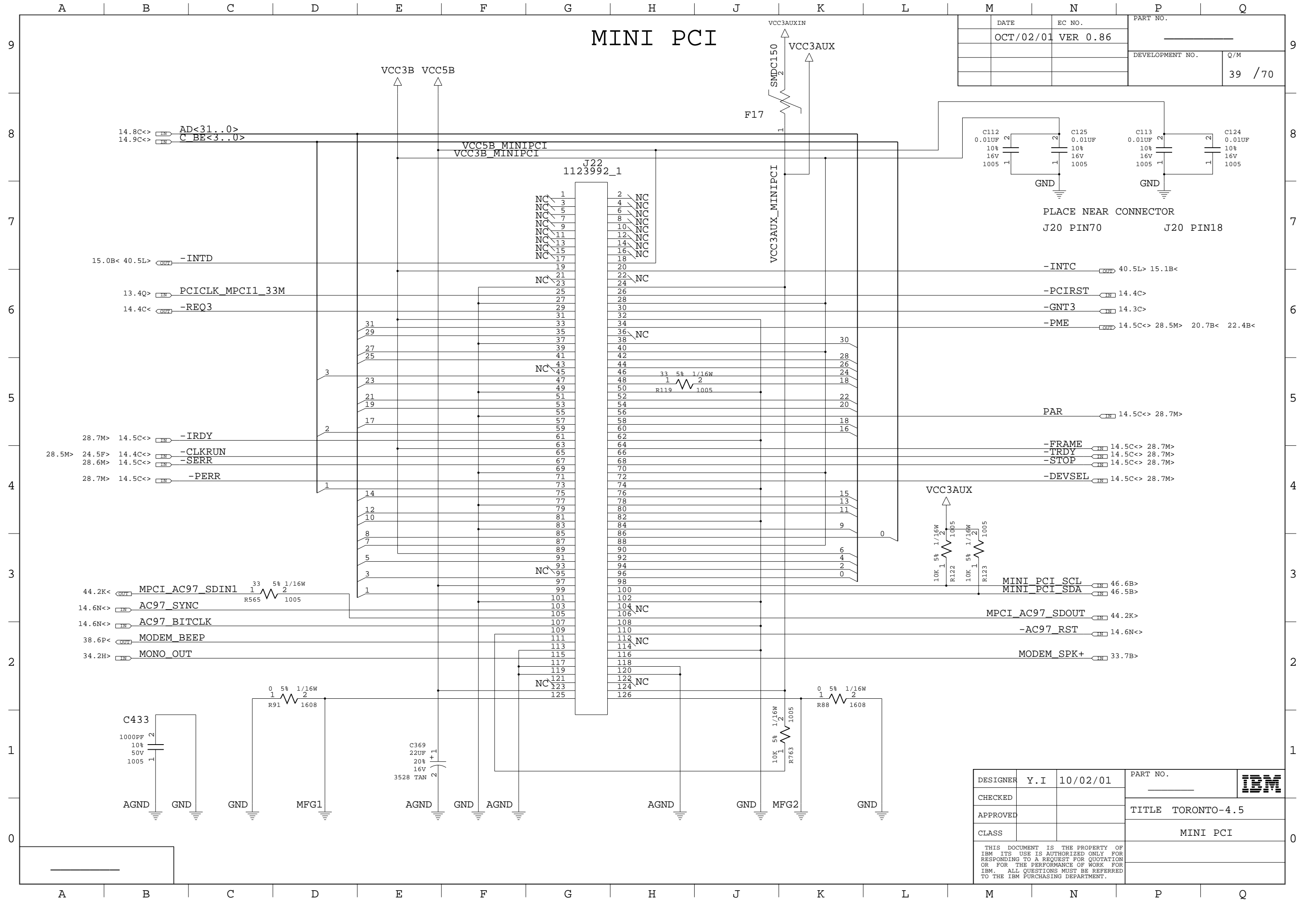
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DEVELOPMENT NO.		Q/M
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AN17000A

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APPROVED			TITLE TORONTO-4.5	
CLASS			AUDIO HDP AMP AN7515	
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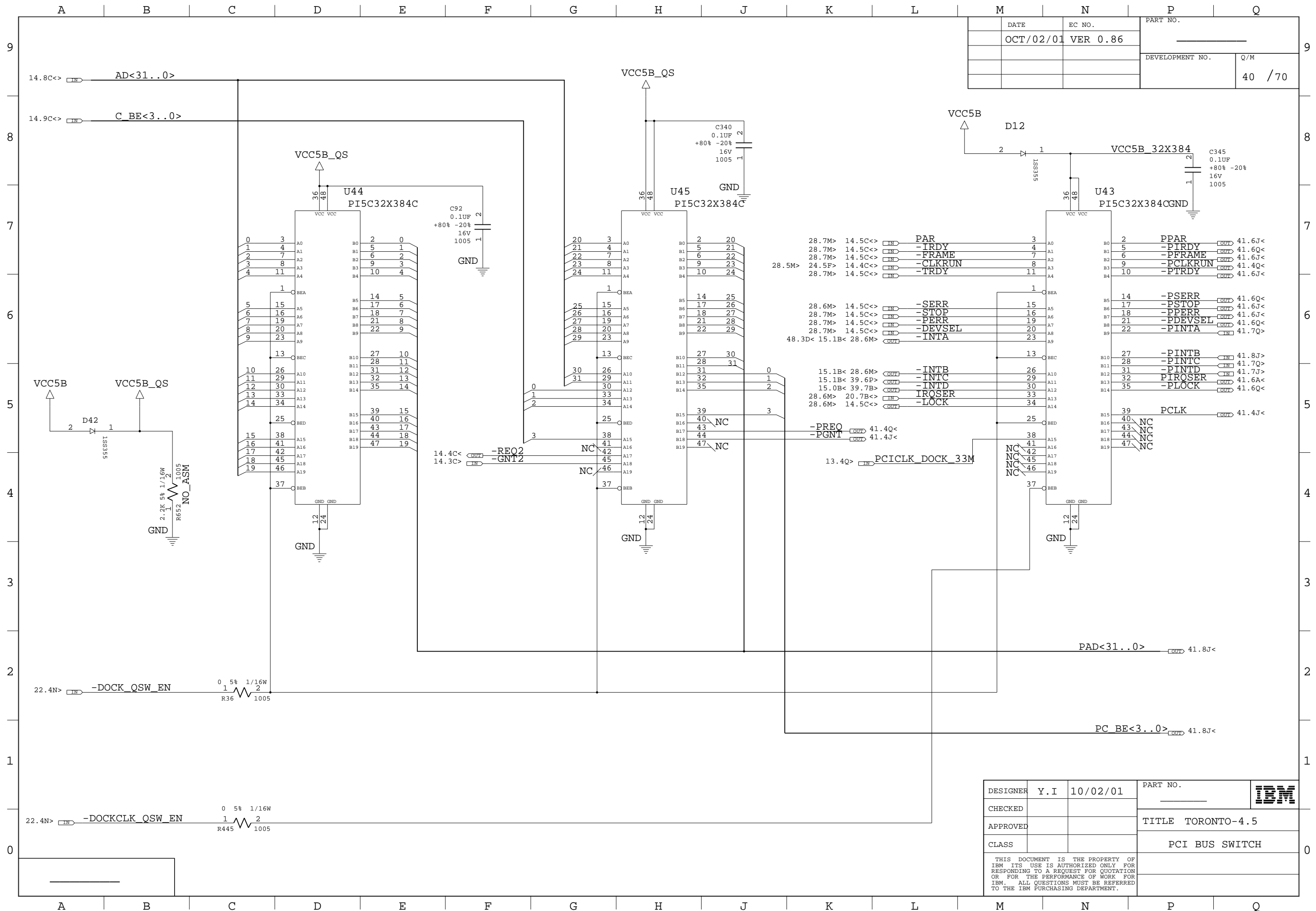
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DATE	EC NO.	PART NO.
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DEVELOPMENT NO.		Q/M
		39 / 70



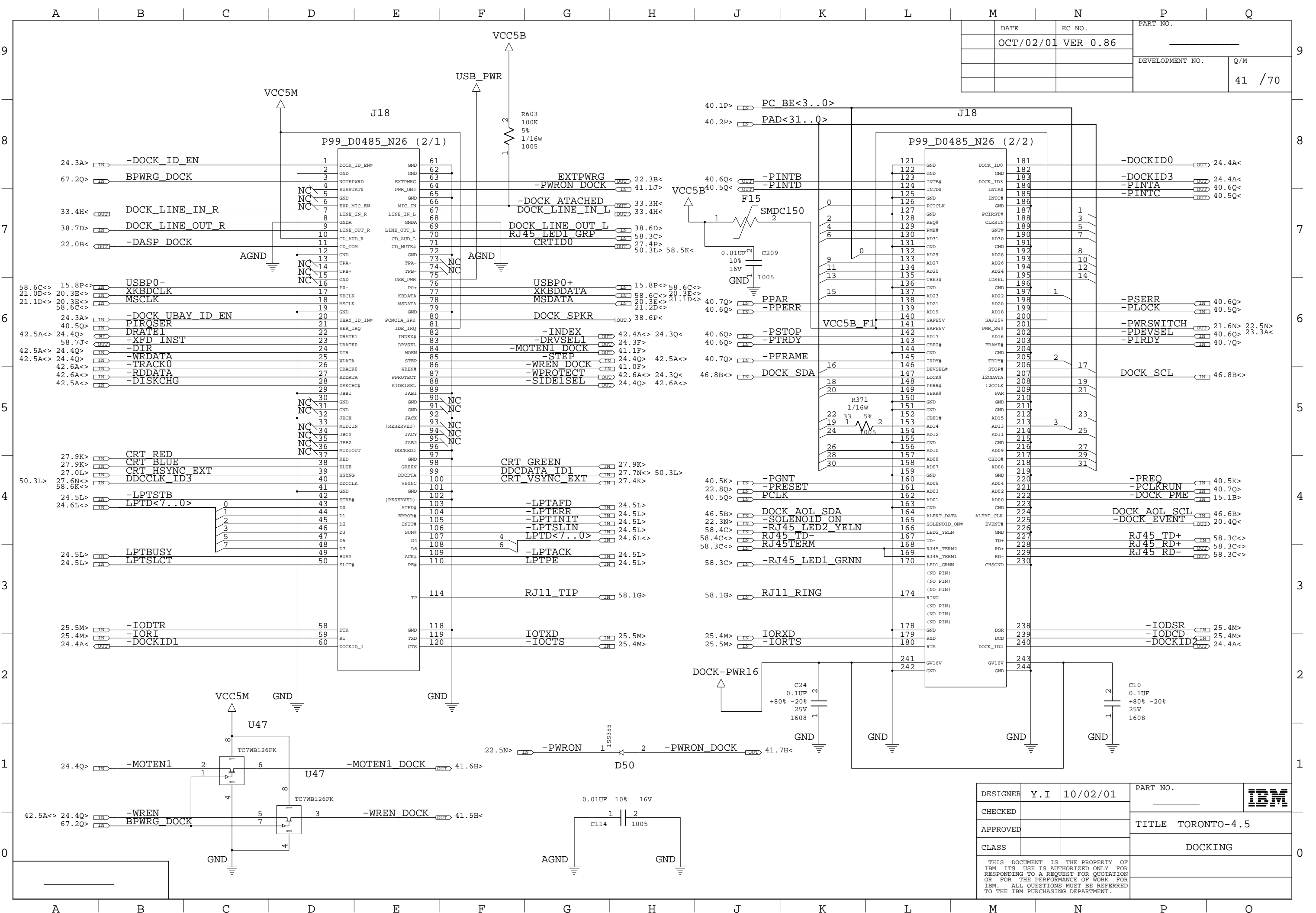
PLACE NEAR CONNECTOR
J20 PIN70 J20 PIN18

