

Schematics Page Index (Title / Revision / Change Date)

Page	Title of Schematics Page	Rev.	Date	Page	Title of Schematics Page	Rev.	Date
00	Title	A	050222	25	PCI7420B(iLink,MS)/MDC	A	050222
01	BLOCK DIAGRAM	A	050222	26	SCREW HOLE & PAD	A	050222
02	Dothan(HOST BUS) 1/2	A	050222	27	MINI-PCI	A	050222
03	Dothan(Power/Gnd) 2/2	A	050222	28	LAN (82562ET)	A	050222
04	CLOCK GEN(CK-410M)	A	050222	29	AZALIA CODEC	A	050222
05	Alviso (HOST) 1/5	A	050222	30	KB3910 KBC	A	050222
06	Alviso (VGA,DMI) 2/5	A	050222	31	Power design diagram	A	050222
07	Alviso (DDR) 3/5	A	050222	32	DCIN&Charger	A	050222
08	Alviso (POWER) 4/5	A	050222	33	D/D Power	A	050222
09	Alviso (VSS,NCTF) 5/5	A	050222	34	2.5V/1.25V_1.5V/1.05V	A	050222
10	VGA(nVIDIA NV44M) 1/5	A	050222	35	CPU Vcore	A	050222
11	VGA(nVIDIA NV44M) 2/5	A	050222	36	other power plan	A	050222
12	VGA(nVIDIA NV44M) 3/5	A	050222	37	OVP protection	A	050222
13	VGA(nVIDIA NV44M) 4/5	A	050222	38	STEP-UP	A	050222
14	VGA(nVIDIA NV44M) 5/5	A	050222	39	History(1)	A	050222
15	NV44M(DDR F_A B_1)	A	050222	40	History(2)	A	050222
16	NV44M - PWR CON.	A	050222	41	History(3)	A	050222
17	DDR(I)SO-DIMM	A	050222	42	Revision History	A	050222
18	DDR(I)Termination	A	050222	43			
19	ICH6-M(CPU,PCI,IDE)	A	050222	44			
20	ICH6-M(USB,HUB,LPC)	A	050222				
21	ICH6-M(POWER&GND)	A	050222				
22	IDE (HDD&CD_ROM)	A	050222				
23	USB2.0/FAN/DOCKING	A	050222				
24	PCI7420B(PCMCIA)	A	050222				



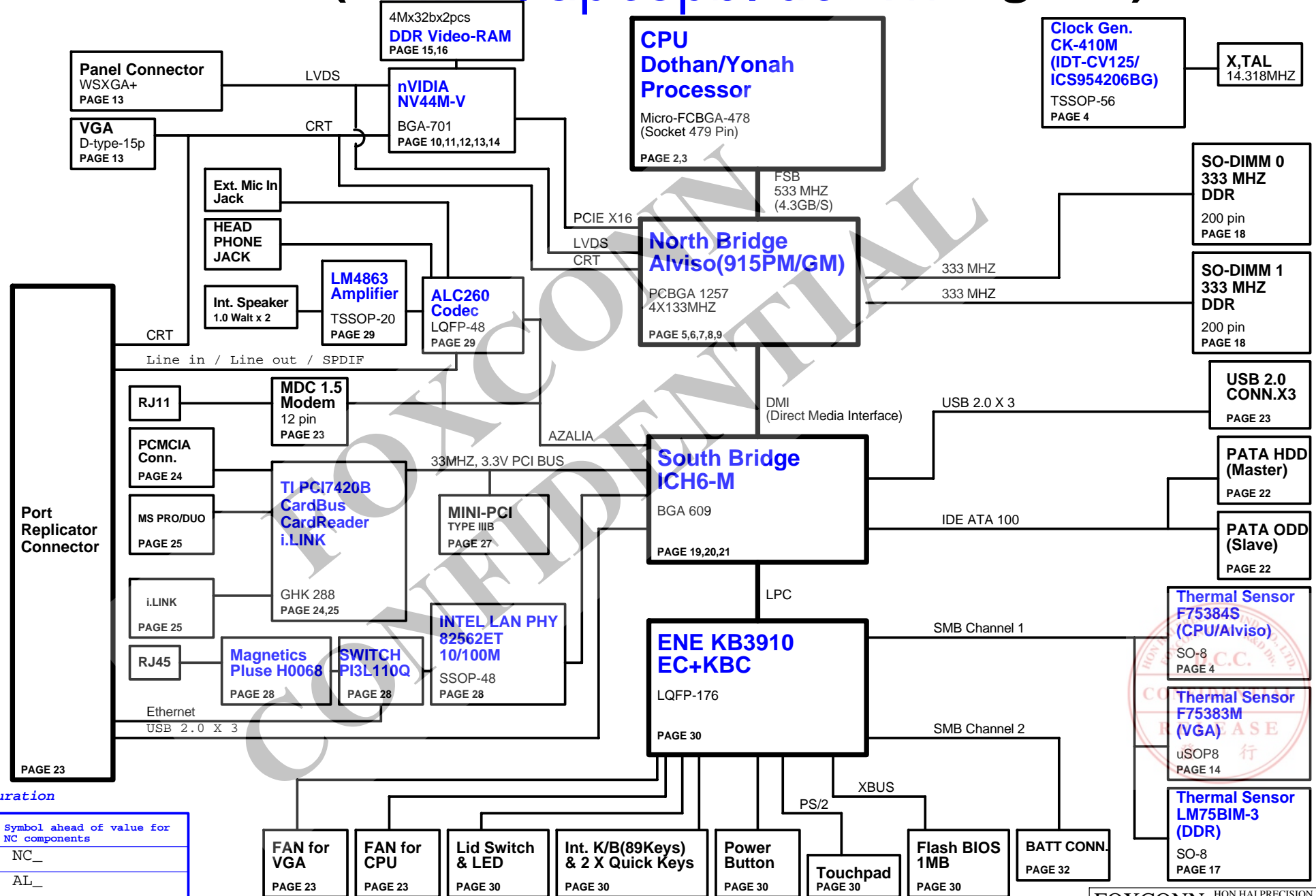
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Title	MS02 M/B		
Size	Document Number	Rev	
A4	MS02-1-01	A	
Date:	Tuesday, February 22, 2005	Sheet	00 of 43

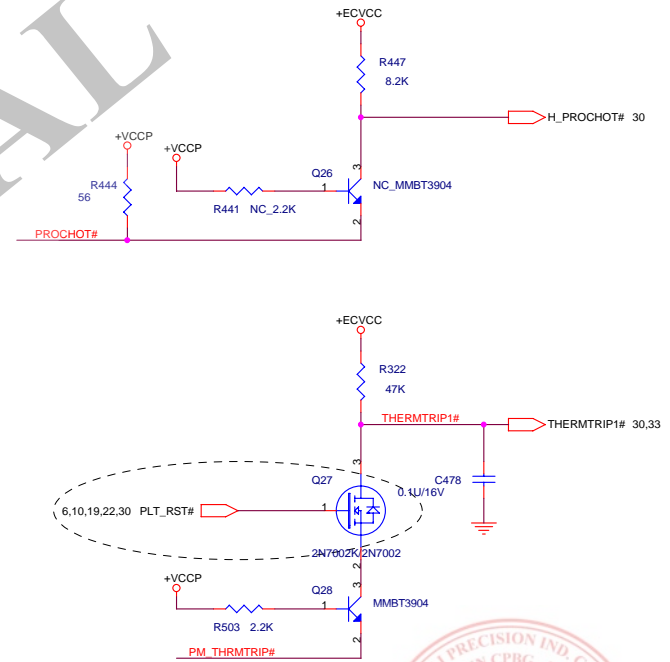
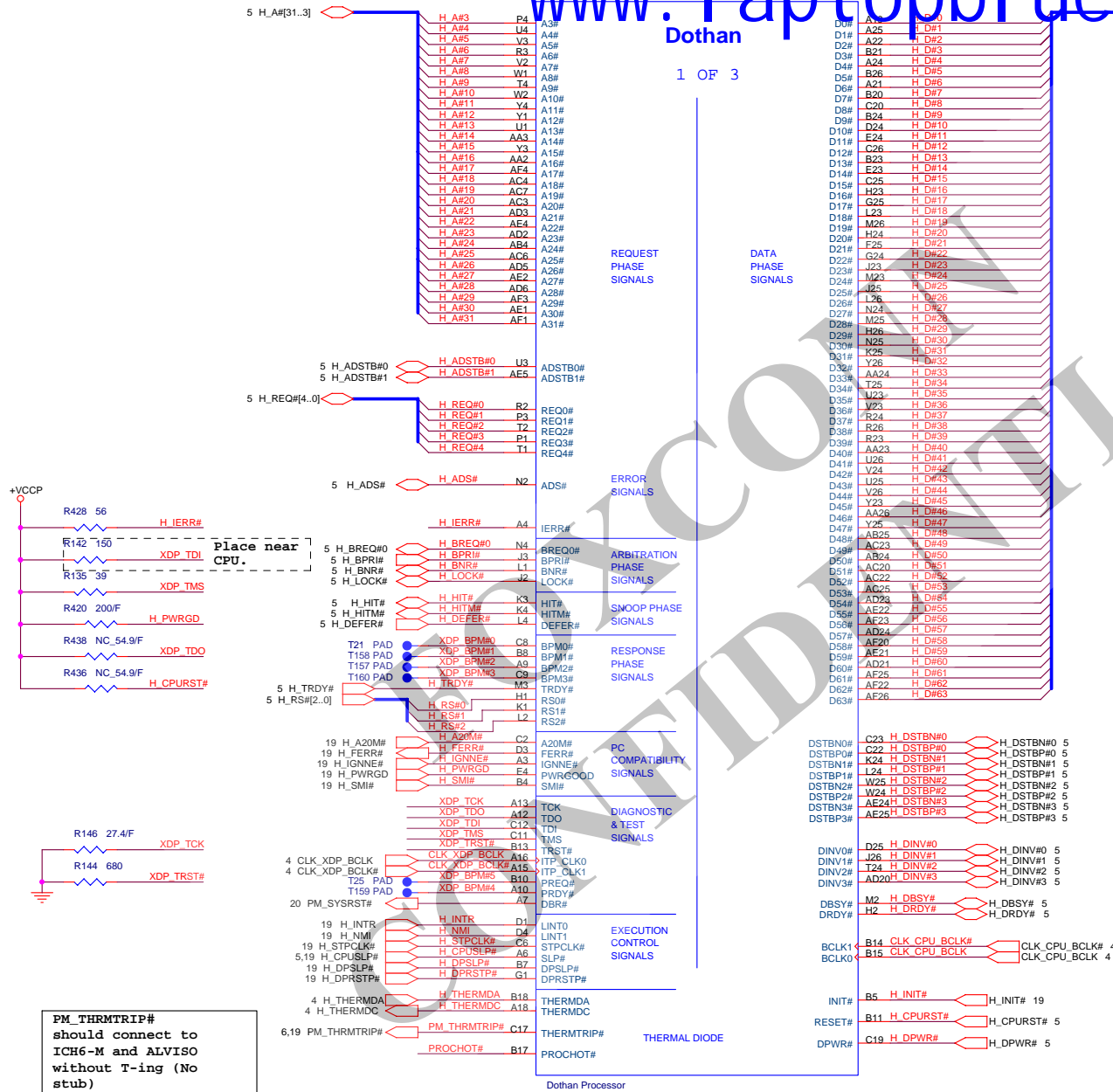
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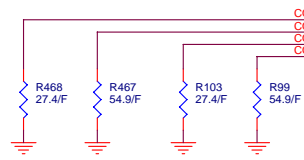
MS02(915PM/GM+Gfx Block Diagram)



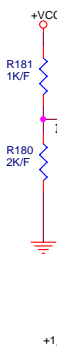
BOM configuration

	Symbol ahead of value for NC components
BOTH	NC_
915GM + NV44M	AL_
915GM	NV_
Hynix	H_NV_
Samsung	S_NV_





Place pulldown resistors within 0.5" of COMP pins



COMP0 P25
COMP1 P26
COMP2 AB2
COMP3 AB1

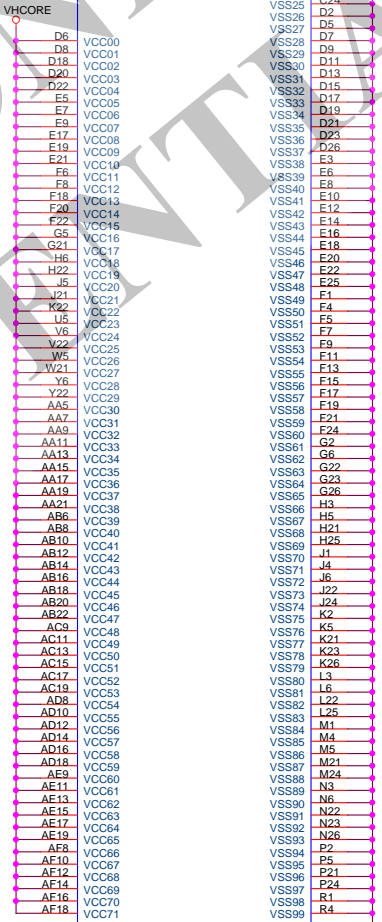
H_GTLREF AD26
TEST1 C5
TEST2 F23

T155PAD TP_CPU_NC1 B2
T11 PAD TP_NC 2 C3
T153PAD TP_NC 3 AF7
T152PAD TP_NC 4 AC1
T169 PAD TP_NC 5 F26

T167 PAD TP_VCCA3 AC26
T3 PAD TP_VCCA2 B1
T154 PAD TP_VCCA1 F26

Dothan
2 OF 3

POWER,
GROUND,
RESERVED
SIGNALS

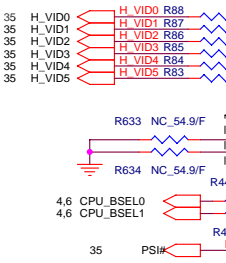


Dothan
3 OF 3

POWER, GROUND AND NC



VID

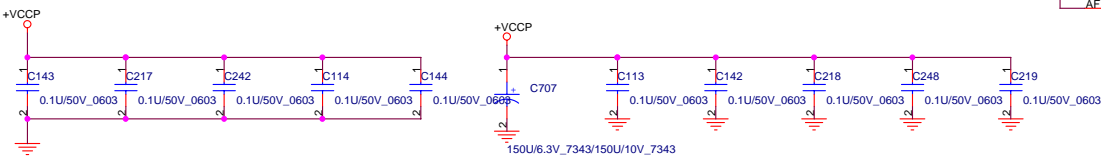
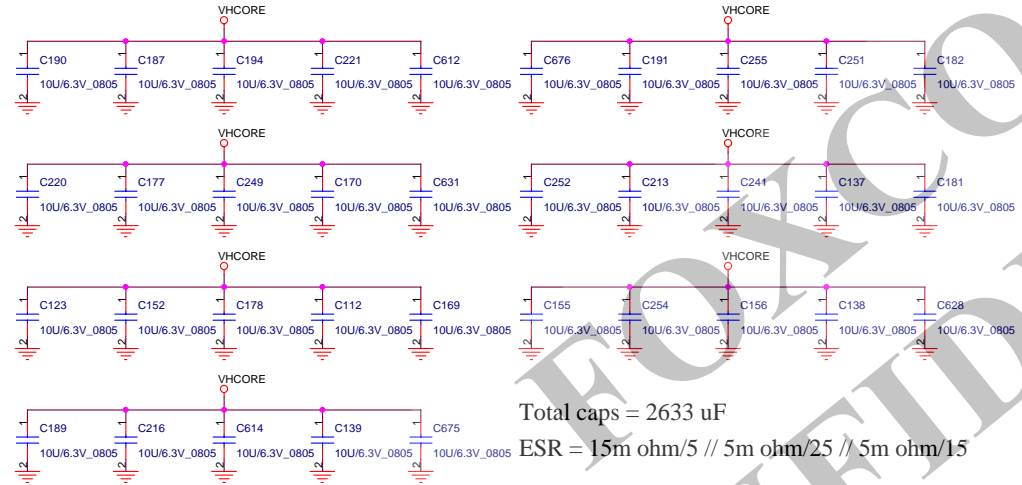


