# IPISB-AG

Revision: 1.06

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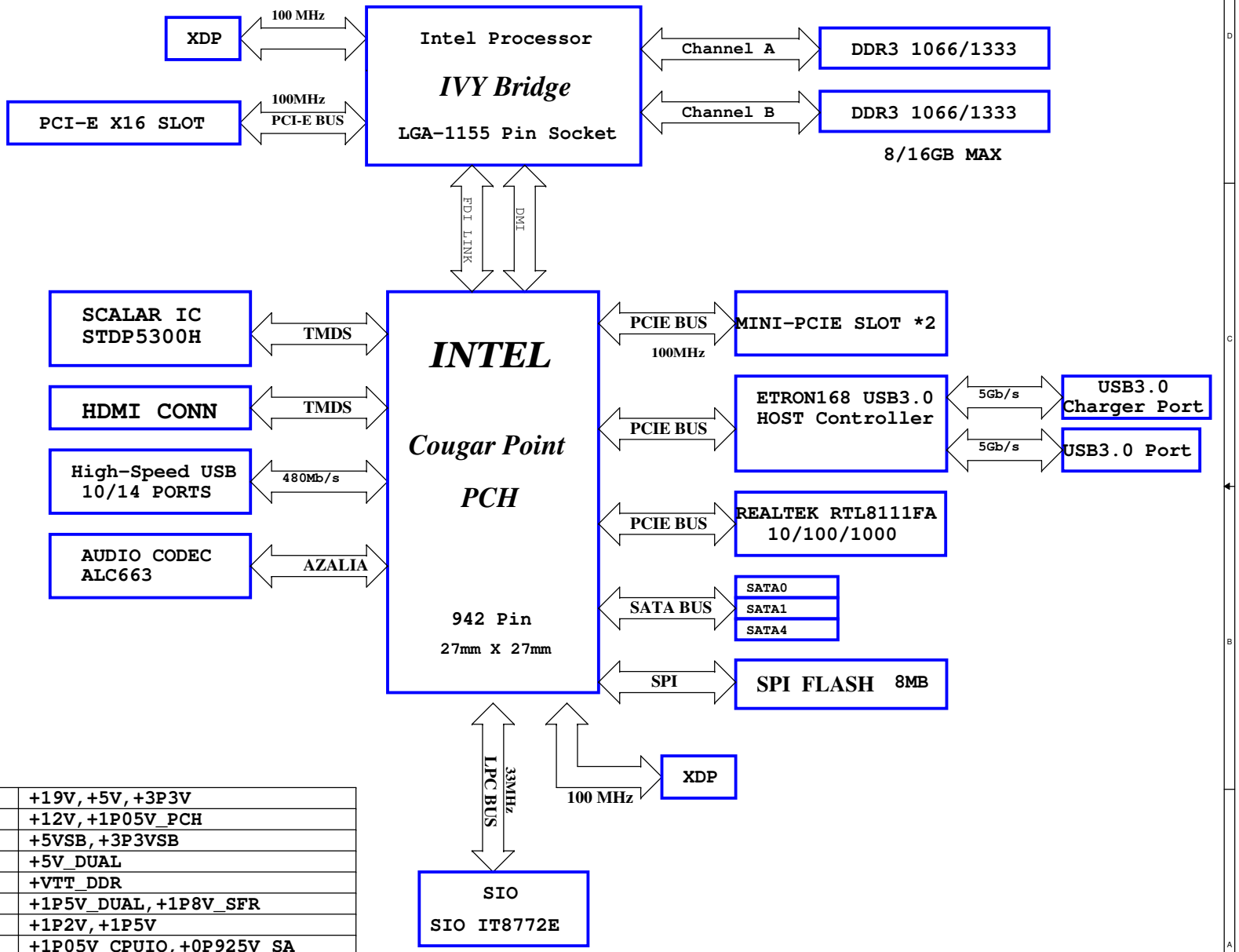
| | |
|---|---|
| 69 | +19V,+5V,+3P3V |
| 70 | +12V,+1P05V_PCH |
| 71 | +5VSB,+3P3VSB |
| 72 | +5V_DUAL |
| 73 | +VTT_DDR |
| 74 | +1P5V_DUAL,+1P8V_SFR |
| 75 | +1P2V,+1P5V |
| 76 | +1P05V_CPUIO,+0P925V_SA |
| 77 | +1P05V_CPUIO CAP |
| 78 | DISCHARGE |
| 79 | CURRENT SENSE |
| 80 | CPU XDP DEBUG CONNECTOR |
| 81 | PCH XDP DEBUG CONNECTOR |
| 82 | EMI CAP |




PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : BLOCK DIAGRAM

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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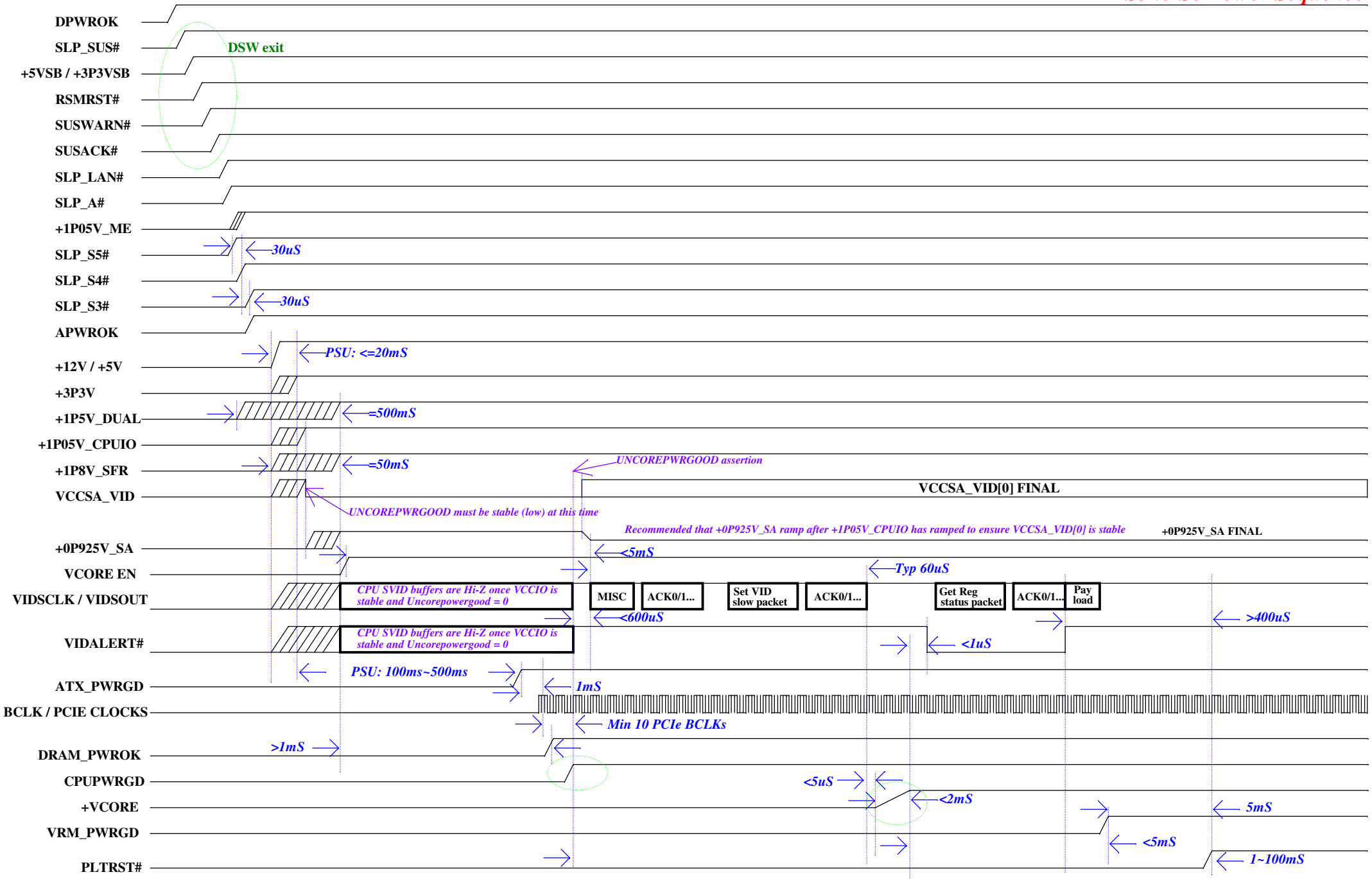
# S5 to S0 Power Sequence



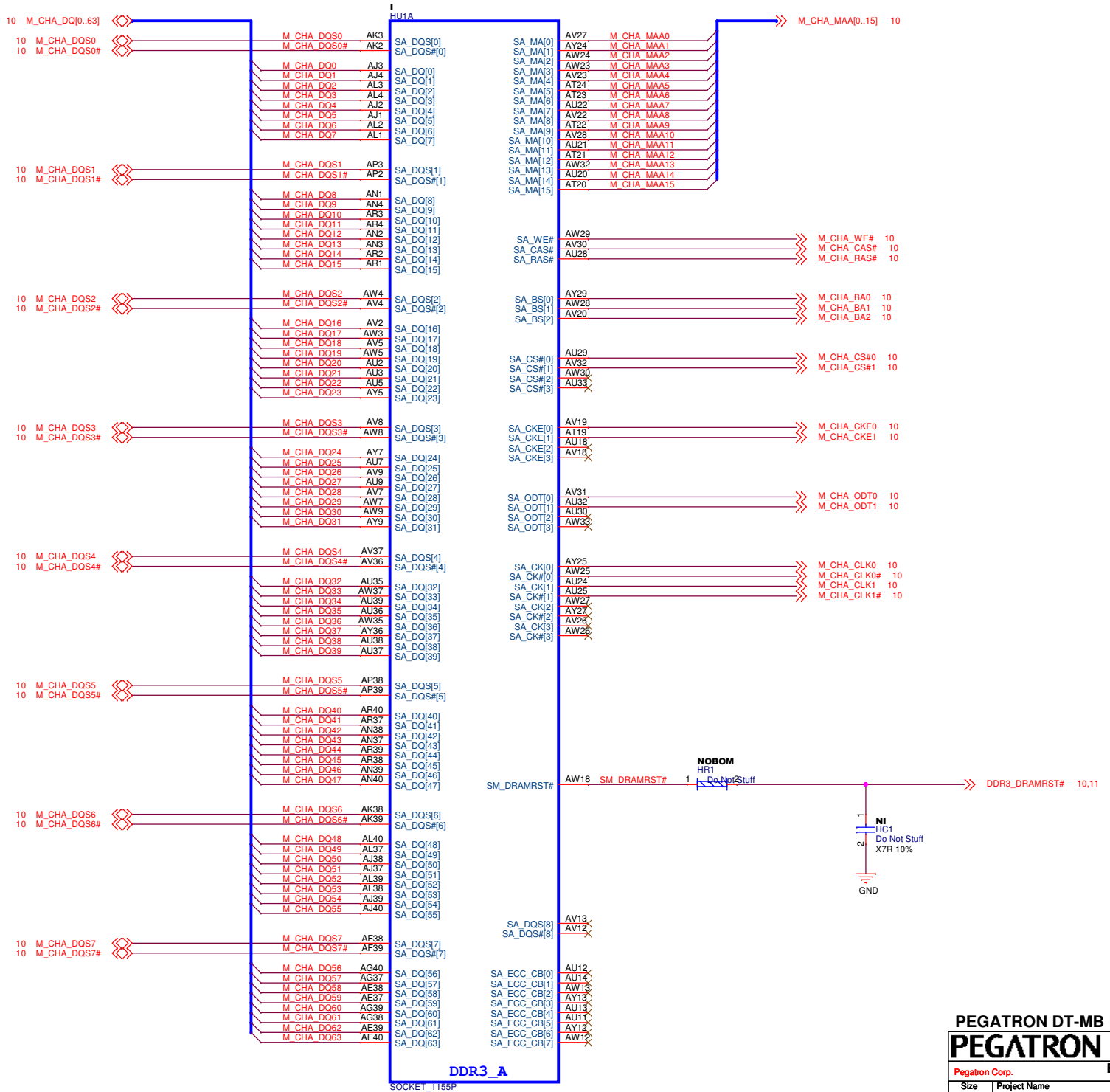



PEGATRON Title : POWER SEQUENCE

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 2 of 82



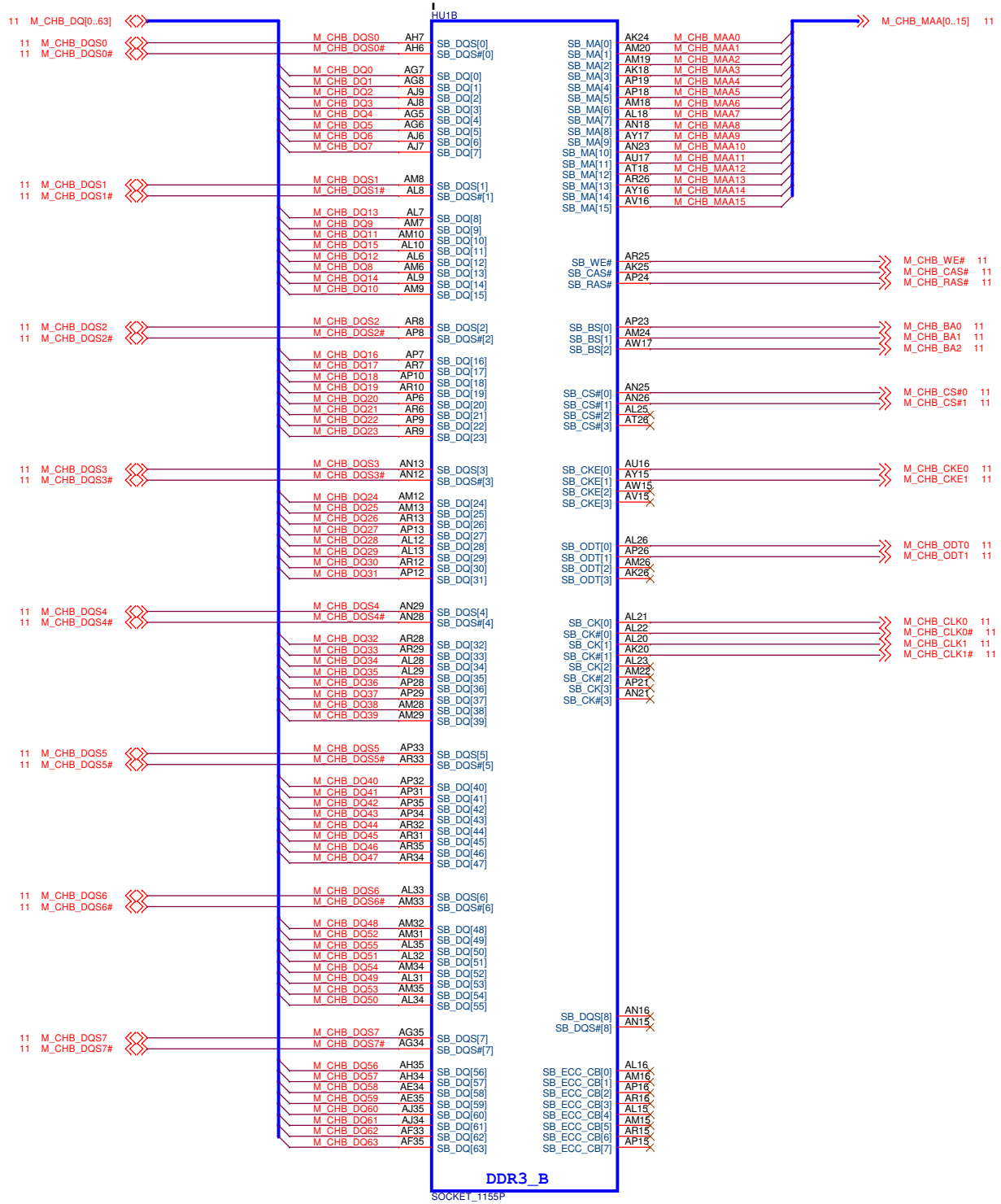

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : DDR3_A 1-6

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 3 of 82



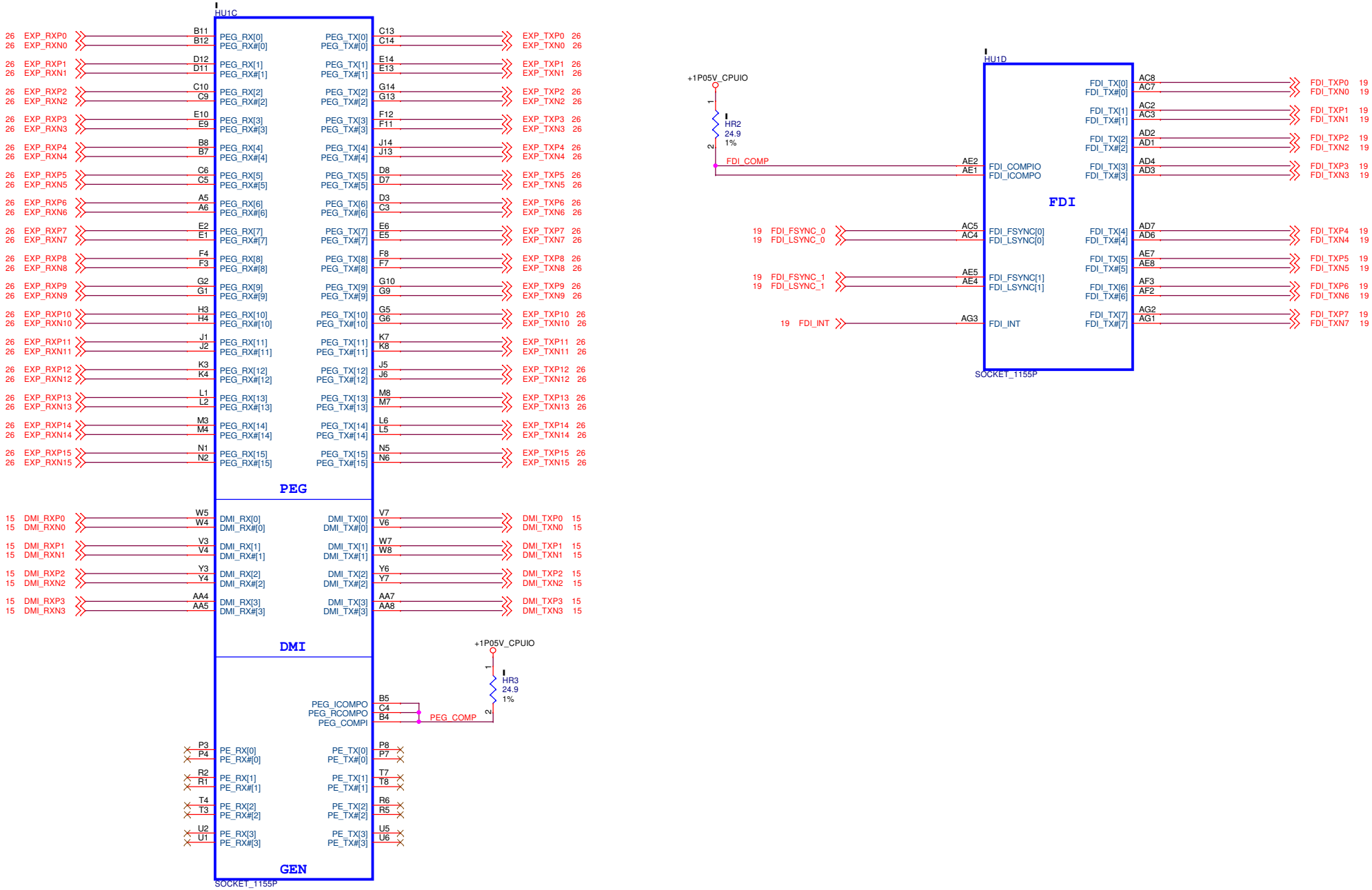

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : DDR3_B 2-6

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 4 of 82




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
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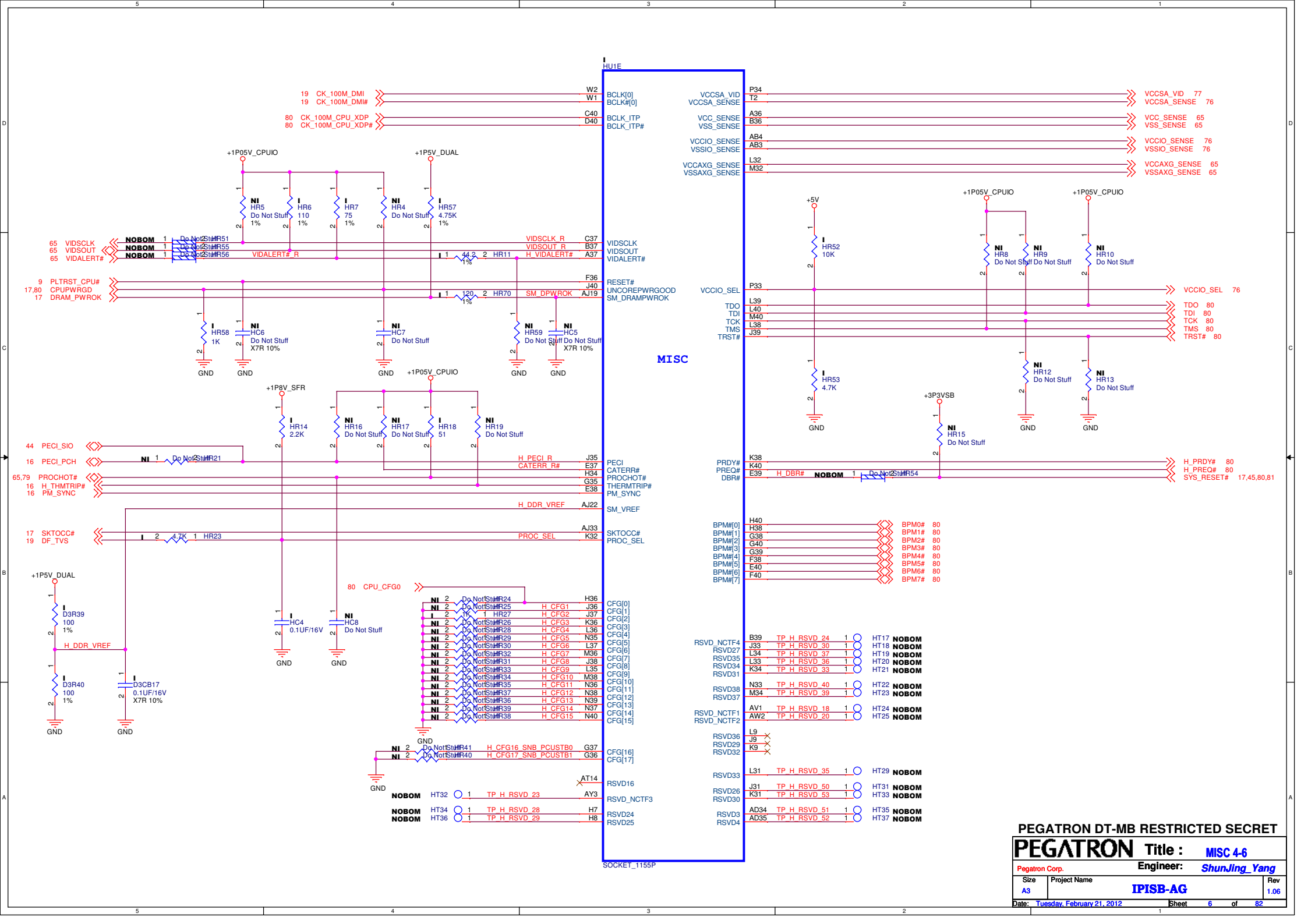
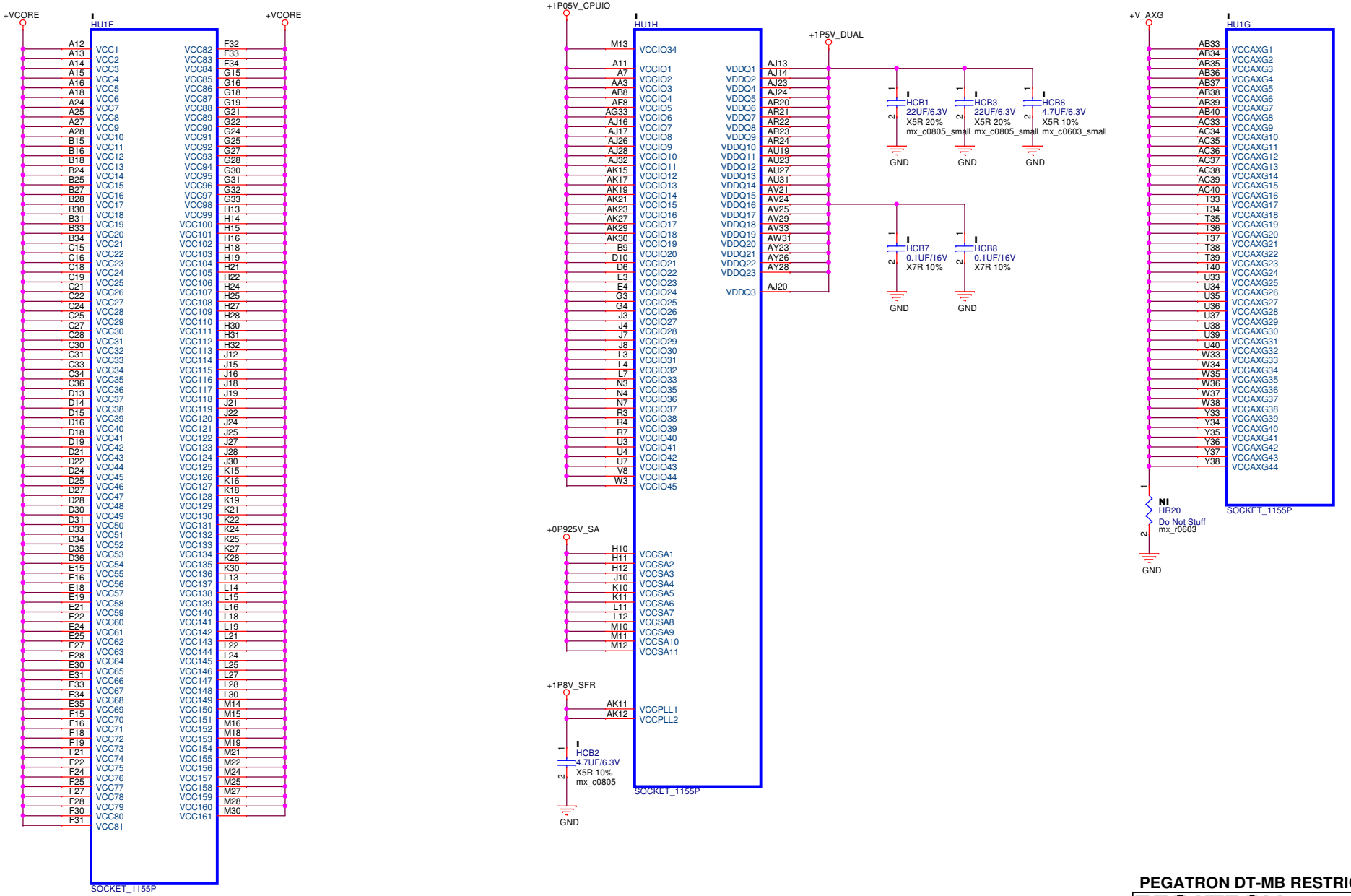
| Pegatron Corp. | Engineer: | ShunJing_Yang |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 5 of 82 | |