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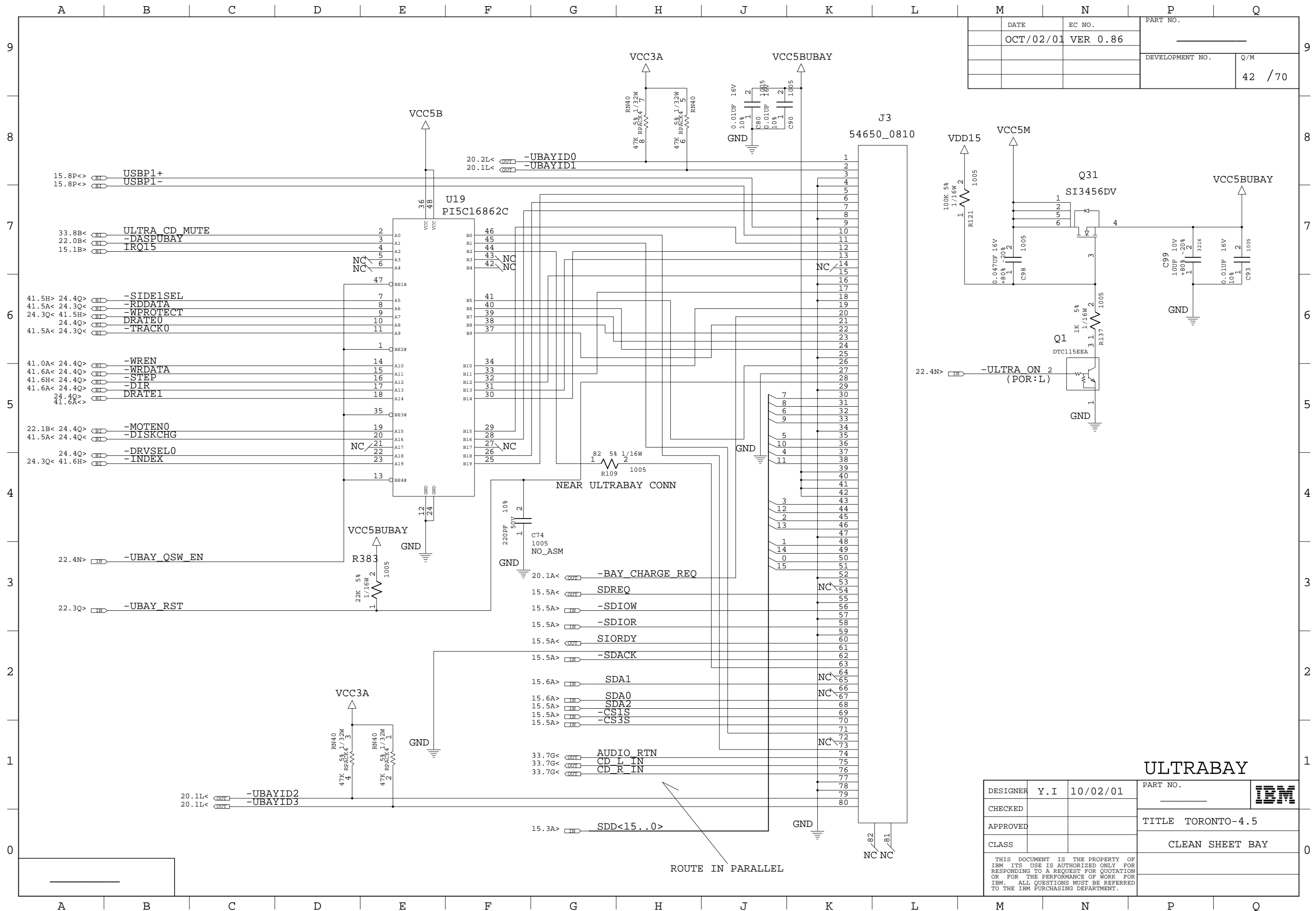
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CLASS			PCI BUS SWITCH	
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APPROVED			DOCKING	
CLASS				
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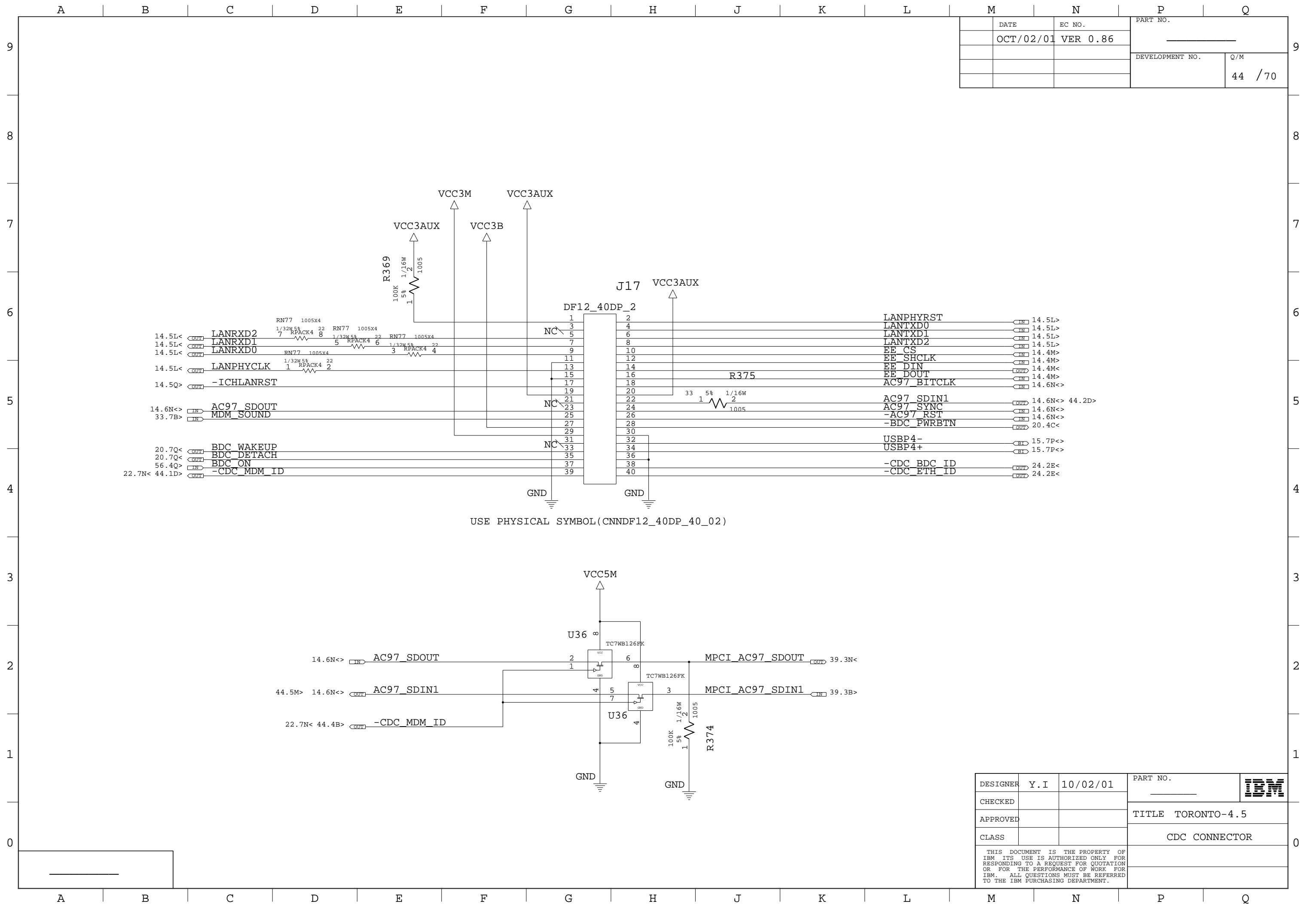


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		42 / 70

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APPROVED			TITLE	TORONTO-4.5
CLASS				CLEAN SHEET BAY
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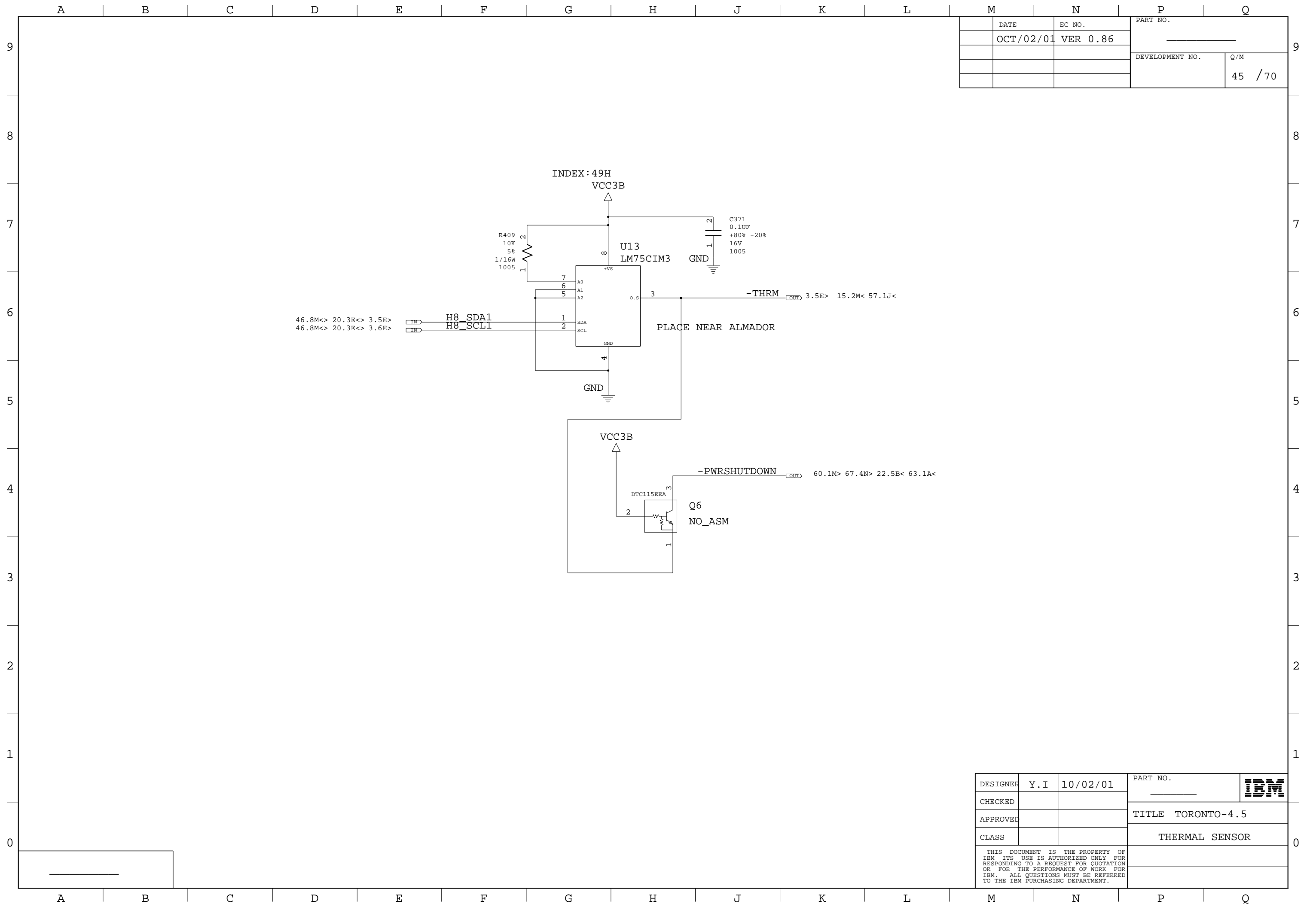
ULTRABAY

ROUTE IN PARALLEL



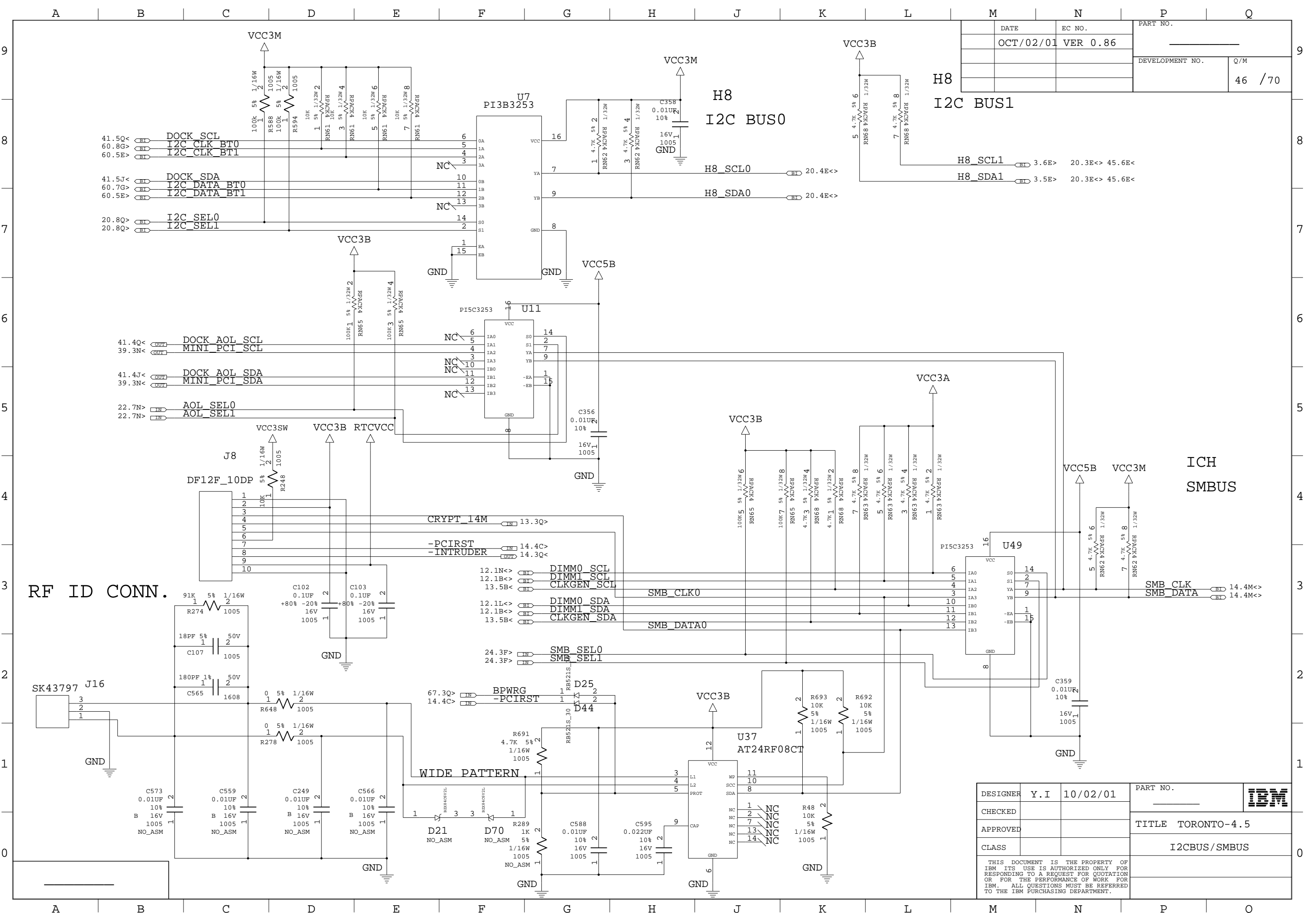
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			44 / 70