Same Length



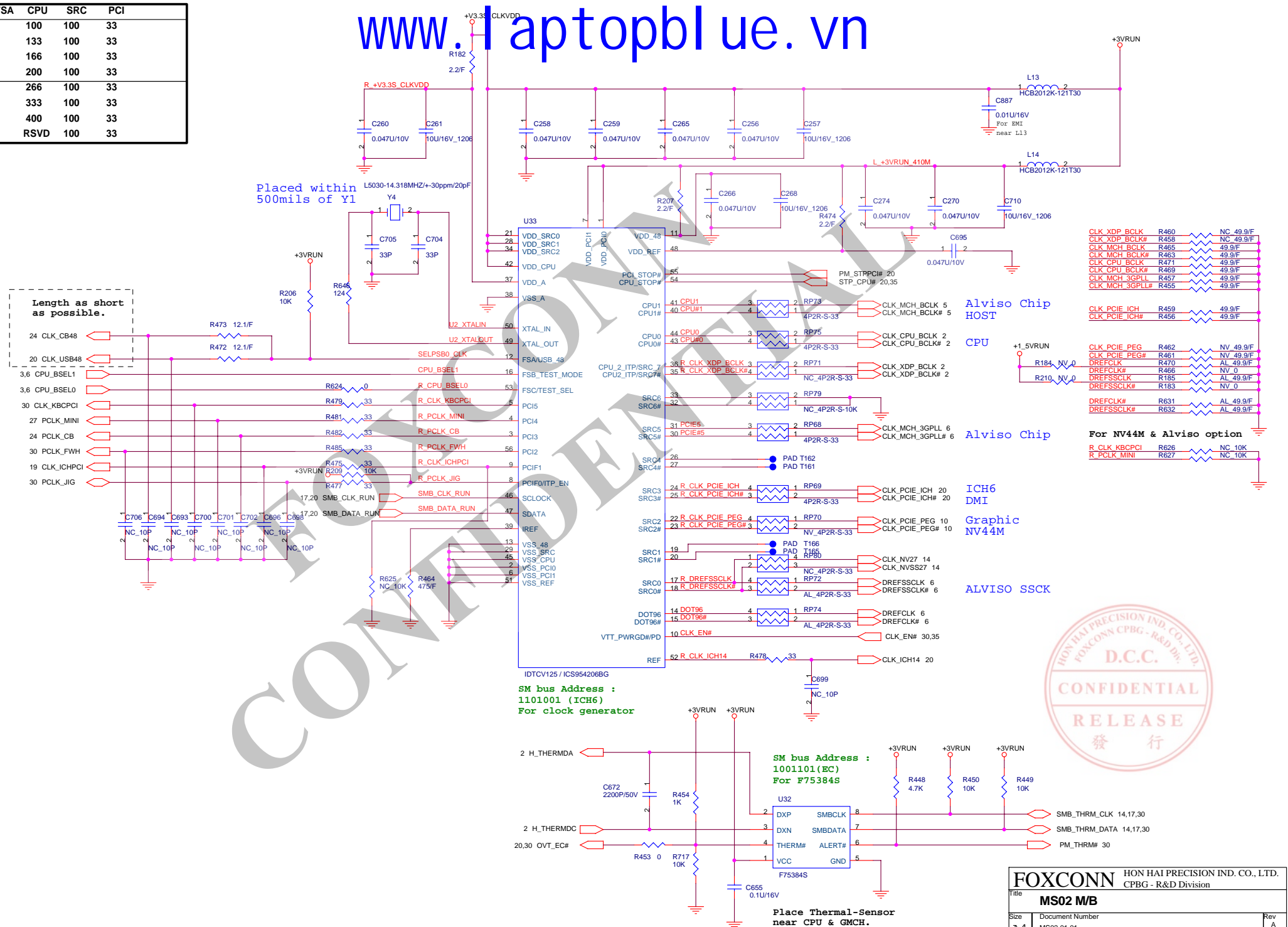
Dothan Processor

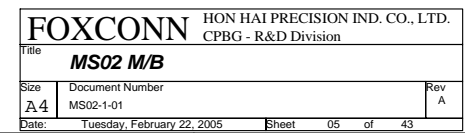
Total caps = 2633 uF
ESR = 15m ohm/5 // 5m ohm/25 // 5m ohm/15

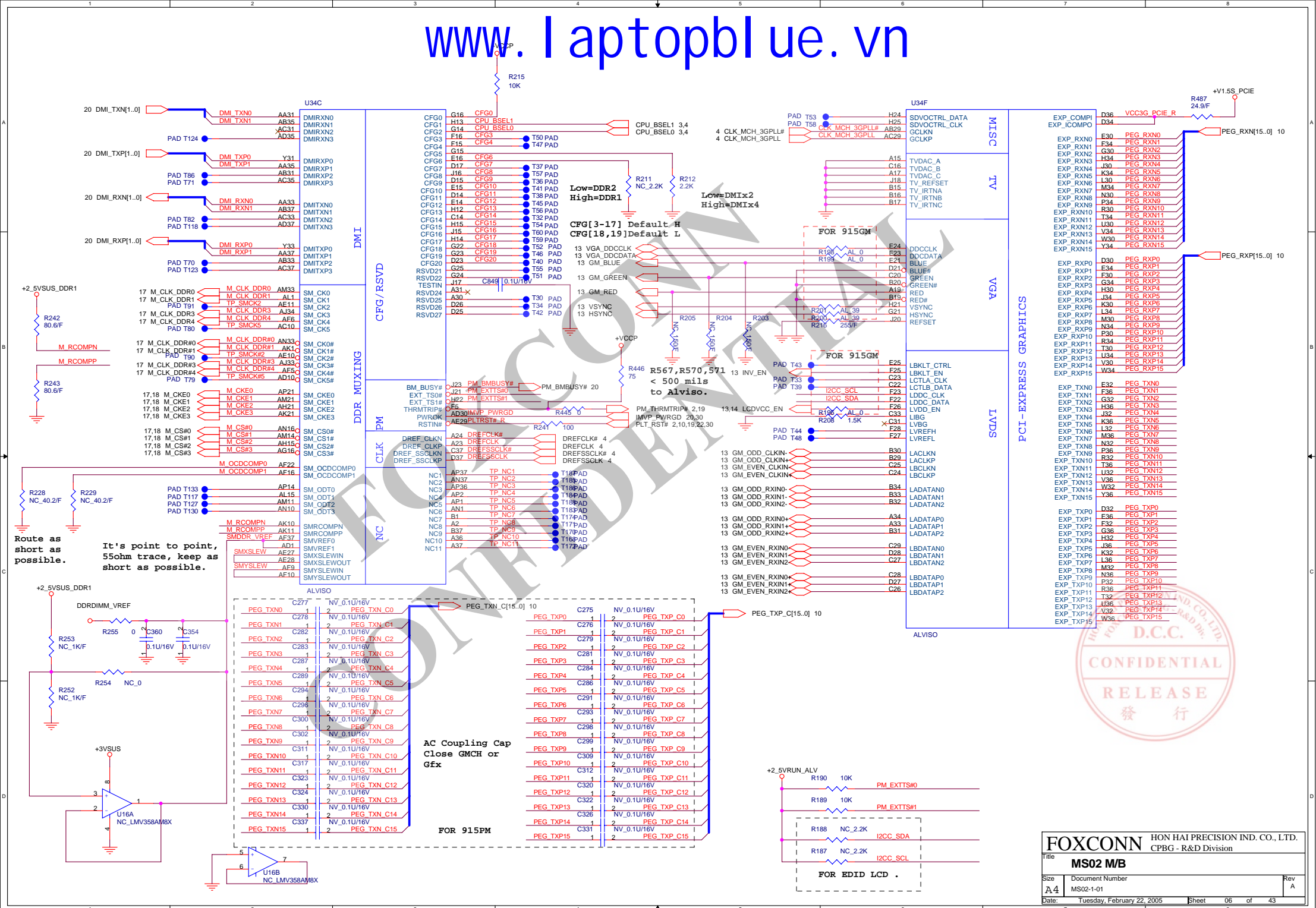


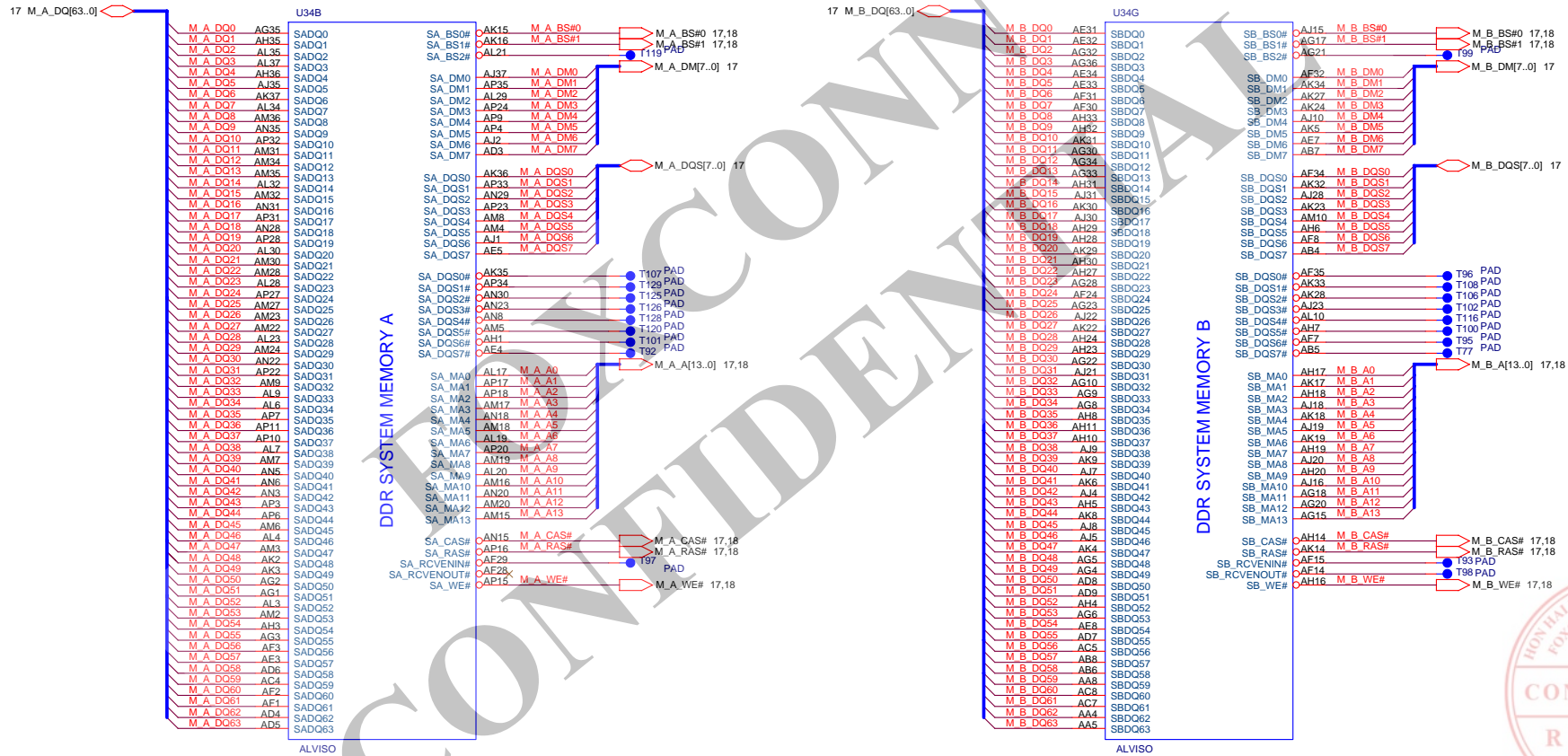
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

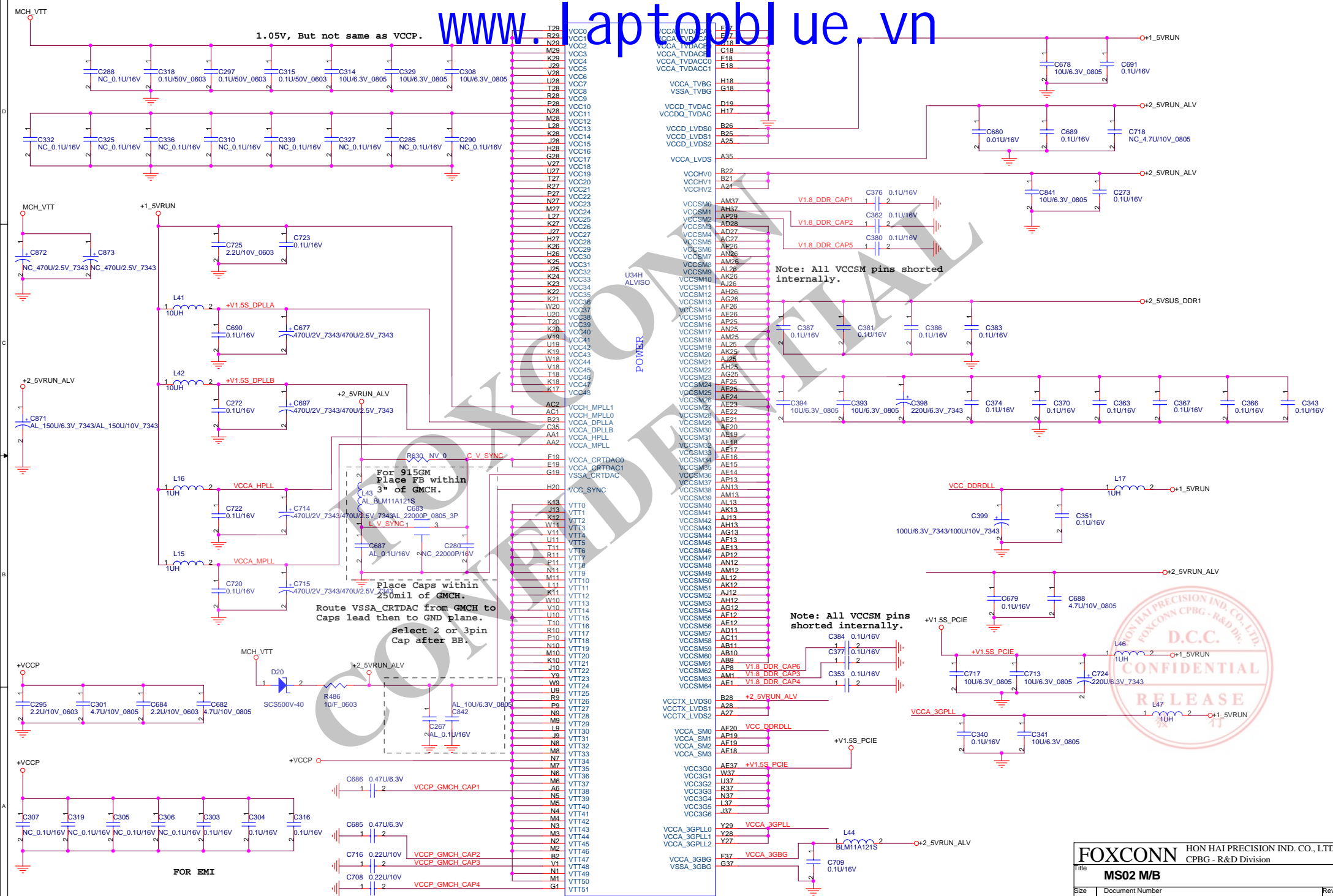
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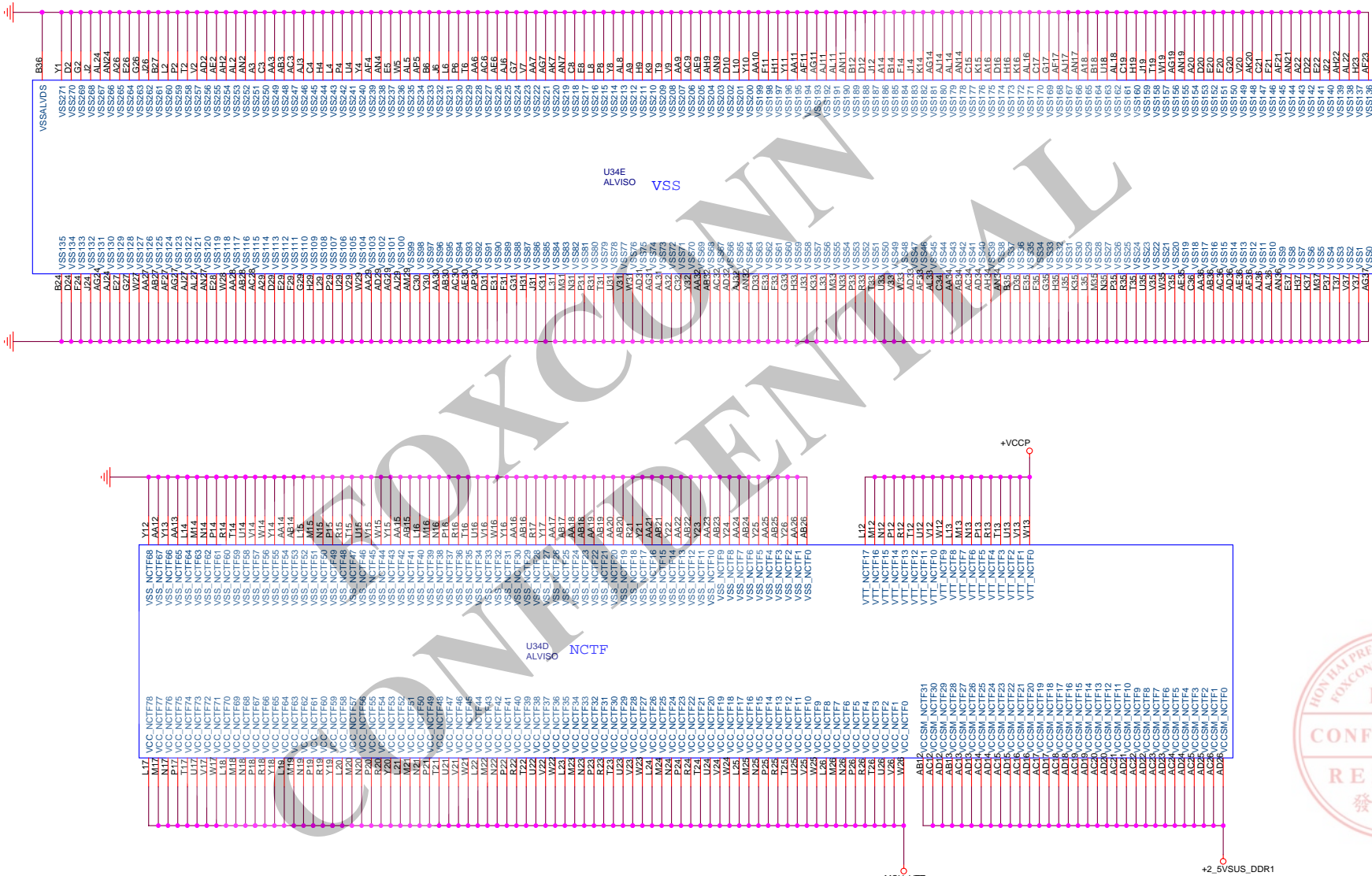