HU1E
MISC
SOCKET_1155P
BCLK[0]
BCLK#[0]
BCLK_ITP
BCLK_ITP#
VIDSCLK
VIDSOUT
VIDALERT#
RESET#
UNCOREPWRGOOD
SM_DRAMPWROK
PECI
CATERR#
PROCHOT#
THERMTRIP#
PM_SYNC
SM_VREF
SKTOCC#
PROC_SEL
CFG[0]
CFG[1]
CFG[2]
CFG[3]
CFG[4]
CFG[5]
CFG[6]
CFG[7]
CFG[8]
CFG[9]
CFG[10]
CFG[11]
CFG[12]
CFG[13]
CFG[14]
CFG[15]
CFG[16]
CFG[17]
RSVD16
RSVD_NCTF3
RSVD24
RSVD25
VCCSA_VID
VCCSA_SENSE
VCC_SENSE
VSS_SENSE
VCCIO_SENSE
VSSIO_SENSE
VCCAXG_SENSE
VSSAXG_SENSE
VCCIO_SEL
TDO
TDI
TCK
TMS
TRST#
PRDY#
PREQ#
DBR#
BPM#[0]
BPM#[1]
BPM#[2]
BPM#[3]
BPM#[4]
BPM#[5]
BPM#[6]
BPM#[7]
RSVD_NCTF4
RSVD27
RSVD35
RSVD34
RSVD31
RSVD38
RSVD37
RSVD_NCTF1
RSVD_NCTF2
RSVD36
RSVD29
RSVD32
RSVD33
RSVD26
RSVD30
RSVD3
RSVD4
+1P05V_CPUIO
+1P05V_DUAL
+1P8V_SFR
+5V
+3P3VSB
GND
CK_100M_DMI
CK_100M_DMI#
CK_100M_CPU_XDP
CK_100M_CPU_XDP#
VIDSCLK_R
VIDSOUT_R
VIDALERT#_R
H_VIDALERT#
SM_DPWROK
H_PECI_R
CATERR_R#
H_DDR_VREF
PROC_SEL
CPU_CFG0
H_CFG1
H_CFG2
H_CFG3
H_CFG4
H_CFG5
H_CFG6
H_CFG7
H_CFG8
H_CFG9
H_CFG10
H_CFG11
H_CFG12
H_CFG13
H_CFG14
H_CFG15
H_CFG16_SNB_PCUSTB0
H_CFG17_SNB_PCUSTB1
H_DBR#
TP_H_RSVD_23
TP_H_RSVD_28
TP_H_RSVD_29
TP_H_RSVD_24
TP_H_RSVD_30
TP_H_RSVD_37
TP_H_RSVD_36
TP_H_RSVD_33
TP_H_RSVD_40
TP_H_RSVD_39
TP_H_RSVD_18
TP_H_RSVD_20
TP_H_RSVD_35
TP_H_RSVD_50
TP_H_RSVD_53
TP_H_RSVD_51
TP_H_RSVD_52
HR5 Do Not Stuff 1%
HR6 110 1%
HR7 75 1%
HR4 Do Not Stuff
HR57 4.75K 1%
HR51
HR55
HR56
HR11 44.2 1%
HR70 120 1%
HR58 1K
HR6 Do Not Stuff X7R 10%
HR7 Do Not Stuff
HR59 Do Not Stuff
HC5 Do Not Stuff X7R 10%
HR14 2.2K
HR16 Do Not Stuff
HR17 Do Not Stuff
HR18 51
HR19 Do Not Stuff
HR21
HR23 4.7K
HR24
HR25
HR26
HR27 1K
HR28
HR29
HR30
HR31
HR32
HR33
HR34
HR35
HR36
HR37
HR38
HR39
HR40
HR41
HR54
D3R39 100 1%
D3R40 100 1%
D3CB17 0.1UF/16V X7R 10%
HC4 0.1UF/16V
HC8 Do Not Stuff
HR52 10K
HR53 4.7K
HR8 Do Not Stuff
HR9 Do Not Stuff
HR10 Do Not Stuff
HR12 Do Not Stuff
HR13 Do Not Stuff
HR15 Do Not Stuff
NOBOM
HT17 HT18 HT19 HT20 HT21 HT22 HT23 HT24 HT25 HT29 HT31 HT33 HT35 HT37
VCCSA_VID 77
VCCSA_SENSE 76
VCC_SENSE 65
VSS_SENSE 65
VCCIO_SENSE 76
VSSIO_SENSE 76
VCCAXG_SENSE 65
VSSAXG_SENSE 65
VCCIO_SEL 76
TDO 80
TDI 80
TCK 80
TMS 80
TRST# 80
H_PRDY# 80
H_PREQ# 80
SYS_RESET# 17,45,80,81
BPM0# 80
BPM1# 80
BPM2# 80
BPM3# 80
BPM4# 80
BPM5# 80
BPM6# 80
BPM7# 80
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : MISC 4-6
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 6 of 82




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : | VCC 5 - 6 |
| Pegatron Corp. | Engineer: | ShunJing_Yang |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 7 of 82 | |

HU1I

| | | | |
|---|---|---|---|
| A17 | VSS1 | VSS91 | AM27 |
| A23 | VSS2 | VSS92 | AM3 |
| A26 | VSS3 | VSS93 | AM30 |
| A29 | VSS4 | VSS94 | AM36 |
| A35 | VSS5 | VSS95 | AM37 |
| AA33 | VSS6 | VSS96 | AM38 |
| AA34 | VSS7 | VSS97 | AM39 |
| AA35 | VSS8 | VSS98 | AM4 |
| AA36 | VSS9 | VSS99 | AM40 |
| AA37 | VSS10 | VSS100 | AM5 |
| AA38 | VSS11 | VSS101 | AN10 |
| AA6 | VSS12 | VSS102 | AN11 |
| AB5 | VSS13 | VSS103 | AN14 |
| AC1 | VSS14 | VSS104 | AN17 |
| AC6 | VSS15 | VSS105 | AN19 |
| AD33 | VSS16 | VSS106 | AN22 |
| AD36 | VSS17 | VSS107 | AN24 |
| AD38 | VSS18 | VSS108 | AN27 |
| AD39 | VSS19 | VSS109 | AN30 |
| AD40 | VSS20 | VSS110 | AN31 |
| AD5 | VSS21 | VSS111 | AN32 |
| AD8 | VSS22 | VSS112 | AN33 |
| AE3 | VSS23 | VSS113 | AN34 |
| AE33 | VSS24 | VSS114 | AN35 |
| AE36 | VSS25 | VSS115 | AN36 |
| AF1 | VSS26 | VSS116 | AN5 |
| AF34 | VSS27 | VSS117 | AN6 |
| AF36 | VSS28 | VSS118 | AN7 |
| AF37 | VSS29 | VSS119 | AN8 |
| AF40 | VSS30 | VSS120 | AN9 |
| AF5 | VSS31 | VSS121 | AP1 |
| AF6 | VSS32 | VSS122 | AP11 |
| AF7 | VSS33 | VSS123 | AP14 |
| AG36 | VSS34 | VSS124 | AP17 |
| AH2 | VSS35 | VSS125 | AP22 |
| AH3 | VSS36 | VSS126 | AP25 |
| AH33 | VSS37 | VSS127 | AP27 |
| AH36 | VSS38 | VSS128 | AP30 |
| AH37 | VSS39 | VSS129 | AP36 |
| AH38 | VSS40 | VSS130 | AP37 |
| AH39 | VSS41 | VSS131 | AP4 |
| AH40 | VSS42 | VSS132 | AP40 |
| AH5 | VSS43 | VSS133 | AP5 |
| AH8 | VSS44 | VSS134 | AR11 |
| AJ12 | VSS45 | VSS135 | AR14 |
| AJ15 | VSS46 | VSS136 | AR17 |
| AJ18 | VSS47 | VSS137 | AR18 |
| AJ21 | VSS48 | VSS138 | AR19 |
| AJ25 | VSS49 | VSS139 | AR27 |
| AJ27 | VSS50 | VSS140 | AR30 |
| AJ36 | VSS51 | VSS141 | AR36 |
| AJ5 | VSS52 | VSS142 | AR5 |
| AK1 | VSS53 | VSS143 | AT1 |
| AK10 | VSS54 | VSS144 | AT10 |
| AK13 | VSS55 | VSS145 | AT12 |
| AK14 | VSS56 | VSS146 | AT13 |
| AK16 | VSS57 | VSS147 | AT15 |
| AK22 | VSS58 | VSS148 | AT16 |
| AK28 | VSS59 | VSS149 | AT17 |
| AK31 | VSS60 | VSS150 | AT2 |
| AK32 | VSS61 | VSS151 | AT25 |
| AK33 | VSS62 | VSS152 | AT27 |
| AK34 | VSS63 | VSS153 | AT28 |
| AK35 | VSS64 | VSS154 | AT29 |
| AK36 | VSS65 | VSS155 | AT3 |
| AK37 | VSS66 | VSS156 | AT30 |
| AK4 | VSS67 | VSS157 | AT31 |
| AK40 | VSS68 | VSS158 | AT32 |
| AK5 | VSS69 | VSS159 | AT33 |
| AK6 | VSS70 | VSS160 | AT34 |
| AK7 | VSS71 | VSS161 | AT35 |
| AK8 | VSS72 | VSS162 | AT36 |
| AK9 | VSS73 | VSS163 | AT37 |
| AL11 | VSS74 | VSS164 | AT38 |
| AL14 | VSS75 | VSS165 | AT39 |
| AL17 | VSS76 | VSS166 | AT4 |
| AL19 | VSS77 | VSS167 | AT40 |
| AL24 | VSS78 | VSS168 | AT5 |
| AL27 | VSS79 | VSS169 | AT6 |
| AL30 | VSS80 | VSS170 | AT7 |
| AL36 | VSS81 | VSS171 | AT8 |
| AL5 | VSS82 | VSS172 | AT9 |
| AM1 | VSS83 | VSS173 | AU1 |
| AM11 | VSS84 | VSS174 | AU15 |
| AM14 | VSS85 | VSS175 | AU26 |
| AM17 | VSS86 | VSS176 | AU34 |
| AM2 | VSS87 | VSS177 | AU4 |
| AM21 | VSS88 | VSS178 | AU6 |
| AM23 | VSS89 | VSS179 | AU8 |
| AM25 | VSS90 | VSS180 | AV10 |
| A4 | VSS_NCTF1 | | |
| AV39 | VSS_NCTF2 | | |

GND

GND

GND

SOCKET_1155P

HU1J

| | | | |
|---|---|---|---|
| AV11 | VSS181 | VSS271 | G8 |
| AV14 | VSS182 | VSS272 | H1 |
| AV17 | VSS183 | VSS273 | H17 |
| AV3 | VSS184 | VSS274 | H2 |
| AV35 | VSS185 | VSS275 | H20 |
| AV38 | VSS186 | VSS276 | H23 |
| AV6 | VSS187 | VSS277 | H26 |
| AW10 | VSS188 | VSS278 | H29 |
| AW11 | VSS189 | VSS279 | H33 |
| AW14 | VSS190 | VSS280 | H35 |
| AW16 | VSS191 | VSS281 | H37 |
| AW36 | VSS192 | VSS282 | H39 |
| AW6 | VSS193 | VSS283 | H5 |
| AY11 | VSS194 | VSS284 | H6 |
| AY14 | VSS195 | VSS285 | H9 |
| AY18 | VSS196 | VSS286 | J11 |
| AY35 | VSS197 | VSS287 | J17 |
| AY4 | VSS198 | VSS288 | J20 |
| AY6 | VSS199 | VSS289 | J23 |
| AY8 | VSS200 | VSS290 | J26 |
| B10 | VSS201 | VSS291 | J29 |
| B13 | VSS202 | VSS292 | J32 |
| B14 | VSS203 | VSS293 | K1 |
| B17 | VSS204 | VSS294 | K12 |
| B23 | VSS205 | VSS295 | K13 |
| B26 | VSS206 | VSS296 | K14 |
| B29 | VSS207 | VSS297 | K17 |
| B32 | VSS208 | VSS298 | K2 |
| B35 | VSS209 | VSS299 | K20 |
| B38 | VSS210 | VSS300 | K23 |
| B6 | VSS211 | VSS301 | K26 |
| C11 | VSS212 | VSS302 | K29 |
| C12 | VSS213 | VSS303 | K33 |
| C17 | VSS214 | VSS304 | K35 |
| C20 | VSS215 | VSS305 | K37 |
| C23 | VSS216 | VSS306 | K39 |
| C26 | VSS217 | VSS307 | K5 |
| C29 | VSS218 | VSS308 | K6 |
| C32 | VSS219 | VSS309 | L10 |
| C35 | VSS220 | VSS310 | L17 |
| C7 | VSS221 | VSS311 | L20 |
| C8 | VSS222 | VSS312 | L23 |
| D17 | VSS223 | VSS313 | L26 |
| D2 | VSS224 | VSS314 | L29 |
| D20 | VSS225 | VSS315 | L8 |
| D23 | VSS226 | VSS316 | M1 |
| D26 | VSS227 | VSS317 | M17 |
| D29 | VSS228 | VSS318 | M2 |
| D32 | VSS229 | VSS319 | M20 |
| D37 | VSS230 | VSS320 | M23 |
| D39 | VSS231 | VSS321 | M26 |
| D4 | VSS232 | VSS322 | M29 |
| D5 | VSS233 | VSS323 | M33 |
| D9 | VSS234 | VSS324 | M35 |
| E11 | VSS235 | VSS325 | M37 |
| E12 | VSS236 | VSS326 | M39 |
| E17 | VSS237 | VSS327 | M5 |
| E20 | VSS238 | VSS328 | M6 |
| E23 | VSS239 | VSS329 | M9 |
| E26 | VSS240 | VSS330 | N8 |
| E29 | VSS241 | VSS331 | P1 |
| E32 | VSS242 | VSS332 | P2 |
| E36 | VSS243 | VSS333 | P36 |
| E7 | VSS244 | VSS334 | P38 |
| E8 | VSS245 | VSS335 | P40 |
| F1 | VSS246 | VSS336 | P5 |
| F10 | VSS247 | VSS337 | P6 |
| F13 | VSS248 | VSS338 | R33 |
| F14 | VSS249 | VSS339 | R35 |
| F17 | VSS250 | VSS340 | R37 |
| F2 | VSS251 | VSS341 | R39 |
| F20 | VSS252 | VSS342 | R8 |
| F23 | VSS253 | VSS343 | T1 |
| F26 | VSS254 | VSS344 | T5 |
| F29 | VSS255 | VSS345 | T6 |
| F35 | VSS256 | VSS346 | U8 |
| F37 | VSS257 | VSS347 | V1 |
| F39 | VSS258 | VSS348 | V2 |
| F5 | VSS259 | VSS349 | V33 |
| F6 | VSS260 | VSS350 | V34 |
| F9 | VSS261 | VSS351 | V35 |
| G11 | VSS262 | VSS352 | V36 |
| G12 | VSS263 | VSS353 | V37 |
| G17 | VSS264 | VSS354 | V38 |
| G20 | VSS265 | VSS355 | V39 |
| G23 | VSS266 | VSS356 | V40 |
| G26 | VSS267 | VSS357 | V5 |
| G29 | VSS268 | VSS358 | W6 |
| G34 | VSS269 | VSS359 | Y5 |
| G7 | VSS270 | VSS360 | Y8 |
| AY37 | VSS_NCTF3 | | |
| B3 | VSS_NCTF4 | | |

GND

GND

GND

SOCKET_1155P

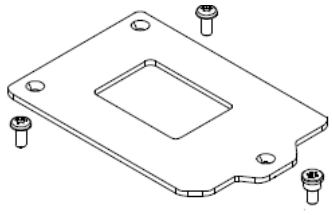
HU1K

| | | | |
|---|---|---|---|
| AB7 | RSVD2 | FC_AH1 | AH1 |
| AD37 | RSVD5 | FC_AH4 | AH4 |
| AG4 | RSVD8 | | AT11 |
| AJ29 | RSVD10 | RSVD15 | AP20 |
| AJ30 | RSVD11 | RSVD14 | AN20 |
| AJ31 | RSVD12 | RSVD13 | AU10 |
| AV34 | RSVD18 | RSVD17 | AY10 |
| AW34 | RSVD19 | RSVD20 | |
| P35 | | | |
| P37 | RSVD40 | | |
| P39 | RSVD41 | | |
| R34 | RSVD42 | | |
| R36 | RSVD43 | | |
| R38 | RSVD44 | | |
| R40 | RSVD45 | RSVD7 | AF4 |
| | RSVD46 | RSVD1 | AB6 |
| | | RSVD6 | AE6 |
| | | RSVD9 | AJ11 |
| NOBOM HT38 1 TP_H_NCTF_1 | A38 | | |
| | AU40 | | |
| | AW38 | RSVD23 | D38 |
| | | RSVD22 | C39 |
| NOBOM HT41 1 TP_H_NCTF_4 | C2 | RSVD21 | C38 |
| NOBOM HT42 1 TP_H_NCTF_5 | D1 | RSVD28 | J34 |
| | NCTF1 | RSVD39 | N34 |
| | NCTF2 | | |
| | NCTF3 | | |
| | NCTF4 | NP_NC1 | 1 |
| | NCTF5 | NP_NC2 | 2 |
| | | NP_NC3 | 3 |

AH1 SB_DIMM_VR 1 0 2 HR43 DIMM_DQ_VREF_B 11
AH4 SA_DIMM_VR 1 0 2 HR42 DIMM_DQ_VREF_A 10

SOCKET_1155P

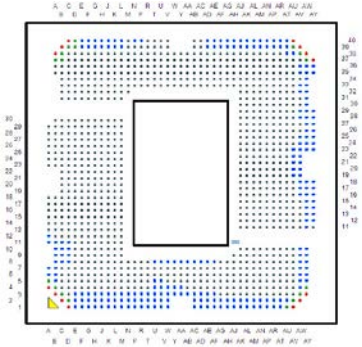
BACKPLATE1



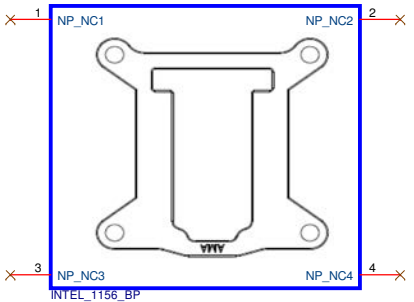

PT44P11-6401

ILM1

PT44L61-6411




BACKPLATE2




INTEL_1156_BP

PEGATRON DT-MB RESTRICTED SECRET

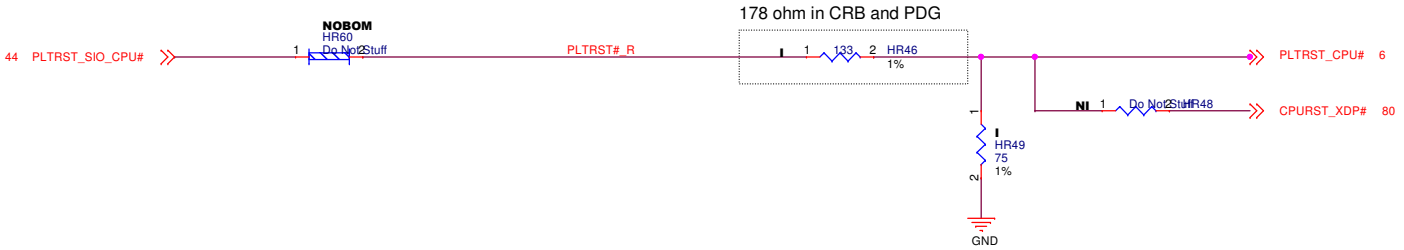
PEGATRON Title : VSS 6 - 6

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

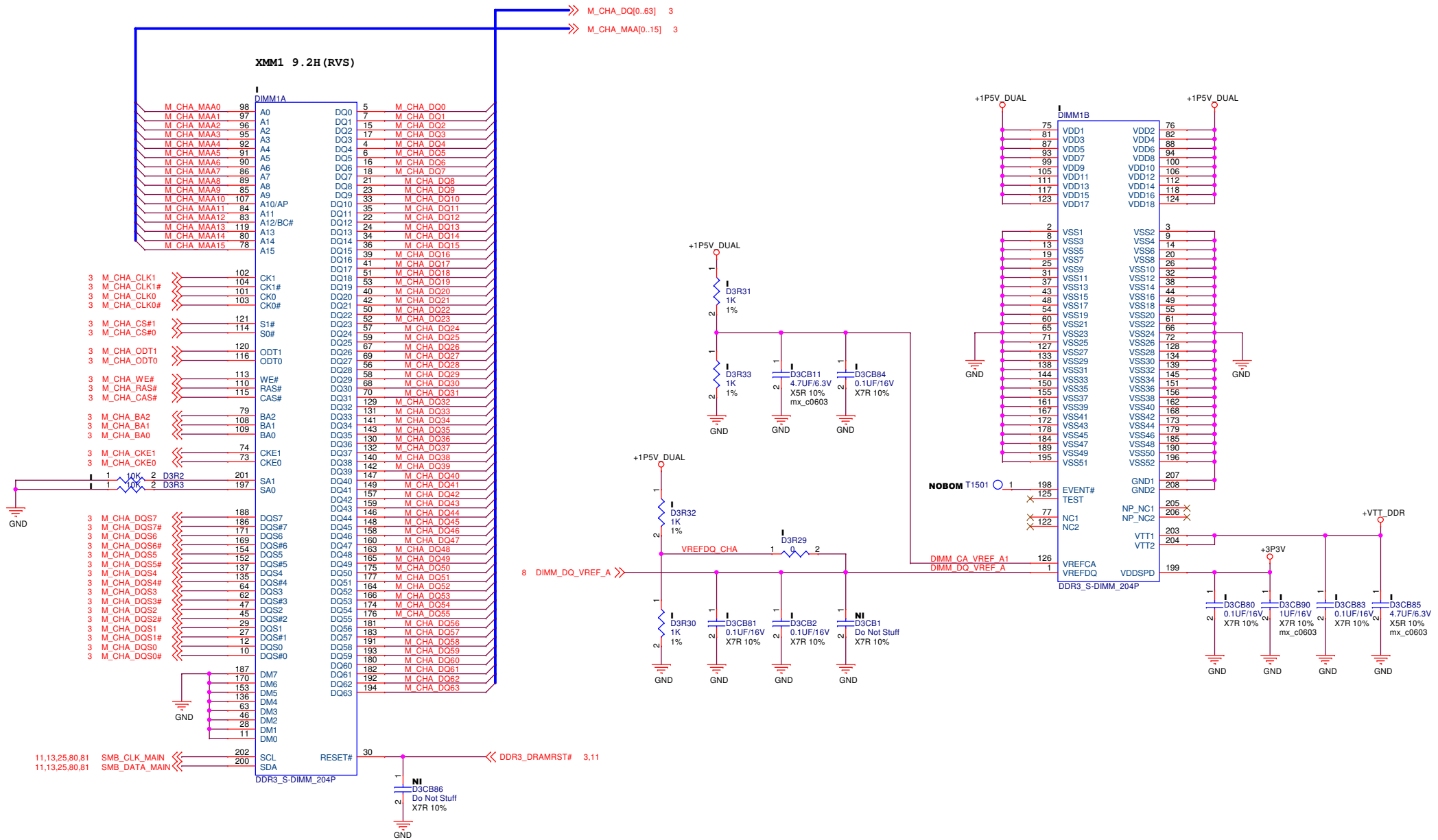
Date: Tuesday, February 21, 2012 Sheet 8 of 82

# PLTRST_CPU#




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : PLTRST_CPU# | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 9 of 82 | |