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CLASS			CDC CONNECTOR	
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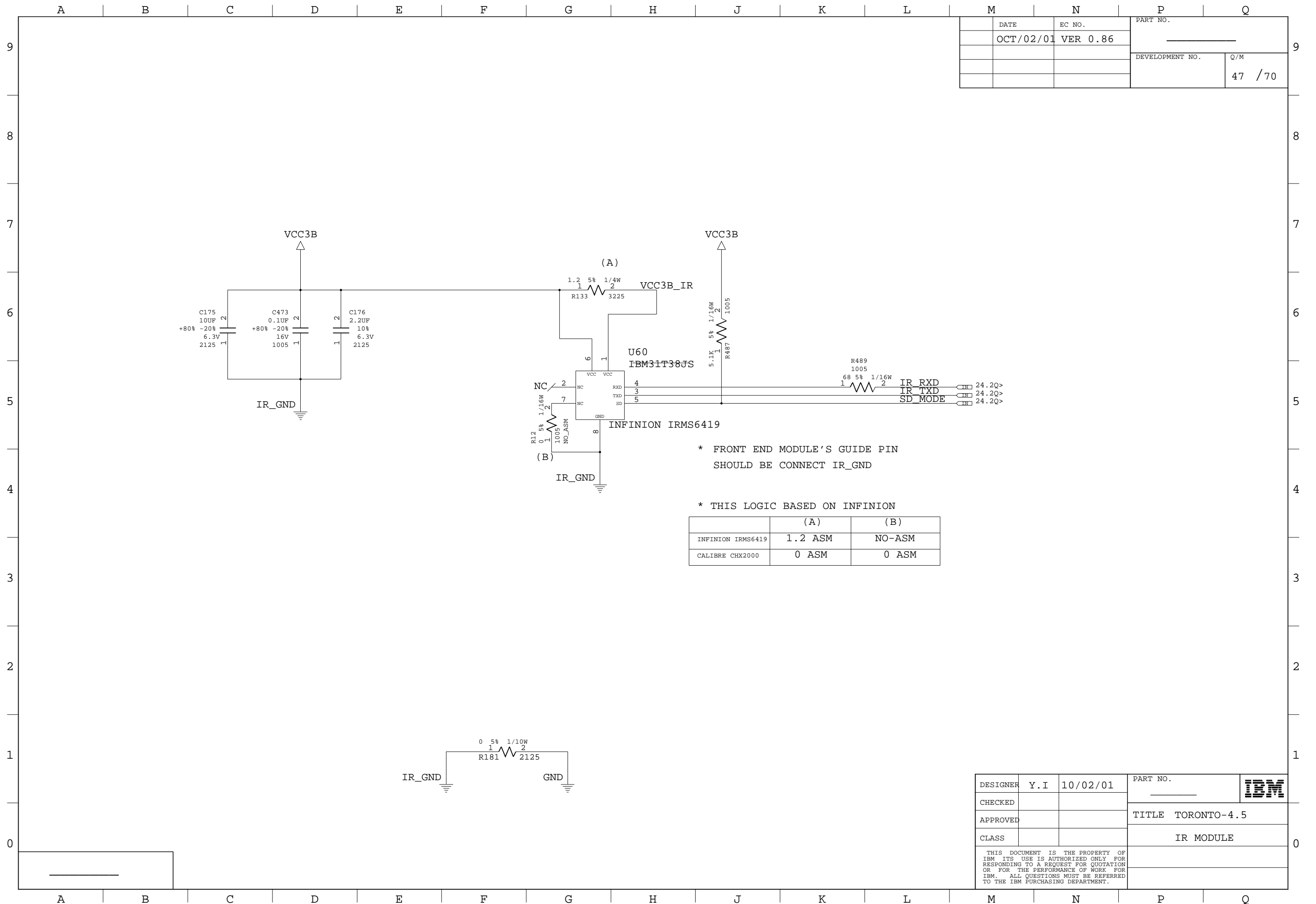
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CLASS				
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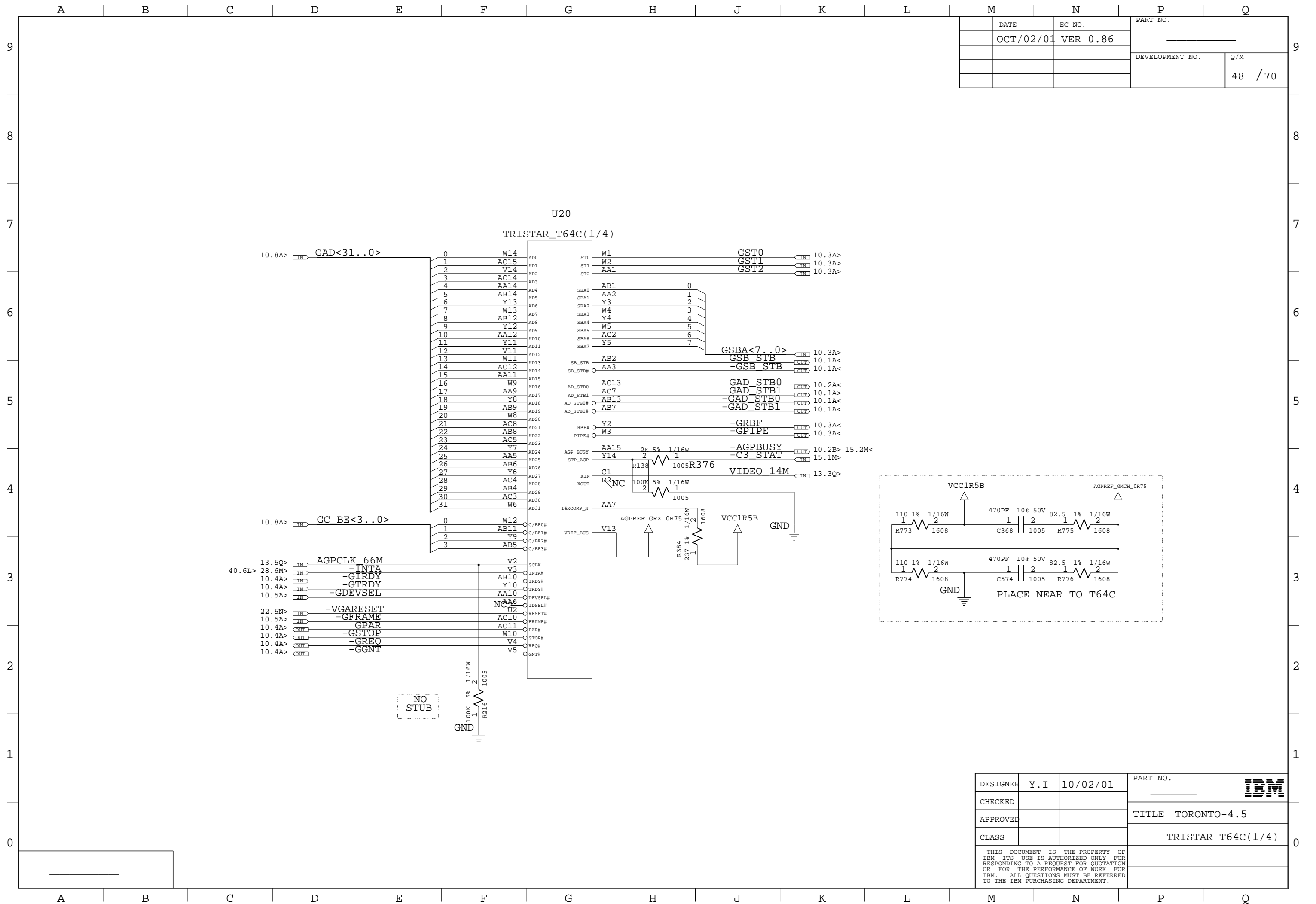
DATE	EC NO.	PART NO.	
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		DEVELOPMENT NO.	Q/M
			47 / 70