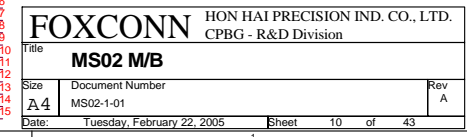


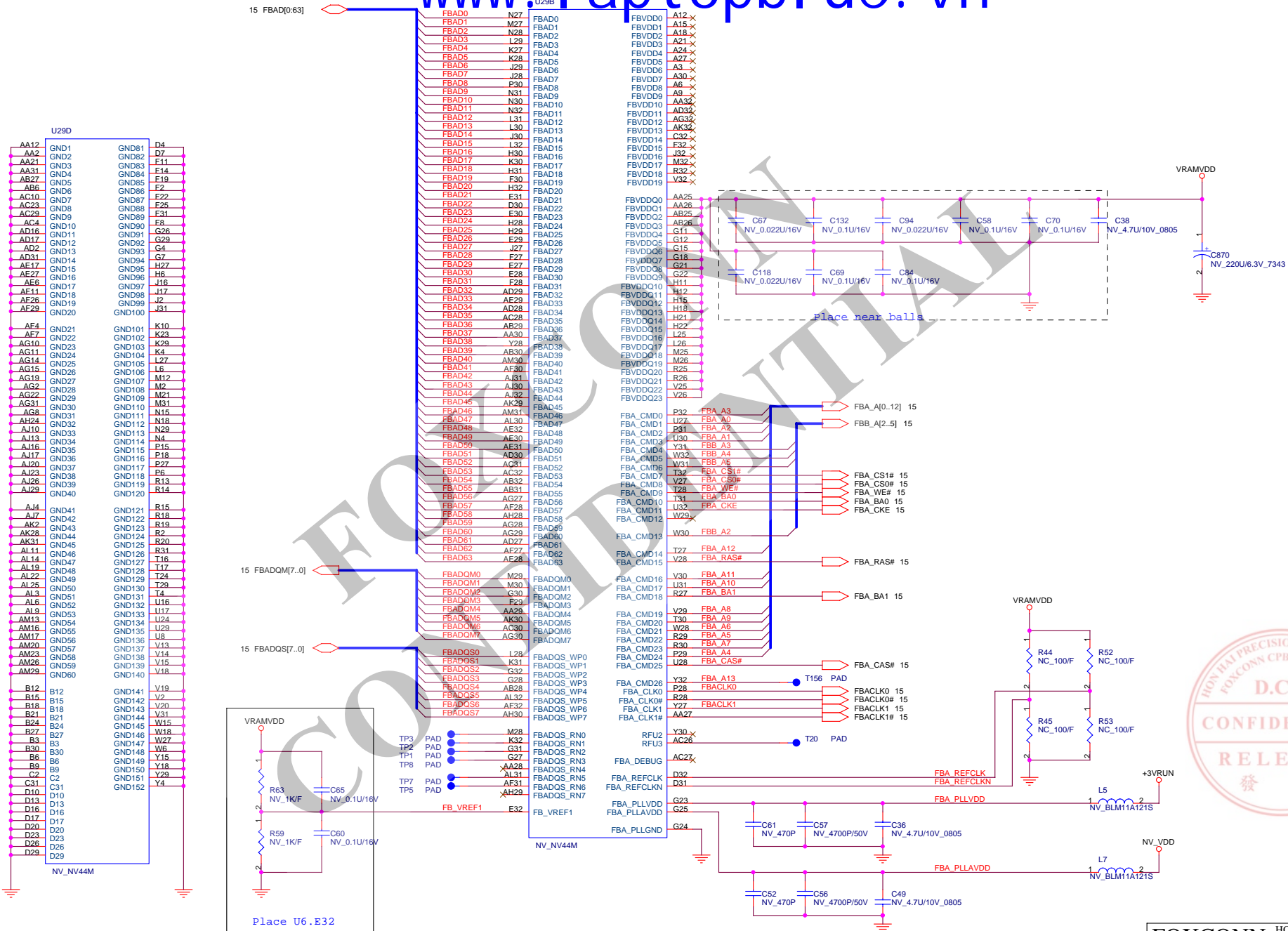


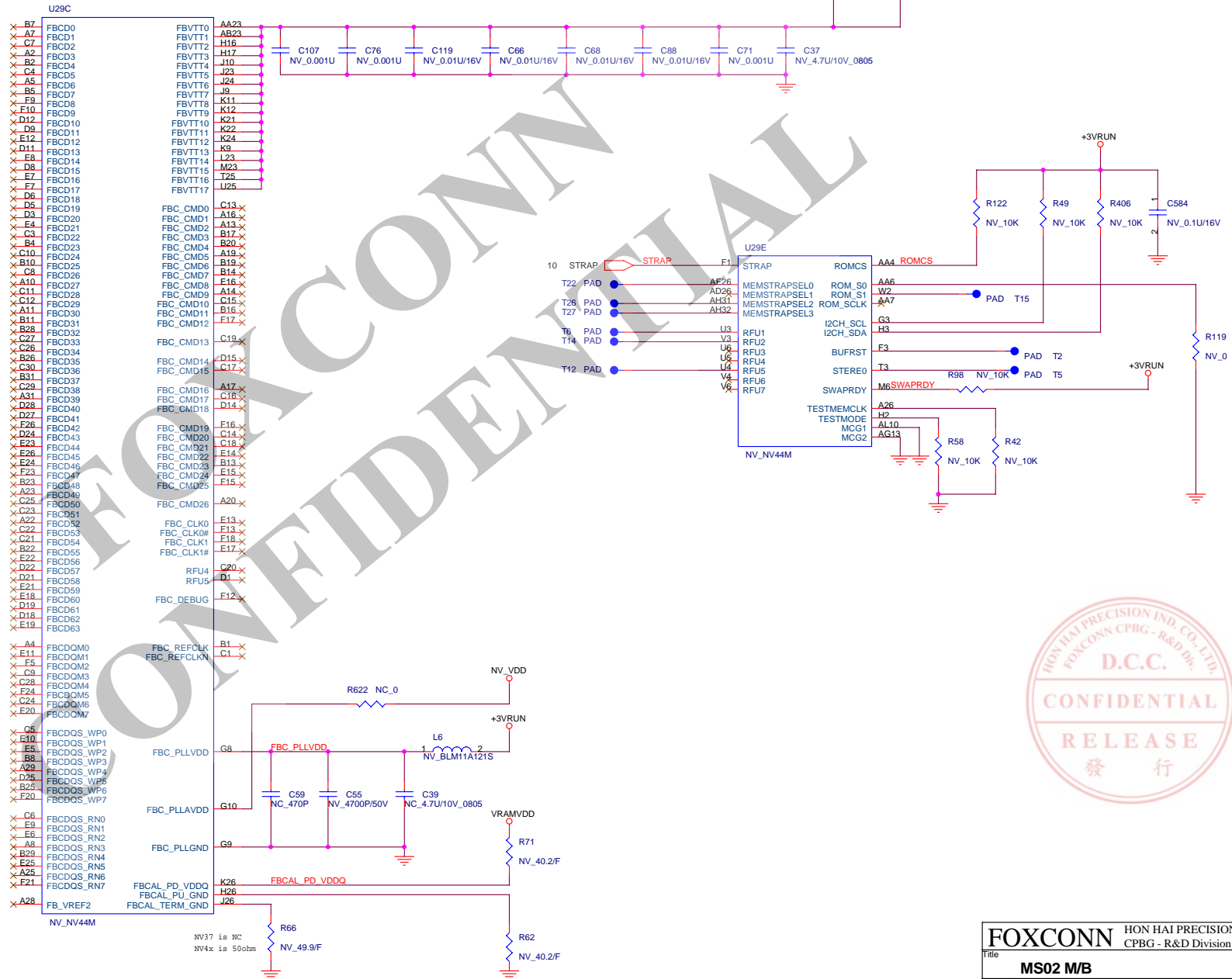


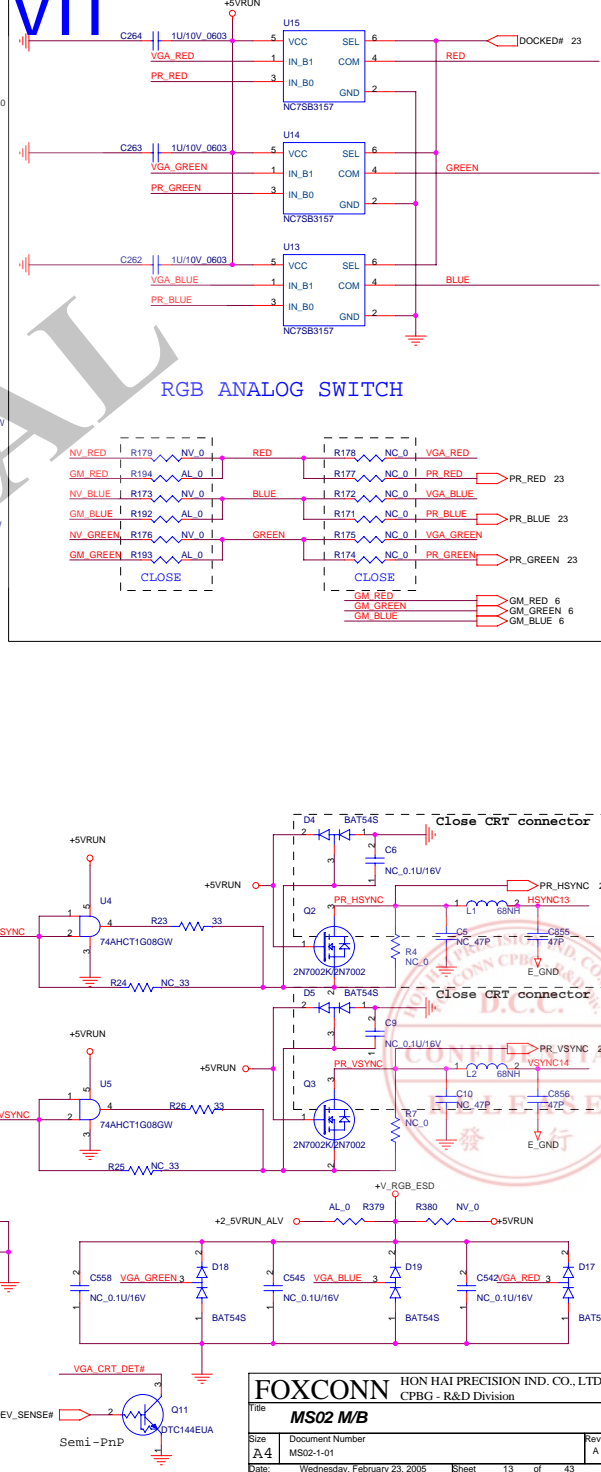


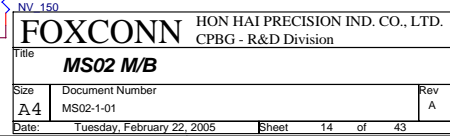


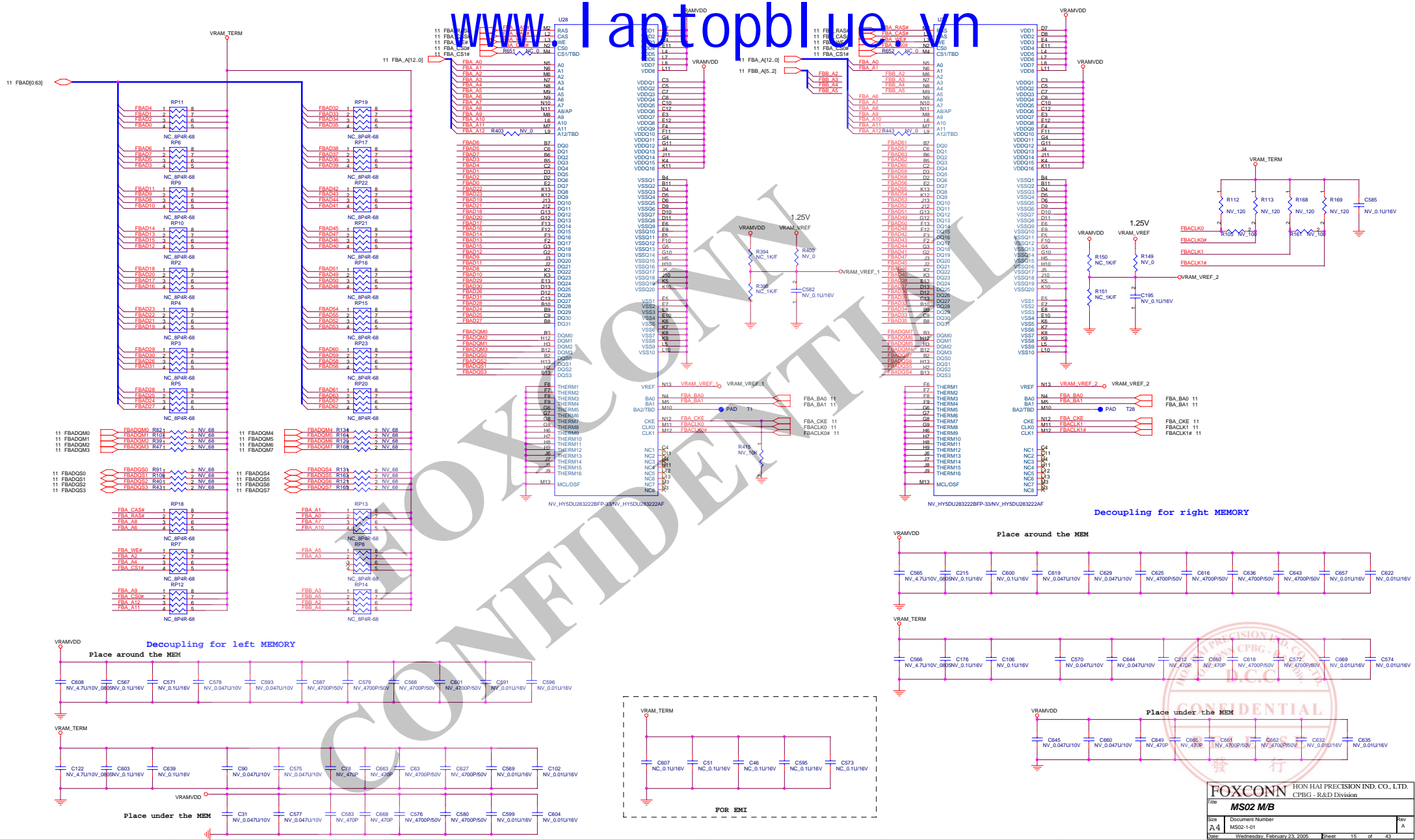




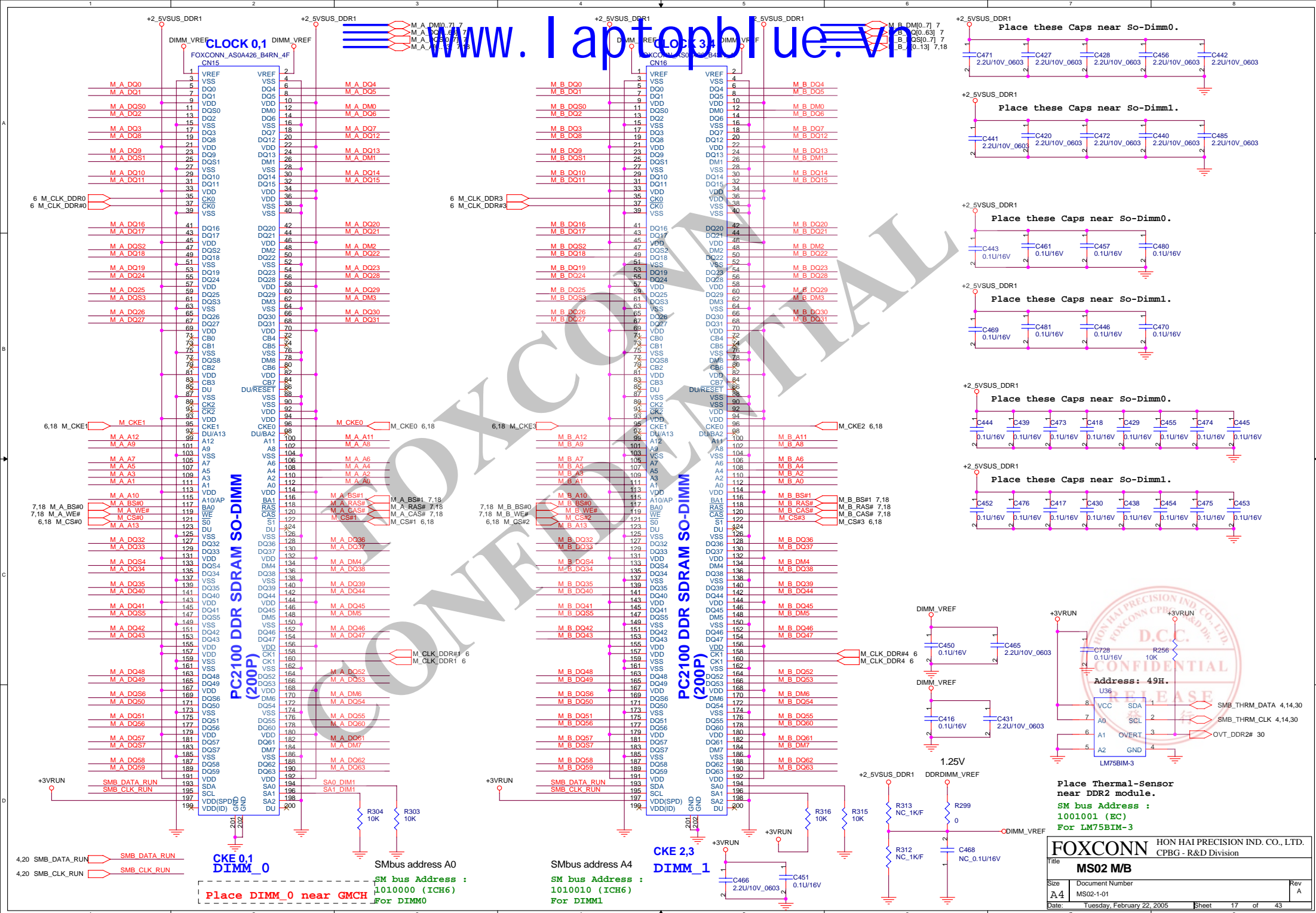




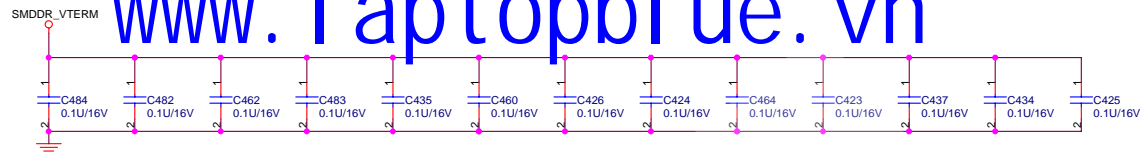




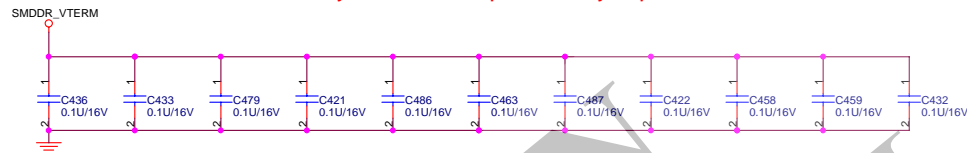




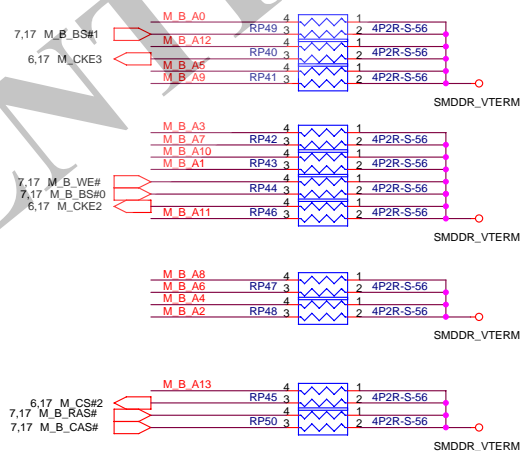
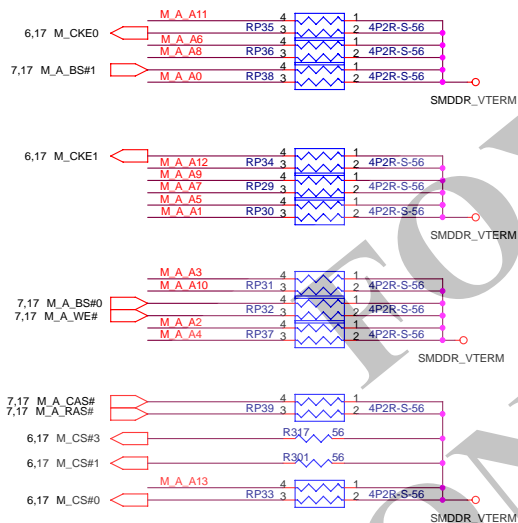
M_A_A[0..13] 7,17