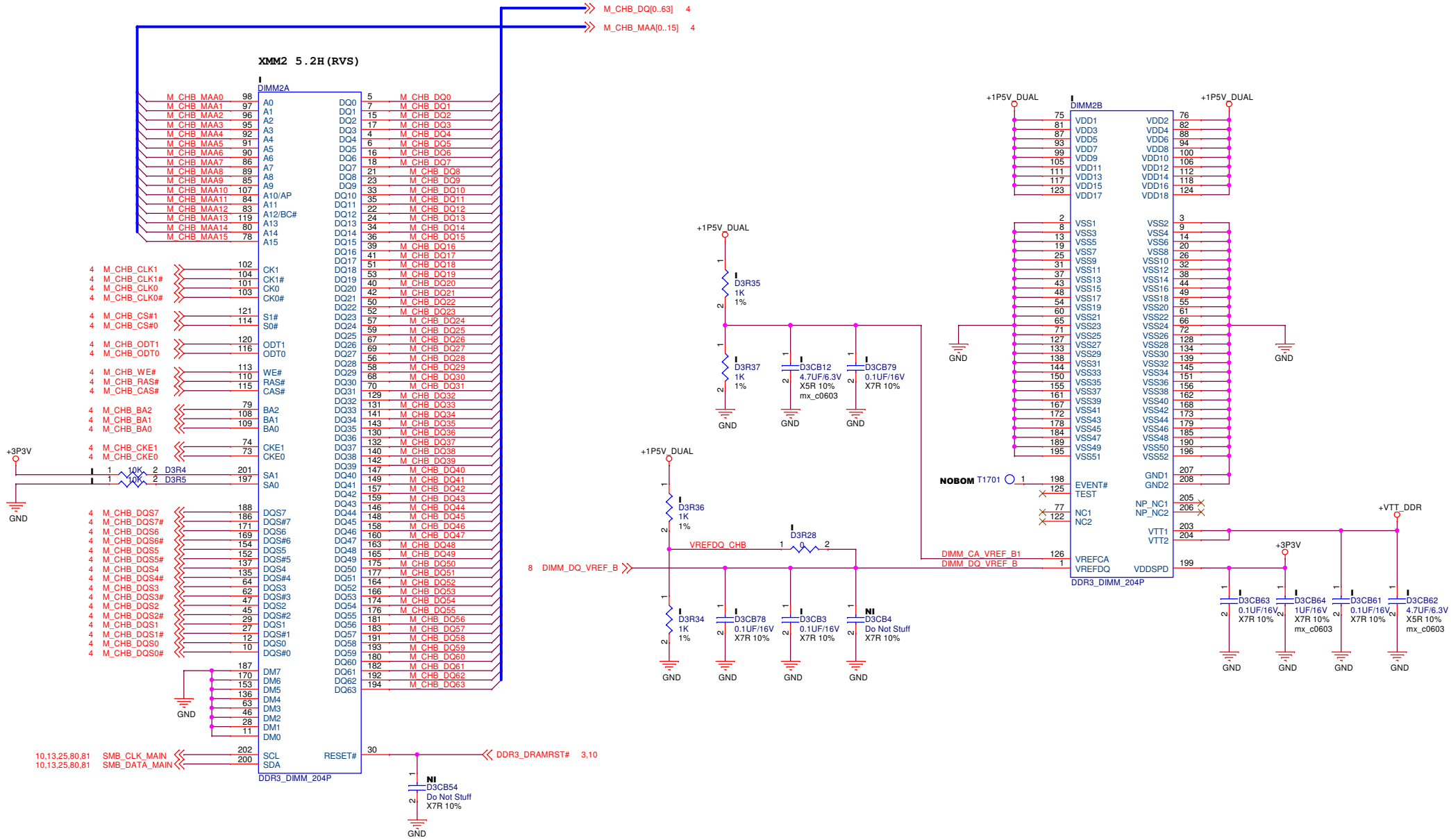

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : DDR3 CHANNEL A

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 10 of 82



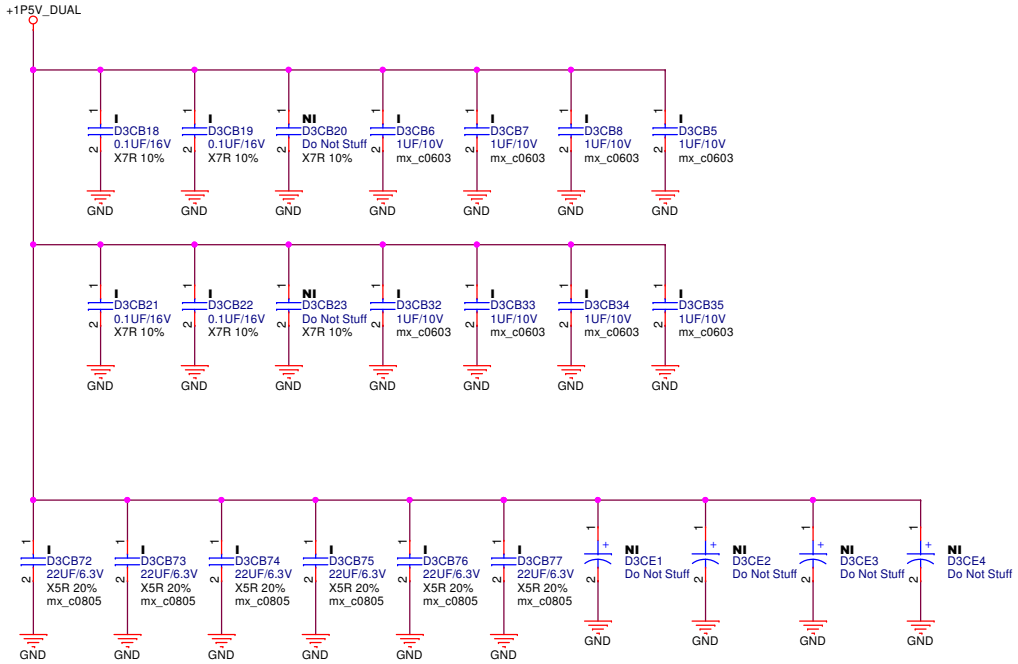

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : DDR3 CHANNEL B

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 11 of 82




PEGATRON DT-MB RESTRICTED SECRET

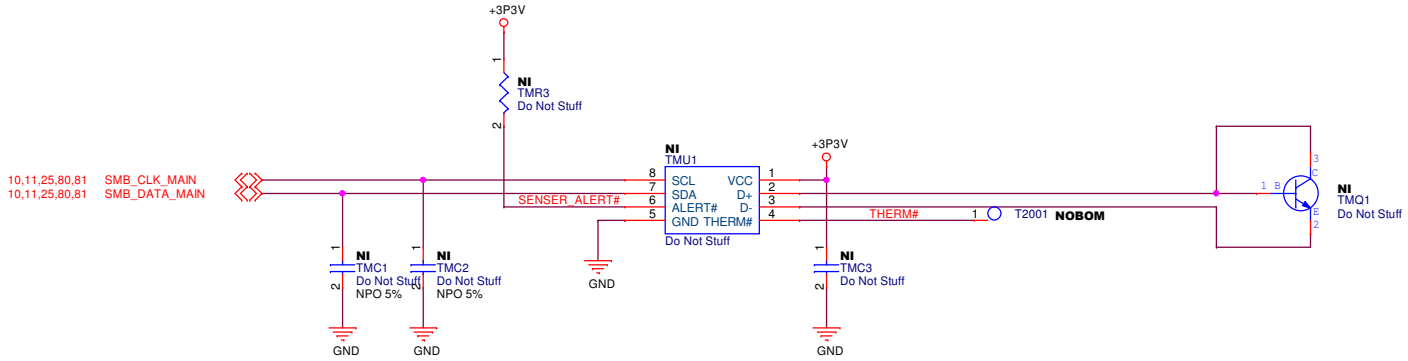
PEGATRON Title : DDR3 TERMINATION

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 12 of 82

# DDR3 Thermal Sensor



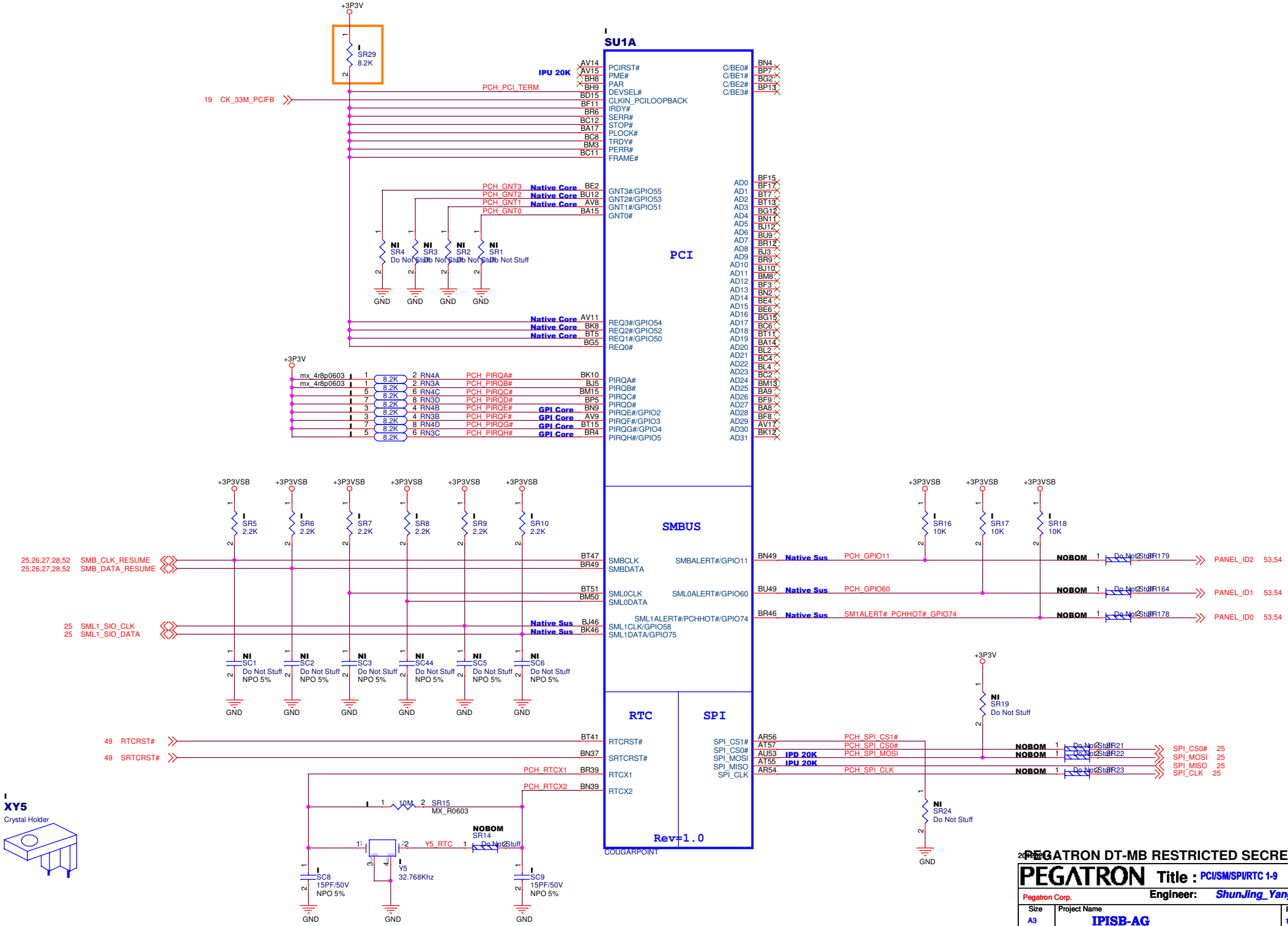



PEGATRON Title : TEMP SENSOR

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 13 of 82



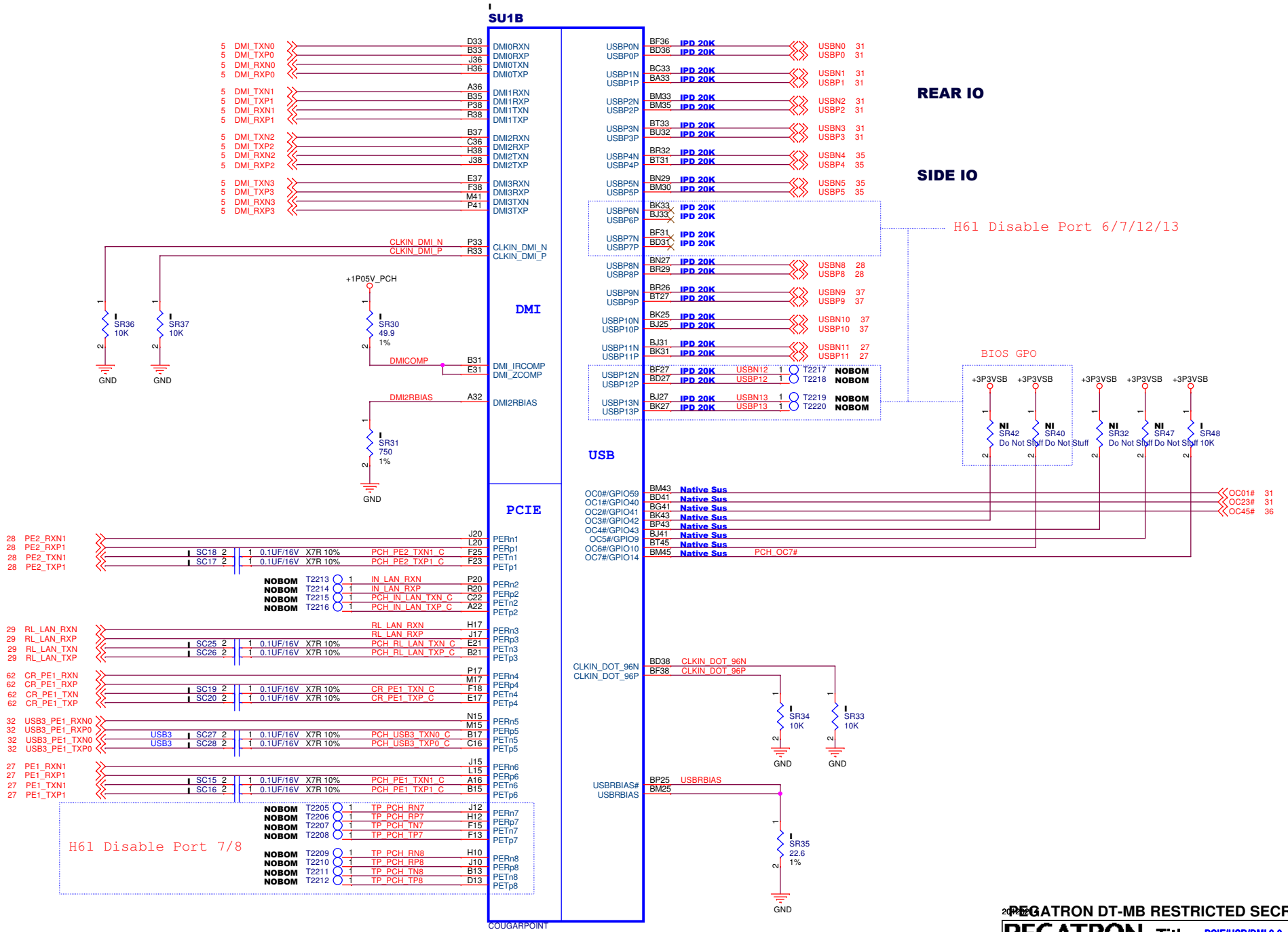

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : PCI/SM/SPI/RTC 1-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 14 of 82



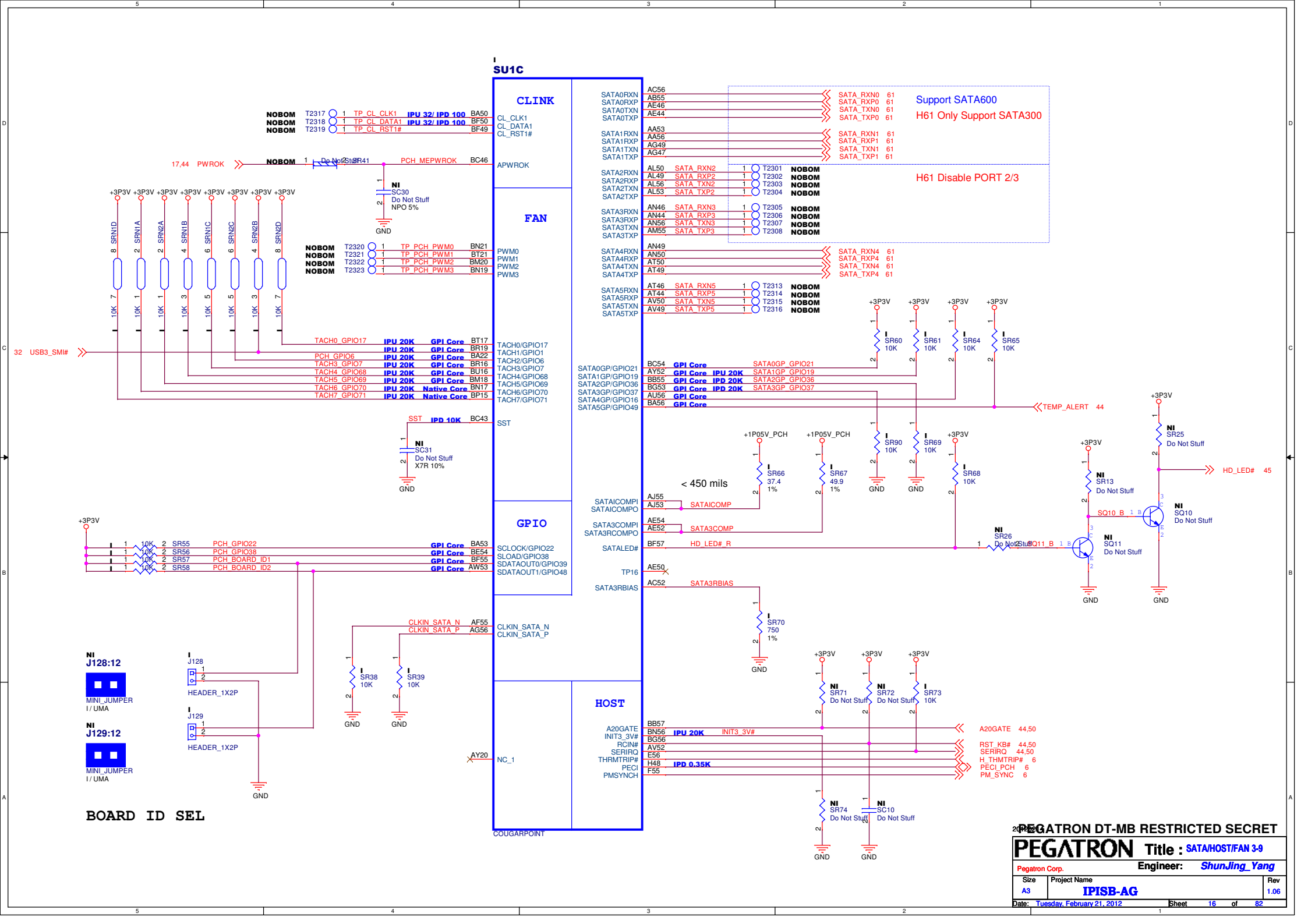

PEGATRON DT-MB RESTRICTED SECRET

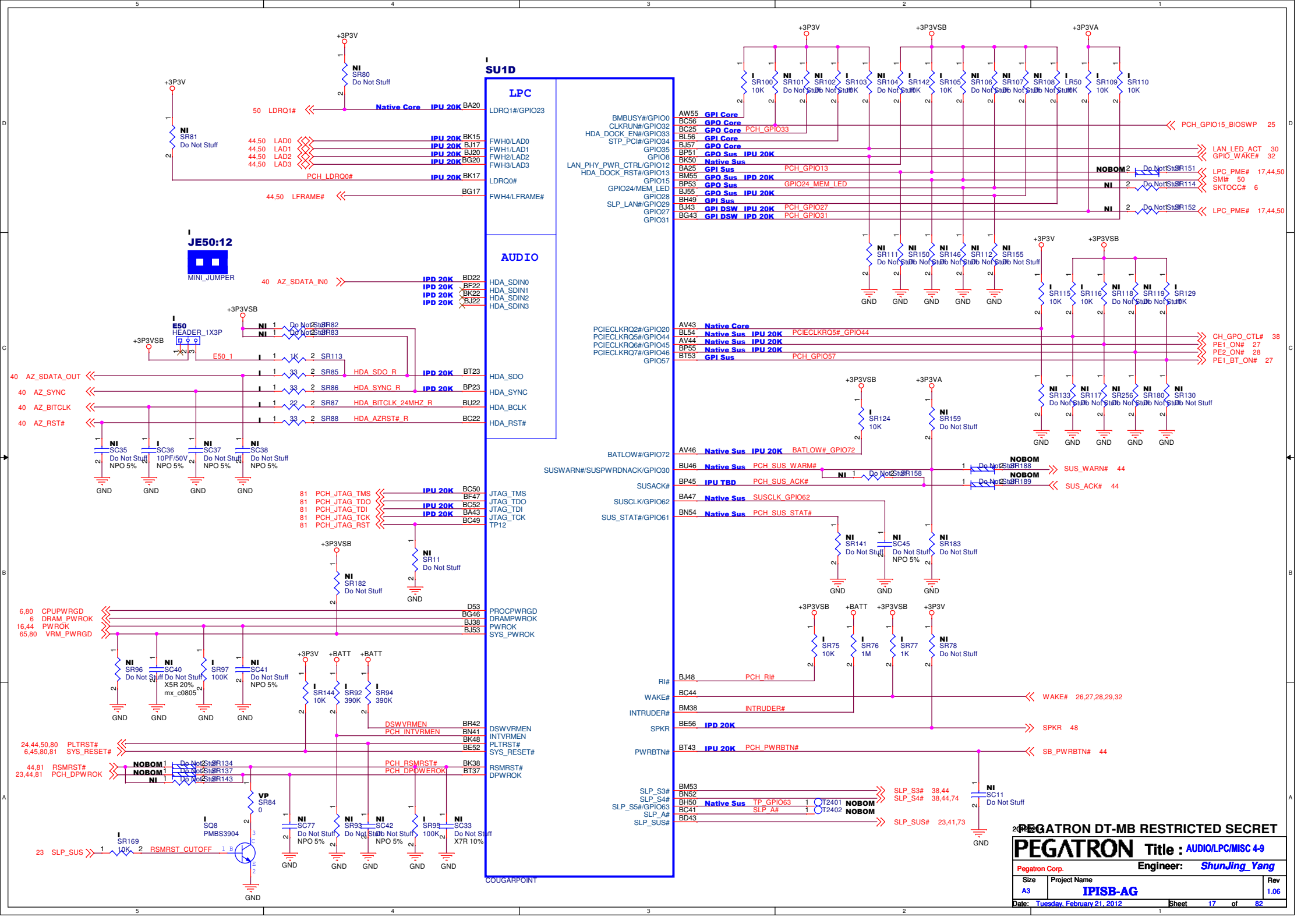
PEGATRON Title : PCIE/USB/DMI 2-9

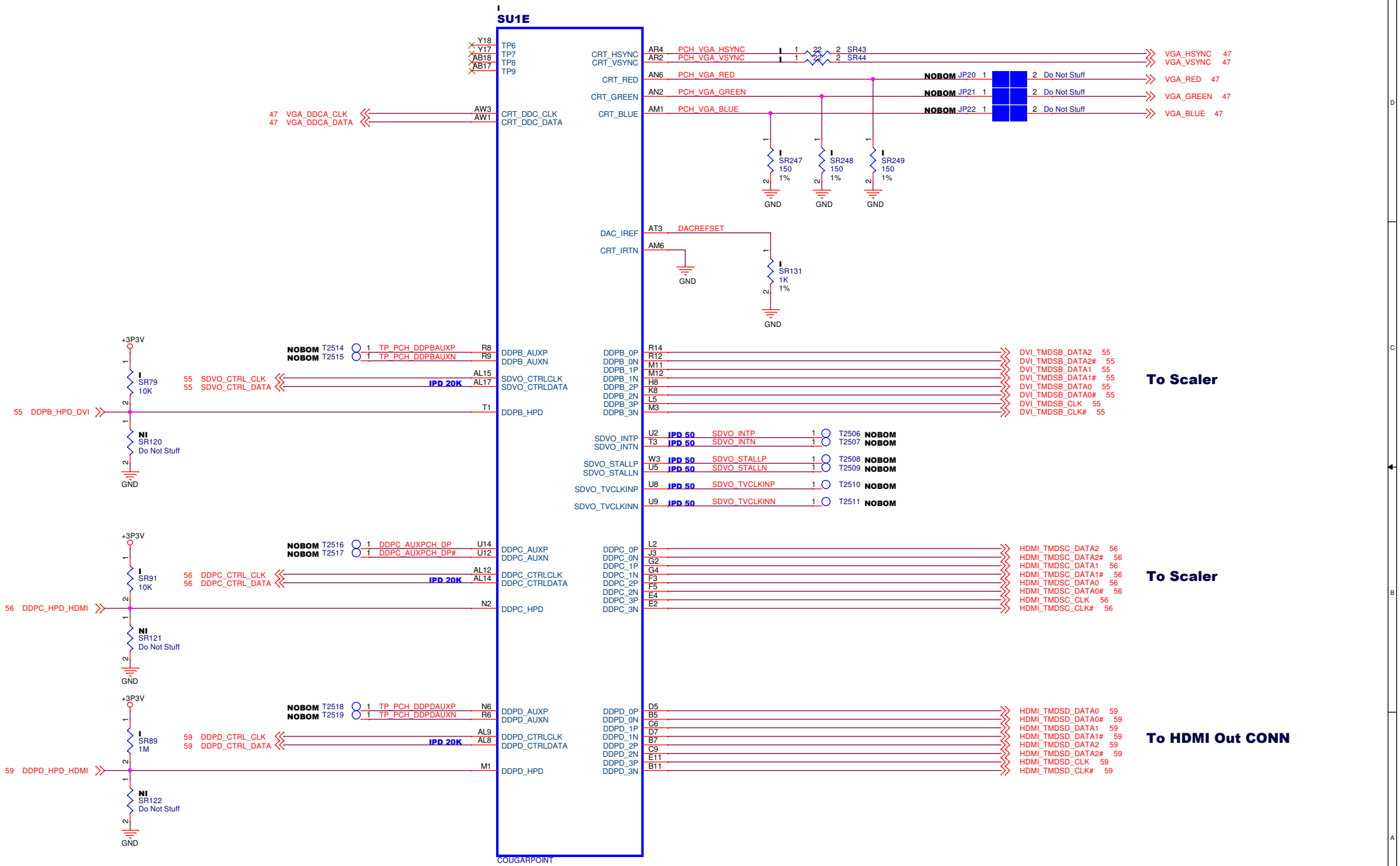
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 15 of 82


SU1C
CLINK
FAN
GPIO
HOST
COUGARPOINT
Support SATA600
H61 Only Support SATA300
H61 Disable PORT 2/3
< 450 mils
BOARD ID SEL
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : SATA/HOST/FAN 3-9
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 16 of 82


SU1D
LPC
AUDIO
COUGARPOINT
JE50:12
MINI_JUMPER
E50
HEADER_1X3P
LDRQ1#
LAD0
LAD1
LAD2
LAD3
LFRAME#
AZ_SDATA_IN0
AZ_SDATA_OUT
AZ_SYNC
AZ_BITCLK
AZ_RST#
HDA_SDO_R
HDA_SYNC_R
HDA_BITCLK_24MHZ_R
HDA_AZRST#_R
JTAG_TMS
JTAG_TDO
JTAG_TDI
JTAG_TCK
JTAG_RST
CPUPWRGD
DRAM_PWROK
PWROK
VRM_PWRGD
PLTRST#
SYS_RESET#
RSMRST#
PCH_DPWROK
SLP_SUS
RSMRST_CUTOFF
PCH_LDRQ0#
PCH_GPIO33
PCH_GPIO13
GPIO24_MEM_LED
PCH_GPIO27
PCH_GPIO31
PCIECLKRQ5#_GPIO44
PCH_GPIO57
BATLOW#_GPIO72
PCH_SUS_WARM#
PCH_SUS_ACK#
SUSCLK_GPIO62
PCH_SUS_STAT#
PCH_RI#
WAKE#
INTRUDER#
PCH_PWRBTN#
TP_GPIO63
SLP_A#
SLP_S3#
SLP_S4#
SLP_SUS#
PCH_GPIO15_BIOSWP
LAN_LED_ACT
GPIO_WAKE#
LPC_PME#
SMI#
SKTOCC#
CH_GPO_CTL#
PE1_ON#
PE2_ON#
PE1_BT_ON#
SUS_WARN#
SUS_ACK#
SPKR
SB_PWRBTN#
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : AUDIO/LPC/MISC 4-9
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 17 of 82