* FRONT END MODULE'S GUIDE PIN SHOULD BE CONNECT IR_GND

* THIS LOGIC BASED ON INFINION

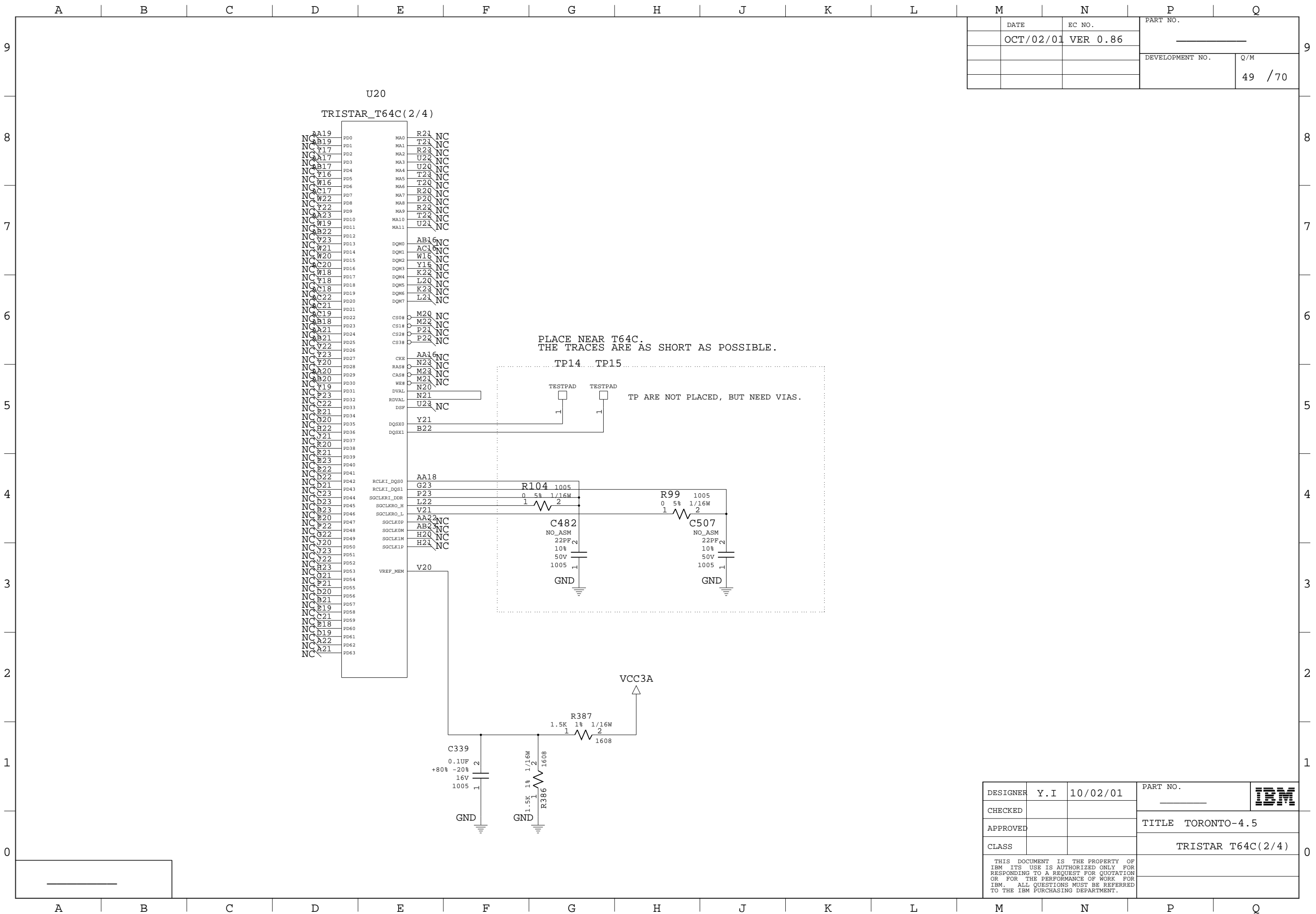
	(A)	(B)
INFINION IRMS6419	1.2 ASM	NO-ASM
CALIBRE CHX2000	0 ASM	0 ASM

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APPROVED			TITLE	TORONTO-4.5
CLASS				IR MODULE
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APPROVED			TITLE TORONTO-4.5	
CLASS			TRISTAR T64C(1/4)	
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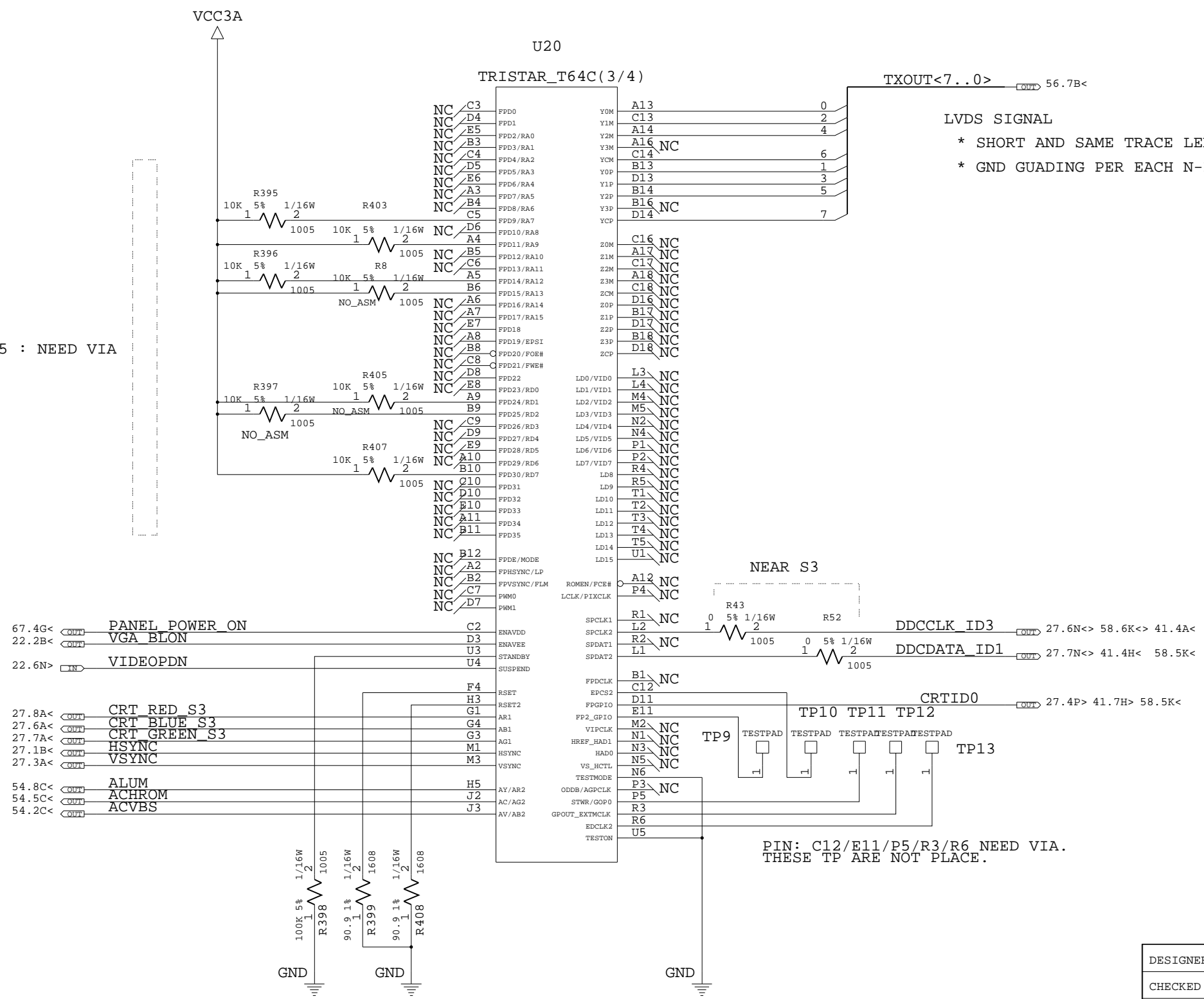
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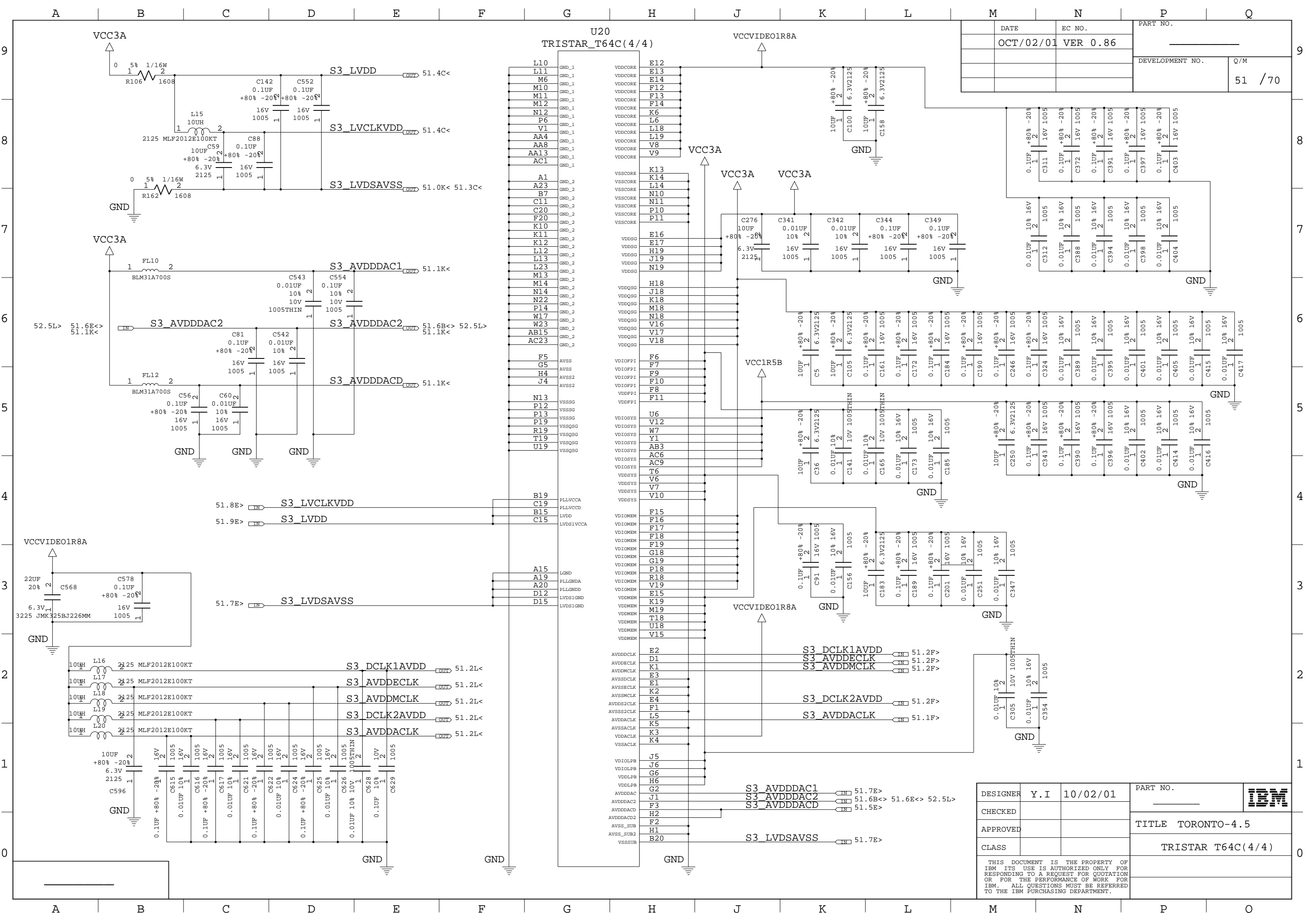
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FPD4-35 : NEED VIA