M_B_A[0..13] 7,17

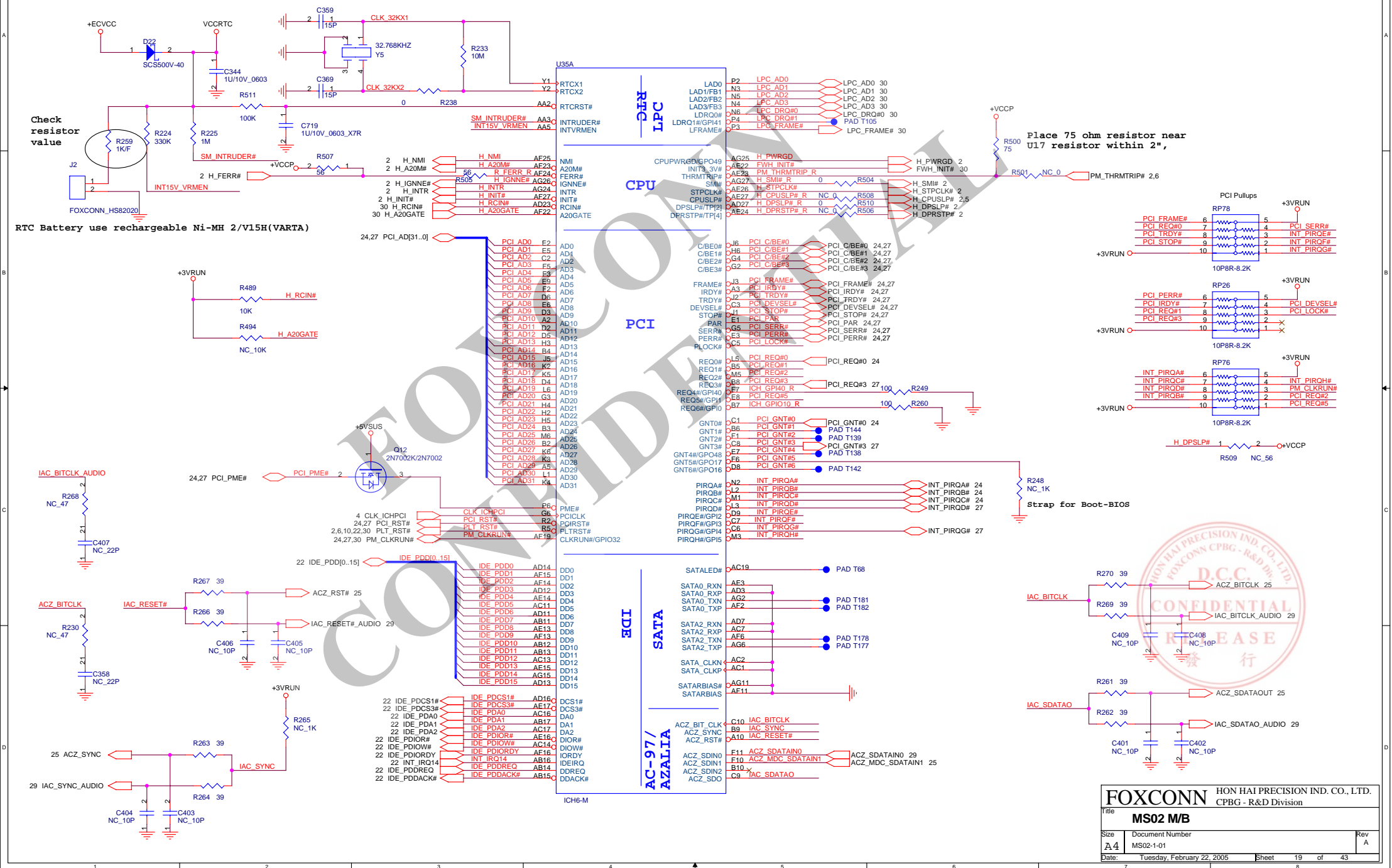


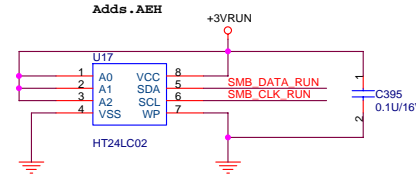
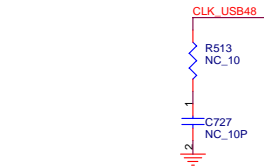
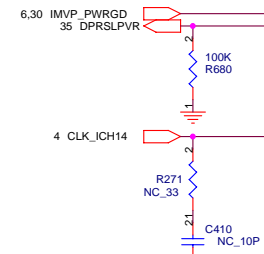
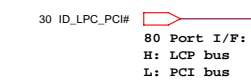
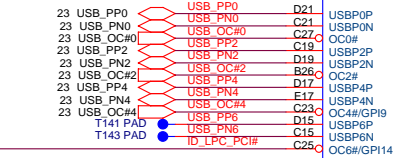
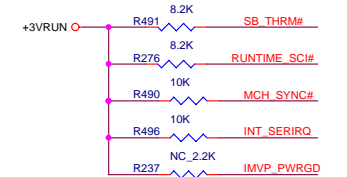
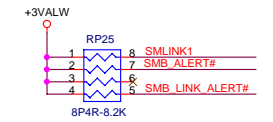
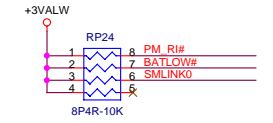
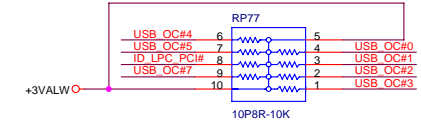
Layout note: Place 1 cap close to every 1 R-pack terminated to SMDDR_VTERM.