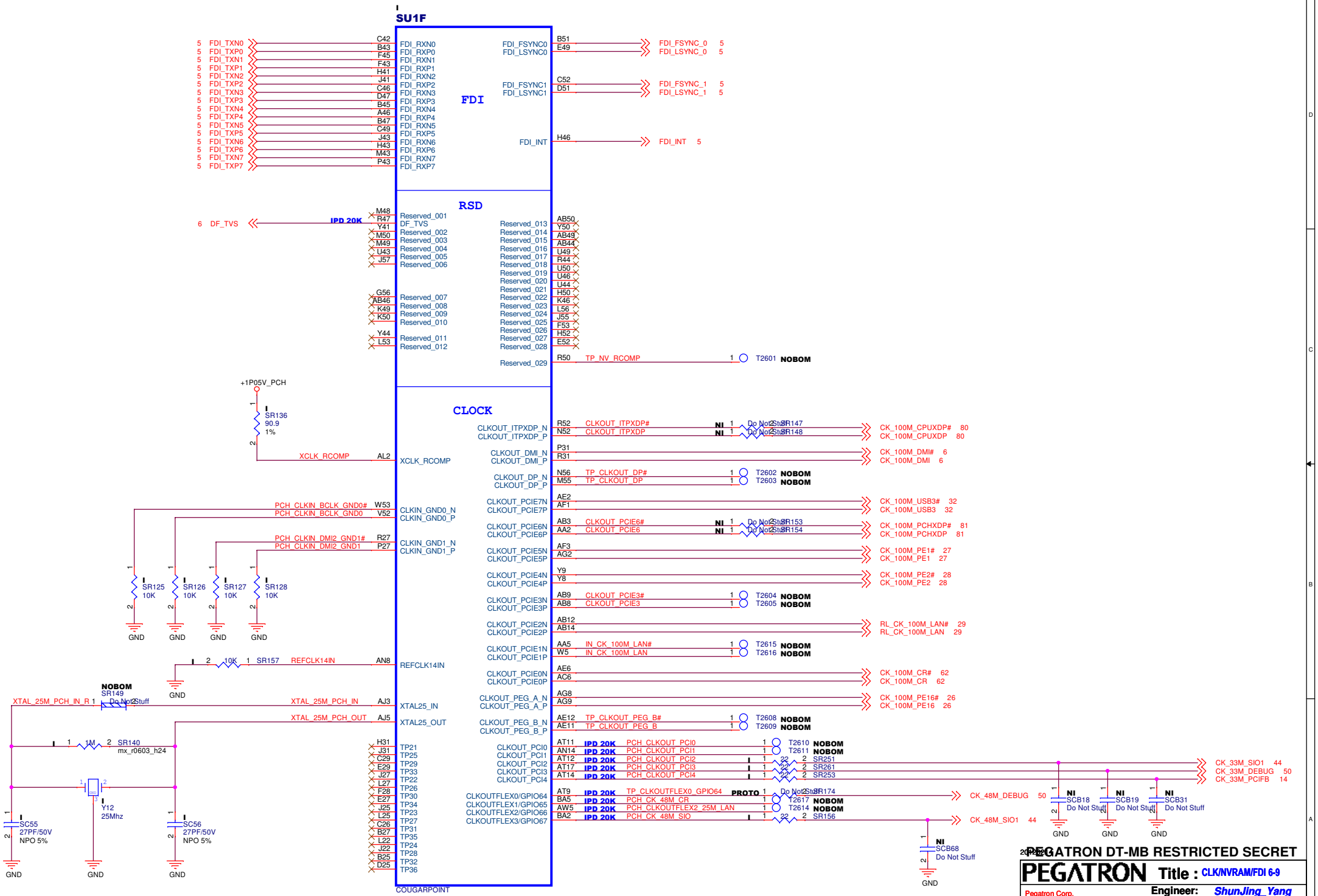

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : VGA/DP/HDMI 5-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 18 of 82



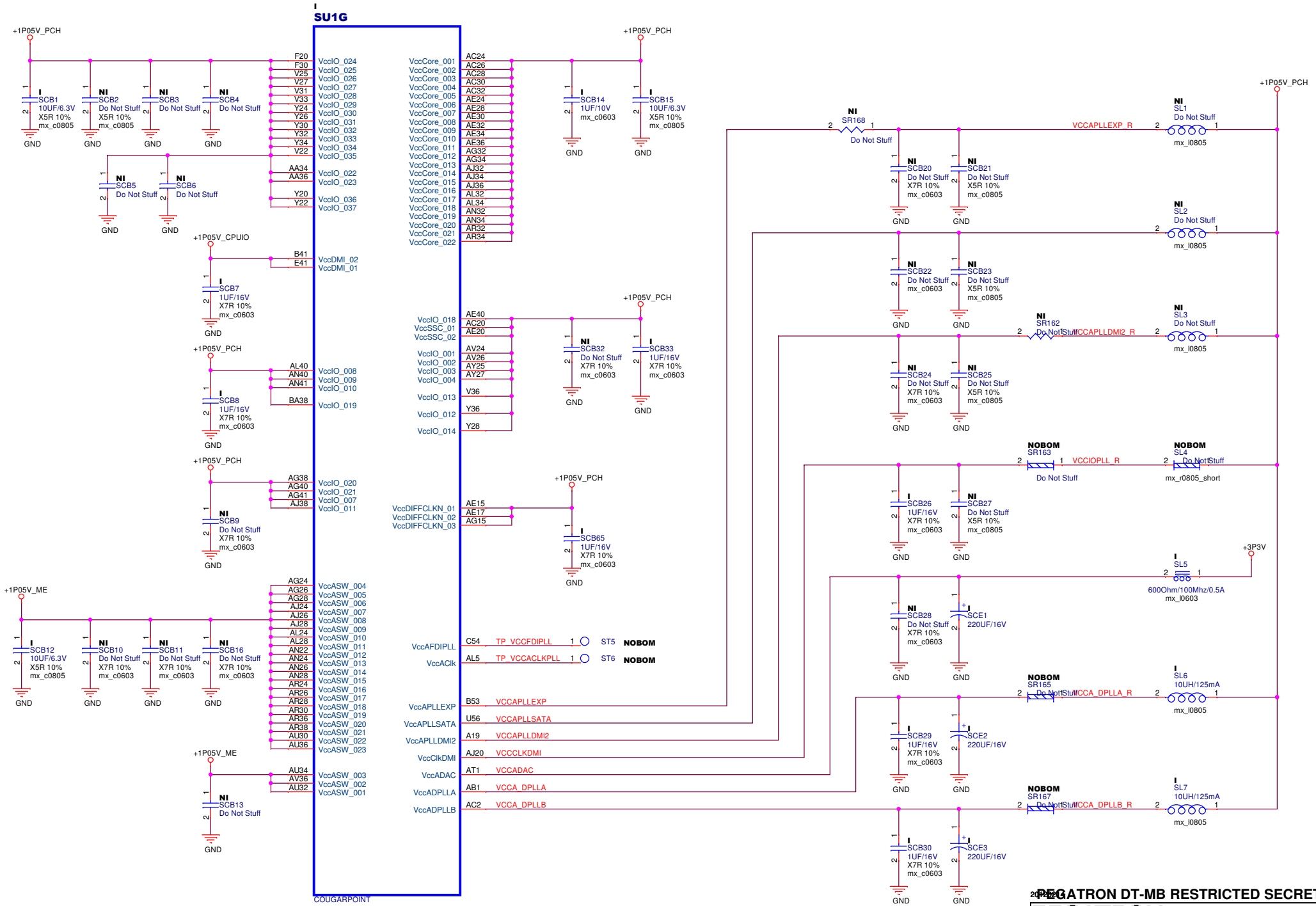

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : CLK/NVRAM/FDI 6-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 19 of 82



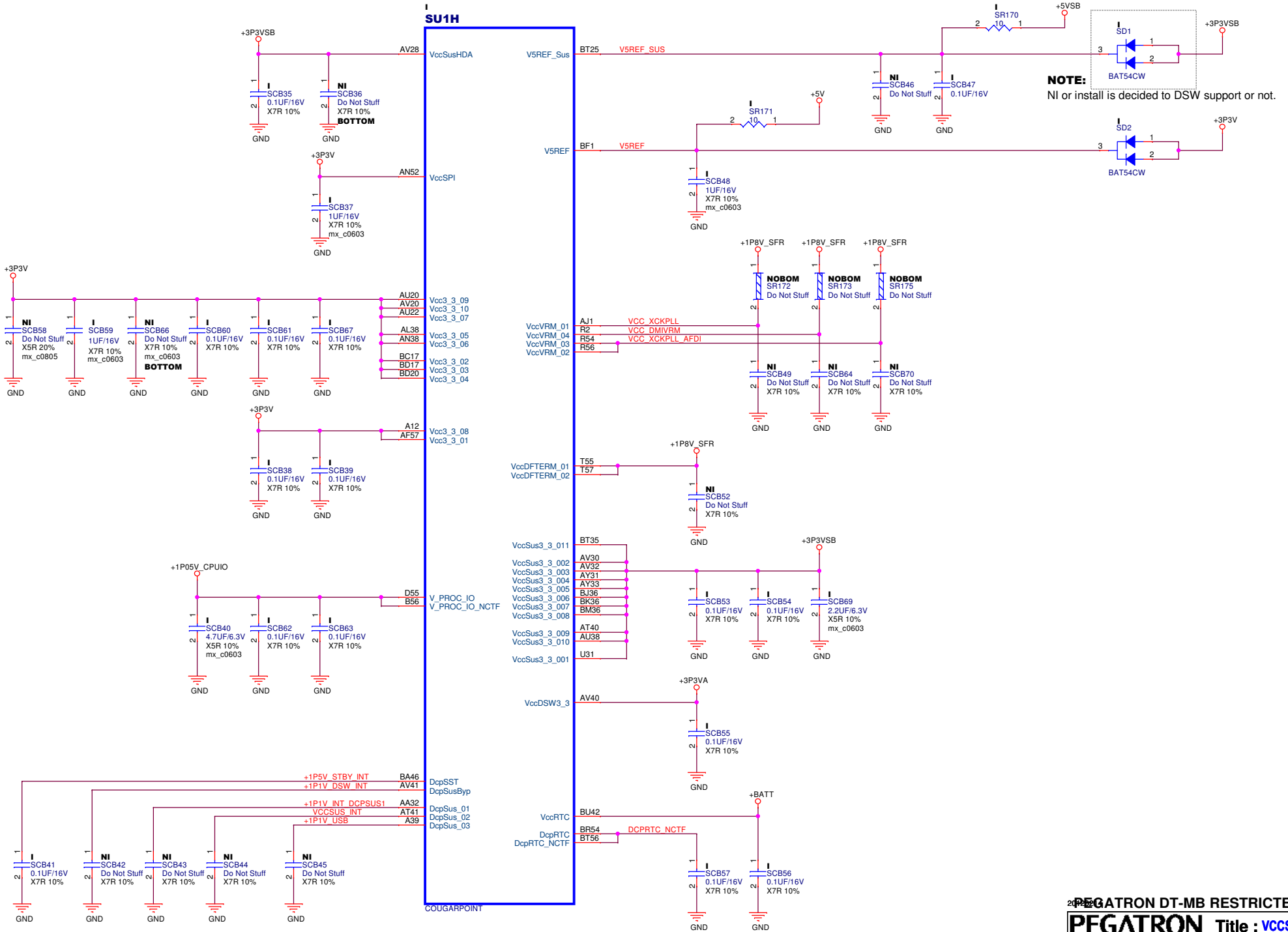

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : VCC/PLL 7-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 20 of 82






PEGATRON Title : VCCSUS 8-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 21 of 82

## SU1I

| | | |
|---|---|---|
| BC15 | Vss_0125 | Vss_0005 A26 |
| BC20 | Vss_0126 | Vss_0006 A29 |
| BC27 | Vss_0127 | Vss_0007 A42 |
| BC31 | Vss_0128 | Vss_0008 A49 |
| BC36 | Vss_0129 | Vss_0009 A9 |
| BC38 | Vss_0130 | Vss_0010 AA20 |
| BC47 | Vss_0131 | Vss_0011 AA22 |
| BC9 | Vss_0132 | Vss_0012 AA24 |
| BD25 | Vss_0133 | Vss_0013 AA26 |
| BD33 | Vss_0134 | Vss_0014 AA28 |
| BF12 | Vss_0135 | Vss_0015 AA30 |
| BF20 | Vss_0136 | Vss_0016 AA38 |
| BF25 | Vss_0137 | Vss_0017 AB11 |
| BF33 | Vss_0138 | Vss_0018 AB15 |
| BF41 | Vss_0139 | Vss_0019 AB40 |
| BF43 | Vss_0140 | Vss_0020 AB41 |
| BF46 | Vss_0141 | Vss_0021 AB43 |
| BF52 | Vss_0142 | Vss_0022 AB47 |
| BF6 | Vss_0143 | Vss_0023 AB52 |
| BG22 | Vss_0144 | Vss_0024 AB57 |
| BG25 | Vss_0145 | Vss_0025 AB6 |
| BG27 | Vss_0146 | Vss_0026 AC22 |
| BG31 | Vss_0147 | Vss_0027 AC34 |
| BG33 | Vss_0148 | Vss_0028 AC36 |
| BG36 | Vss_0149 | Vss_0029 AC38 |
| BG38 | Vss_0150 | Vss_0030 AC4 |
| BH52 | Vss_0151 | Vss_0031 AC54 |
| BH6 | Vss_0152 | Vss_0032 AE14 |
| BJ1 | Vss_0153 | Vss_0033 AE18 |
| BJ15 | Vss_0154 | Vss_0034 AE22 |
| BK20 | Vss_0155 | Vss_0035 AE26 |
| BK41 | Vss_0156 | Vss_0036 AE38 |
| BK52 | Vss_0157 | Vss_0037 AE4 |
| BK6 | Vss_0158 | Vss_0038 AE47 |
| BM10 | Vss_0159 | Vss_0039 AE8 |
| BM12 | Vss_0160 | Vss_0040 AE9 |
| BM16 | Vss_0161 | Vss_0041 AF52 |
| BM22 | Vss_0162 | Vss_0042 AF6 |
| BM23 | Vss_0163 | Vss_0043 AG11 |
| BM26 | Vss_0164 | Vss_0044 AG14 |
| BM28 | Vss_0165 | Vss_0045 AG20 |
| BM32 | Vss_0166 | Vss_0046 AG22 |
| BM40 | Vss_0167 | Vss_0047 AG30 |
| BM42 | Vss_0168 | Vss_0048 AG36 |
| BM48 | Vss_0169 | Vss_0049 AG43 |
| BM5 | Vss_0170 | Vss_0050 AG44 |
| BN31 | Vss_0171 | Vss_0051 AG46 |
| BN47 | Vss_0172 | Vss_0052 AG5 |
| BN6 | Vss_0173 | Vss_0053 AG50 |
| BP3 | Vss_0174 | Vss_0054 AG53 |
| BP33 | Vss_0175 | Vss_0055 AH52 |
| BP35 | Vss_0176 | Vss_0056 AH6 |
| BR22 | Vss_0177 | Vss_0057 AJ22 |
| BR52 | Vss_0178 | Vss_0058 AJ30 |
| BU19 | Vss_0179 | Vss_0059 AJ57 |
| BU26 | Vss_0180 | Vss_0060 AK52 |
| BU29 | Vss_0181 | Vss_0061 AK6 |
| BU36 | Vss_0182 | Vss_0062 AL11 |
| BU39 | Vss_0183 | Vss_0063 AL18 |
| C19 | Vss_0184 | Vss_0064 AL20 |
| C32 | Vss_0185 | Vss_0065 AL22 |
| C39 | Vss_0186 | Vss_0066 AL26 |
| C4 | Vss_0187 | Vss_0067 AL30 |
| D15 | Vss_0188 | Vss_0068 AL36 |
| D23 | Vss_0189 | Vss_0069 AL41 |
| D3 | Vss_0190 | Vss_0070 AL46 |
| D35 | Vss_0191 | Vss_0071 AL47 |
| D43 | Vss_0192 | Vss_0072 AM52 |
| D45 | Vss_0193 | Vss_0073 AM3 |
| E19 | Vss_0194 | Vss_0074 AM57 |
| E39 | Vss_0195 | Vss_0075 AN11 |
| E54 | Vss_0196 | Vss_0076 AN12 |
| E6 | Vss_0197 | Vss_0077 AN15 |
| E9 | Vss_0198 | Vss_0078 AN17 |
| F10 | Vss_0199 | Vss_0079 AN18 |
| F12 | Vss_0200 | Vss_0080 AN20 |
| F16 | Vss_0201 | Vss_0081 AN30 |
| F22 | Vss_0202 | Vss_0082 AN36 |
| F26 | Vss_0203 | Vss_0083 AN4 |
| F32 | Vss_0204 | Vss_0084 AN43 |
| F33 | Vss_0205 | Vss_0085 AN47 |
| F35 | Vss_0206 | Vss_0086 AN54 |
| F36 | Vss_0207 | Vss_0087 AN9 |
| F40 | Vss_0208 | Vss_0088 AP20 |
| F42 | Vss_0209 | Vss_0089 AP22 |
| F46 | Vss_0210 | Vss_0090 AP52 |
| F48 | Vss_0211 | Vss_0091 AR6 |
| F50 | Vss_0212 | Vss_0092 AT15 |
| F8 | Vss_0213 | Vss_0093 AT18 |
| | | Vss_0094 AT43 |
| | | Vss_0095 AT47 |
| | | Vss_0096 AT52 |
| | | Vss_0097 AT6 |
| | | Vss_0098 AT8 |
| | | Vss_0099 AU24 |
| | | Vss_0100 AU26 |
| | | Vss_0101 AU28 |
| | | Vss_0102 AU5 |
| | | Vss_0103 AV12 |

GND

COUGARPOINT

GND

## SU1J

| | | |
|---|---|---|
| L12 | Vss_0231 | TP1 P22 |
| L17 | Vss_0232 | TP2 L31 |
| L38 | Vss_0233 | TP3 L33 |
| L41 | Vss_0234 | TP4 M38 |
| L43 | Vss_0235 | TP5 L36 |
| M20 | Vss_0236 | TP10 BM46 |
| M22 | Vss_0237 | TP11 BA27 |
| M25 | Vss_0238 | TP13 AE49 |
| M27 | Vss_0239 | TP14 AE41 |
| M31 | Vss_0240 | TP15 AE43 |
| T52 | Vss_0260 | TP17 BA36 |
| T6 | Vss_0261 | TP18 AY36 |
| U11 | Vss_0262 | TP19 Y14 |
| U15 | Vss_0263 | TP20 Y12 |
| U17 | Vss_0264 | |
| U20 | Vss_0265 | |
| U22 | Vss_0266 | |
| U25 | Vss_0267 | |
| U27 | Vss_0268 | |
| U33 | Vss_0269 | |
| U36 | Vss_0270 | |
| U38 | Vss_0271 | |
| U41 | Vss_0272 | VSS_NCTF_001 A4 |
| U47 | Vss_0273 | VSS_NCTF_005 BM57 |
| U53 | Vss_0274 | VSS_NCTF BP1 |
| V20 | Vss_0275 | |
| V38 | Vss_0276 | |
| V6 | Vss_0277 | |
| W1 | Vss_0278 | |
| W55 | Vss_0279 | |
| W57 | Vss_0280 | |
| Y11 | Vss_0281 | |
| Y15 | Vss_0282 | L_BKLTCTL AG12 |
| Y38 | Vss_0283 | L_BKLTEN AG18 |
| Y40 | Vss_0284 | L_VDD_EN AG17 |
| Y43 | Vss_0285 | |
| Y46 | Vss_0286 | |
| Y47 | Vss_0287 | Vss_0241 M33 |
| Y49 | Vss_0288 | Vss_0242 M36 |
| Y52 | Vss_0289 | Vss_0243 M46 |
| Y6 | Vss_0290 | Vss_0244 M52 |
| AL43 | Vss_0291 | Vss_0245 M57 |
| AL44 | Vss_0292 | Vss_0246 M6 |
| R36 | Vss_0293 | Vss_0247 M8 |
| P36 | Vss_0294 | Vss_0248 M9 |
| R25 | Vss_0295 | Vss_0249 N4 |
| P25 | Vss_0296 | Vss_0250 N54 |
| | | Vss_0251 R11 |
| | | Vss_0252 R15 |
| A6 | VSS_NCTF_002 | Vss_0253 R17 |
| B2 | VSS_NCTF_003 | Vss_0254 R22 |
| BM1 | VSS_NCTF_004 | Vss_0255 R4 |
| BP57 | VSS_NCTF_007 | Vss_0256 R41 |
| BT2 | VSS_NCTF_008 | Vss_0257 R43 |
| BU4 | VSS_NCTF_009 | Vss_0258 R46 |
| BU52 | VSS_NCTF_010 | Vss_0259 R49 |
| BU54 | VSS_NCTF_011 | |
| BU6 | VSS_NCTF_012 | Vss_0214 G54 |
| D1 | VSS_NCTF_013 | Vss_0215 H15 |
| F1 | VSS_NCTF_014 | Vss_0216 H20 |
| | | Vss_0217 H22 |
| | | Vss_0218 H25 |
| | | Vss_0219 H27 |
| | | Vss_0220 H33 |
| | | Vss_0221 H6 |
| | | Vss_0222 J1 |
| | | Vss_0223 J33 |
| | | Vss_0224 J46 |
| | | Vss_0225 J48 |
| | | Vss_0226 J5 |
| | | Vss_0227 J53 |
| | | Vss_0228 K52 |
| | | Vss_0229 K6 |
| | | Vss_0230 K9 |
| | | Vss_0119 BA49 |
| | | Vss_0120 BB1 |
| AY22 | Vss_0004 | Vss_0121 BB3 |
| C12 | Vss_0003 | Vss_0122 BB52 |
| AE56 | Vss_0001 | Vss_0123 BB6 |
| BR36 | Vss_0002 | Vss_0124 BC14 |
| AU2 | VssADAC | Vss_0104 AV18 |
| | | Vss_0105 AV22 |
| | | Vss_0106 AV34 |
| | | Vss_0107 AV38 |
| | | Vss_0108 AV47 |
| | | Vss_0109 AV6 |
| A54 | TS_VSS1 | Vss_0110 AW57 |
| A52 | TS_VSS2 | Vss_0111 AY38 |
| F57 | TS_VSS3 | Vss_0112 AY6 |
| D57 | TS_VSS4 | Vss_0113 B23 |
| | | Vss_0114 BA11 |
| | | Vss_0115 BA12 |
| | | Vss_0116 BA31 |
| | | Vss_0117 BA41 |
| | | Vss_0118 BA44 |

TP_PCH_BKLCTL 1 ST80 NOBOM
TP_PCH_BKLTEN 1 ST81 NOBOM
TP_PCH_VDD_EN 1 ST82 NOBOM

GND

GND

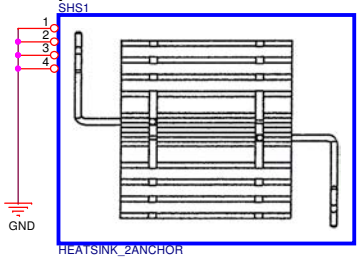
GND

GND

COUGARPOINT

GND

## SHS1



HEATSINK_2ANCHOR

## CLIP1

ANCHOR_CLIP
ANGLE_45

## CLIP2

ANCHOR_CLIP
ANGLE_45



PEGATRON Title : VSS 9-9

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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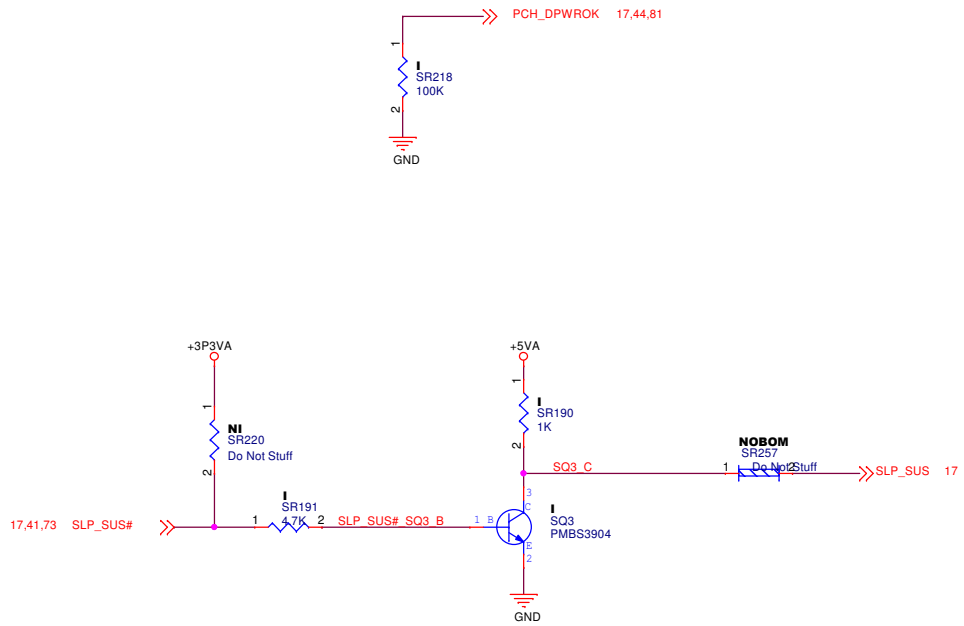
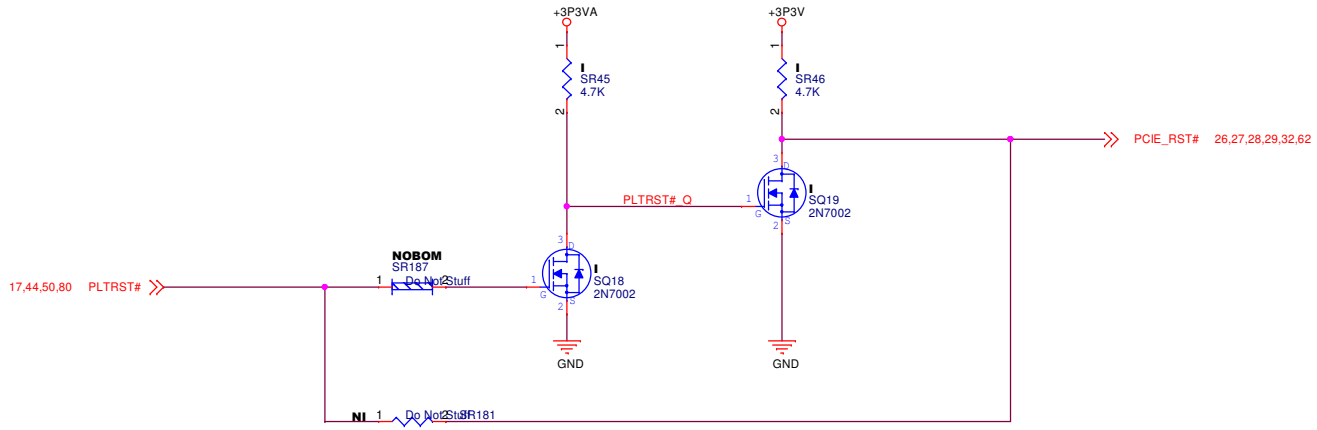
# PCH_DPWROK