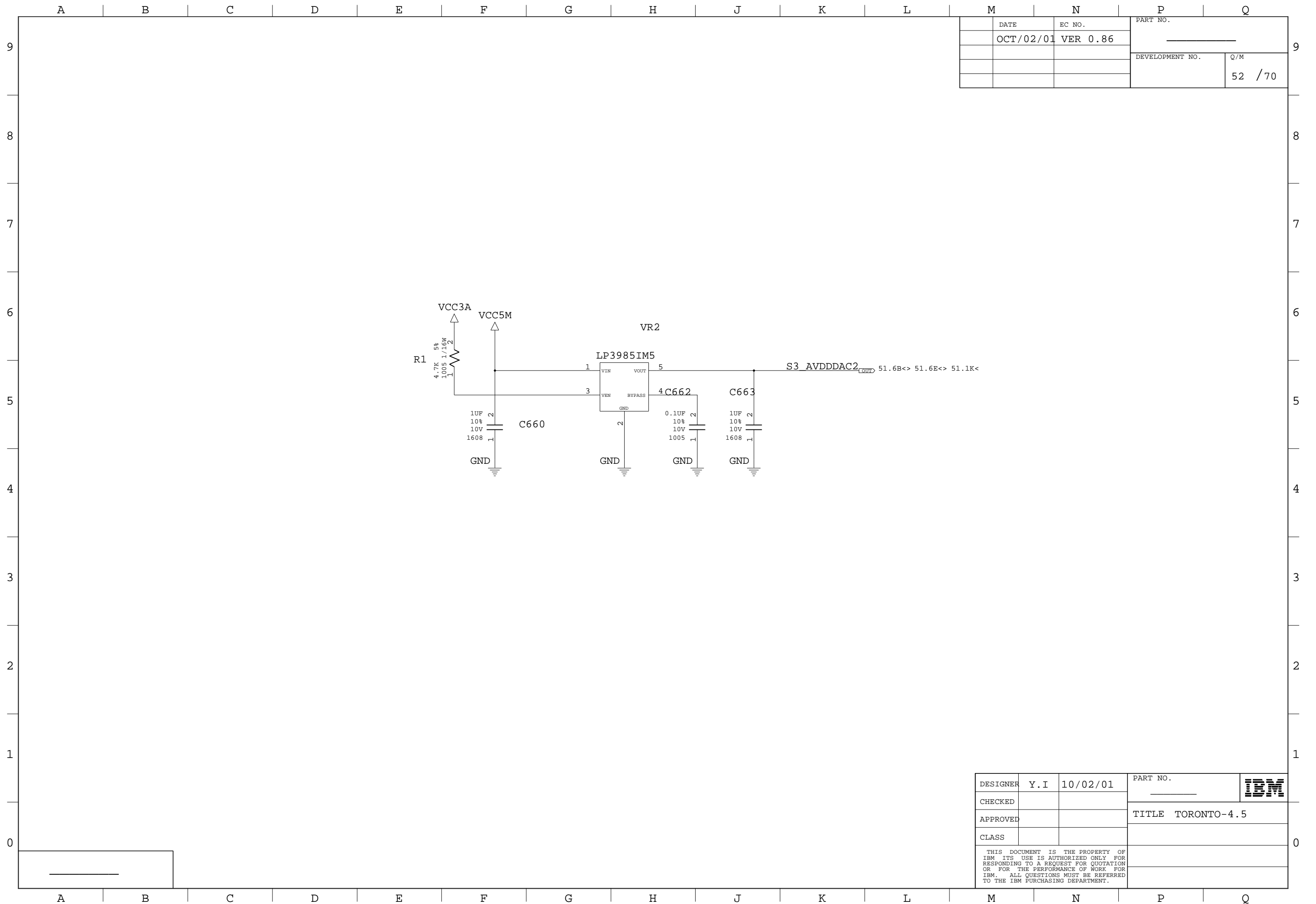


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DEVELOPMENT NO.		Q/M
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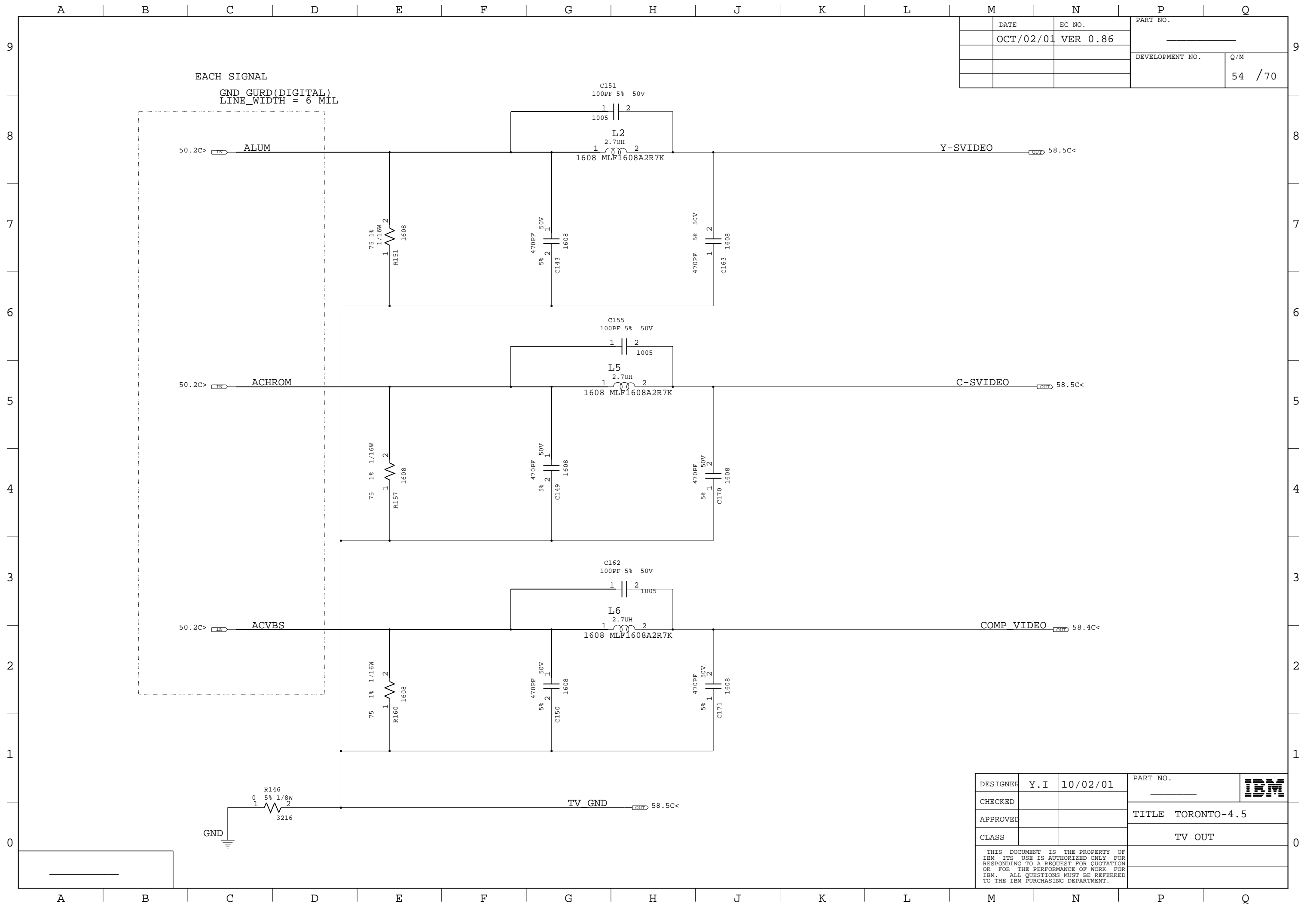
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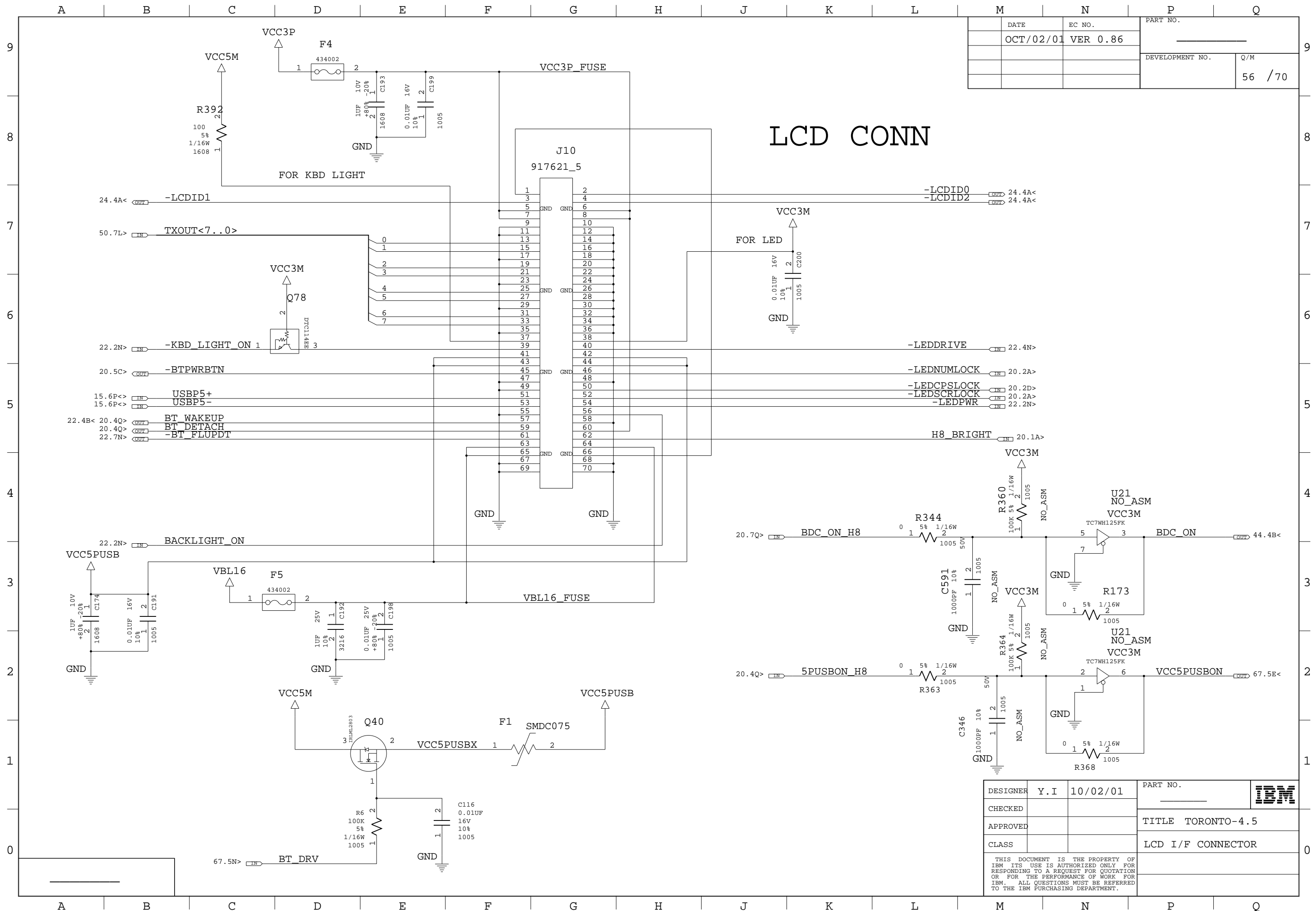
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											CLASS			GFX PULLUPS
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														FOR STRAPPING
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q