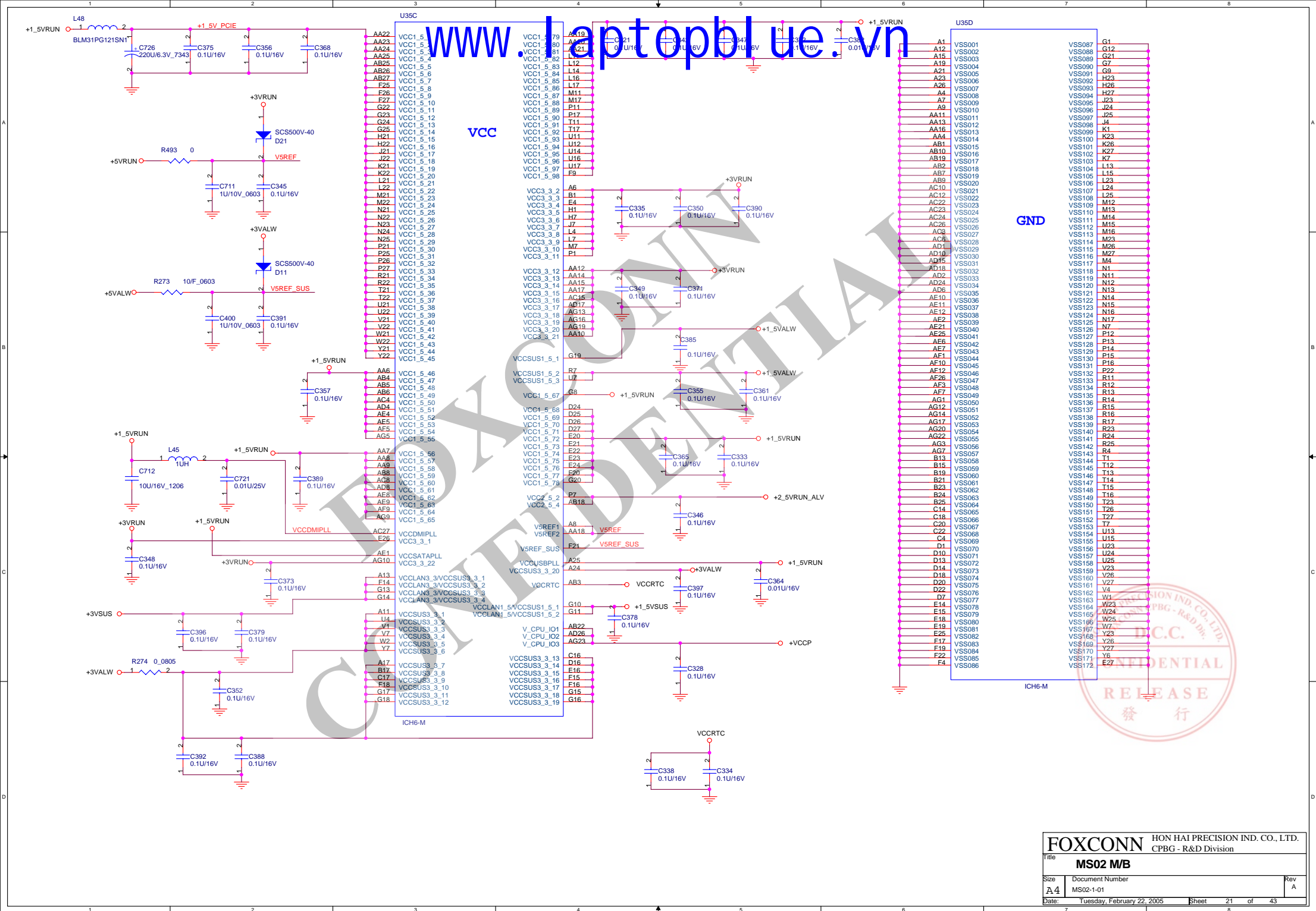


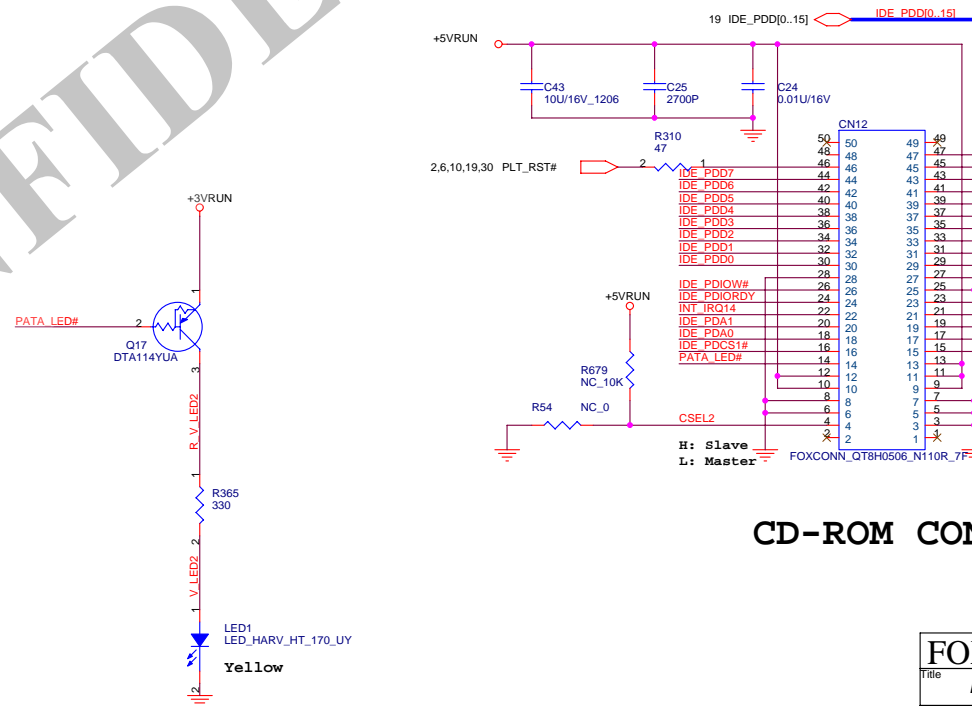
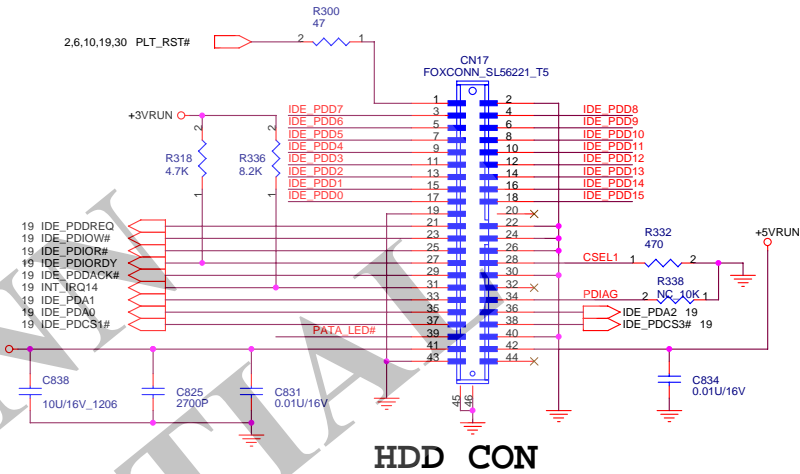
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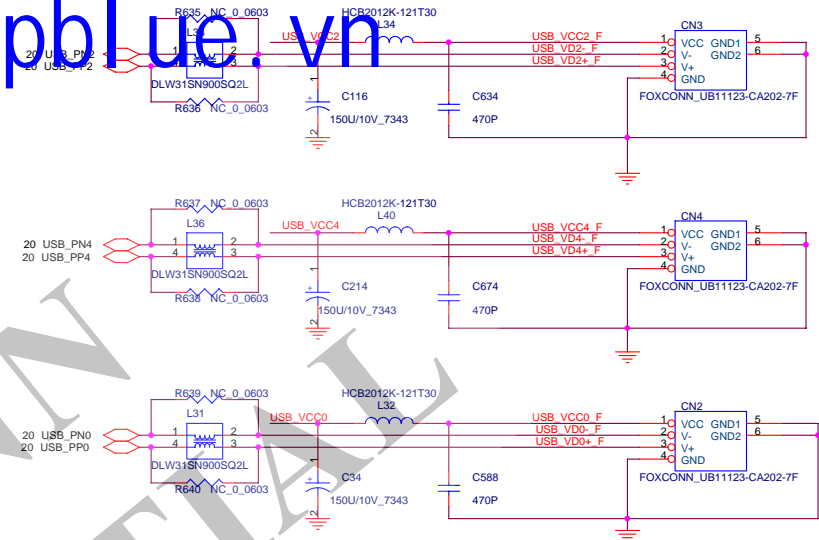
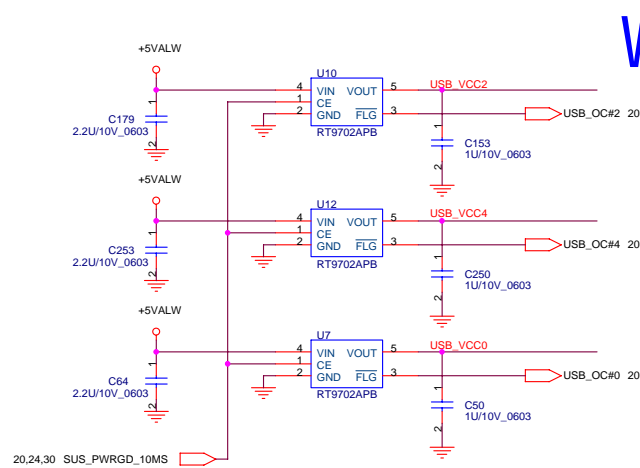




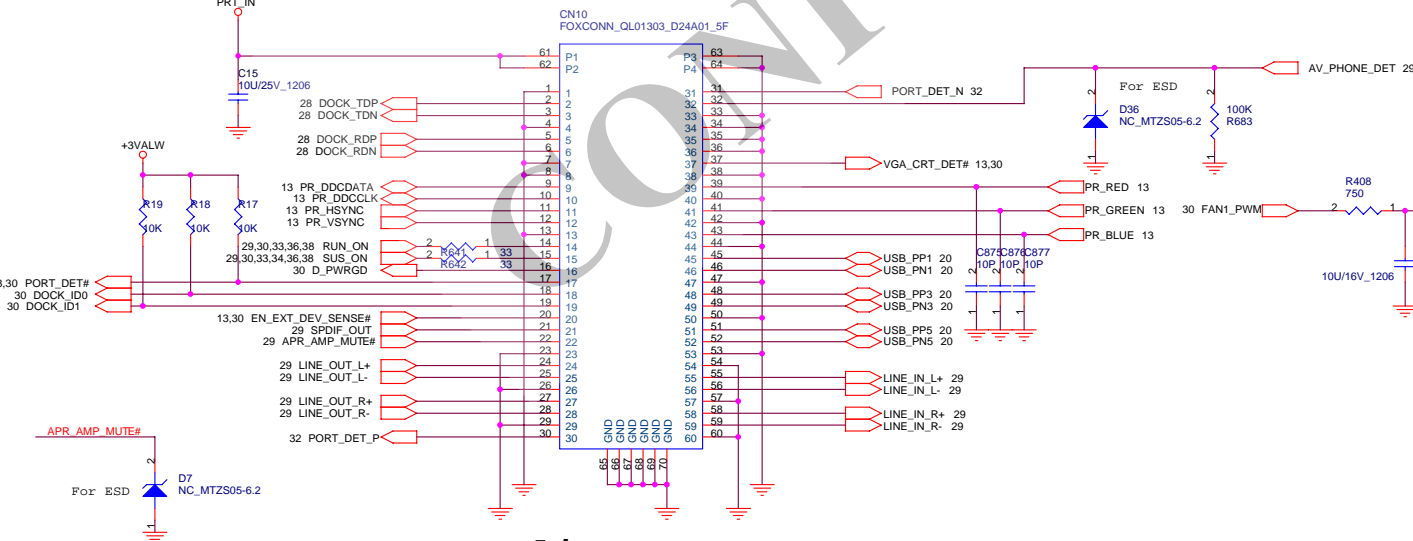
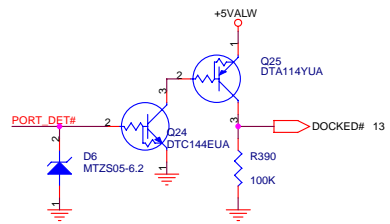




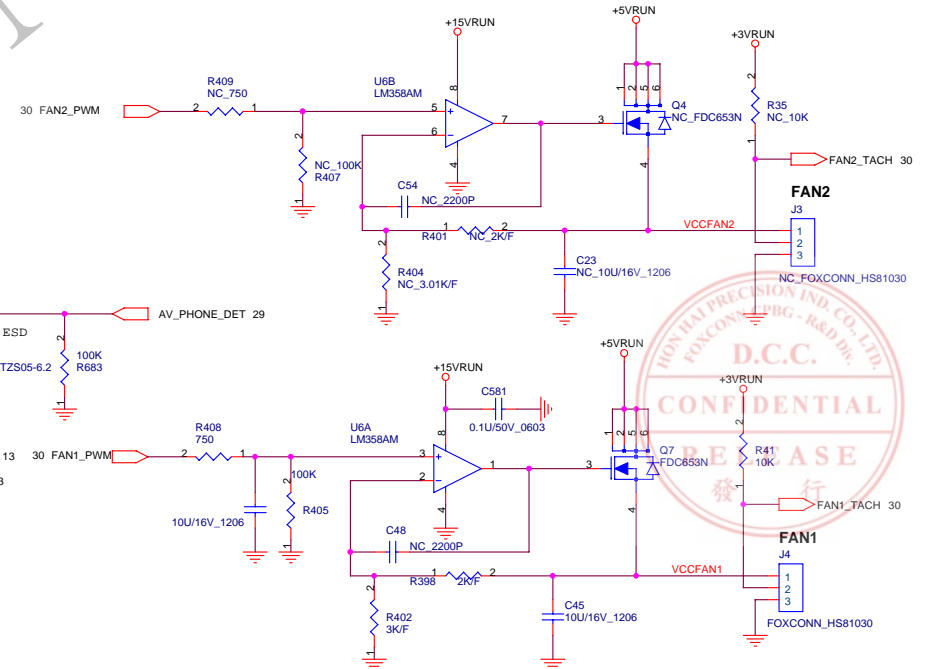




USB2.0 X 3

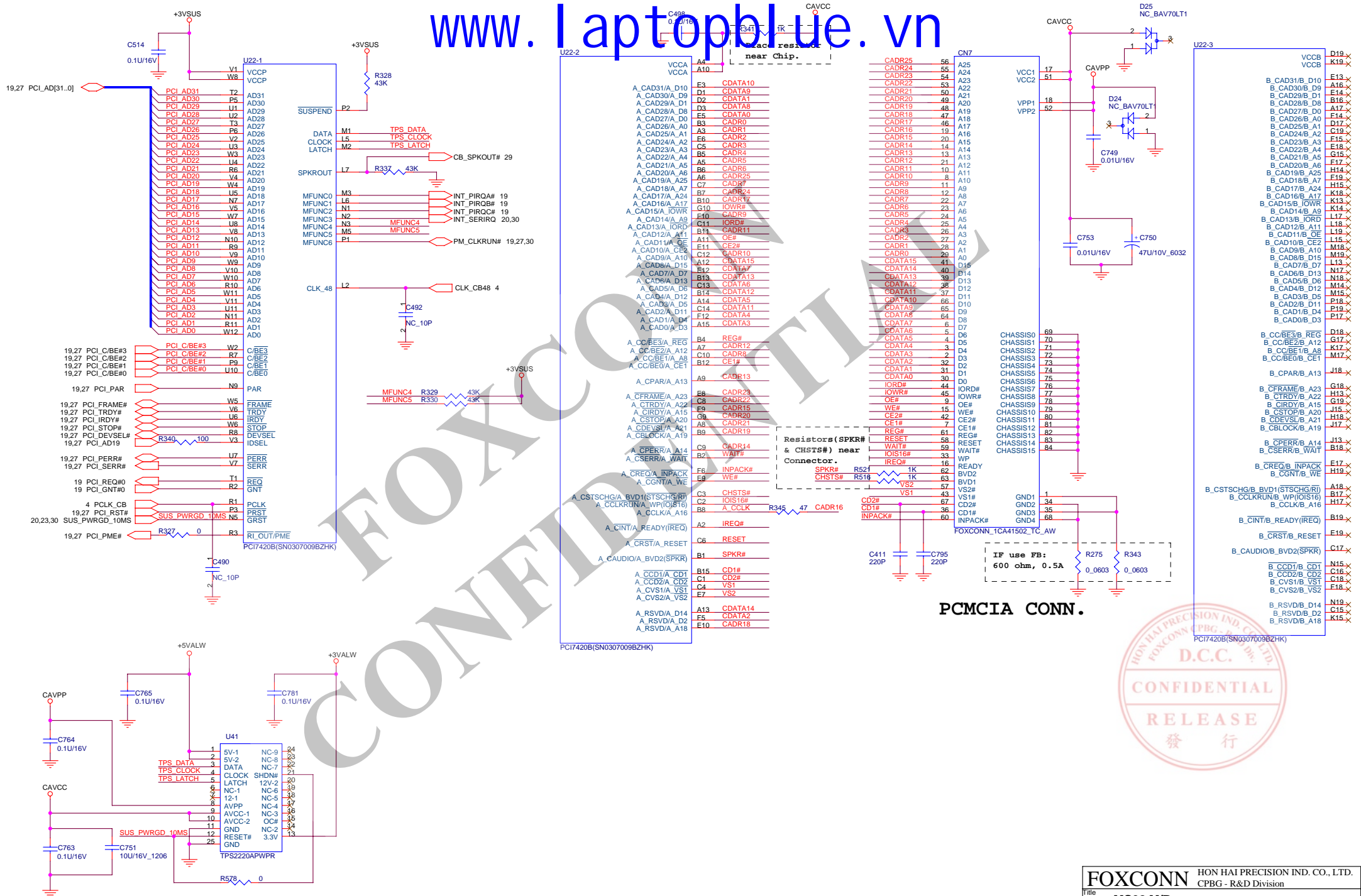


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Title		MS02 M/B	
Size	Document Number	Rev	
A4	MS02-1-01	A	
Date:	Tuesday, February 22, 2005	Sheet	23 of 43



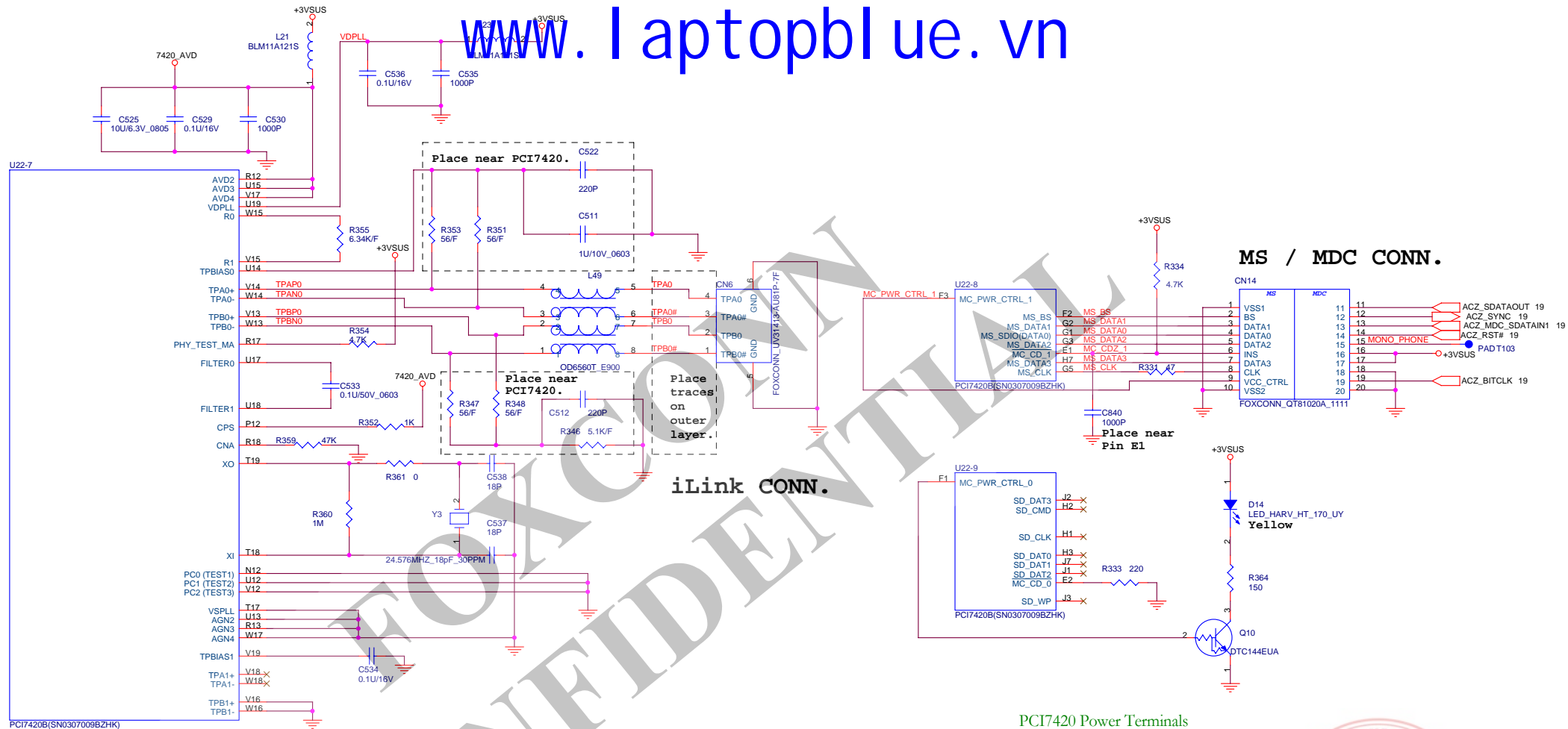
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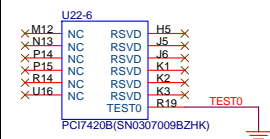
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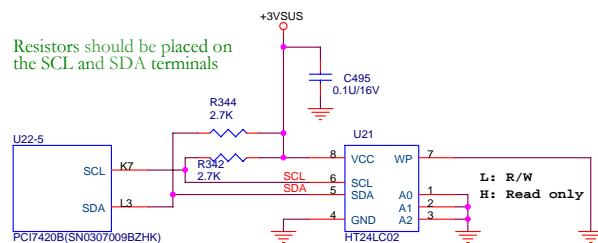
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Size	Document Number		Rev
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Date:	Tuesday, February 22, 2005	Sheet	24 of 43