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : PCH_DPWROK & SLP_SUS | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 23 of 82 | |

# RSMRST CIRCUIT





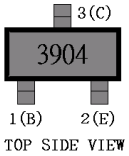

PEGATRON Title : RSMRST# / PCIE_RST#

Pegatron Corp. Engineer: ShunJing_Yang

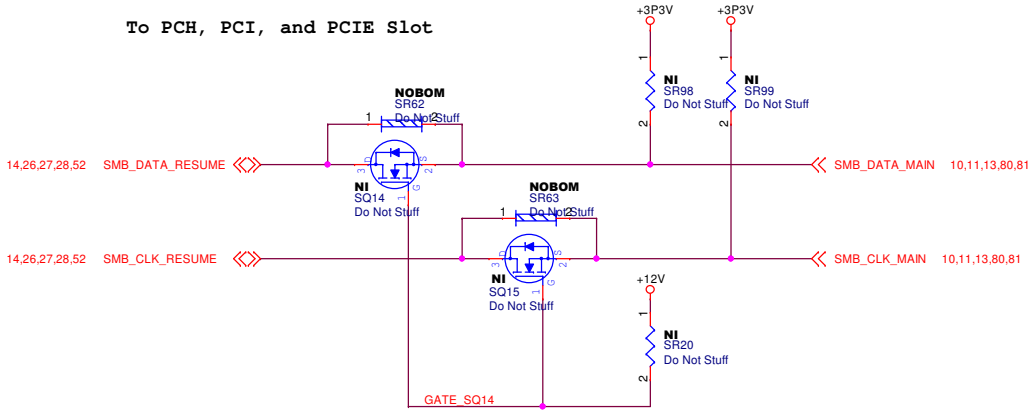
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 24 of 82

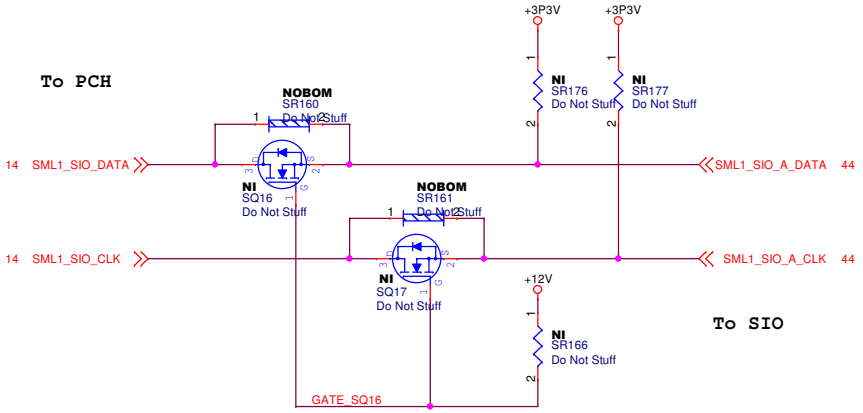
# SM BUS Control



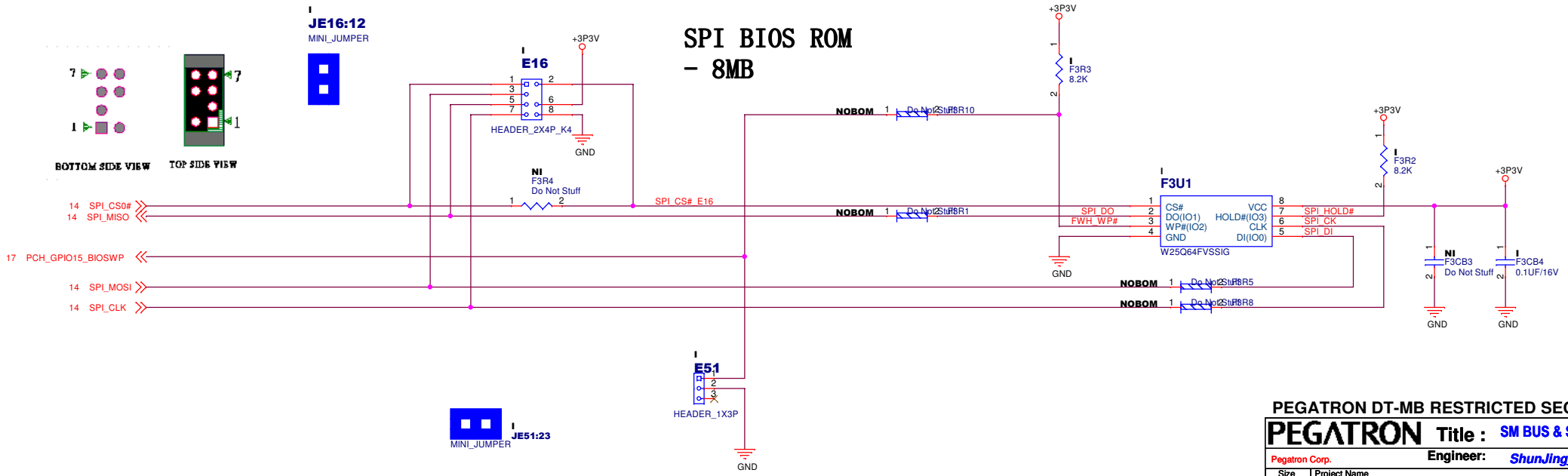
TOP SIDE VIEW




To Clock Gen, DIMMs, TPM, and XDP Debug Port



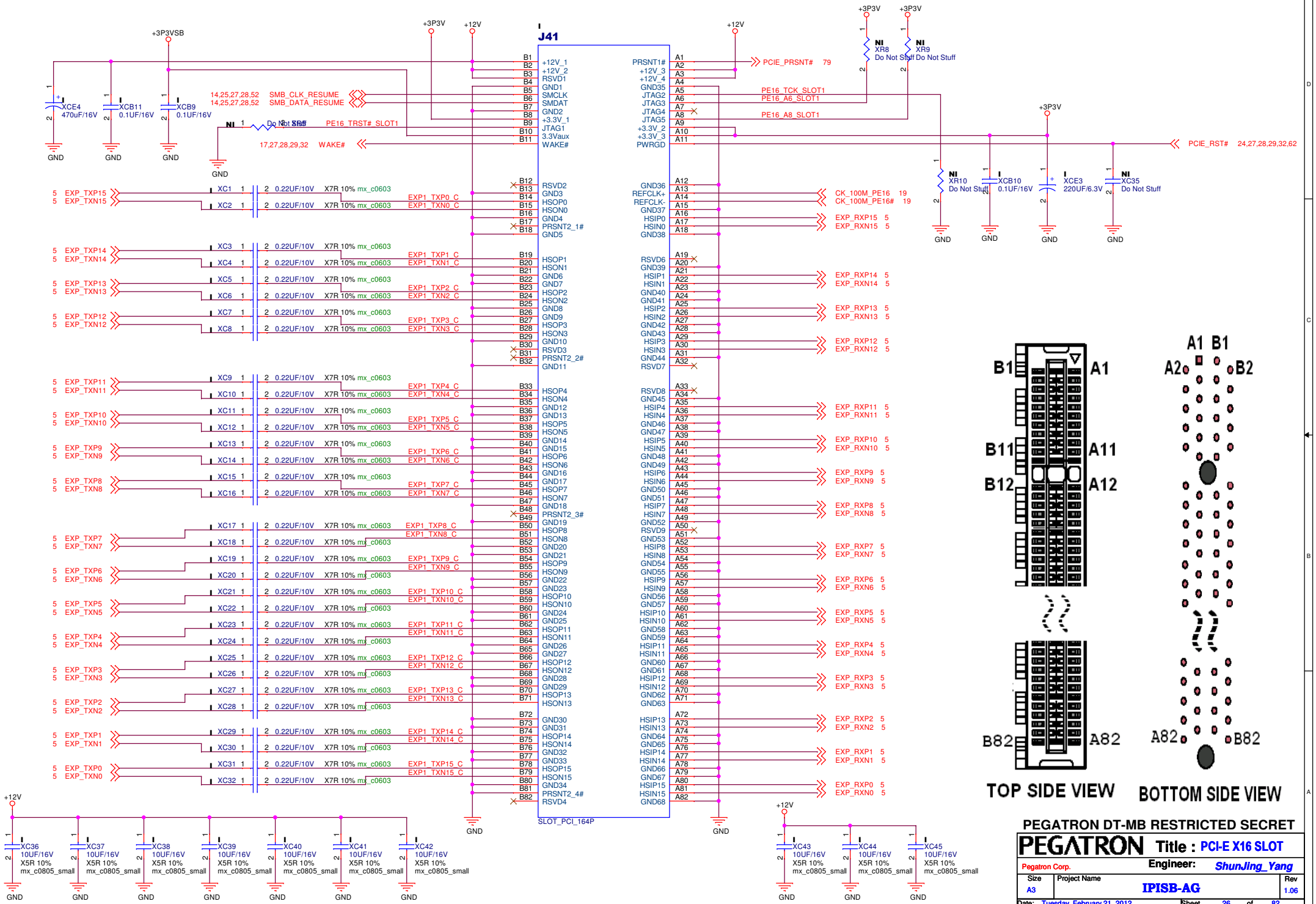

To SIO




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : SM BUS & SPI ROM | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 25 of 82 | |

# PCI EXPRESS X16 Graphics Card Slot




PEGATRON DT-MB RESTRICTED SECRET

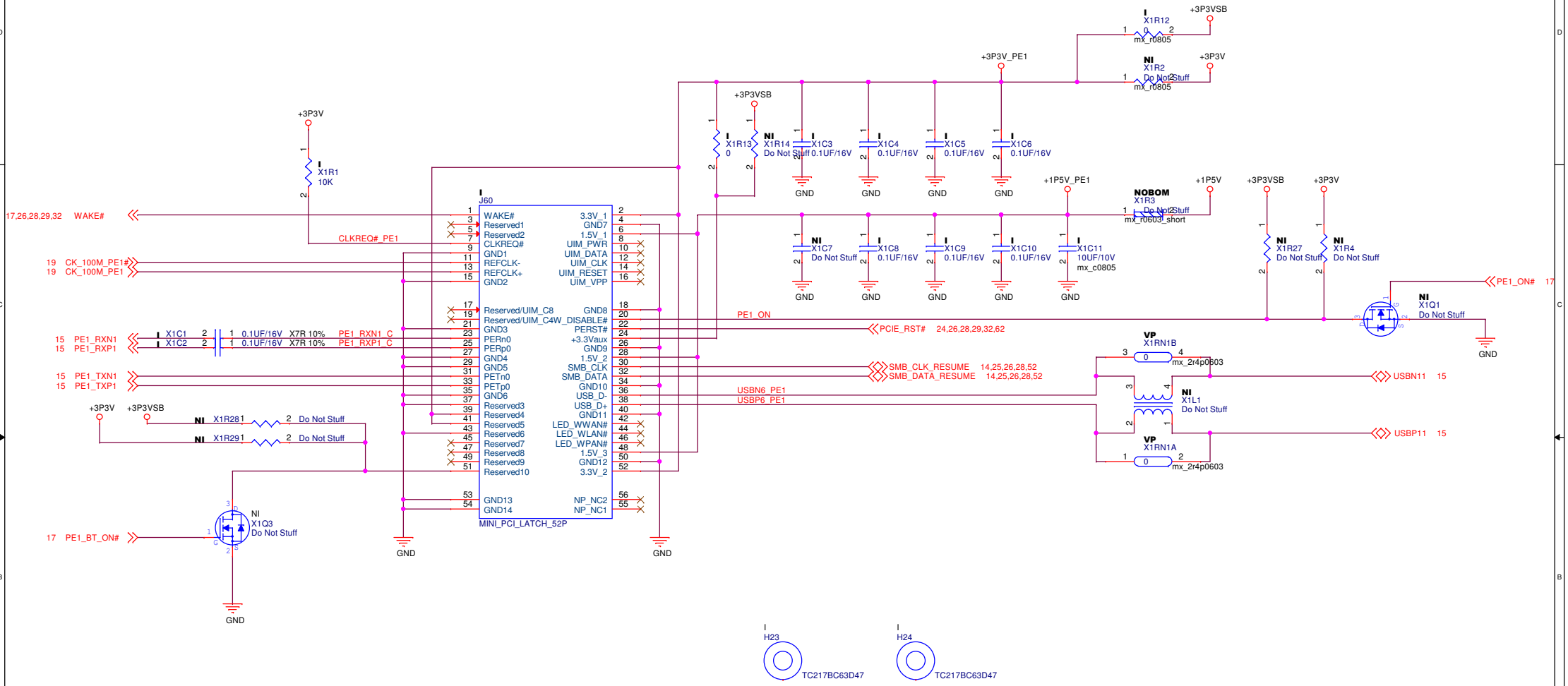
PEGATRON Title : PCI-E X16 SLOT

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 26 of 82

# Mini-PCIE Slot (Half Card) for Wifi




PEGATRON DT-MB RESTRICTED SECRET

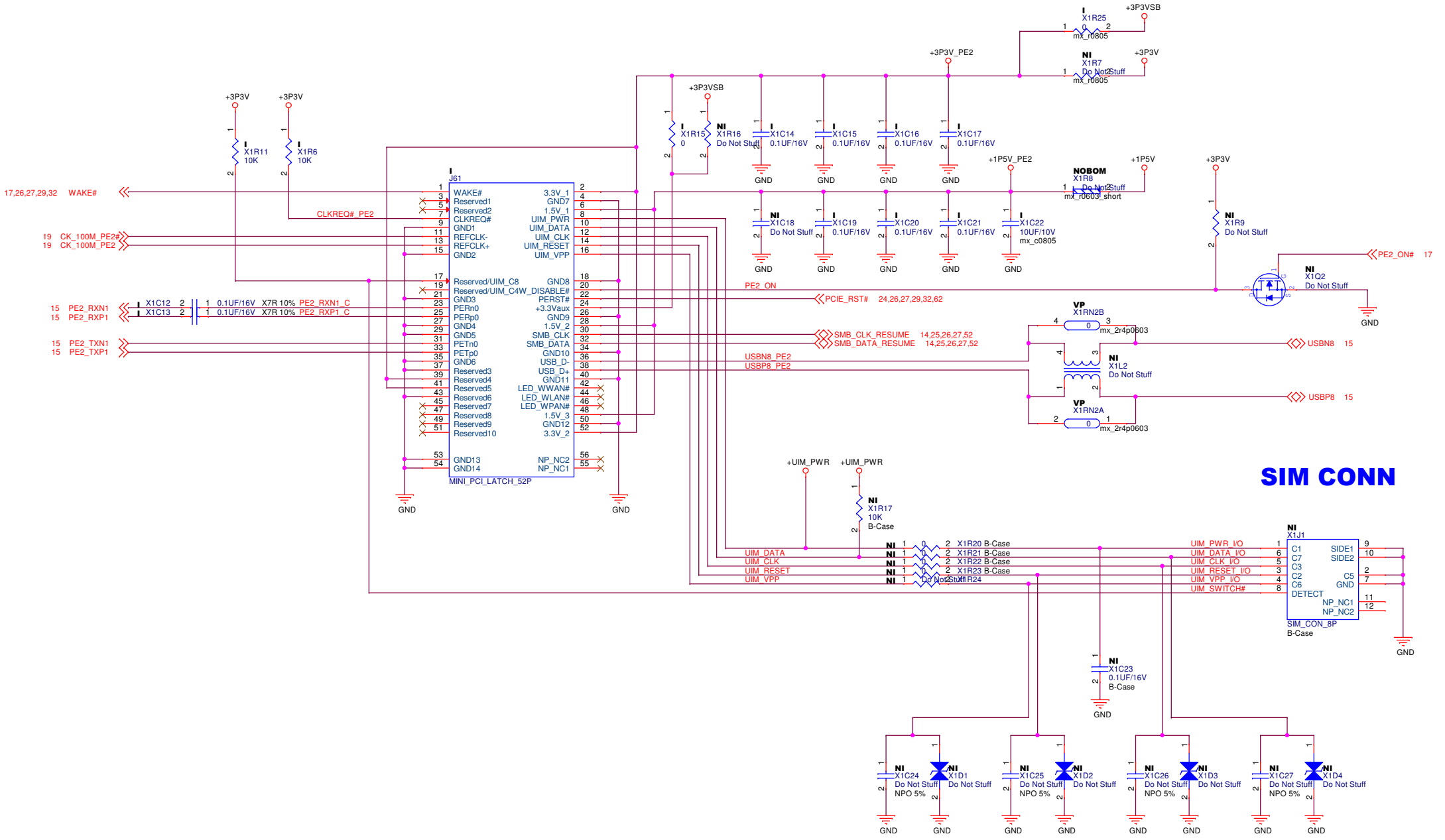
PEGATRON Title : MINI-PCIE SLOT-1

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 27 of 82

# Mini-PCIE Slot (Full Card)



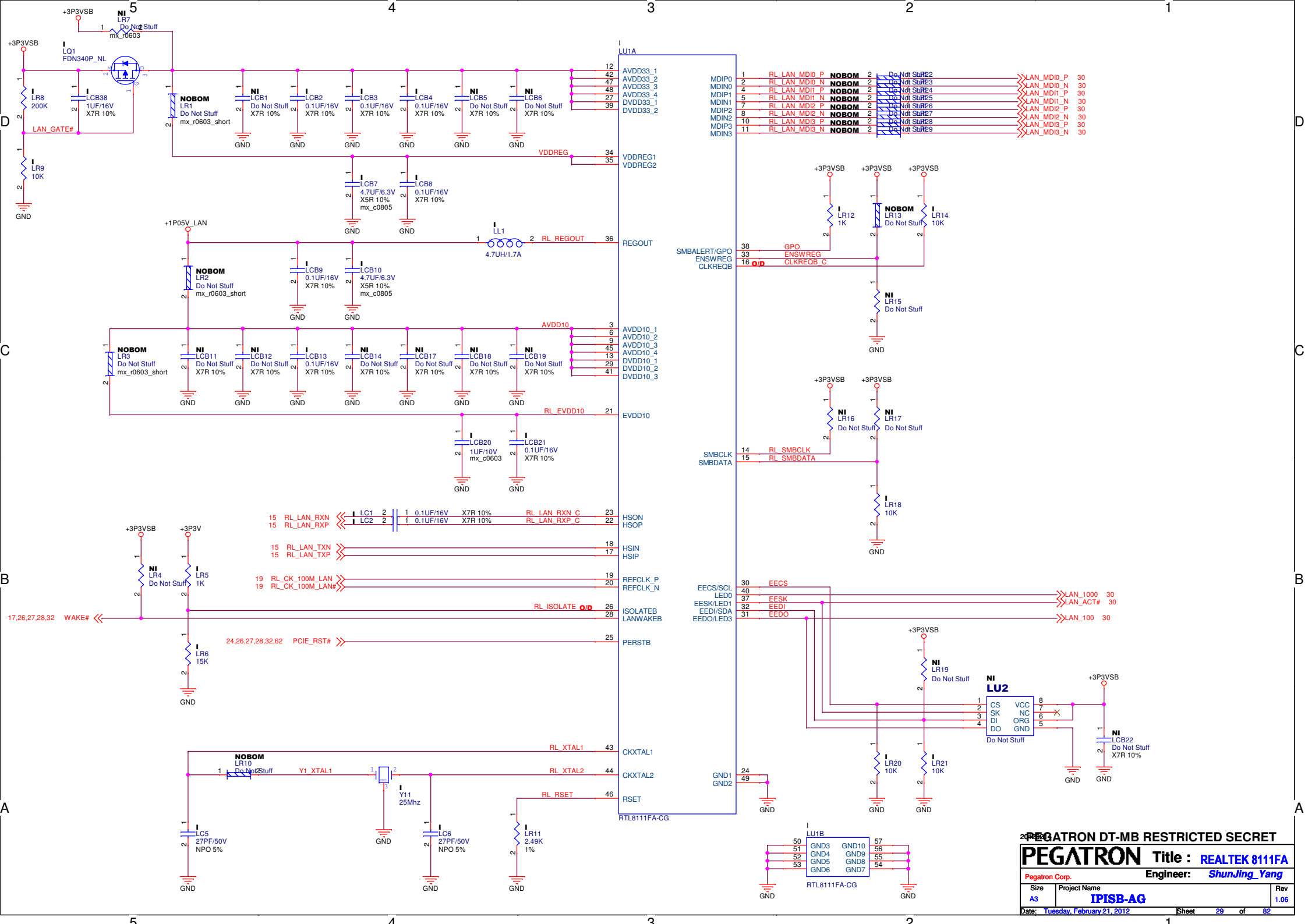

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : MINI-PCIE SLOT-2

Pegatron Corp. Engineer: ShunJing_Yang

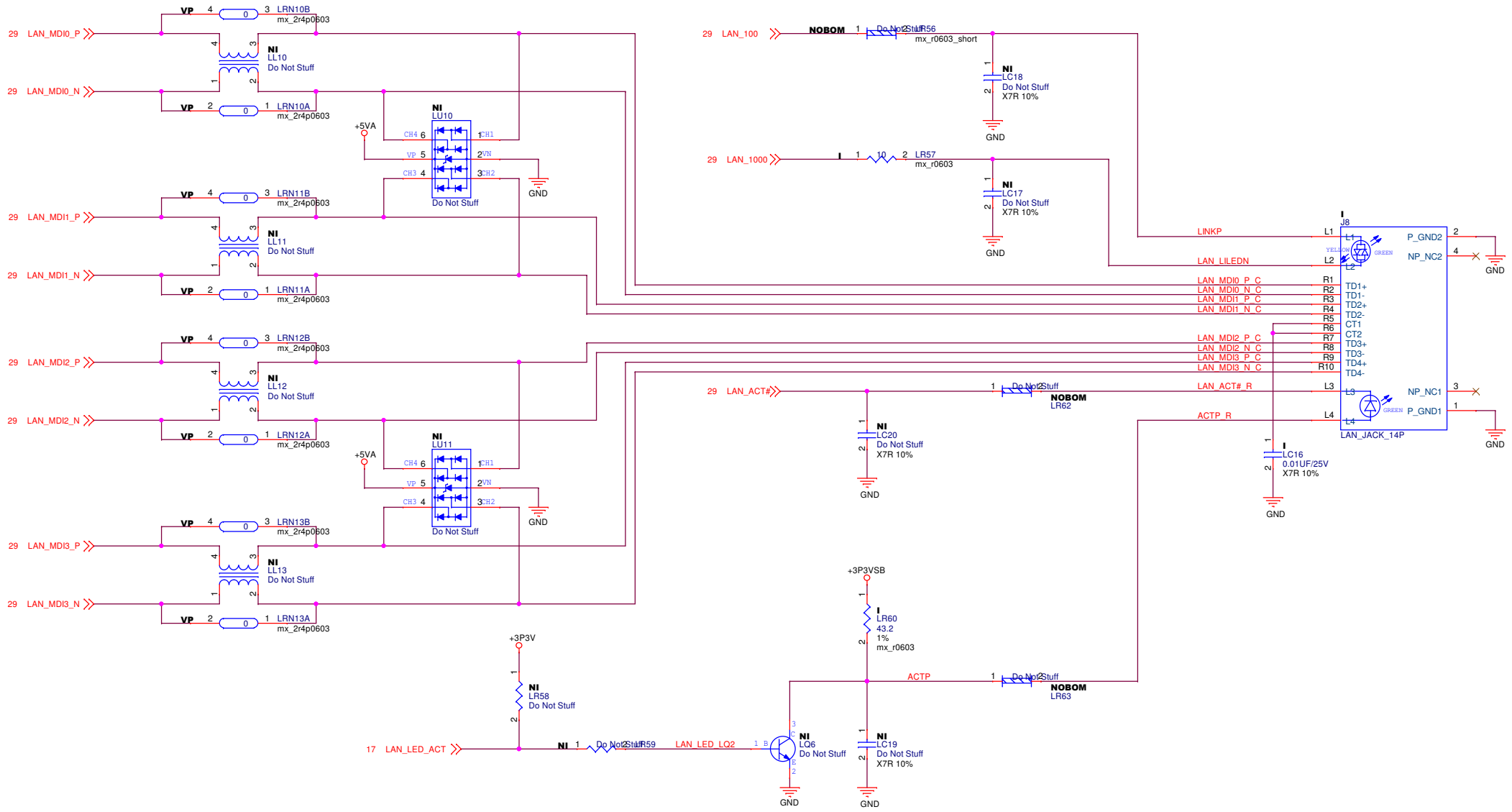
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 28 of 82




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : REALTEK 8111FA | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 29 of 82 | |