DATE	EC NO.	PART NO.
OCT/02/01	VER 0.86	
DEVELOPMENT NO.		Q/M
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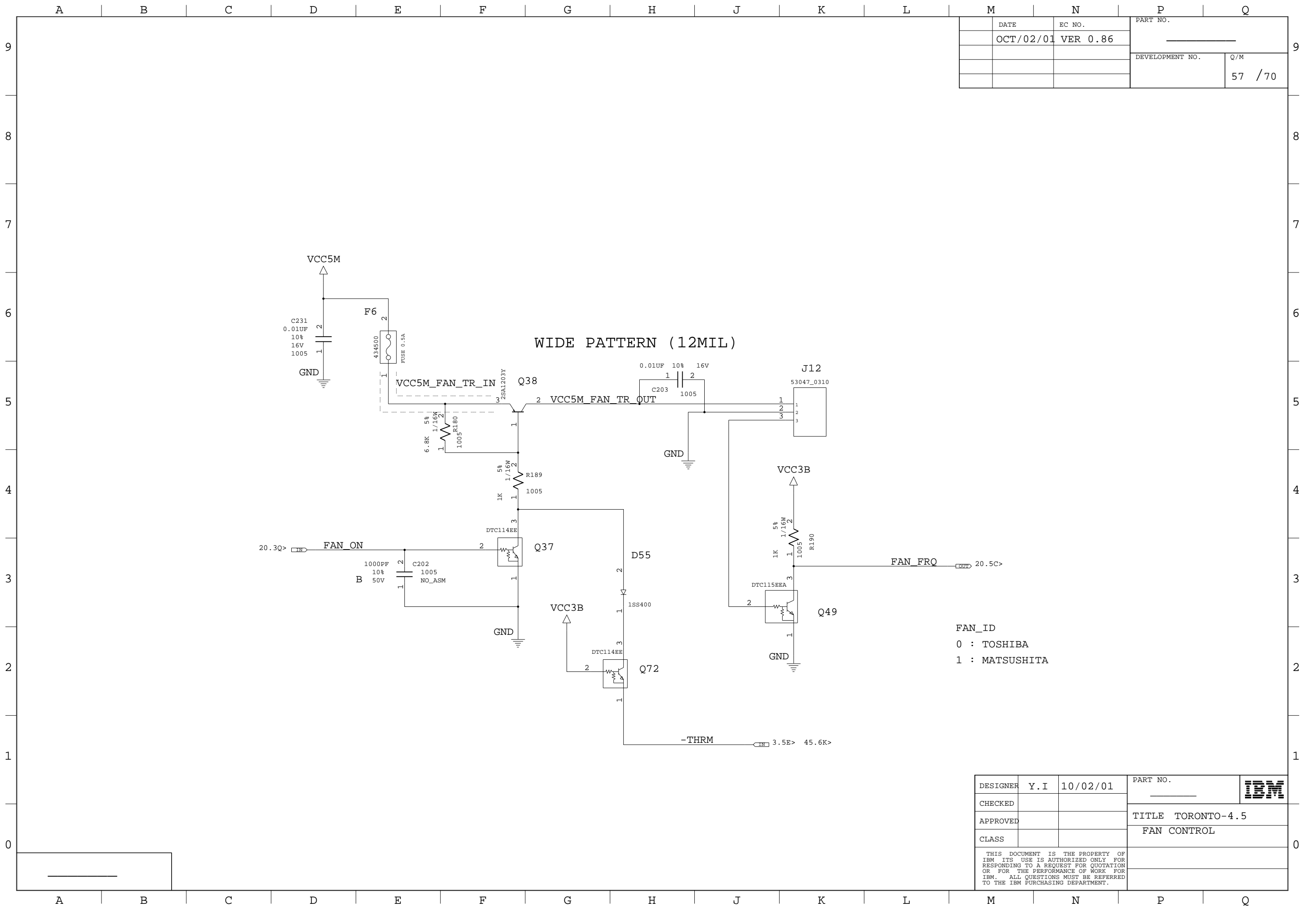
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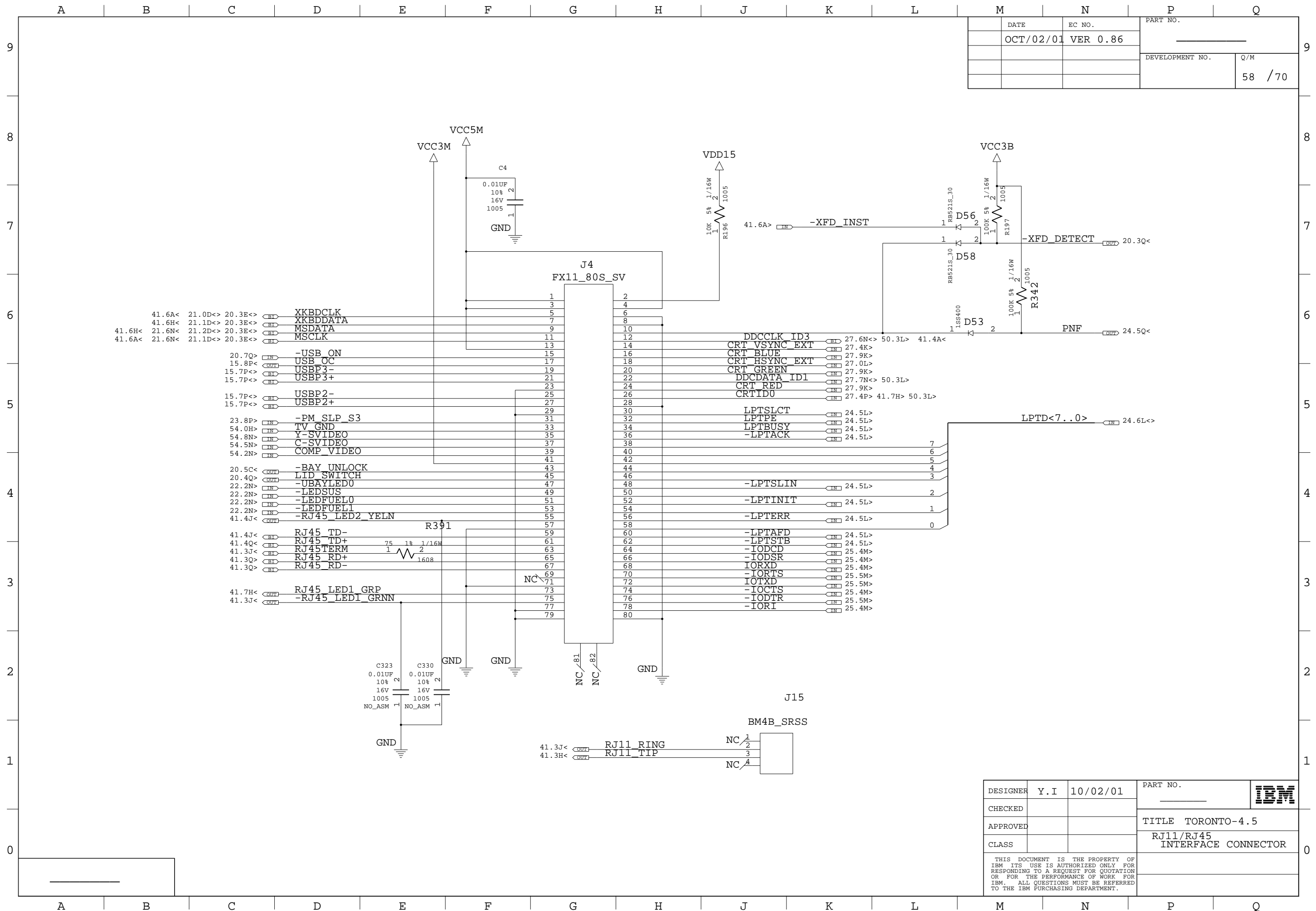
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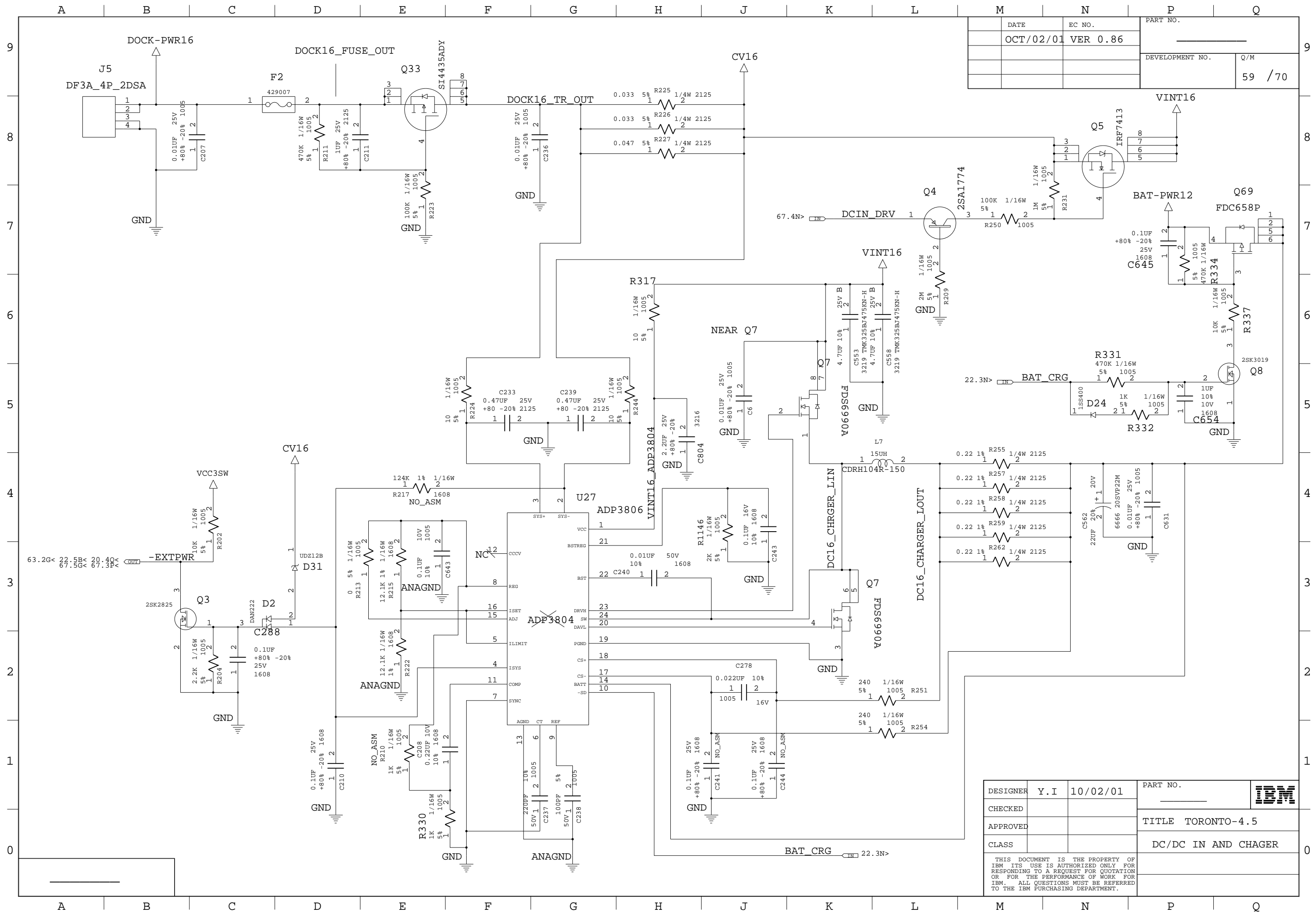
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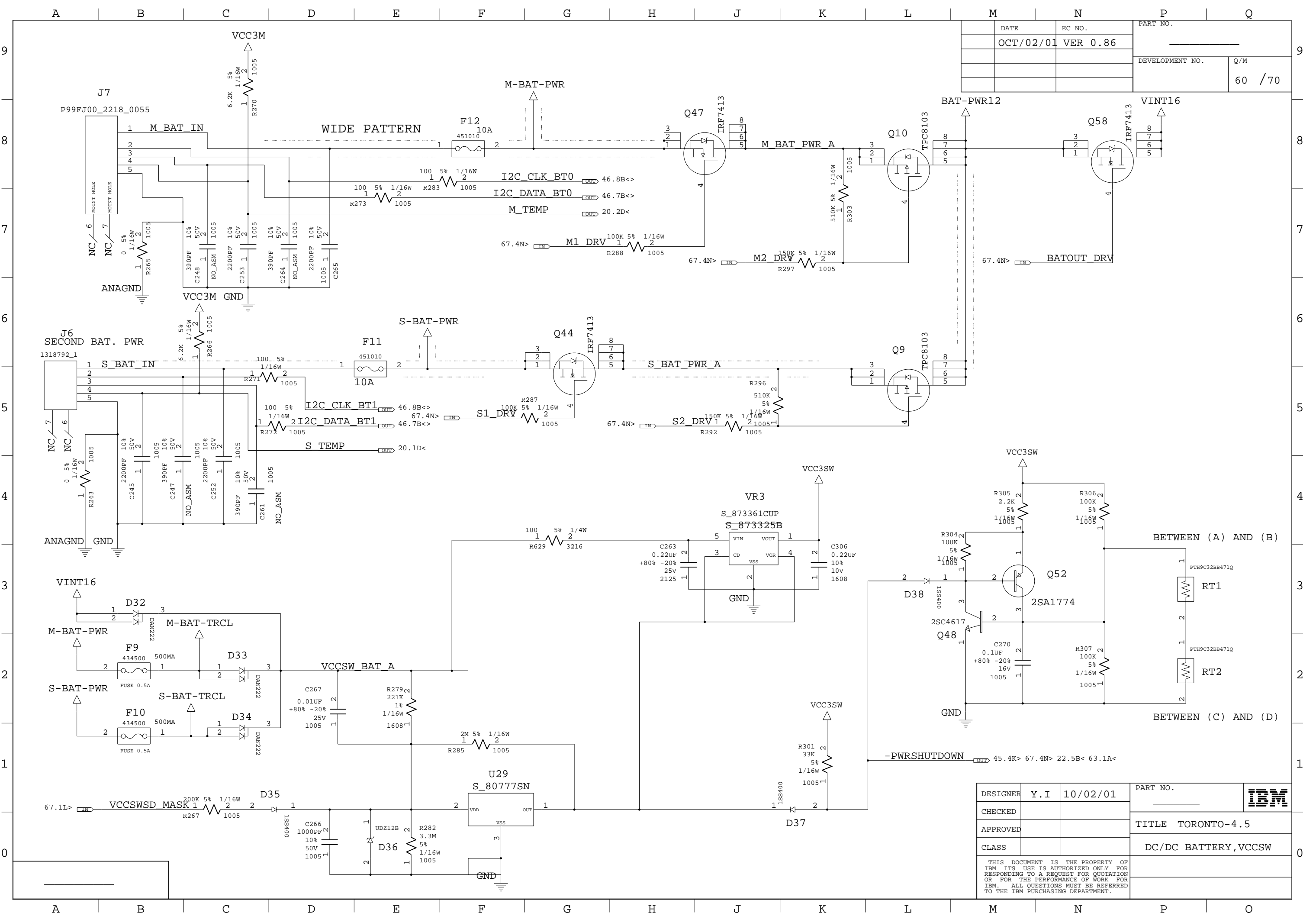