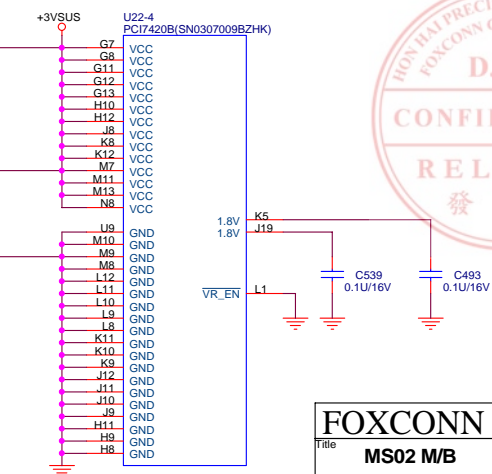
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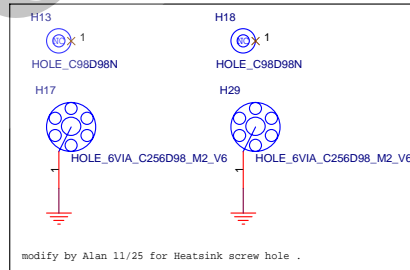
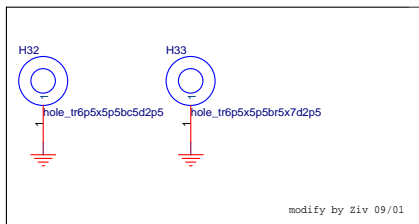
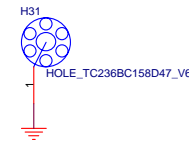
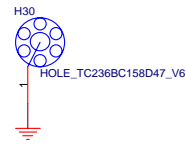
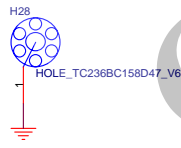
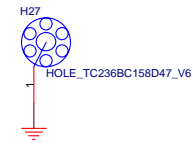
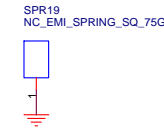
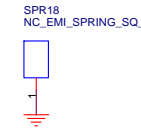
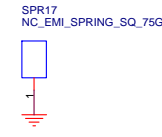
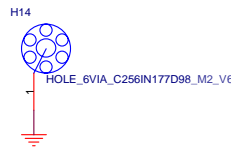
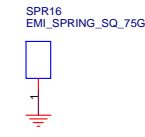
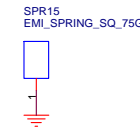
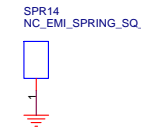
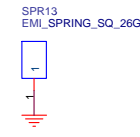
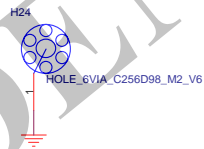
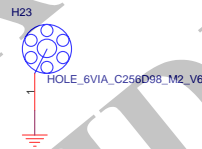
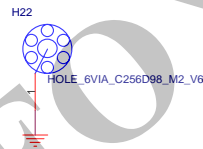
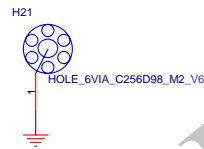
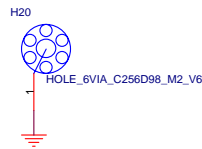
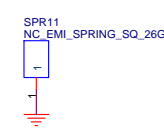
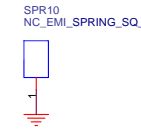
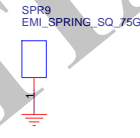
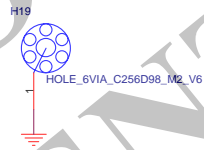
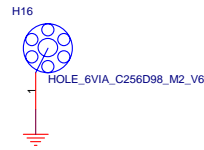
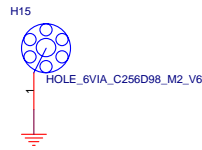
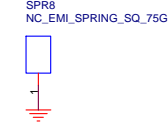
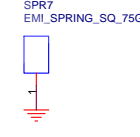
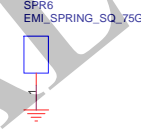
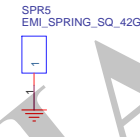
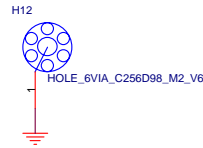
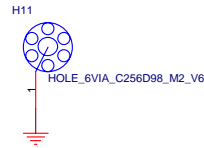
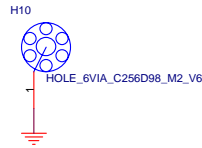
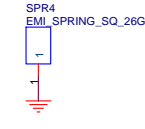
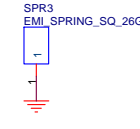
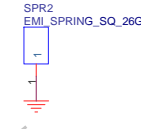
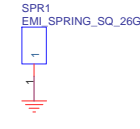
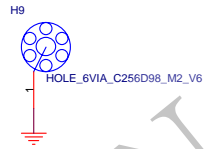
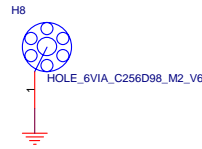
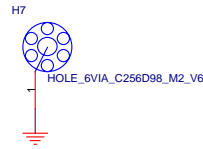
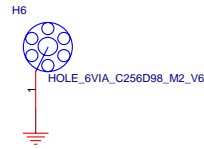
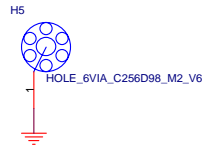
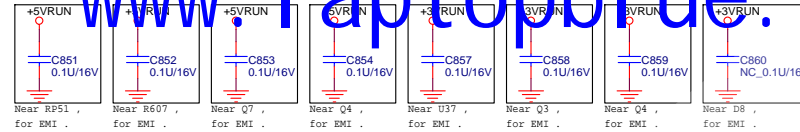
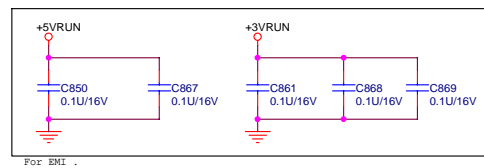
Resistors should be placed on the SCL and SDA terminals

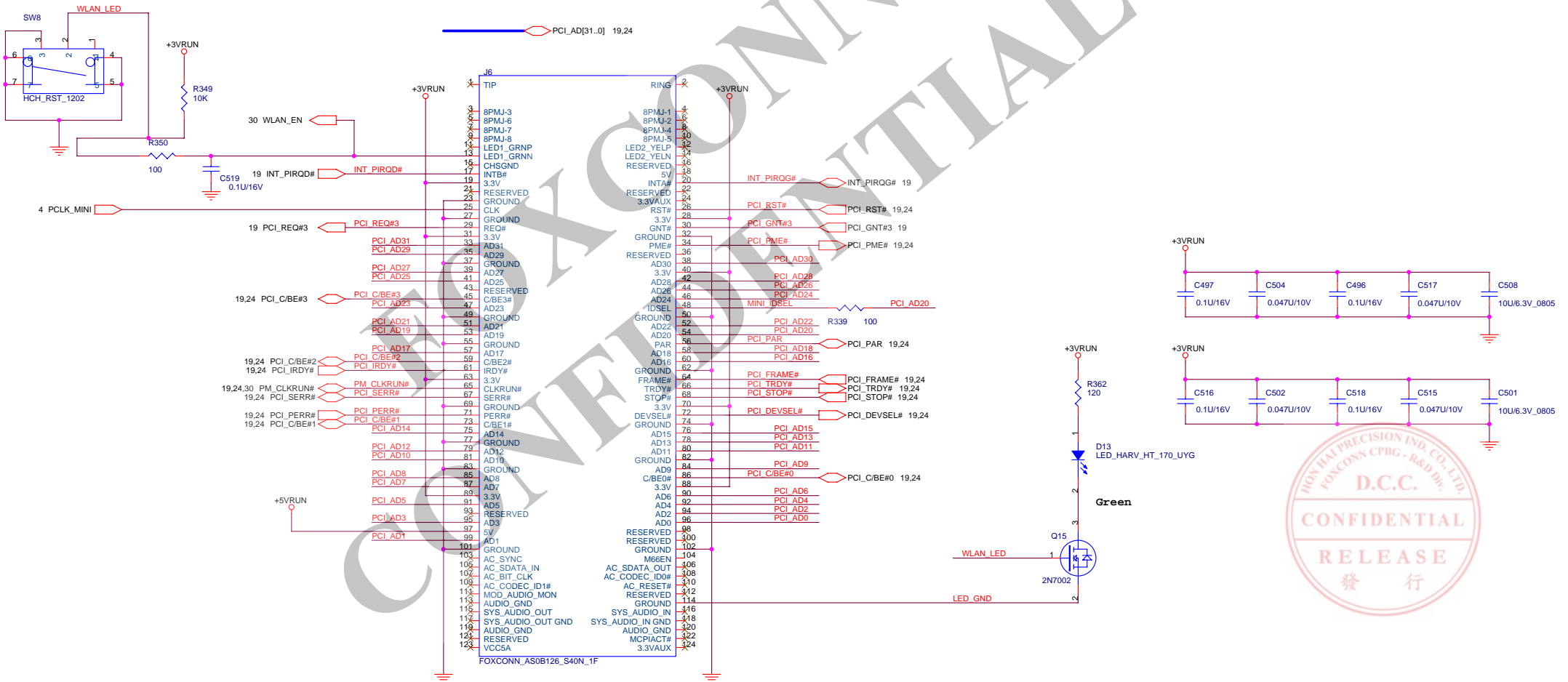


PCI7420 Power Terminals



FOXCONN		HON HAI PRECISION IND. CO., LTD.	
		CPBG - R&D Division	
Title MS02 M/B			
Size A 4	Document Number MS02-1-01		Rev A
Date: Tuesday, February 22, 2005	Sheet	25	of 43





Match trace length

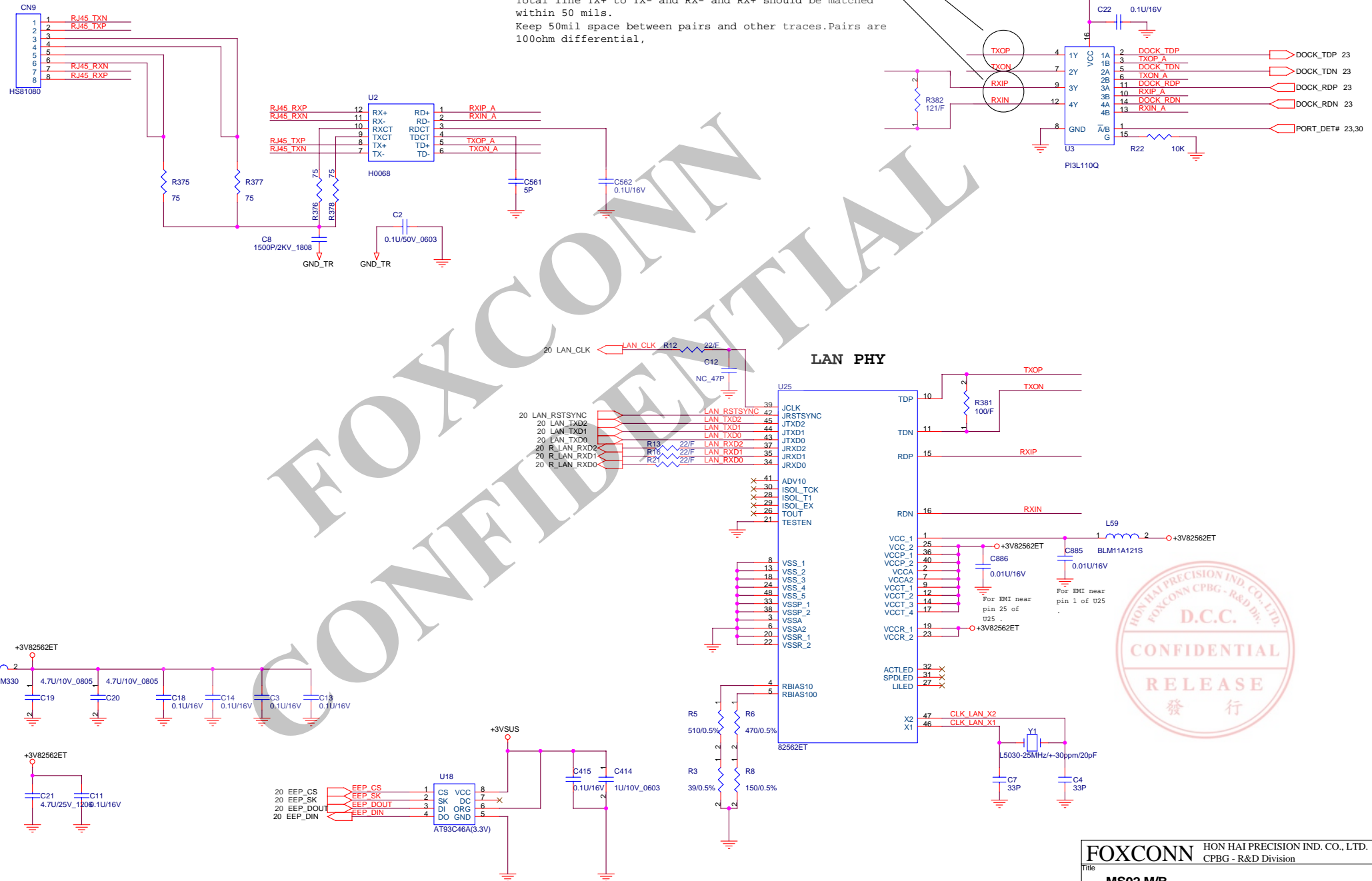
YOU NOTES:

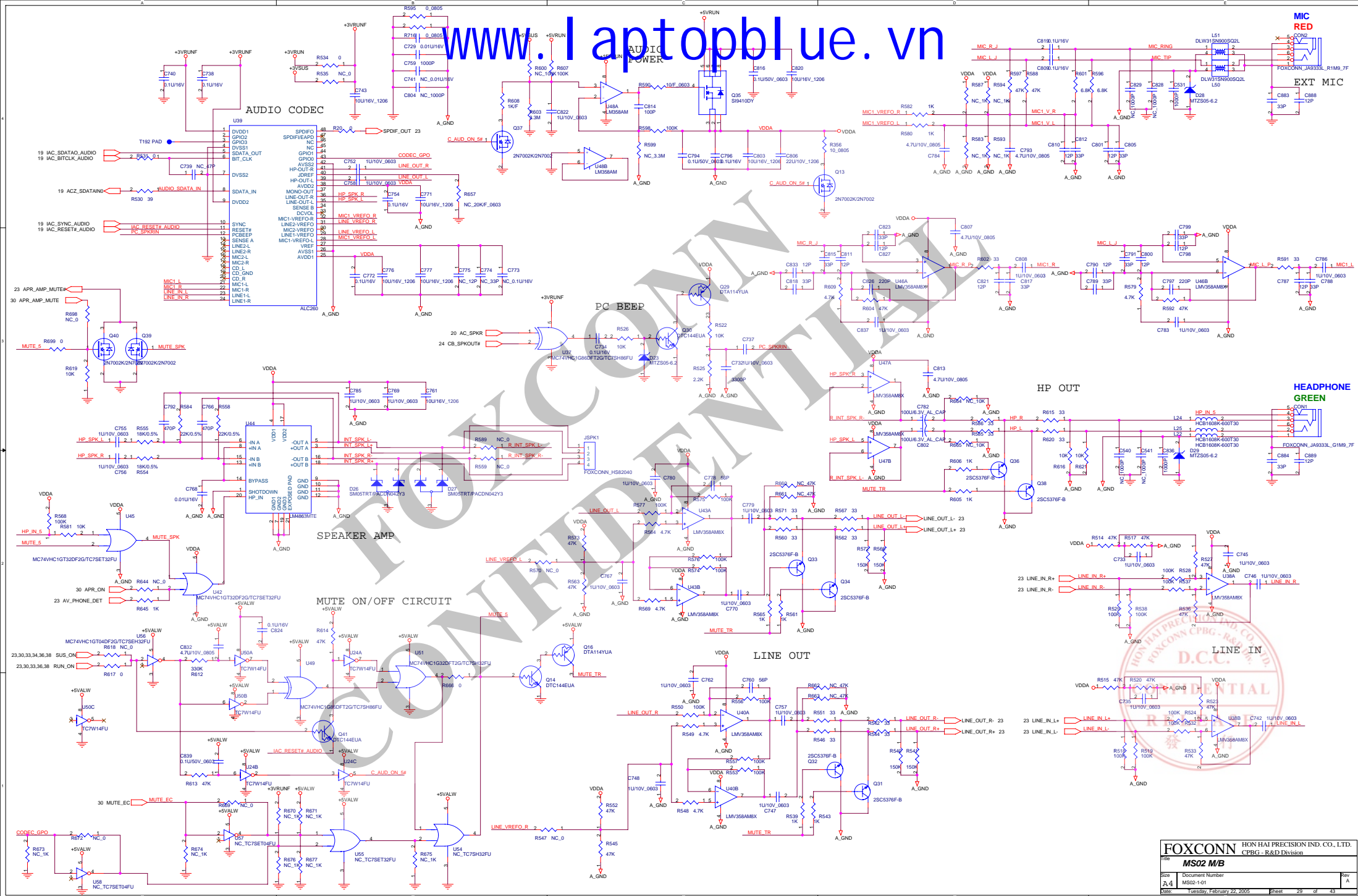
Match total length of chip side Rx and Tx pair traces +/-50mil