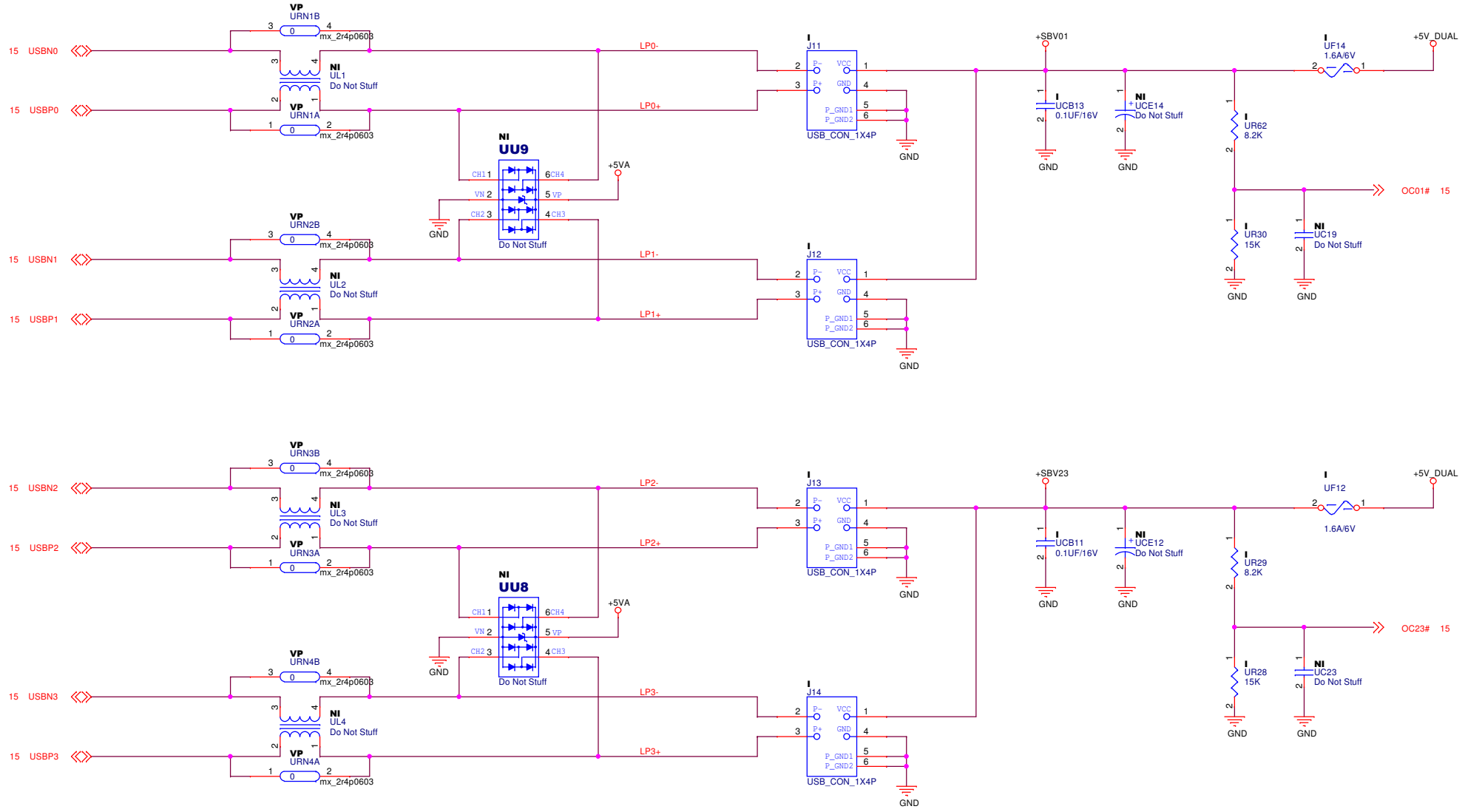

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : LAN JACK

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 30 of 82



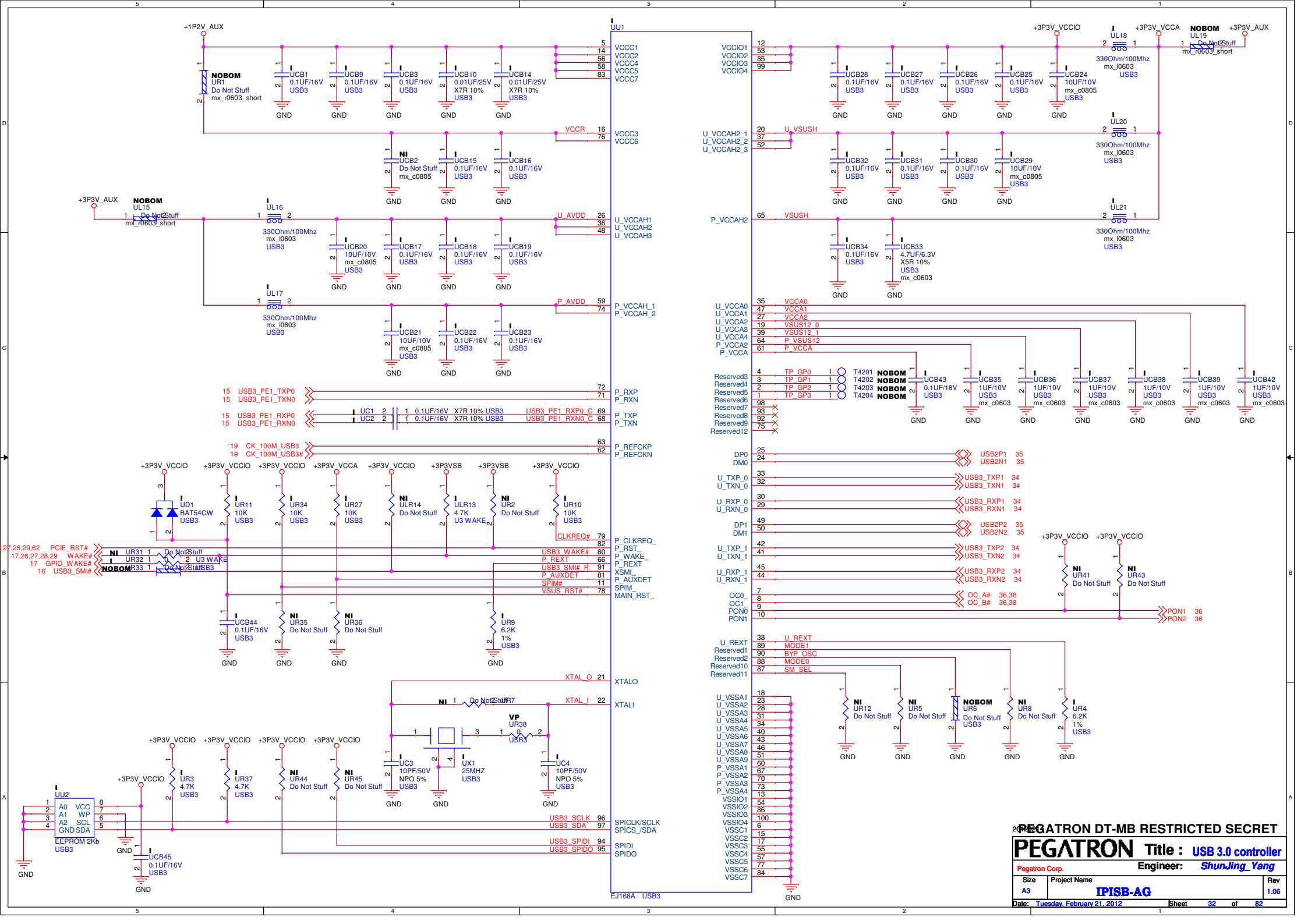



PEGATRON Title : REAR USB2.0 PORT

Pegatron Corp. Engineer: ShunJing_Yang

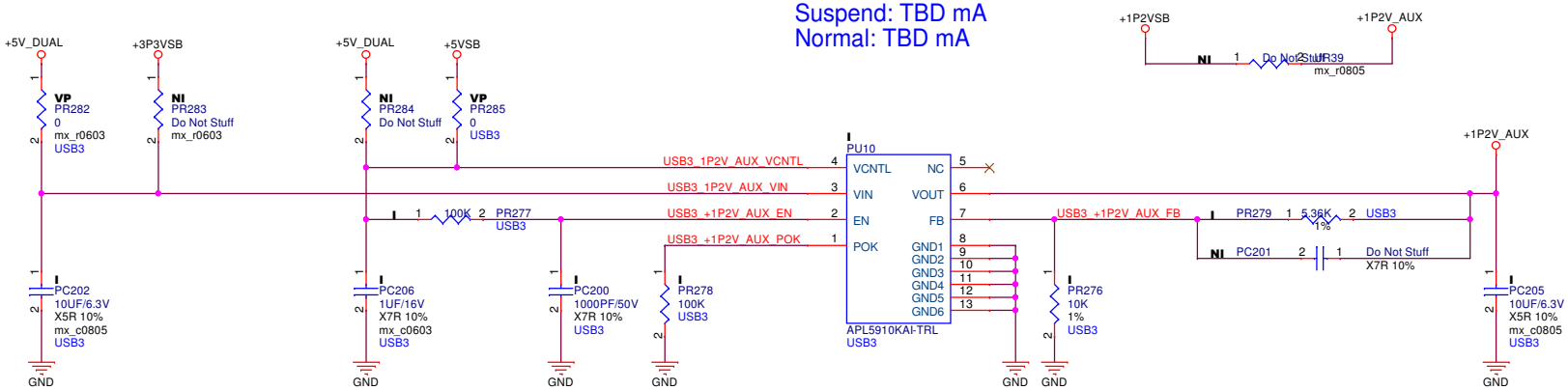
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 31 of 82


+1P2V_AUX
NOBOM UR1 Do Not Stuff mx_r0603_short
UCB1 0.1UF/16V USB3
UCB9 0.1UF/16V USB3
UCB3 0.1UF/16V USB3
UCB10 0.01UF/25V X7R 10% USB3
UCB14 0.01UF/25V X7R 10% USB3
GND
UU1
VCCC1 VCCC2 VCCC4 VCCC5 VCCC7
VCCR
VCCC3 VCCC6
NI UCB2 Do Not Stuff mx_c0805
UCB15 0.1UF/16V USB3
UCB16 0.1UF/16V USB3
+3P3V_AUX
NOBOM UL15 Do Not Stuff mx_r0603_short
UL16
330Ohm/100Mhz mx_l0603 USB3
UCB20 10UF/10V mx_c0805 USB3
UCB17 0.1UF/16V USB3
UCB18 0.1UF/16V USB3
UCB19 0.1UF/16V USB3
U_AVDD
U_VCCAH1 U_VCCAH2 U_VCCAH3
UL17
330Ohm/100Mhz mx_l0603 USB3
UCB21 10UF/10V mx_c0805 USB3
UCB22 0.1UF/16V USB3
UCB23 0.1UF/16V USB3
P_AVDD
P_VCCAH_1 P_VCCAH_2
15 USB3_PE1_TXP0
15 USB3_PE1_TXN0
P_RXP P_RXN
15 USB3_PE1_RXP0
15 USB3_PE1_RXN0
UC1 UC2 0.1UF/16V X7R 10% USB3
USB3_PE1_RXP0_C USB3_PE1_RXN0_C
P_TXP P_TXN
19 CK_100M_USB3
19 CK_100M_USB3#
P_REFCKP P_REFCKN
+3P3V_VCCIO +3P3V_VCCIO +3P3V_VCCIO +3P3V_VCCA +3P3V_VCCIO +3P3VSB +3P3VSB +3P3V_VCCIO
UD1 BAT54CW USB3
UR11 10K USB3
UR34 10K USB3
UR27 10K USB3
NI ULR14 Do Not Stuff
ULR13 4.7K U3 WAKE
NI UR2 Do Not Stuff
UR10 10K USB3
CLKREQ#
P_CLKREQ_
PCIE_RST#
WAKE#
GPIO_WAKE#
USB3_SMI#
NI UR31 Do Not Stuff
UR32 0
NOBOM UR33 Do Not Stuff USB3
U3 WAKE
USB3_WAKE#
P_REXT
USB3_SMI#_R
P_AUXDET
SPIM#
VSUS_RST#
P_RST_
P_WAKE_
P_REXT
XSMI_
P_AUXDET
SPIM_
MAIN_RST_
UCB44 0.1UF/16V USB3
NI UR35 Do Not Stuff
NI UR36 Do Not Stuff
UR9 6.2K 1% USB3
XTAL_O
XTALO
NI UR7 Do Not Stuff
XTAL_I
XTALI
VP UR38 0 USB3
UC3 10PF/50V NPO 5% USB3
UX1 25MHZ USB3
UC4 10PF/50V NPO 5% USB3
+3P3V_VCCIO +3P3V_VCCIO +3P3V_VCCIO +3P3V_VCCIO
UR3 4.7K USB3
UR37 4.7K USB3
NI UR44 Do Not Stuff
NI UR45 Do Not Stuff
UU2
A0 A1 A2 GND VCC WP SCL SDA
EEPROM 2Kb USB3
+3P3V_VCCIO
UCB45 0.1UF/16V USB3
USB3_SCLK
USB3_SDA
SPICLK/SCLK
SPICS_/SDA
USB3_SPIDI
USB3_SPIDO
SPIDI
SPIDO
EJ168A USB3
VCCIO1 VCCIO2 VCCIO3 VCCIO4
+3P3V_VCCIO
UCB28 0.1UF/16V USB3
UCB27 0.1UF/16V USB3
UCB26 0.1UF/16V USB3
UCB25 0.1UF/16V USB3
UCB24 10UF/10V mx_c0805 USB3
+3P3V_VCCA
UL18
330Ohm/100Mhz mx_l0603 USB3
NOBOM UL19 Do Not Stuff mx_r0603_short
+3P3V_AUX
U_VCCAH2_1 U_VCCAH2_2 U_VCCAH2_3
U_VSUSH
UCB32 0.1UF/16V USB3
UCB31 0.1UF/16V USB3
UCB30 0.1UF/16V USB3
UCB29 10UF/10V mx_c0805 USB3
UL20
330Ohm/100Mhz mx_l0603 USB3
P_VCCAH2
VSUSH
UCB34 0.1UF/16V USB3
UCB33 4.7UF/6.3V X5R 10% USB3 mx_c0603
UL21
330Ohm/100Mhz mx_l0603 USB3
U_VCCA0 U_VCCA1 U_VCCA2 U_VCCA3 U_VCCA4 P_VCCA2 P_VCCA
VCCA0 VCCA1 VCCA2 VSUS12_0 VSUS12_1 P_VSUS12 P_VCCA
Reserved3 Reserved4 Reserved5 Reserved6 Reserved7 Reserved8 Reserved9 Reserved12
TP_GP0 TP_GP1 TP_GP2 TP_GP3
T4201 NOBOM T4202 NOBOM T4203 NOBOM T4204 NOBOM
UCB43 0.1UF/16V USB3
UCB35 1UF/10V USB3 mx_c0603
UCB36 1UF/10V USB3 mx_c0603
UCB37 1UF/10V USB3 mx_c0603
UCB38 1UF/10V USB3 mx_c0603
UCB39 1UF/10V USB3 mx_c0603
UCB42 1UF/10V USB3 mx_c0603
DP0 DM0
USB2P1 USB2N1
U_TXP_0 U_TXN_0
USB3_TXP1 USB3_TXN1
U_RXP_0 U_RXN_0
USB3_RXP1 USB3_RXN1
DP1 DM1
USB2P2 USB2N2
U_TXP_1 U_TXN_1
USB3_TXP2 USB3_TXN2
U_RXP_1 U_RXN_1
USB3_RXP2 USB3_RXN2
OC0_ OC1_ PON0 PON1
OC_A# OC_B#
+3P3V_VCCIO +3P3V_VCCIO
NI UR41 Do Not Stuff
NI UR43 Do Not Stuff
PON1 PON2
U_REXT Reserved1 Reserved2 Reserved10 Reserved11
U_REXT MODE1 BYP_OSC MODE0 SM_SEL
NI UR12 Do Not Stuff
NI UR5 Do Not Stuff
NOBOM UR6 Do Not Stuff USB3
NI UR8 Do Not Stuff
UR4 6.2K 1% USB3
U_VSSA1 U_VSSA2 U_VSSA3 U_VSSA4 U_VSSA5 U_VSSA6 U_VSSA7 U_VSSA8 U_VSSA9 P_VSSA1 P_VSSA2 P_VSSA3 P_VSSA4 VSSIO1 VSSIO2 VSSIO3 VSSIO4 VSSC1 VSSC2 VSSC3 VSSC4 VSSC5 VSSC6 VSSC7
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : USB 3.0 controller
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 32 of 82

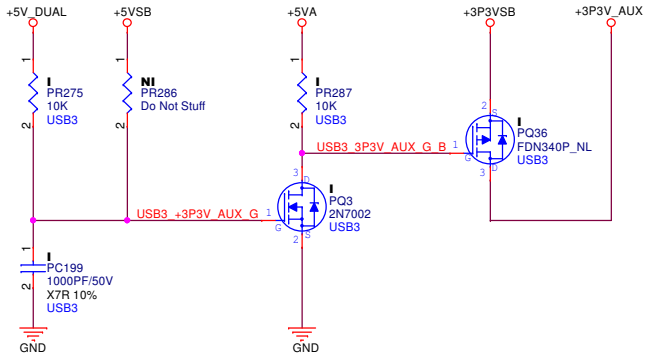
# +1P2V_AUX

Suspend: TBD mA
Normal: TBD mA




# +3P3V_AUX

Suspend: TBD mA
Normal: TBD mA



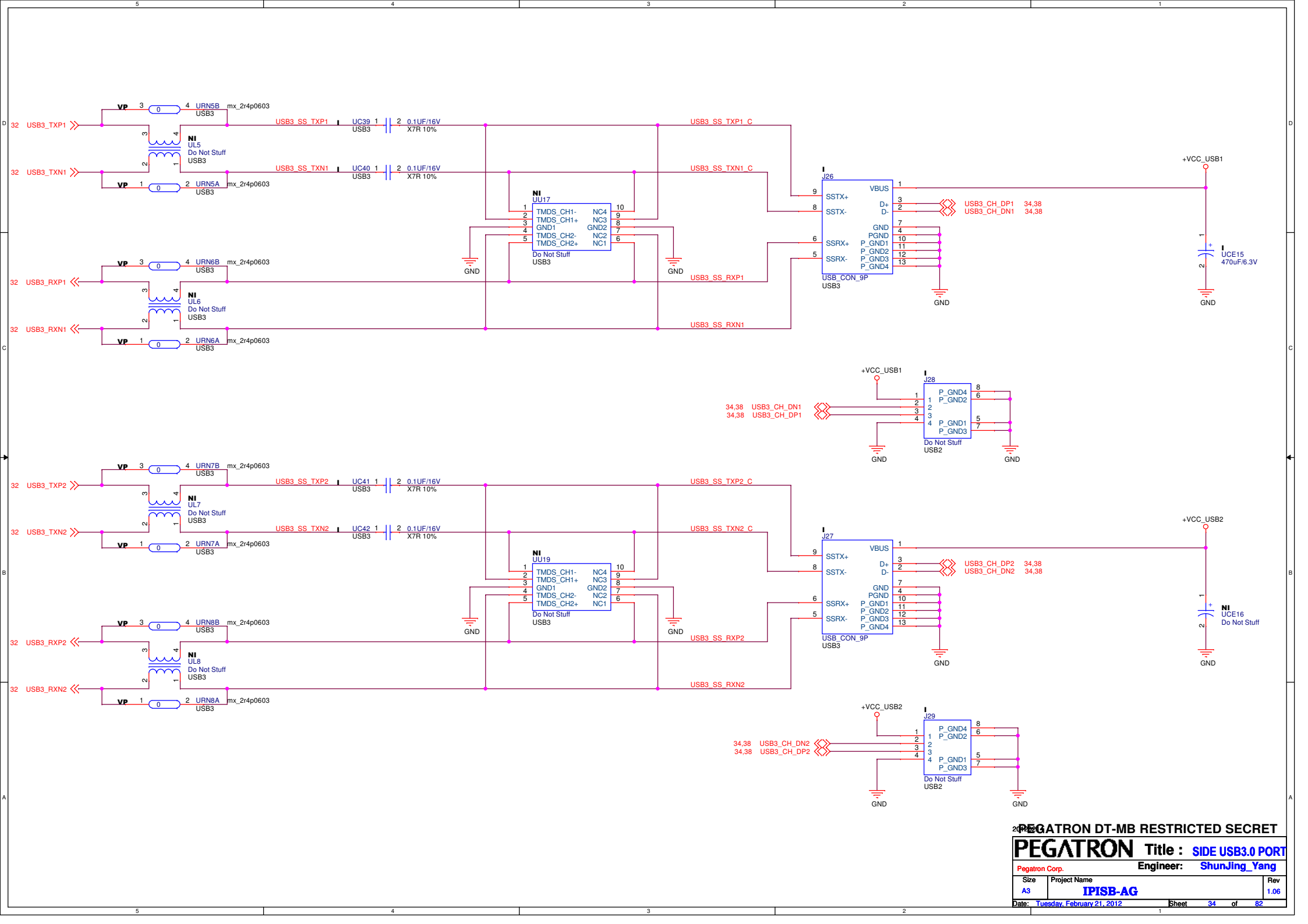



PEGATRON Title : USB POWER

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 33 of 82



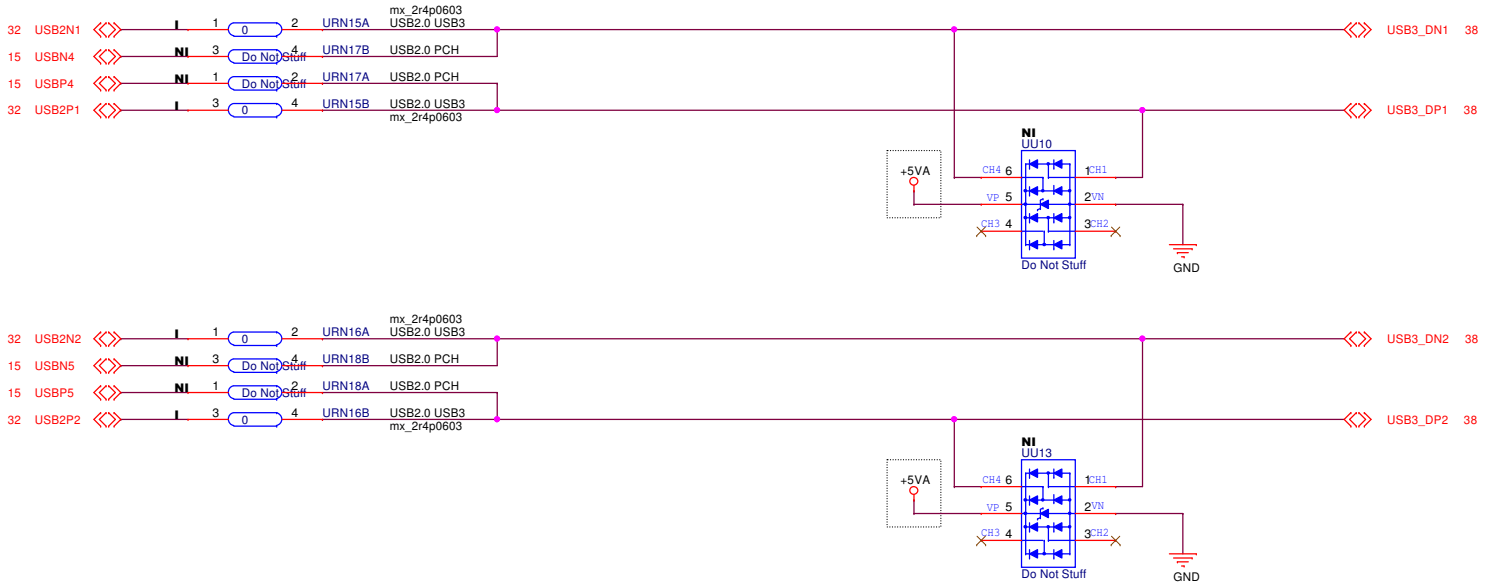



PEGATRON Title : SIDE USB3.0 PORT

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 34 of 82





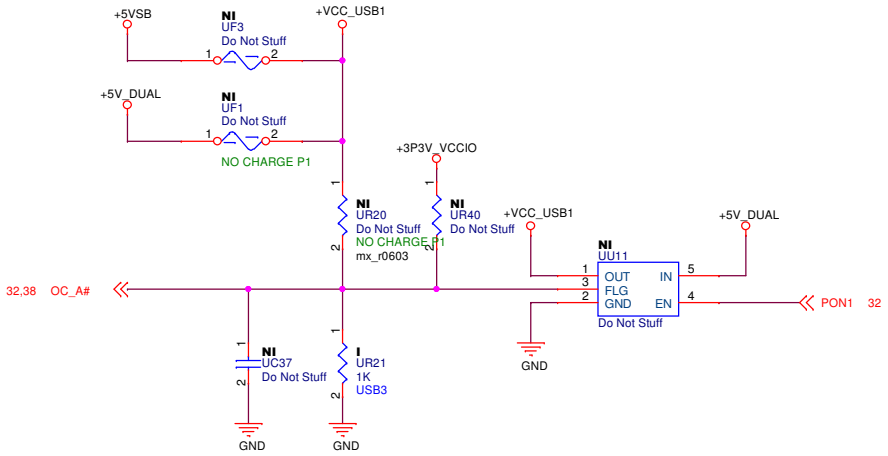

PEGATRON Title : SIDE USB2.0 PORT

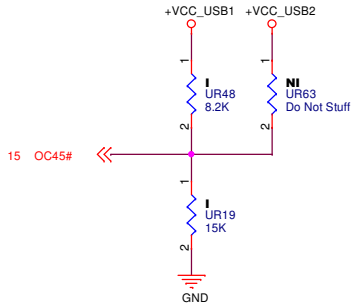
Pegatron Corp. Engineer: ShunJing_Yang

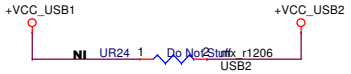
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 35 of 82