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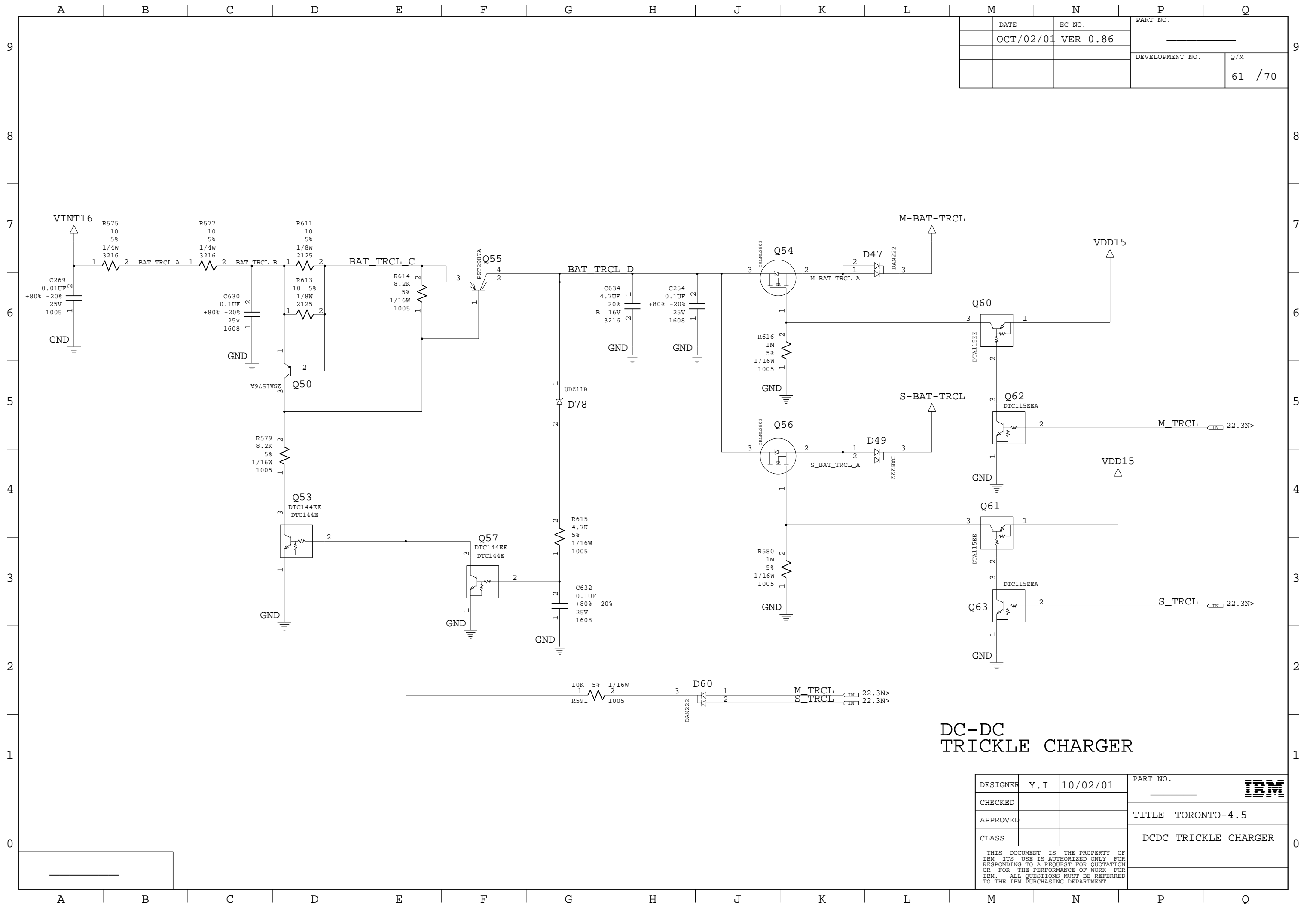
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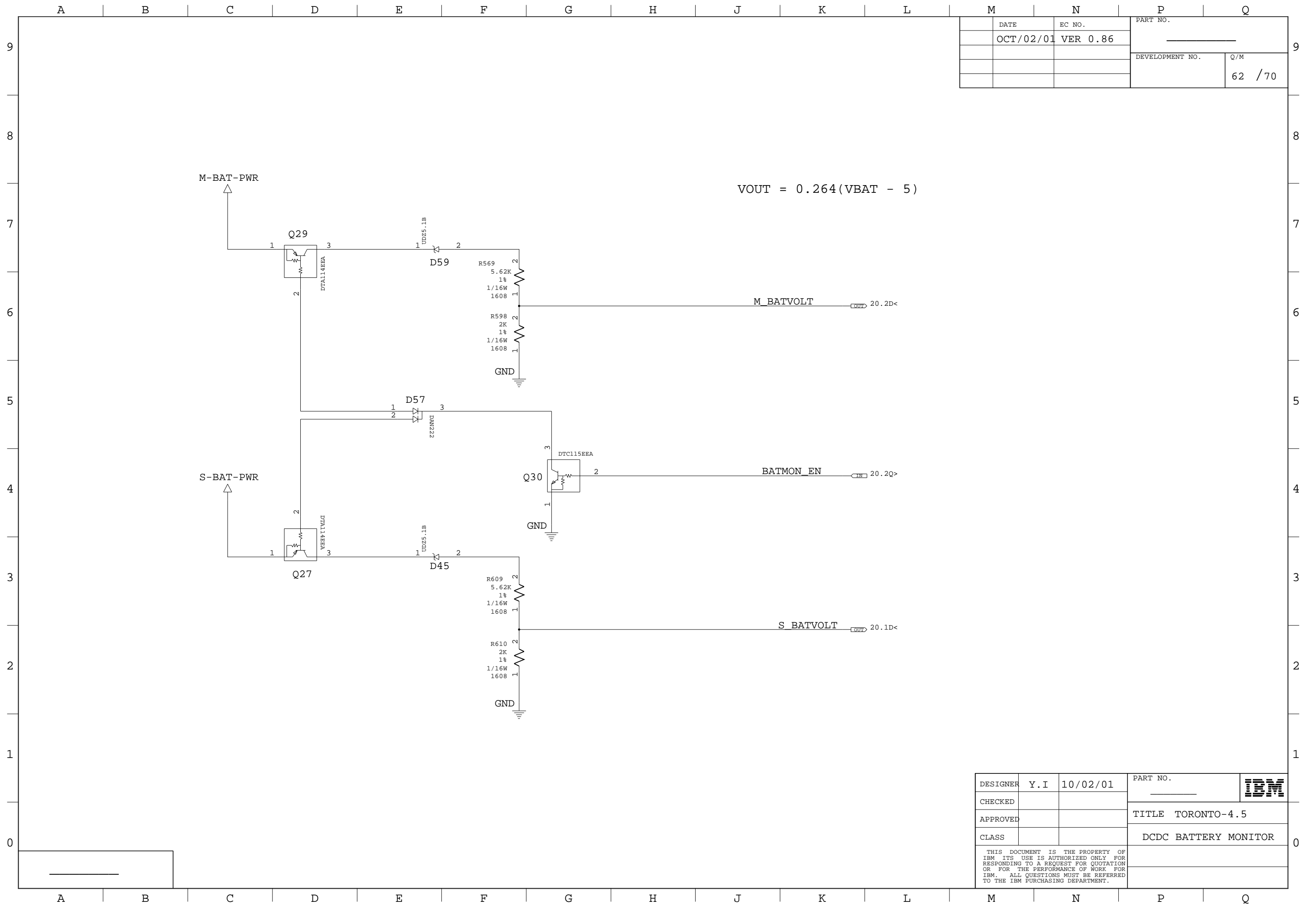
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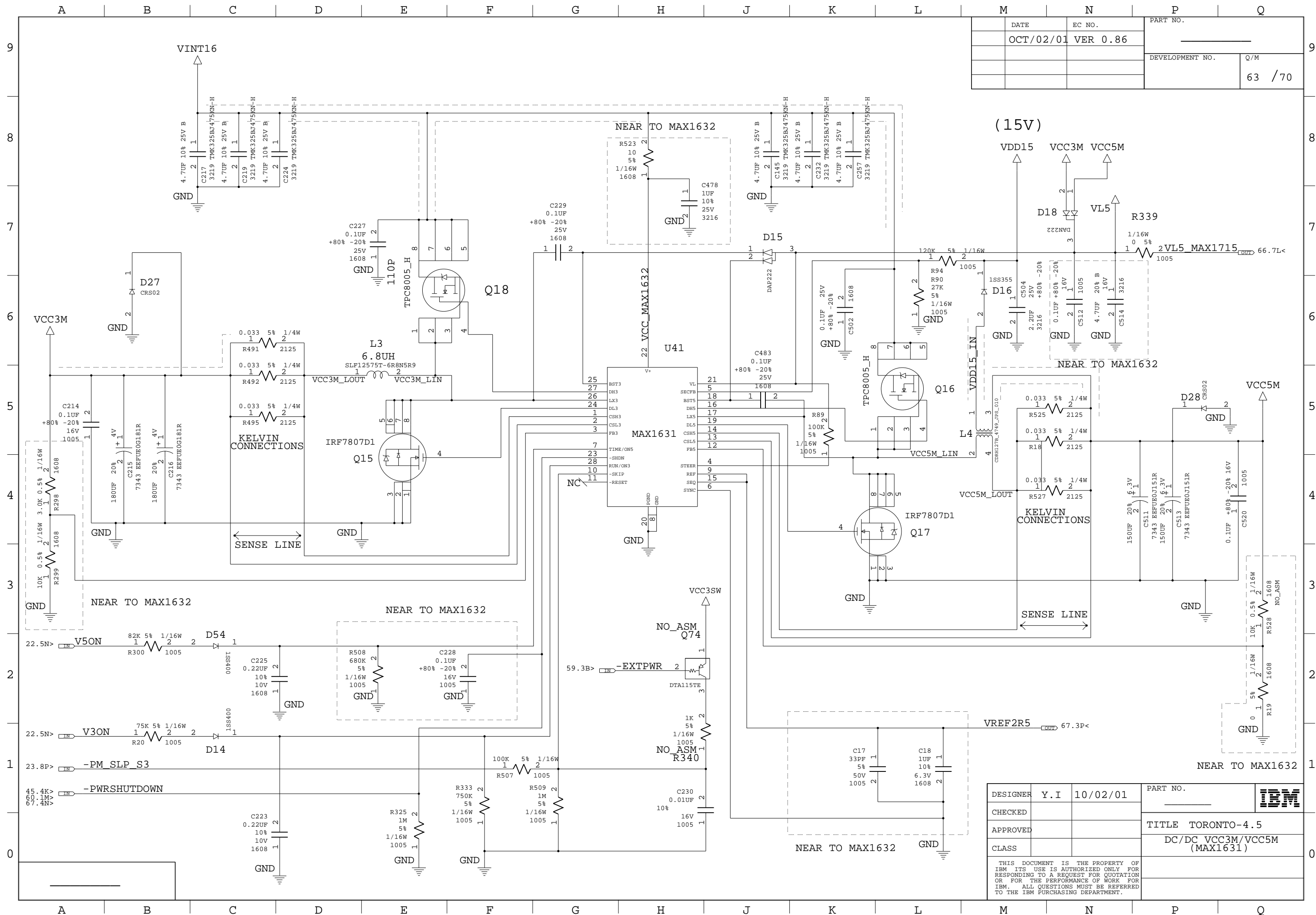
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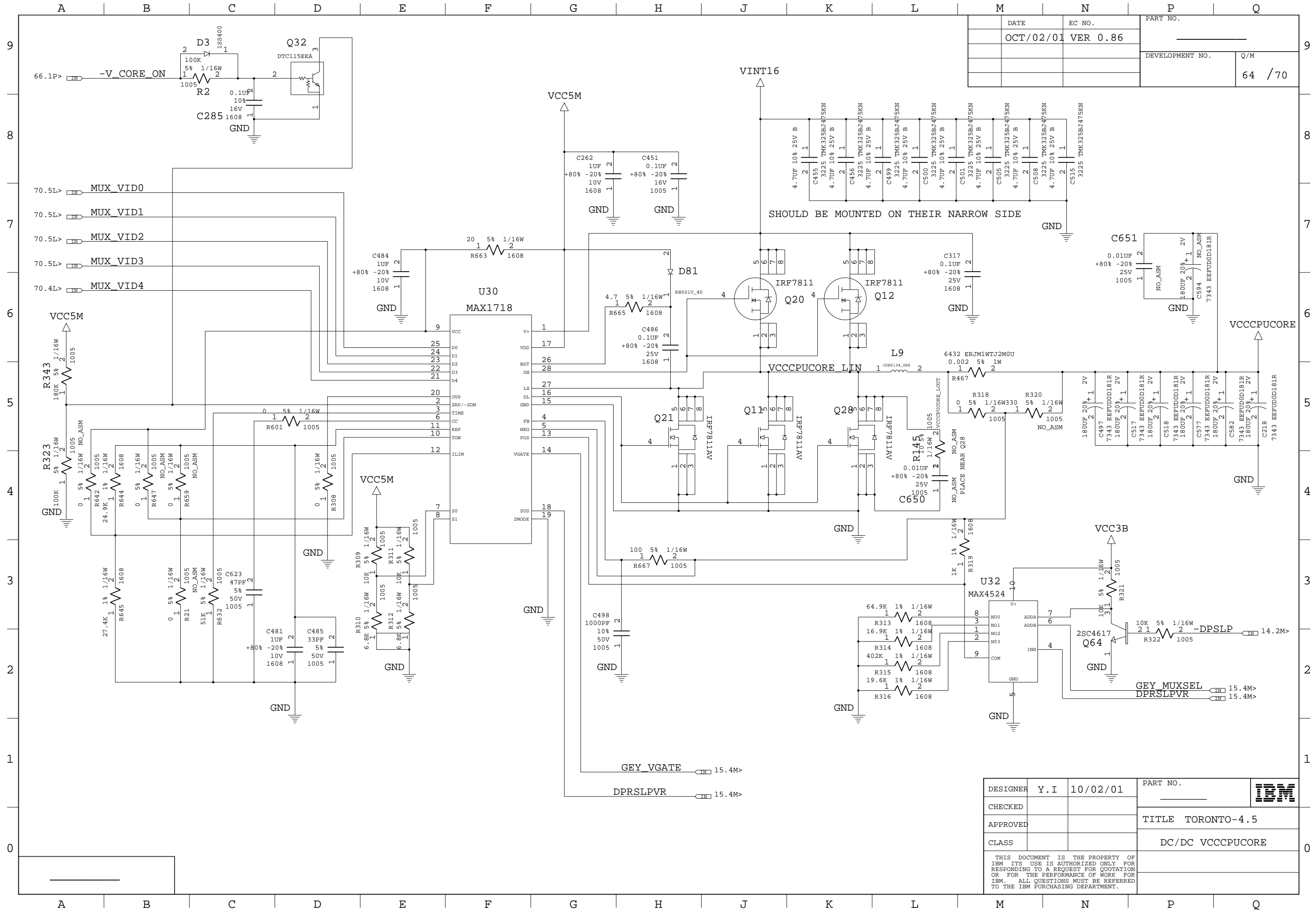
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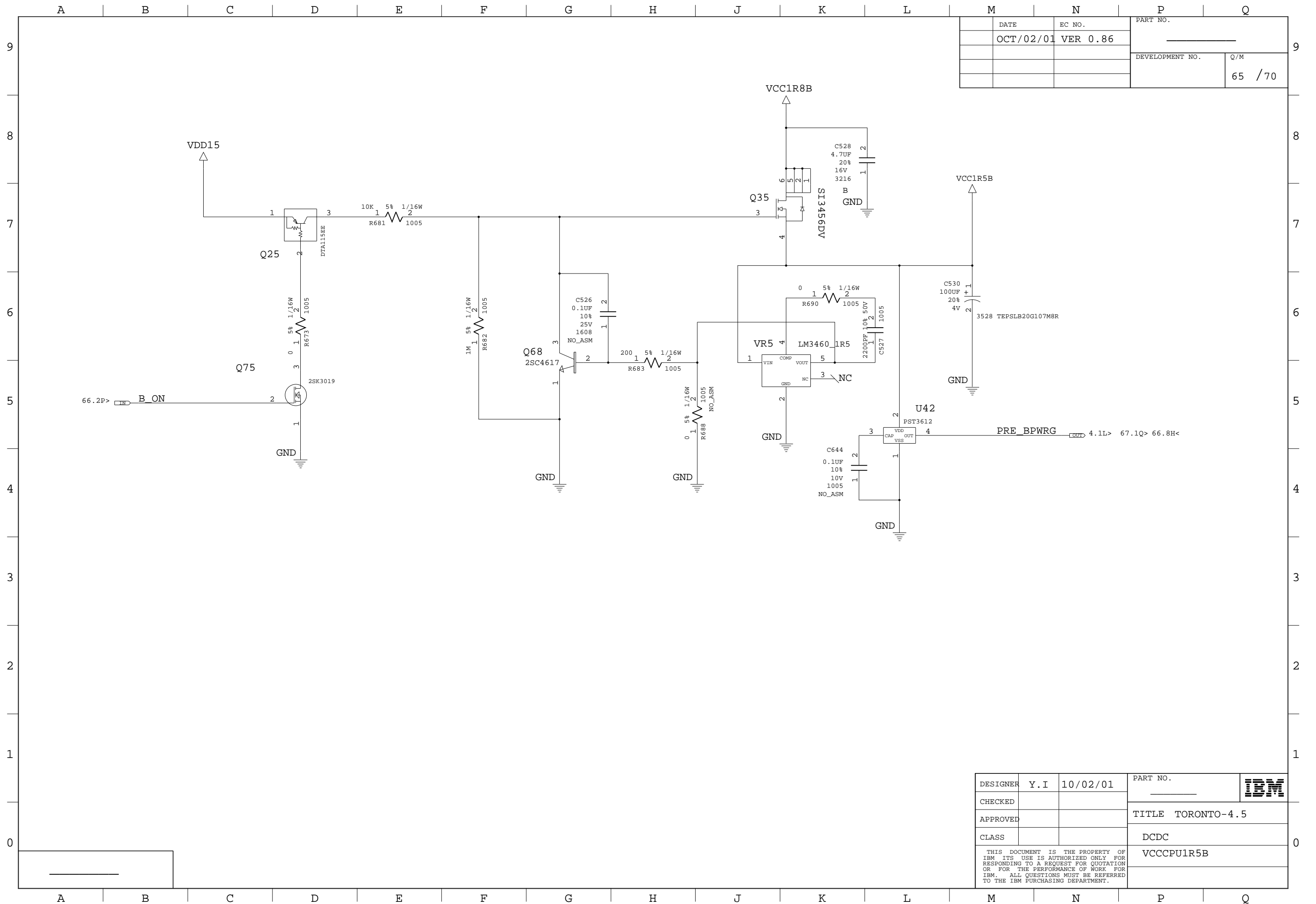