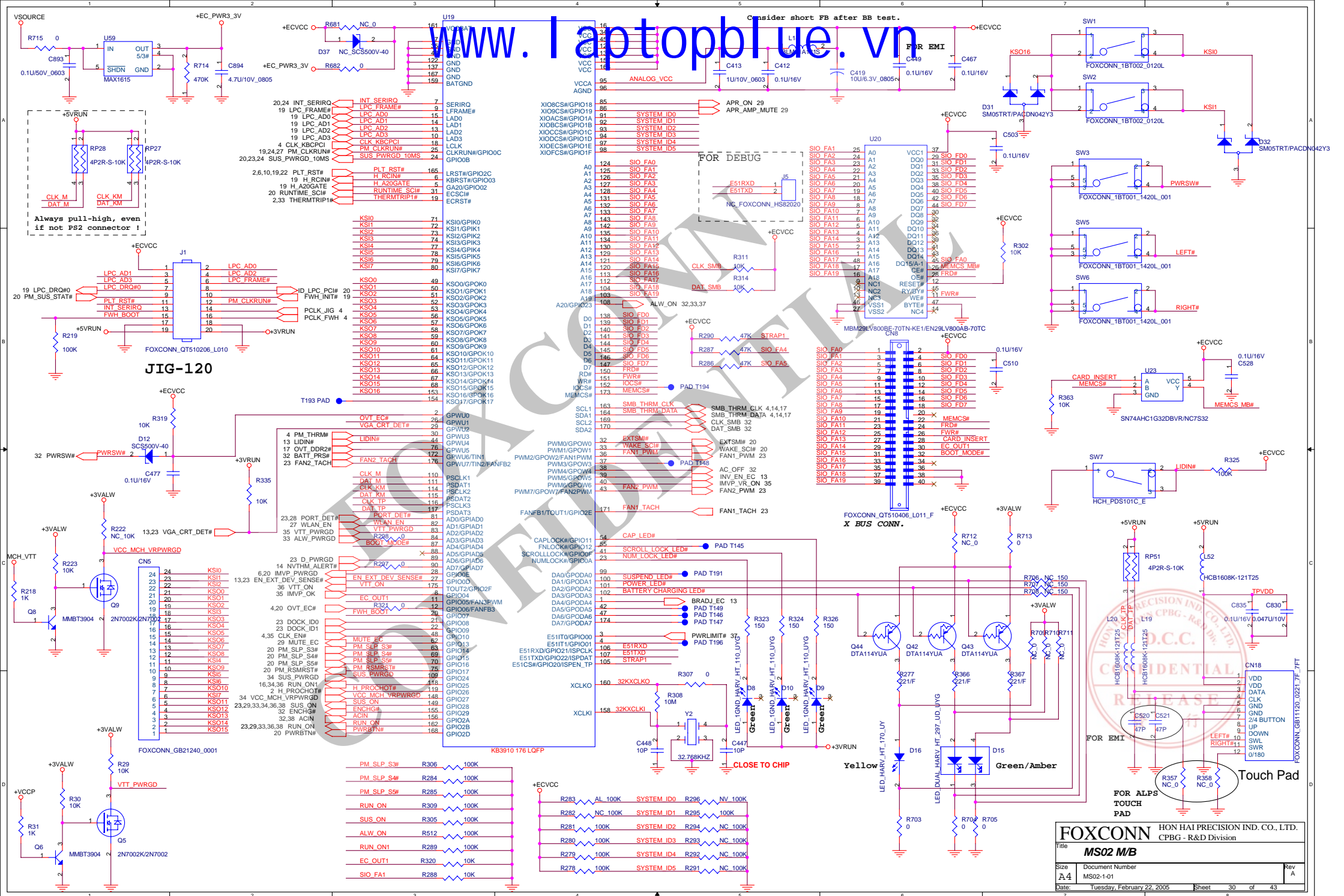
Match length of cable side Rx and Tx pair traces +/- 50 mil

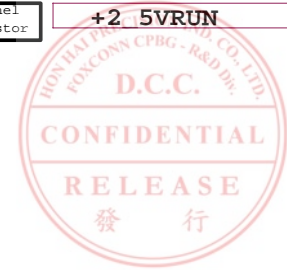
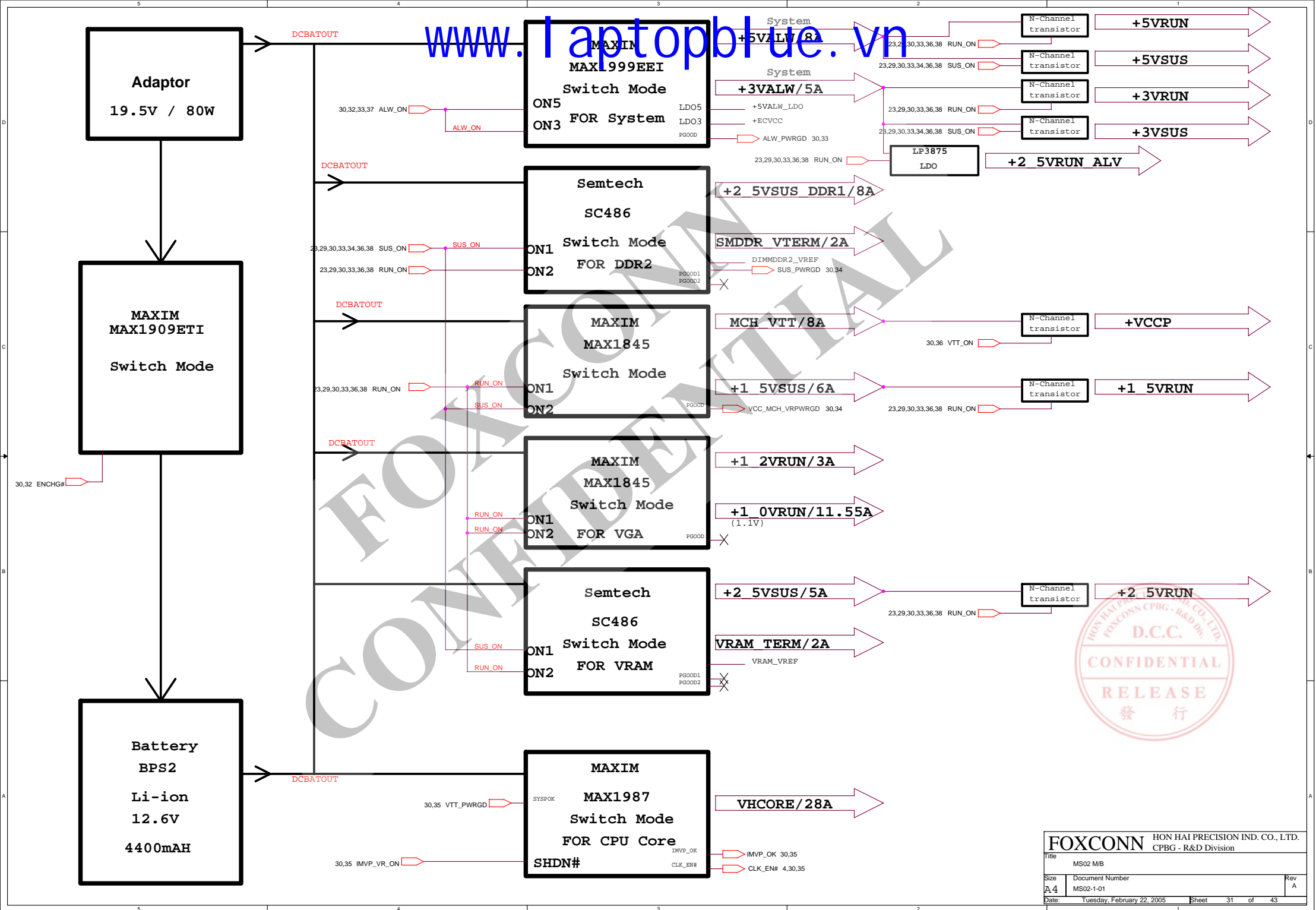
Total line TX+ to TX- and RX- and RX+ should be matched within 50 mils.

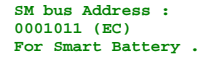
Keep 50mil space between pairs and other traces.Pairs are 100ohm differential,