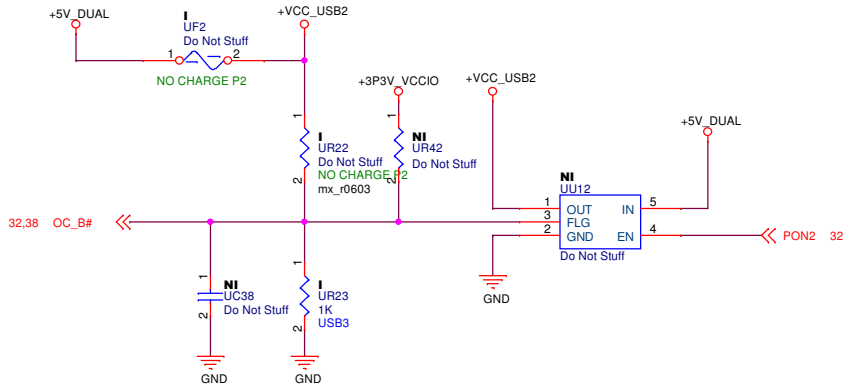
## +5V 900mA is for +VCC_USB1




## +5V 900mA is for +VCC_USB2





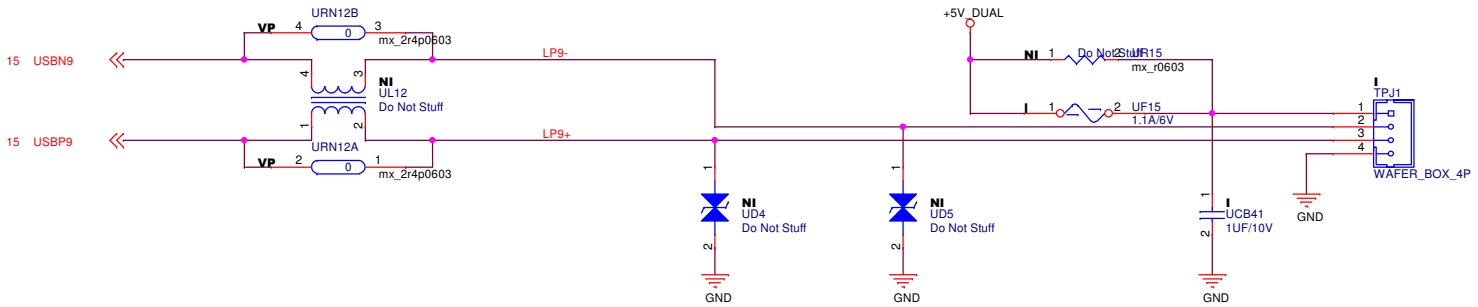

PEGATRON Title : USB PORT CONTROL

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

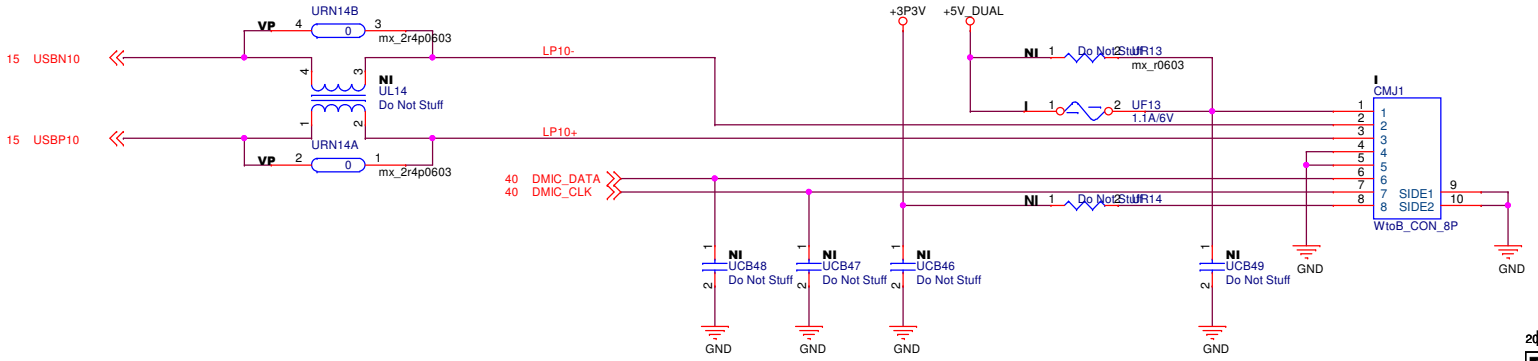
Date: Tuesday, February 21, 2012 Sheet 36 of 82

# Touch Panel connector




Install MLCC 1UF/10V(0402) X5R 10%
1AX200271000
1A20-00A6600
1A20-00A7C00
1A20-00A5D00
1A20-00WTA00

# Camera Module connector



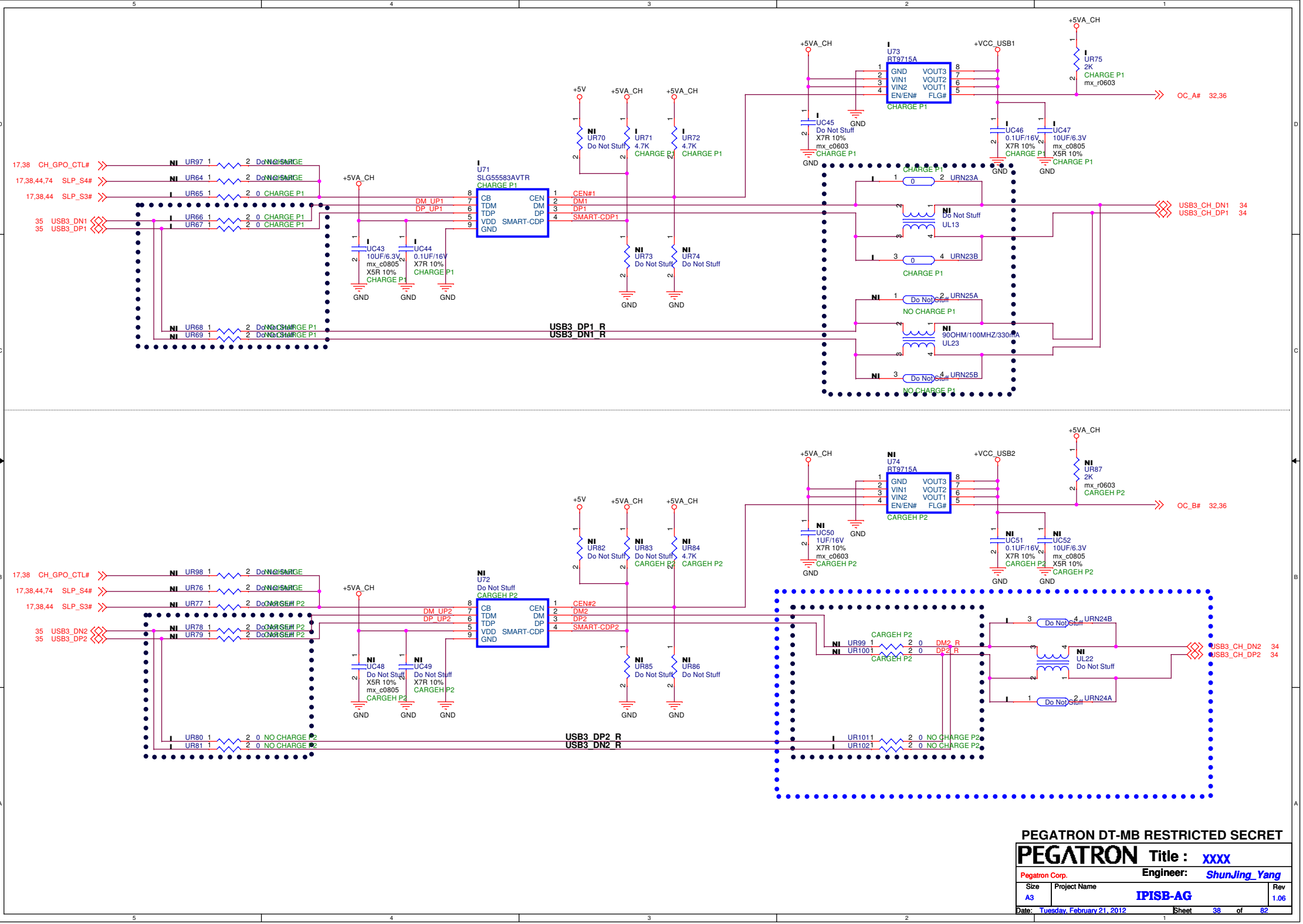



PEGATRON Title : USB HEADER

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 37 of 82



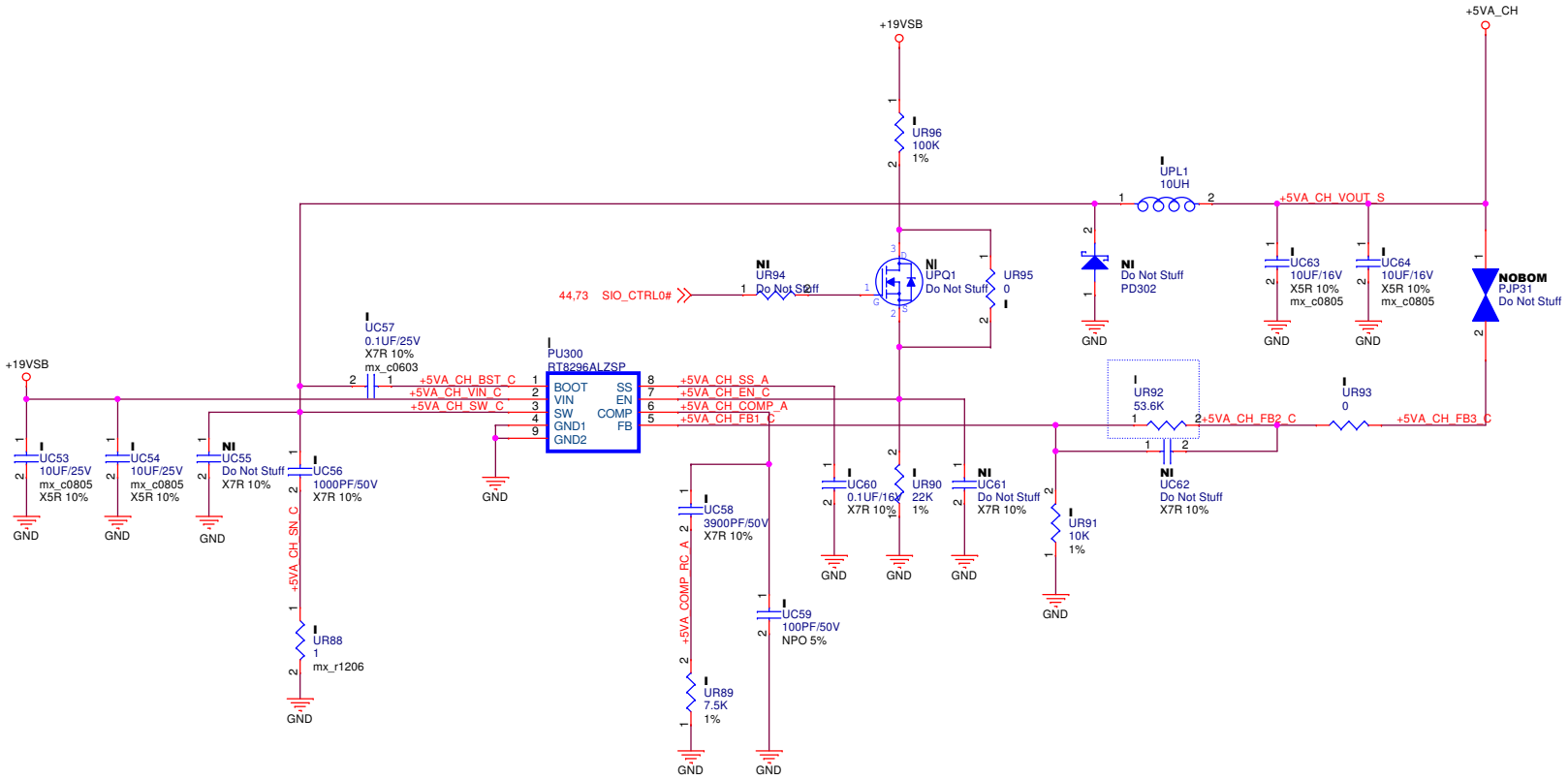

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : XXXX

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 38 of 82

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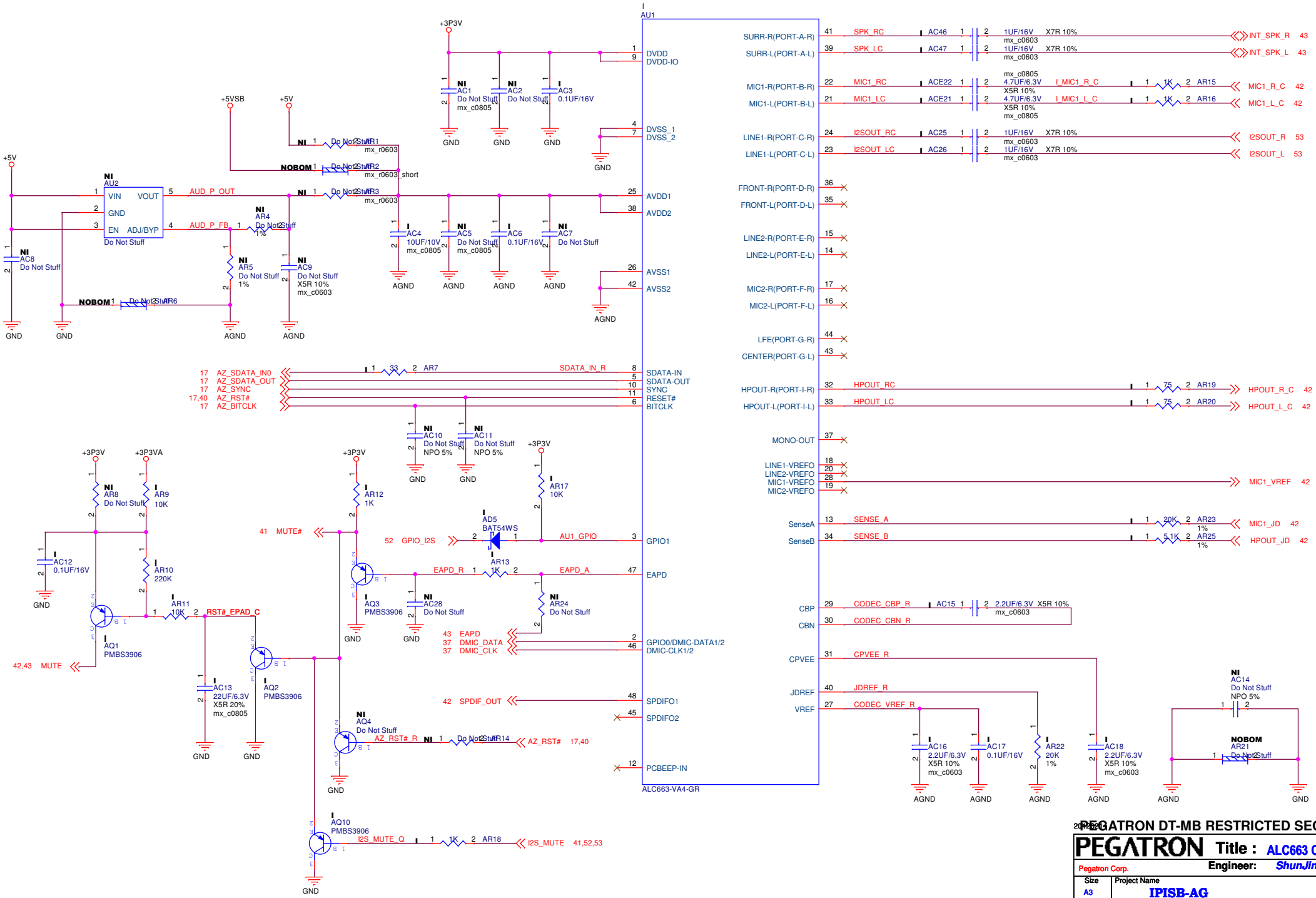
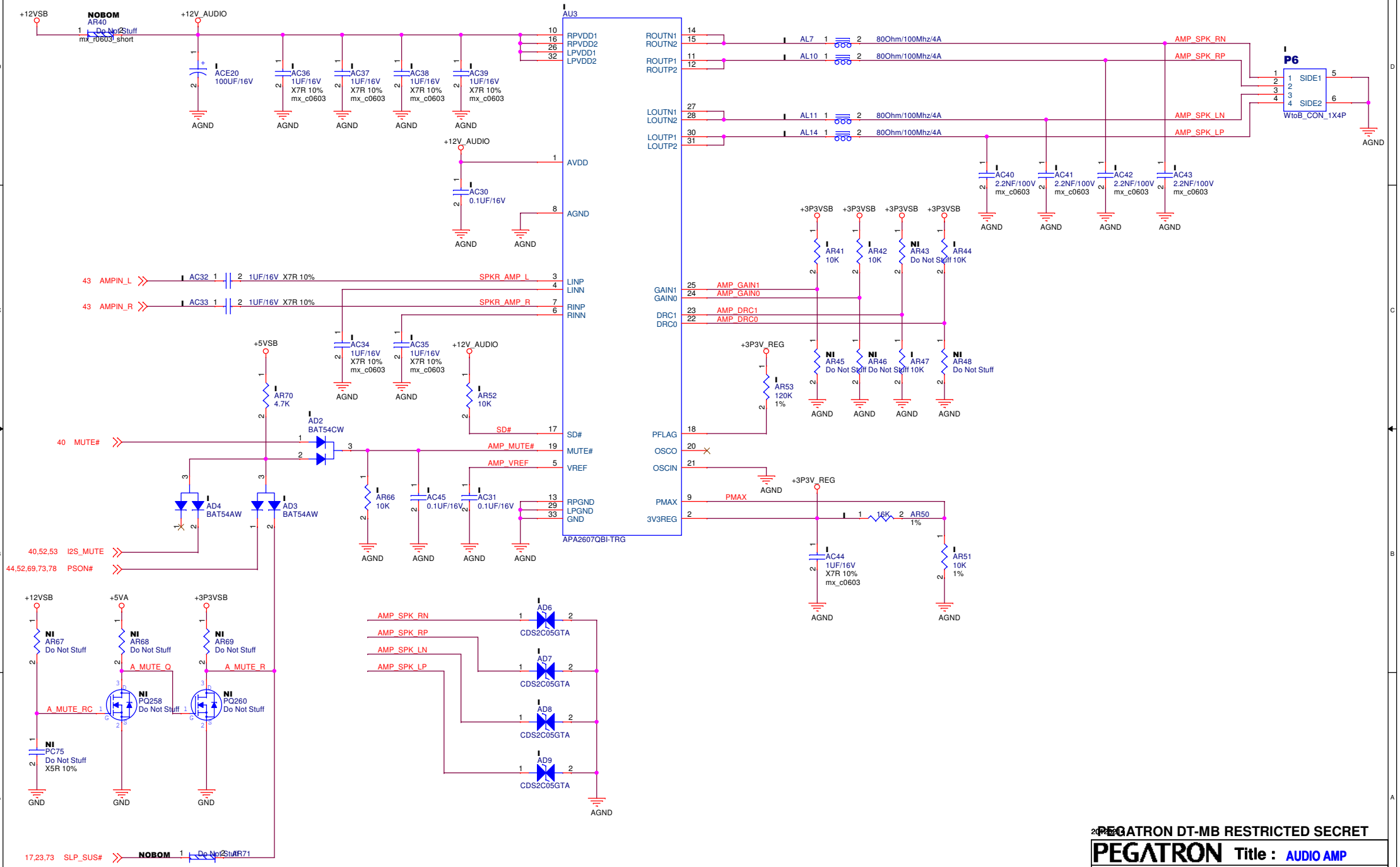
| | | |
|---|---|---|
| Title | <Title> | |
| Size A3 | Document Number <Doc> | Rev 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 39 of 82 | |


INT-SPK
AU1
ALC663-VA4-GR
DVDD
DVDD-IO
DVSS_1
DVSS_2
AVDD1
AVDD2
AVSS1
AVSS2
SDATA-IN
SDATA-OUT
SYNC
RESET#
BITCLK
GPIO1
EAPD
GPIO0/DMIC-DATA1/2
DMIC-CLK1/2
SPDIFO1
SPDIFO2
PCBEEP-IN
SURR-R(PORT-A-R)
SURR-L(PORT-A-L)
MIC1-R(PORT-B-R)
MIC1-L(PORT-B-L)
LINE1-R(PORT-C-R)
LINE1-L(PORT-C-L)
FRONT-R(PORT-D-R)
FRONT-L(PORT-D-L)
LINE2-R(PORT-E-R)
LINE2-L(PORT-E-L)
MIC2-R(PORT-F-R)
MIC2-L(PORT-F-L)
LFE(PORT-G-R)
CENTER(PORT-G-L)
HPOUT-R(PORT-I-R)
HPOUT-L(PORT-I-L)
MONO-OUT
LINE1-VREFO
LINE2-VREFO
MIC1-VREFO
MIC2-VREFO
SenseA
SenseB
CBP
CBN
CPVEE
JDREF
VREF
SPK_RC
SPK_LC
INT_SPK_R
INT_SPK_L
MIC1_RC
MIC1_LC
I_MIC1_R_C
I_MIC1_L_C
MIC1_R_C
MIC1_L_C
I2SOUT_RC
I2SOUT_LC
I2SOUT_R
I2SOUT_L
HPOUT_RC
HPOUT_LC
HPOUT_R_C
HPOUT_L_C
MIC1_VREF
SENSE_A
SENSE_B
MIC1_JD
HPOUT_JD
CODEC_CBP_R
CODEC_CBN_R
CPVEE_R
JDREF_R
CODEC_VREF_R
AZ_SDATA_IN0
AZ_SDATA_OUT
AZ_SYNC
AZ_RST#
AZ_BITCLK
SDATA_IN_R
MUTE#
GPIO_I2S
AU1_GPIO
EAPD_R
EAPD_A
DMIC_DATA
DMIC_CLK
SPDIF_OUT
AZ_RST#_R
AZ_RST#
I2S_MUTE_Q
I2S_MUTE
RST#_EPAD_C
MUTE
AUD_P_OUT
AUD_P_FB
+3P3V
+3P3VA
+5V
+5VSB
GND
AGND
AU2
VIN
VOUT
GND
EN
ADJ/BYP
Do Not Stuff
NOBOM
mx_r0603_short
mx_c0603
mx_c0805
mx_c0805
X5R 10%
X7R 10%
1%
NPO 5%
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : ALC663 CODEC
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 40 of 82




PEGATRON DT-MB RESTRICTED SECRET

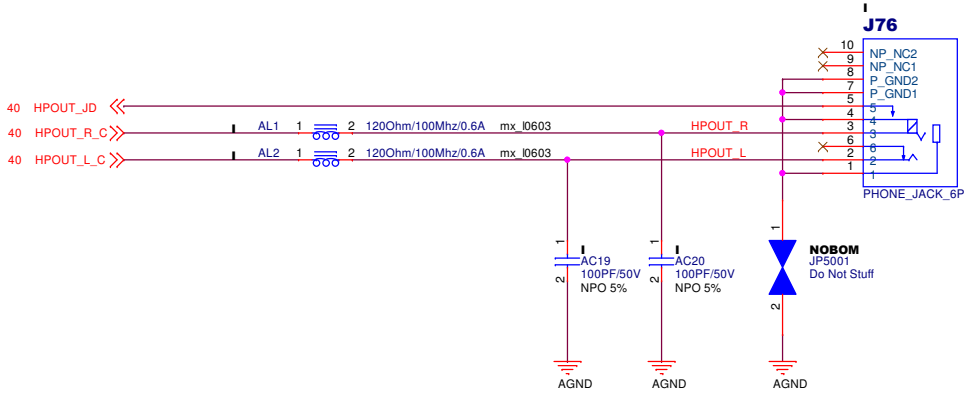
PEGATRON Title : AUDIO AMP

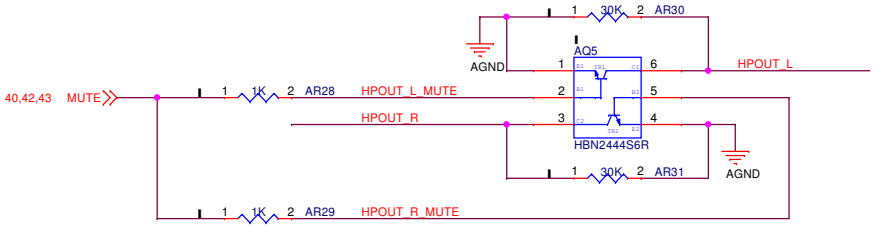
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

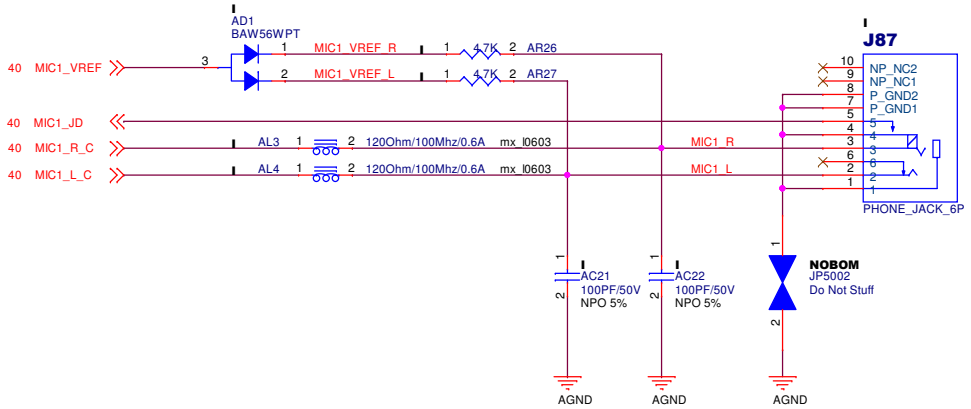
Date: Tuesday, February 21, 2012 Sheet 41 of 82