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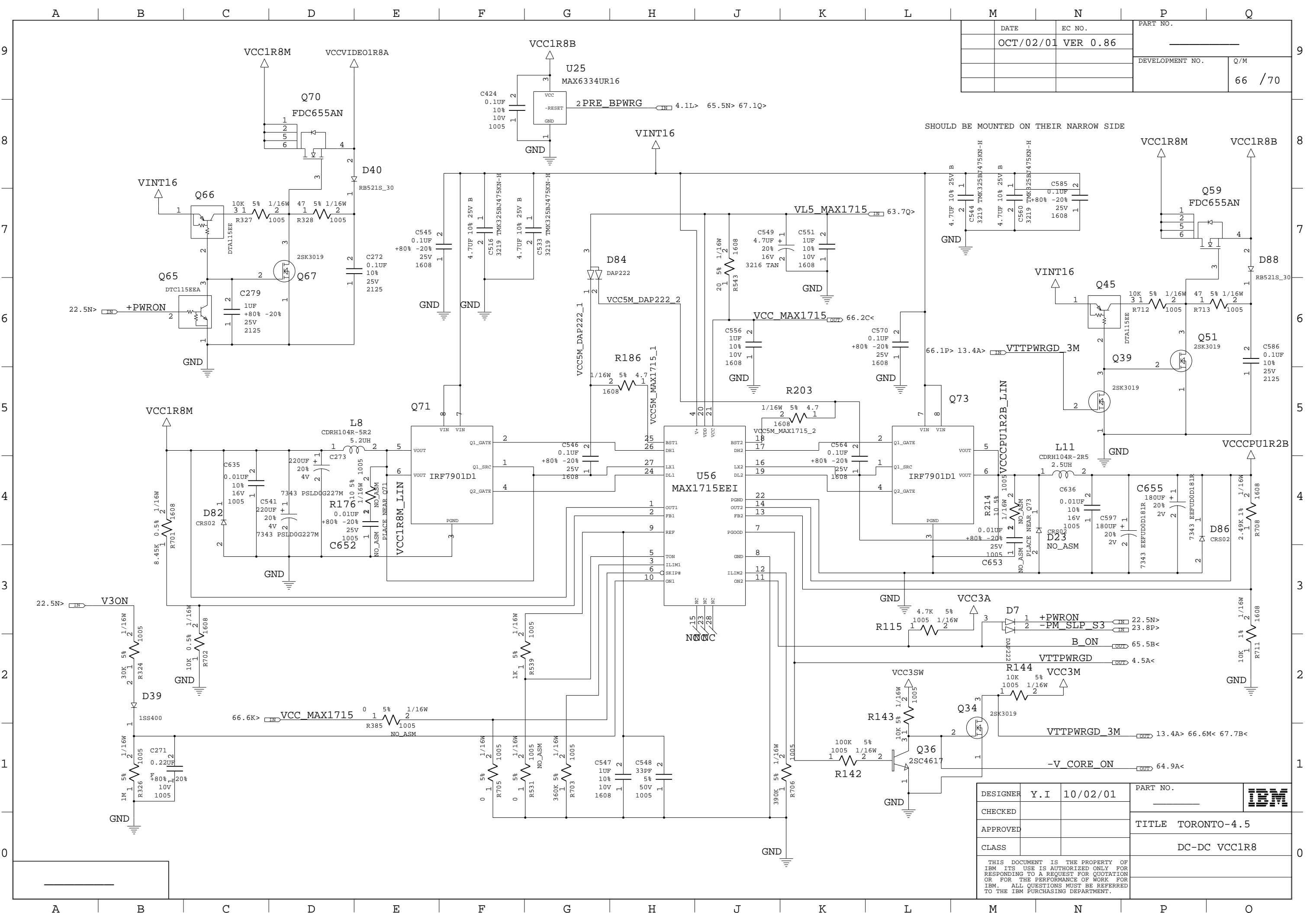
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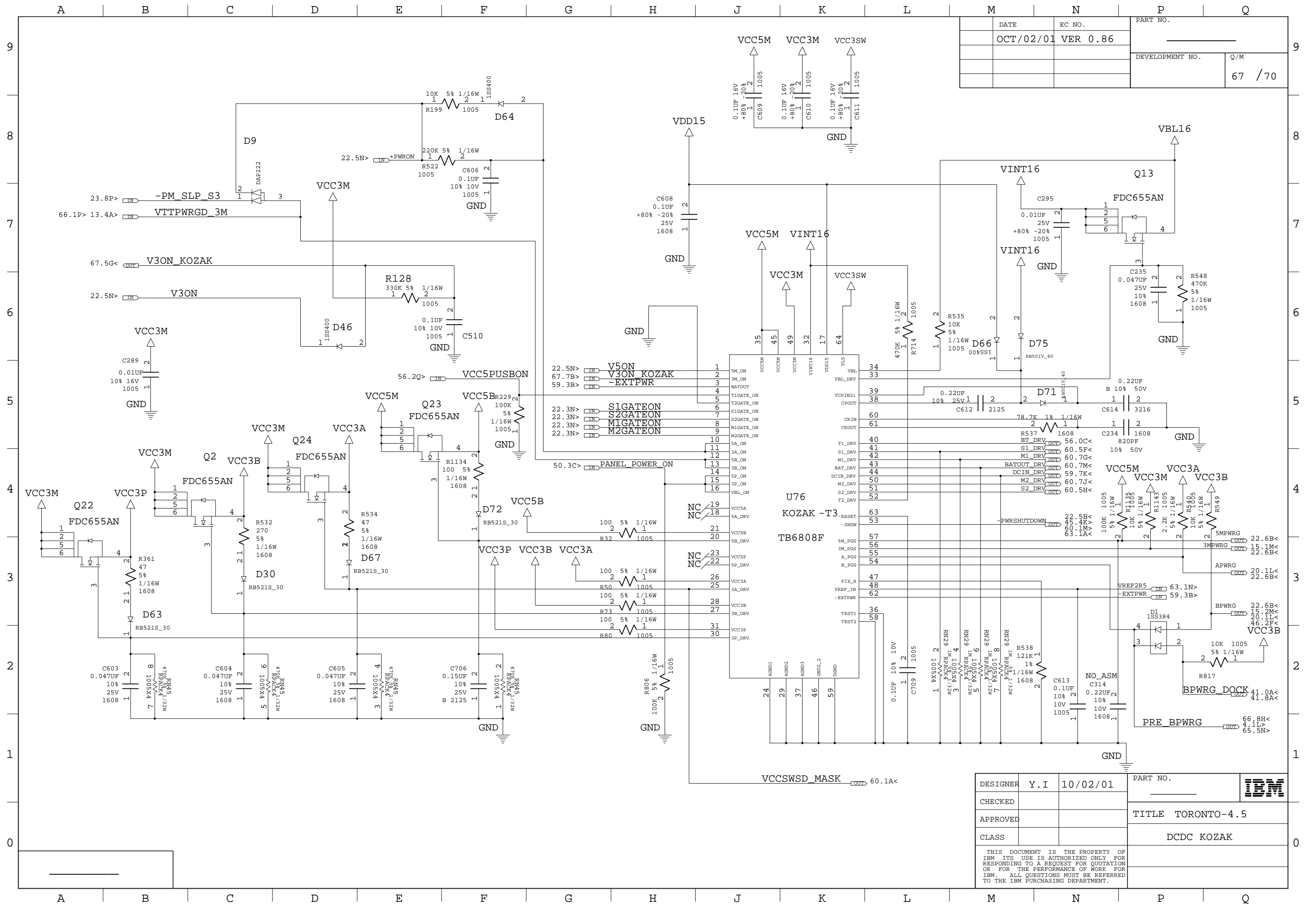
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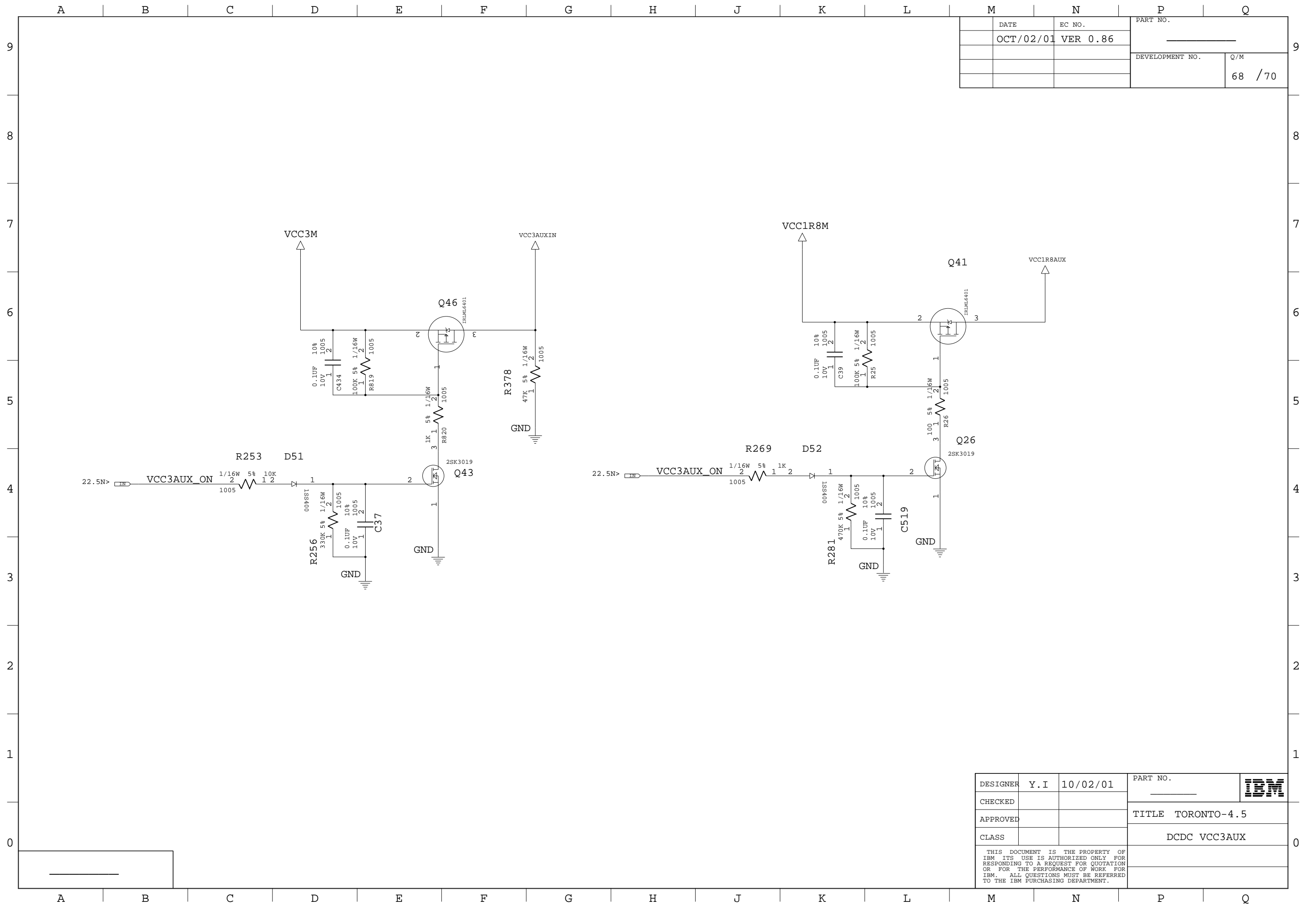
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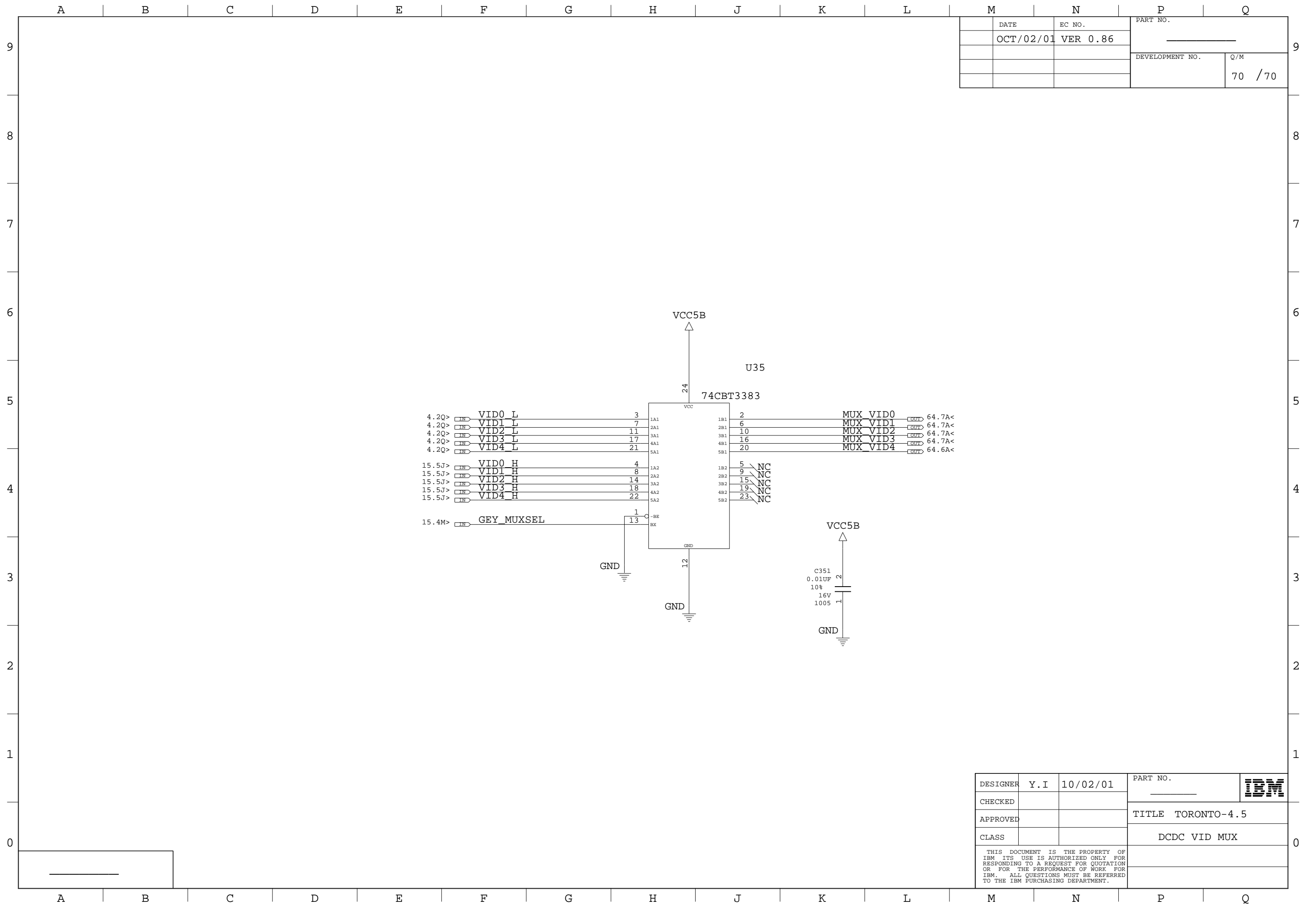
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