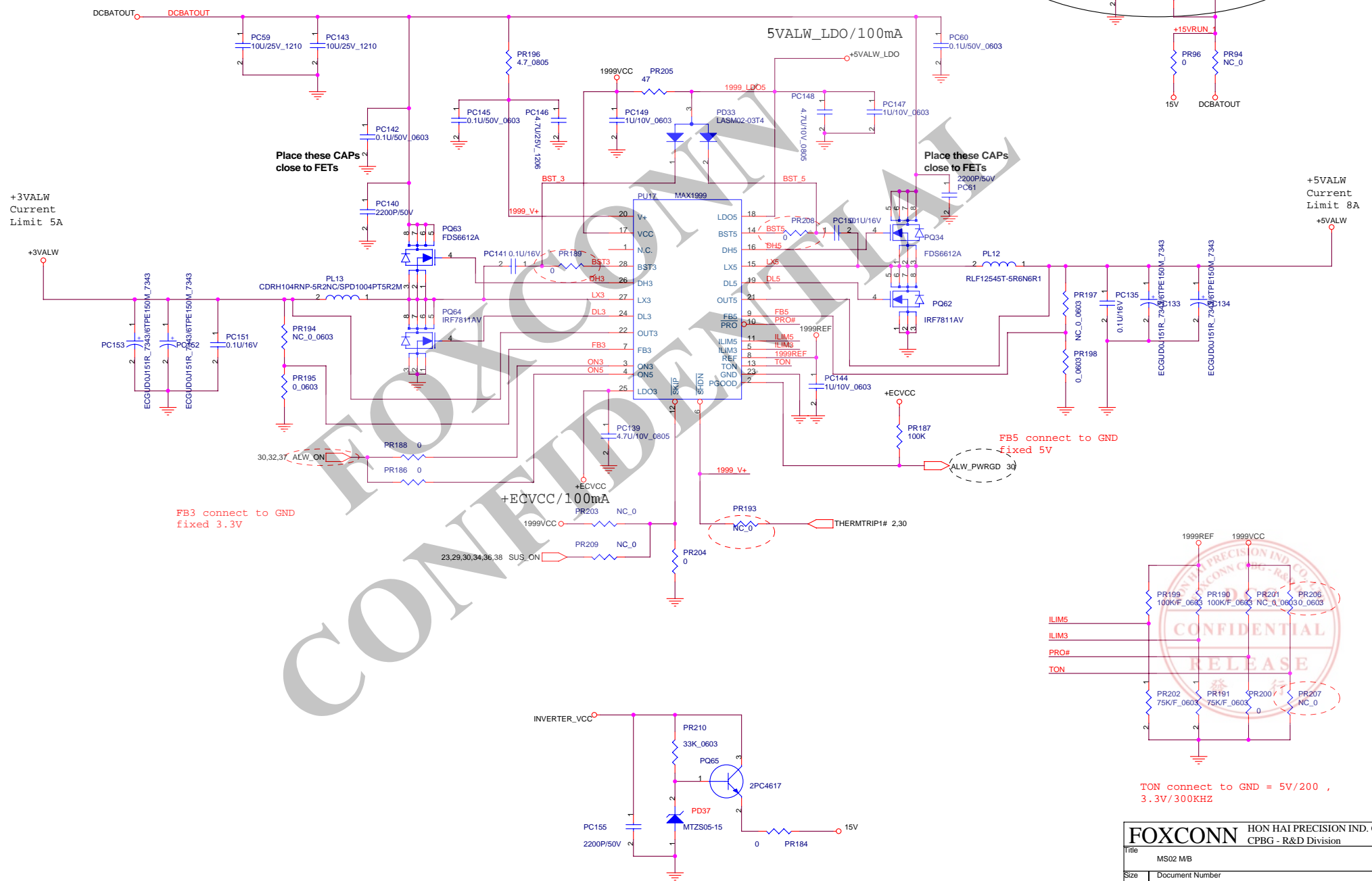


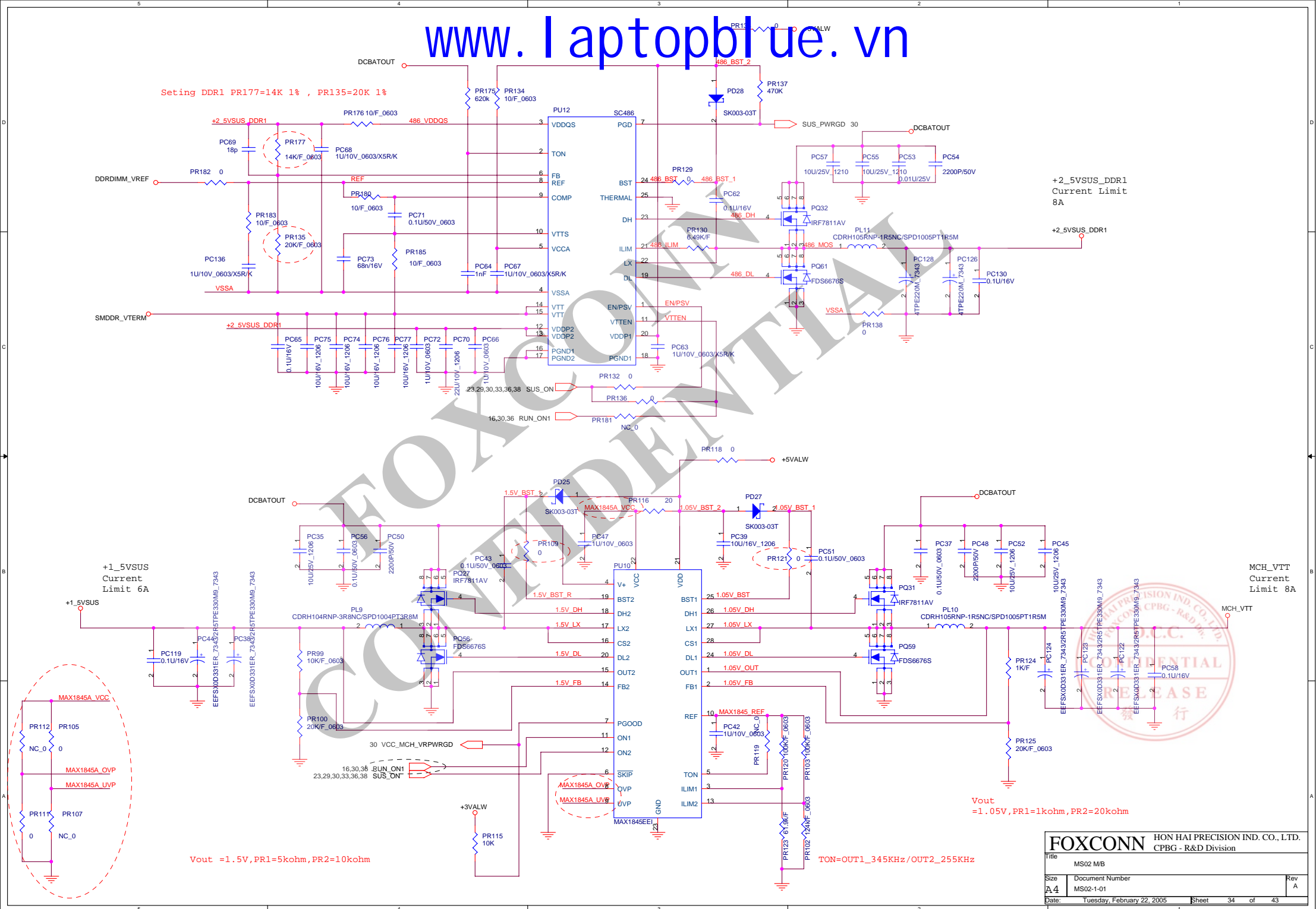


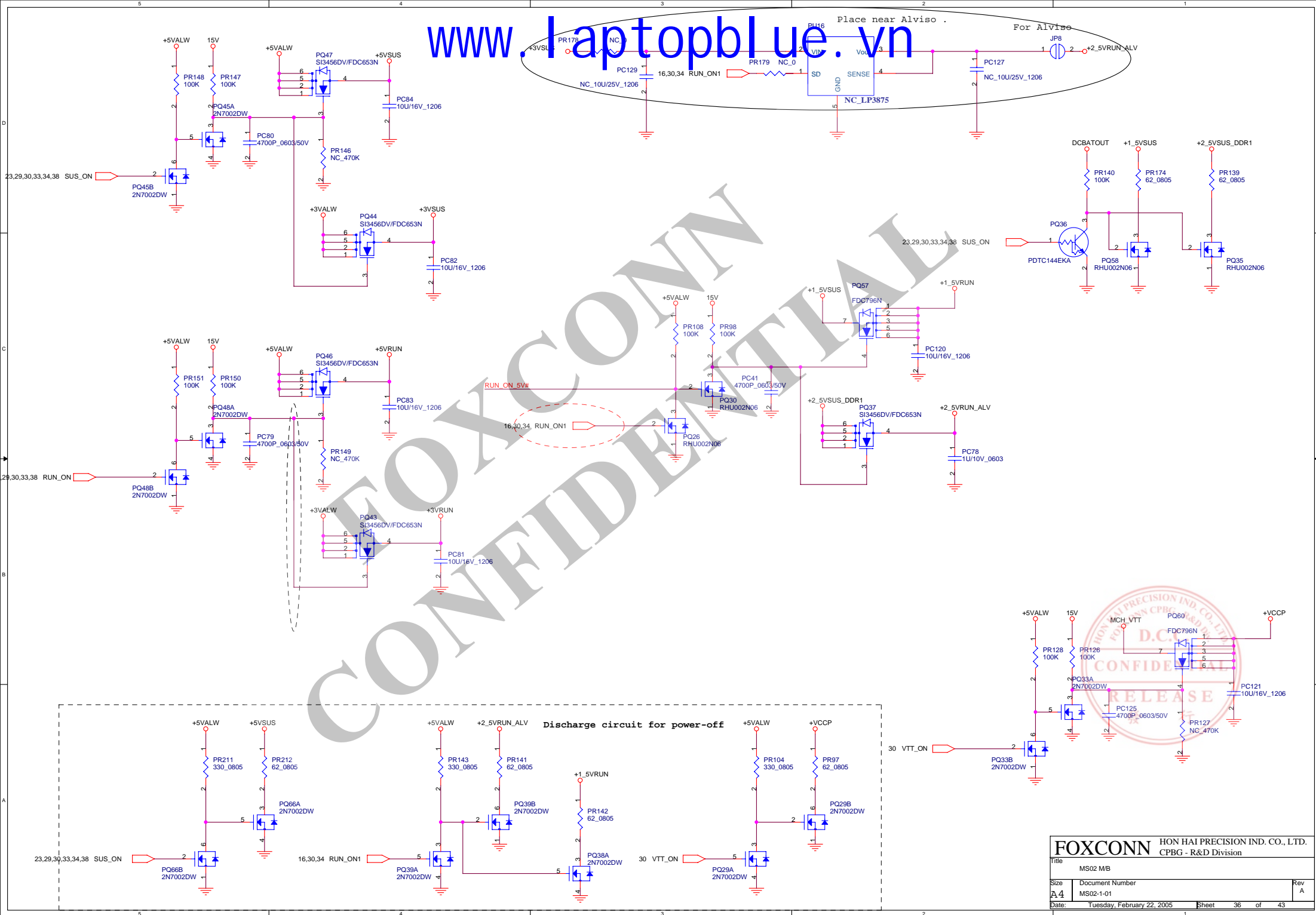


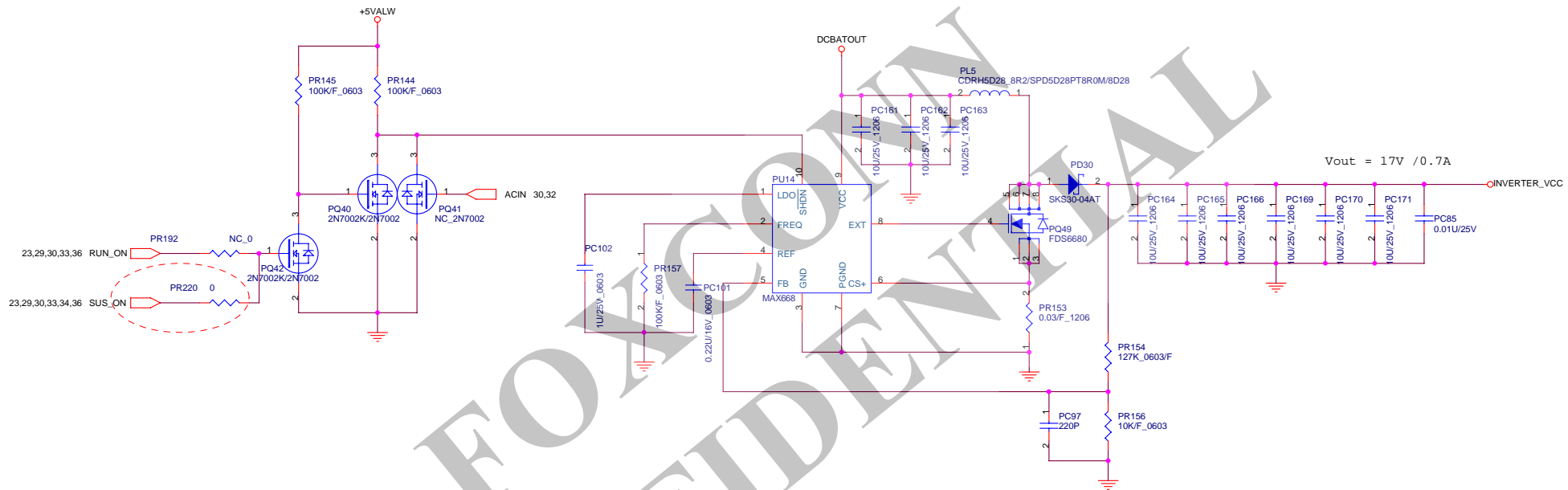
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Title			
MS02 M/B			
Size	Document Number		Rev
A.4	MS02-1-01		A
Date:	Tuesday, February 22, 2005	Sheet	32 of 43









HISTORY
(2005/01/06)

- P.29 Change value;L50,L51 CM-CHOKE to DLW31SN900SQ2L
P.29 Change R550.R553.R556.R557.R574.R575.R576.R577,R518.R519.R529.R538 from 10K to 100K of audio for RS01
P.29 Change R540.R541.R566.R572 from 47K to 150K of audio for RS01
P.29 Change C760,C778 from 470P to 56P of audio for RS01
P.29 Delete C730.C731.C736.C744 of audio for RS01

(2005/01/09)

- P.32 Change footprint;PD1 DIODE_2P_138_185X95 to diode_2p_177_185x95

(2005/01/10)

- P.30 Change R282 100K to NC_100K,R295 NC_100K to 100K,of system ID

(2005/01/17)

- P.30 Change value;U20 EN29LV800AB-70TC to MBM29LV800BE-70TN-KE1
P.15 Change value;U28,U31 NV_HY5DU283222AF to HY5DU283222BFP-33
P.32 Changevalue;D2,D3,D26,D27,D31,D32PACDN042Y3 to SM05TRT
P.13 Change value; U1 74AHC1G08GW to SN74AHC1G08DCKR
P.13 Change value; U26 74LVC1G08GW to SN74LVC1G08DCKR
P.29 Change value; U56 TC7SET04FU to MC74VHC1GT04DF2G
P.29 Change value; U42,U45 TC7SET32FU to MC74VHC1GT32DF2G
P.29 Change value; U51 TC7SH32FU to MC74VHC1G32DFT2G
P.29 Change value; U37,U49 TC7SH86FU to MC74VHC1G86DFT2G
P.30 Change value; U23 NC7S32 to SN74AHC1G32DBVR
P.22 Change value; C399 100U/10V_7343 to 100U/6.3V_7343
P.23 Change value; C34,C116,C214 150U/10V_7343 to 150U/6.3V_7343
P.03 Change value; C707 150U/10V_7343 to 150U/6.3V_7343
P.08 Change value; C871 AL_150U/10V_7343 to 150U/6.3V_7343
P.33 Change value; PC152,PC153,PC133,PC134 6TPE150M_7343 to ECGUD0J151R_7343
P.35 Change value; PC114,PC115,PC116,PC117,PC156,PC157 2R5TPE220M9 to EEFSX0D221ER
P.34 Change value; PC38,PC44,PC122,PC123,PC124 2R5TPE330M9_7343 to EEFSX0D331ER_7343
P.08 Change value; C677,C697,C714,C715 470U/2.5V_7343 to 470U/2V_7343
P.10 Change value; C874 NV_470U/2.5V_7343 to NV_470U/2V_7343
P.32 Change value; PQ69,PQ28 IRLML5103 to SI2303BDS
P.02 Change value; Q27 2N7002 to 2N7002E
P.13 Change value; Q2,Q3,Q18,Q20 2N7002 to 2N7002E
P.19 Change value; Q12 2N7002 to 2N7002E
P.27 Change value; Q15 2N7002 to 2N7002E
P.29 Change value; Q13,Q37,Q39,Q40 2N7002 to 2N7002E
P.30 Change value; Q5,Q9 2N7002 to 2N7002E
P.32 Change value; PQ13,PQ18,PQ21 2N7002 to 2N7002E
P.38 Change value; PQ40,PQ42 2N7002 to 2N7002E
P.37 Change value; PQ12 FDC6301N to AO6800L
P.36 Change value; PQ37,PQ43,PQ44,PQ46,PQ47 FDC653N to SI3456DV
P.23 Change value; Q7 FDC653N to SI3456DV
P.13 Change value; Q21 FDC653N to SI3456DV
P.34 Change value; PL9 SPD1004PT3R8M to CDRH104RNP-3R8NC
P.32 Change value; PL6 SPD1004PT150M to CDRH104RNP-150NC
P.33 Change value; PL13 SPD1004PT5R2M to CDRH104RNP-5R2NC
P.34 Change value; PL10,PL11 SPD1005PT1R5M to CDRH105RNP-1R5NC
P.38 Change value; PL5 SPD5D28PT8R0M to CDRH5D28_8R2
P.25 Change value; CN6 FOXCONN_UV31413_VU81P_7F to FOXCONN_UV31413-AU81P-7F
P.23 Change value; CN2,CN3,CN4 FOXCONN_UB11123_CA201_7F to FOXCONN_UB11123-CA202-7F
P.13 Change value; JVGAl FOXCONN_DZ11A91_MW222_4F to FOXCONN_DZ11A91-MA222-4F
P.29 Change value; R575 10K to 100K of audio for RS01

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FOXCONN		HON HAI PRECISION IND. CO., LTD.	
		CPBG - R&D Division	
Title MS02 M/B			
Size A4	Document Number MS02-1-01		Rev A
Date: Tuesday, February 22, 2005		Sheet 39	of 43

HISTORY

www.laptopbl ue. vn

(2005/01/20)

- P.10 Change R417,R426 NC_2K to NV_2K,R416,R425 NV_2K to NC_2K,of VRAM ID
- P.30 Add value source;U20 EN29LV800AB-70TC
- P.15 Add value source;U28,U31 NV_HY5DU283222AF
- P.32 Add value source;D2,D3,D26,D27,D31,D32 PACDN042Y3
- P.13 Add value source; U1 74AHC1G08GW
- P.13 Add value source; U26 74LVC1G08GW
- P.29 Add value source; U56 TC7SET04FU
- P.29 Add value source; U42,U45 TC7SET32FU
- P.29 Add value source; U51 TC7SH32FU
- P.29 Add value source; U37,U49 TC7SH86FU
- P.30 Add value source; U23 NC7S32
- P.22 Add value source; C399 100U/10V_7343
- P.23 Add value source; C34,C116,C214 150U/10V_7343
- P.03 Add value source; C707 150U/10V_7343
- P.08 Add value source; C871 AL_150U/10V_7343 to 150U/6.3V_7343
- P.33 Add value source; PC152,PC153,PC133,PC134 6TPE150M_7343
- P.35 Add value source; PC114,PC115,PC116,PC117,PC156,PC157 2R5TPE220M9
- P.34 Add value source; PC38,PC44,PC122,PC123,PC124 2R5TPE330M9_7343
- P.08 Add value source; C677,C697,C714,C715 470U/2.5V_7343
- P.10 Add value source; C874 NV_470U/2.5V_7343
- P.32 Add value source; PQ69,PQ28 IRLML5103
- P.02 Add value source; Q27 2N7002
- P.13 Add value source; Q2,Q3,Q18,Q20 2N7002
- P.19 Add value source; Q12 2N7002
- P.27 Add value source; Q15 2N7002
- P.29 Add value source; Q13,Q37,Q39,Q40 2N7002
- P.30 Add value source; Q5,Q9 2N7002
- P.32 Add value source; PQ13,PQ18,PQ21 2N7002
- P.38 Add value source; PQ40,PQ42 2N7002
- P.37 Add value source; PQ12 FDC6301N
- P.36 Add value source; PQ37,PQ43,PQ44,PQ46,PQ47 FDC653N
- P.23 Add value source; Q7 FDC653N
- P.13 Add value source; Q21 FDC653N
- P.34 Add value source; PL9 SPD1004PT3R8M
- P.32 Add value source; PL6 SPD1004PT150M
- P.33 Add value source; PL13 SPD1004PT5R2M
- P.34 Add value source; PL10,PL11 SPD1005PT1R5M
- P.38 Add value source; PL5 SPD5D28PT8R0M

(2005/01/21)

- P.29 Add CAP 33P,C895,C898,C900,C901,C902,C904,C905,C906 for Audio GPRS noise
- P.29 Add CAP 12P,C896,C897,C899,C903 for Audio GPRS noise

(2005/01/21)

- P.30 Change value;C447,C448 15P to 10P of crystal precision

(2005/01/26)

- P.10 Change value;R425,R416 NC_2K to H_NV_2K for Hynix VRAM
- P.10 Change value;R426,R417 NV_2K to S_NV_2K for Samsung VRAM
- P.01 Add BOM configuration;Hynix:H_ NV_ , Samsung: S_NV_ .of VRAM ID

(2005/01/28)

- P.29 Del CAP 33P,C895,C898,C900,C901,C902,C904,C905,C906,C896,C897,C899,C903

(2005/02/01)

- P.29 Add CAP 33P,C895,C898,C900,C901,C902,C904,C905,C906 for Audio GPRS noise
- P.29 Add CAP 12P,C896,C897,C899,C903 for Audio GPRS noise
- P.29 Add RES,R716 0_0805

Change ";" to "/" for correct ORCAD rule :
C399,C677,C697,C707,C714,C715,C871,C874,D2,D3,D26,D27,D31,D32,PC38,PC44,PC114,PC115,PC116,PC117,PC122,PC123,PC124,PC133,PC134,PC152,PC153,PC156,PC157,PL5,PL6,PL9,PL10,PL11,PL13,PQ12,PQ13,PQ18,PQ21,PQ37,PQ40,PQ42,PQ43,PQ44,PQ46,PQ47,Q2,Q3,Q5,Q9,Q12,Q13,Q18,Q20,Q21,Q27,Q37,Q39,Q40,U1,U20,U23,U26,U28,U31,U37,U42,U45,U49,U51,U56.
Correct page order & change Rev.01. to Rev 0.2 .



FOXCONN		HON HAI PRECISION IND. CO., LTD.	
		CPBG - R&D Division	
Title MS02 MB			
Size A4	Document Number MS02-1-01		Rev A
Date:	Tuesday, February 22, 2005	Sheet 40	of 43

HISTORY

(2005/02/14)

P.29 Del CAP C895,C898,C900,C901,C902,C904,C905,C906,C896,C897,C899,C903 Del RES R716

Correct page order & change Rev.02. to Rev 0.3.

(2005/02/16)

P.28 Add L59 BLM11A121S from EMI suggest

P.28 Del U25 pin 1 & U25 pin 25 connector line from EMI suggest

(2005/02/17)

P.29 Add RES R716 NC_0_0805,for EMI suggest

(2005/02/19)

P.37 Add diode PD42 connect AC_OFF_3#.for power issue UL latch

P.37 Change PD6 value MTW355 to NC_MTW355 for UL latch

P.04 change R454 4.7K to 1K for OVT_EC# singal pull-low

P.04 Add RES 10K,R717. for OVT_EC# singal pull-low

P.38 Add PL5 Value CDRH5D28_8R2/SPD5D28PT8R0M to CDRH5D28_8R2/SPD5D28PT8R0M/8D28 for PQ49 failed

P.38 change PR153 value 0.02/F_1206 to 0.03/F_1206 for PQ49 failed

P.38 Add 3 CAP,PC169,PC170,PC171 10U/25V_1206 for PQ49 failed

P.38 change PL5 footprint CHOKE_2P_163_217x217 to CHOKE_327x327_217x217use for PQ49 failed

(2005/02/20)

P.38 change PL5 footprint CHOKE_327x327_217x217use to choke_2p_319_327x327_h118 for PQ49 failed

(2005/02/21)

P.29 Del C836,C531;Add RES R718,R719 0 ohm for EMI solution.

(2005/02/22)

P.29 Del R718,R719. Add C836,C531 CAP 1000P for EMI solution

P.29 Change R716 value NC_0_0805 to 0_0805 for EMI solution

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Title		MS02 M/B
Size	Document Number	Rev
A4	MS02-1-01	A
Date:	Tuesday, February 22, 2005	Sheet 41 of 43

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