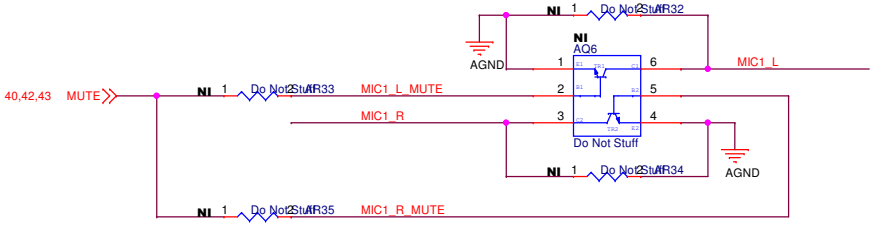
# HEADPHONE



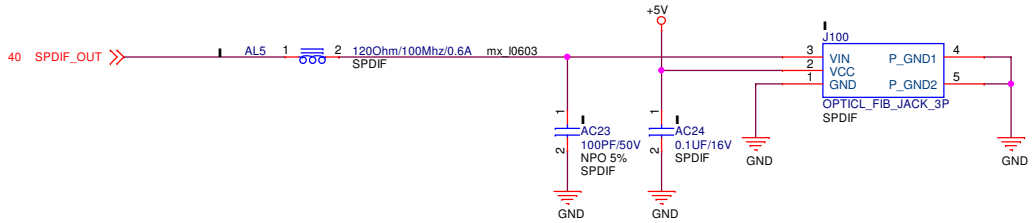




# MIC




# SPDIF OUT



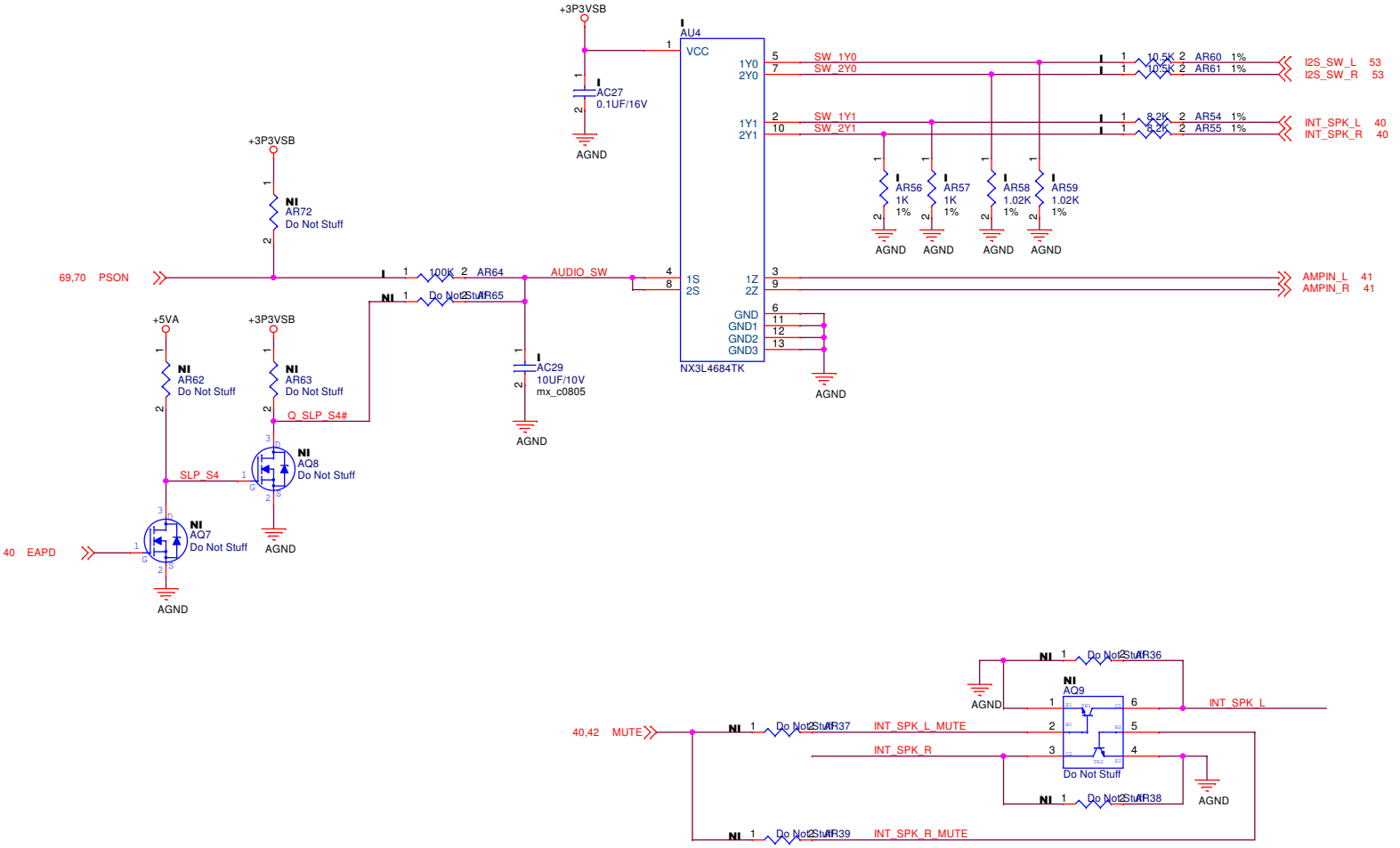



PEGATRON Title : AUDIO CONN

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 42 of 82



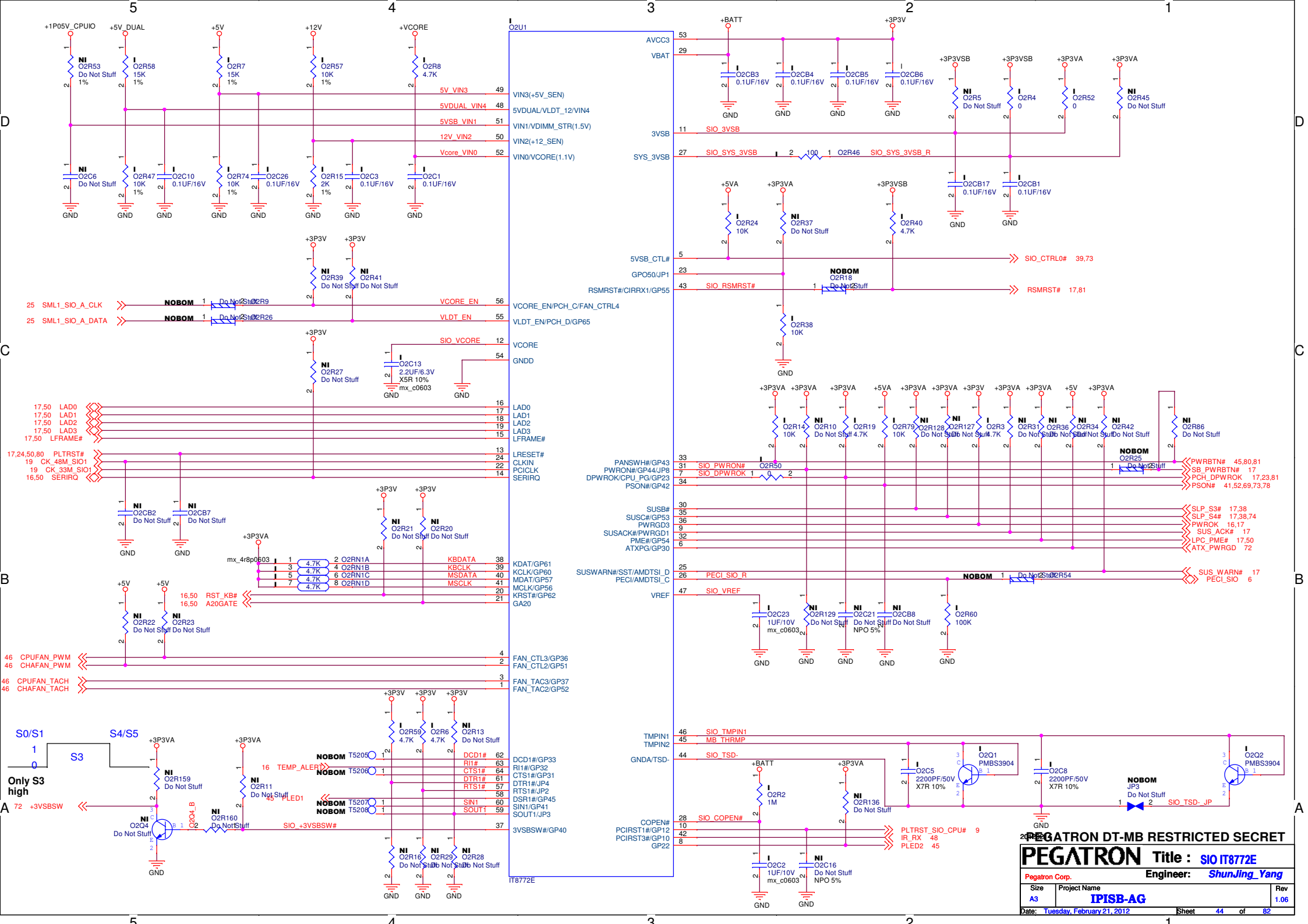



PEGATRON Title : AUDIO SW

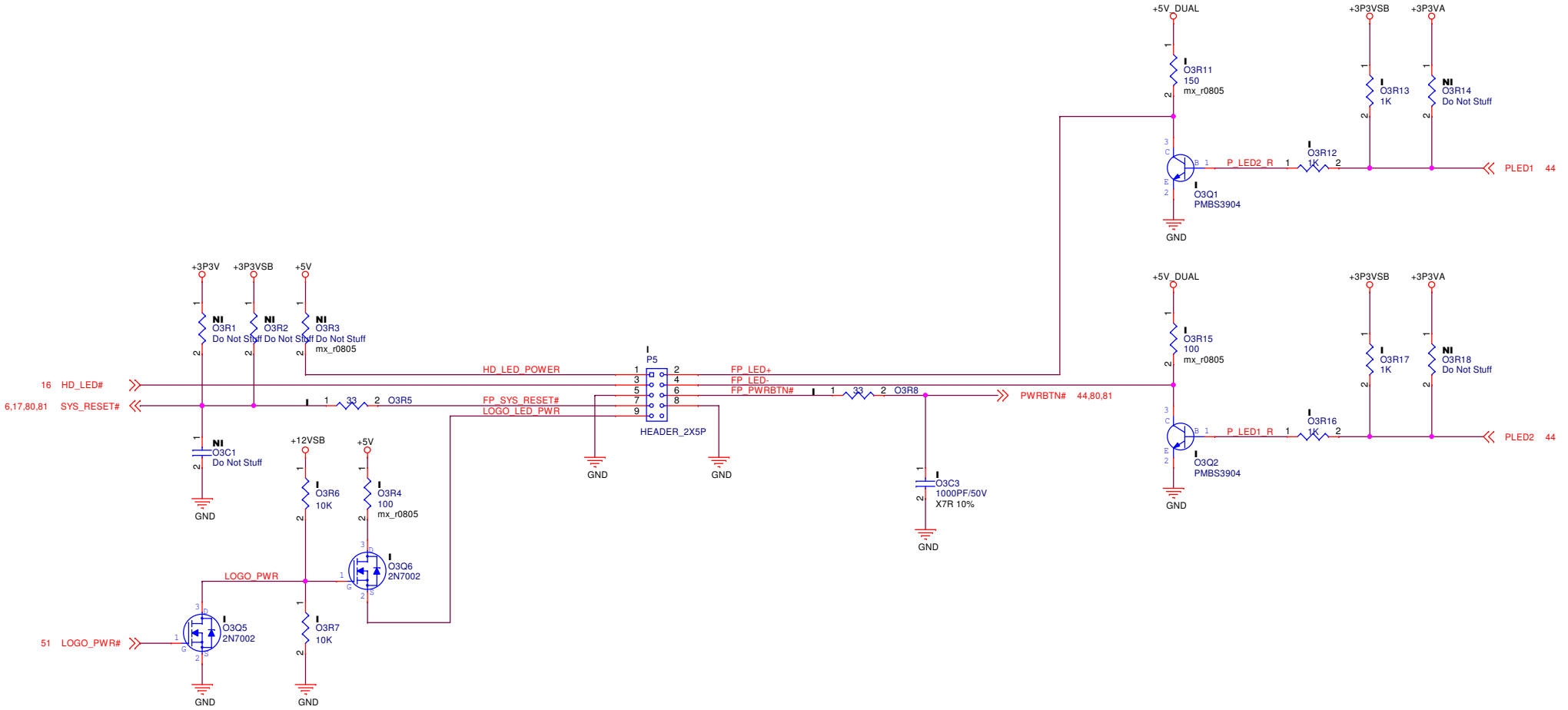
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 43 of 82


+1P05V_CPUIO
+5V_DUAL
+5V
+12V
+VCORE
O2U1
O2R53 Do Not Stuff 1%
O2R58 15K 1%
O2R7 15K 1%
O2R57 10K 1%
O2R8 4.7K
5V_VIN3
5VDUAL_VIN4
5VSB_VIN1
12V_VIN2
Vcore_VIN0
VIN3(+5V_SEN)
5VDUAL/VLDT_12/VIN4
VIN1/VDIMM_STR(1.5V)
VIN2(+12_SEN)
VIN0/VCORE(1.1V)
O2C6 Do Not Stuff
O2R47 10K 1%
O2C10 0.1UF/16V
O2R74 10K 1%
O2C26 0.1UF/16V
O2R15 2K 1%
O2C3 0.1UF/16V
O2C1 0.1UF/16V
GND
+3P3V
O2R39 Do Not Stuff
O2R41 Do Not Stuff
SML1_SIO_A_CLK
SML1_SIO_A_DATA
NOBOM
O2R9
O2R26
VCORE_EN
VLDT_EN
VCORE_EN/PCH_C/FAN_CTRL4
VLDT_EN/PCH_D/GP65
O2R27 Do Not Stuff
O2C13 2.2UF/6.3V X5R 10%
mx_c0603
SIO_VCORE
VCORE
GNDD
LAD0
LAD1
LAD2
LAD3
LFRAME#
LRESET#
CLKIN
PCICLK
SERIRQ
O2CB2 Do Not Stuff
O2CB7 Do Not Stuff
+3P3VA
mx_4r8p0603
4.7K
O2RN1A
O2RN1B
O2RN1C
O2RN1D
KBDATA
KBCLK
MSDATA
MSCLK
KDAT/GP61
KCLK/GP60
MDAT/GP57
MCLK/GP56
O2R21 Do Not Stuff
O2R20 Do Not Stuff
+5V
O2R22 Do Not Stuff
O2R23 Do Not Stuff
RST_KB#
A20GATE
KRST#/GP62
GA20
CPUFAN_PWM
CHAFAN_PWM
FAN_CTL3/GP36
FAN_CTL2/GP51
CPUFAN_TACH
CHAFAN_TACH
FAN_TAC3/GP37
FAN_TAC2/GP52
S0/S1
S4/S5
S3
Only S3 high
+3VSBSW
O2R159 Do Not Stuff
O2R11 Do Not Stuff
O2R160 Do Not Stuff
O2Q4 Do Not Stuff
TEMP_ALERT
PLED1
SIO_+3VSBSW#
O2R59 4.7K
O2R6 4.7K
O2R13 Do Not Stuff
T5205
T5206
T5207
T5208
DCD1#
RI1#
CTS1#
DTR1#
RTS1#
SIN1
SOUT1
DCD1#/GP33
RI1#/GP32
CTS1#/GP31
DTR1#/JP4
RTS1#/JP2
DSR1#/GP45
SIN1/GP41
SOUT1/JP3
3VSBSW#/GP40
O2R16 Do Not Stuff
O2R29 Do Not Stuff
O2R28 Do Not Stuff
IT8772E
AVCC3
VBAT
3VSB
SYS_3VSB
+BATT
O2CB3 0.1UF/16V
O2CB4 0.1UF/16V
O2CB5 0.1UF/16V
O2CB6 0.1UF/16V
SIO_3VSB
SIO_SYS_3VSB
SIO_SYS_3VSB_R
O2R46
O2R5 Do Not Stuff
O2R4 0
O2R52 0
O2R45 Do Not Stuff
O2CB17 0.1UF/16V
O2CB1 0.1UF/16V
+5VA
O2R24 10K
O2R37 Do Not Stuff
O2R40 4.7K
5VSB_CTL#
GPO50/JP1
RSMRST#/CIRRX1/GP55
SIO_RSMRST#
SIO_CTRL0#
RSMRST#
O2R18 Do Not Stuff
O2R38 10K
O2R14 10K
O2R10 Do Not Stuff
O2R19 4.7K
O2R79 10K
O2R128 Do Not Stuff
O2R127 Do Not Stuff
O2R3 4.7K
O2R31 Do Not Stuff
O2R36 Do Not Stuff
O2R34 Do Not Stuff
O2R42 Do Not Stuff
O2R86 Do Not Stuff
O2R25 Do Not Stuff
PANSWH#/GP43
PWRON#/GP44/JP8
DPWROK/CPU_PG/GP23
PSON#/GP42
SIO_PWRON#
SIO_DPWROK
O2R50
PWRBTN#
SB_PWRBTN#
PCH_DPWROK
PSON#
SUSB#
SUSC#/GP53
PWRGD3
SUSACK#/PWRGD1
PME#/GP54
ATXPG/GP30
SLP_S3#
SLP_S4#
PWROK
SUS_ACK#
LPC_PME#
ATX_PWRGD
SUSWARN#/SST/AMDTSI_D
PECI/AMDTSI_C
PECI_SIO_R
SUS_WARN#
PECI_SIO
VREF
SIO_VREF
O2C23 1UF/10V mx_c0603
O2R129 Do Not Stuff
O2C21 Do Not Stuff NPO 5%
O2CB8 Do Not Stuff
O2R60 100K
O2R54
TMPIN1
TMPIN2
GNDA/TSD-
SIO_TMPIN1
MB_THRMP
SIO_TSD-
O2Q1 PMBS3904
O2Q2 PMBS3904
O2C5 2200PF/50V X7R 10%
O2C8 2200PF/50V X7R 10%
JP3 Do Not Stuff
SIO_TSD-_JP
COPEN#
PCIRST1#/GP12
PCIRST3#/GP10
GP22
SIO_COPEN#
O2R2 1M
O2R136 Do Not Stuff
PLTRST_SIO_CPU#
IR_RX
PLED2
O2C2 1UF/10V mx_c0603
O2C16 Do Not Stuff NPO 5%
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : SIO IT8772E
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 44 of 82

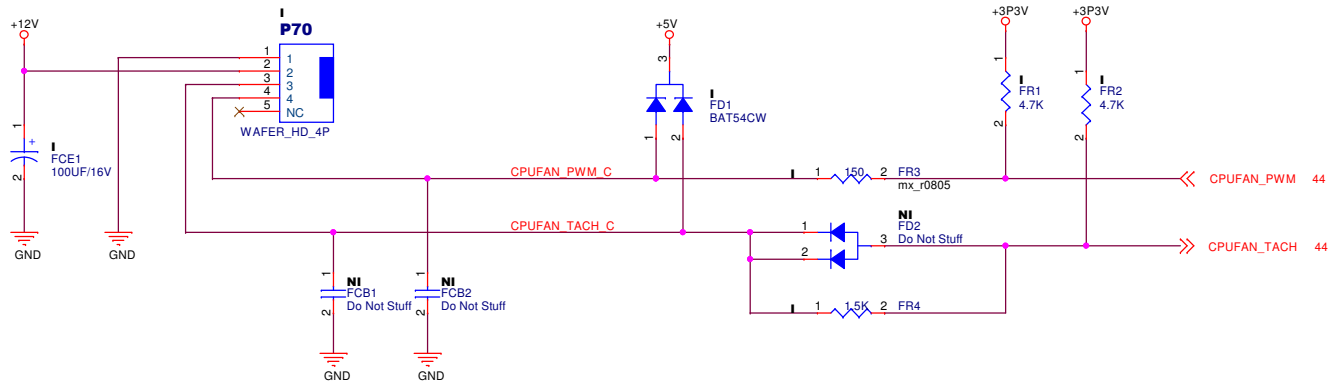
# FRONT PANEL / LED CIRCUITRY



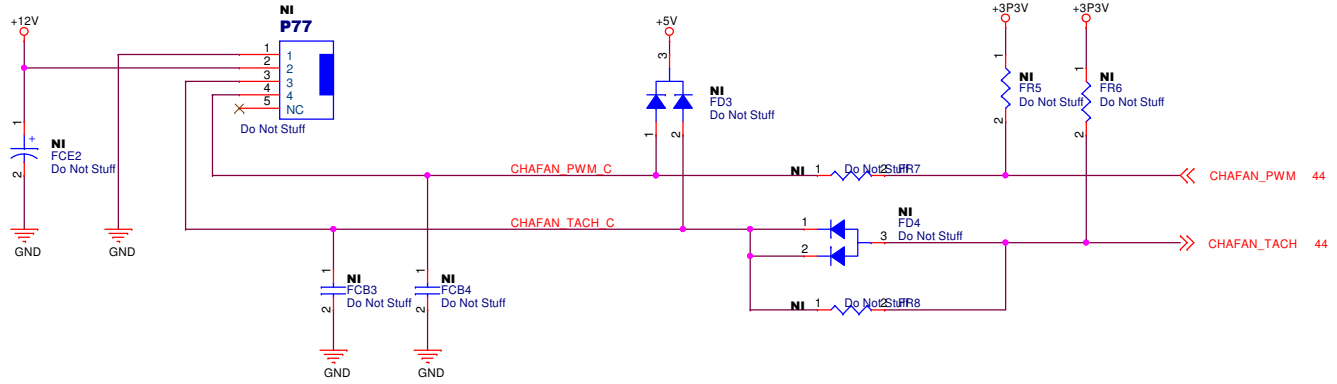

PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : FRONT PANEL | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 45 of 82 | |

# CPU FAN CONNECTOR




# SYS FAN CONNECTOR



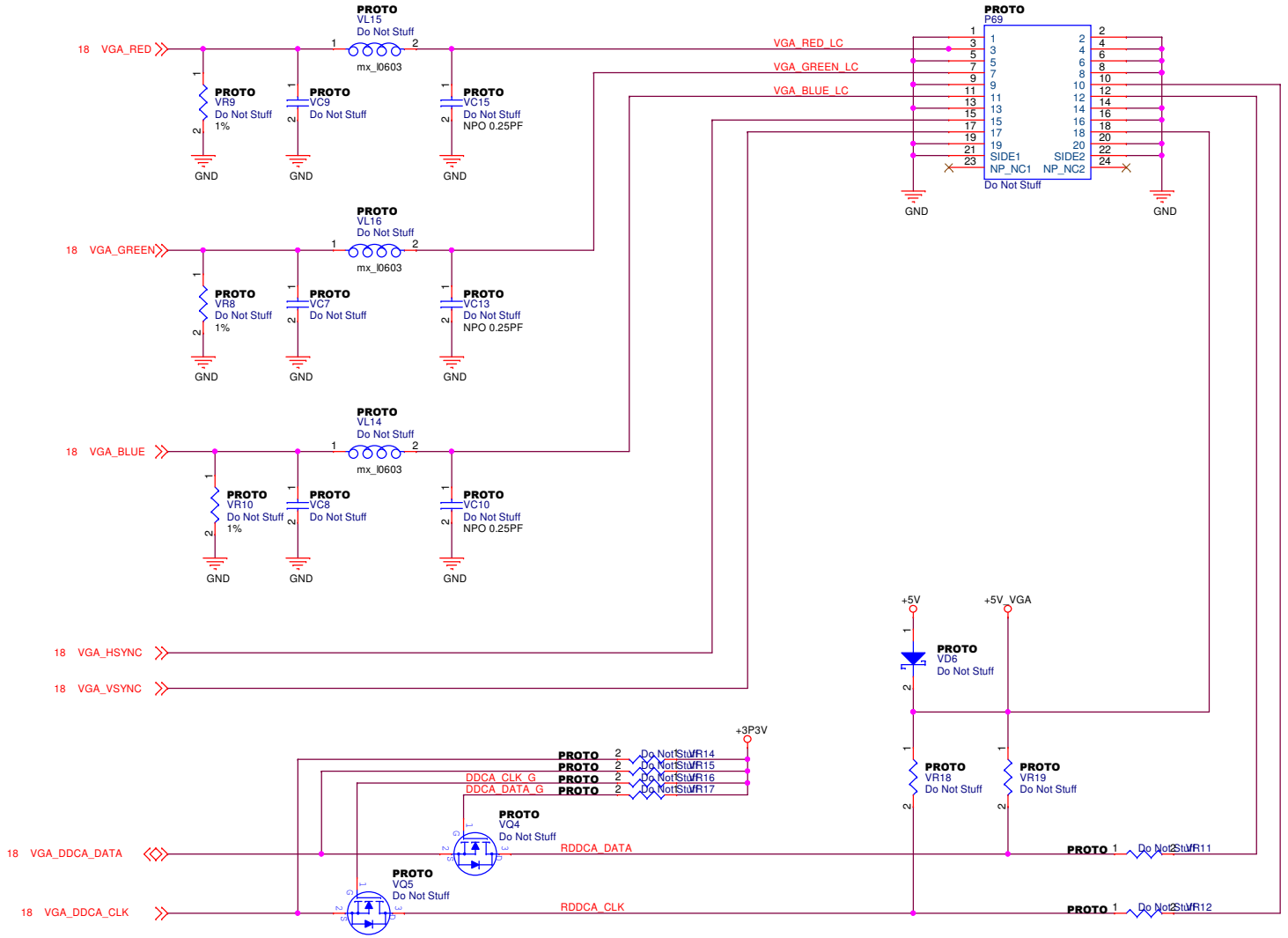



PEGATRON Title : FAN CIRCUIT

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

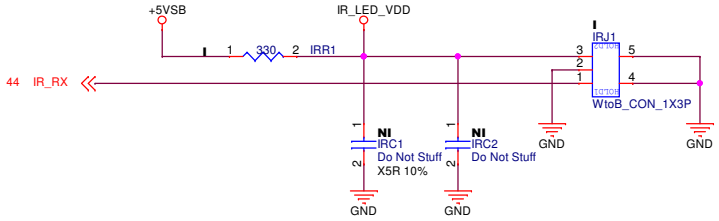
Date: Tuesday, February 21, 2012 Sheet 46 of 82



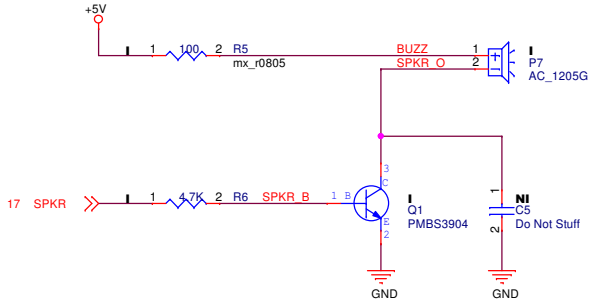

PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : | VGA PORT |
| Pegatron Corp. | Engineer: | ShunJing_Yang |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 47 of 82 | |

# IR LED

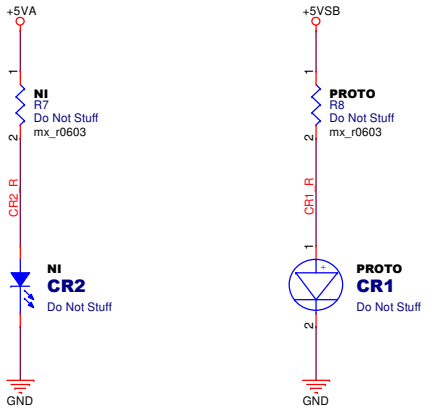



# SPEAKER




**+5VA : BLUE**

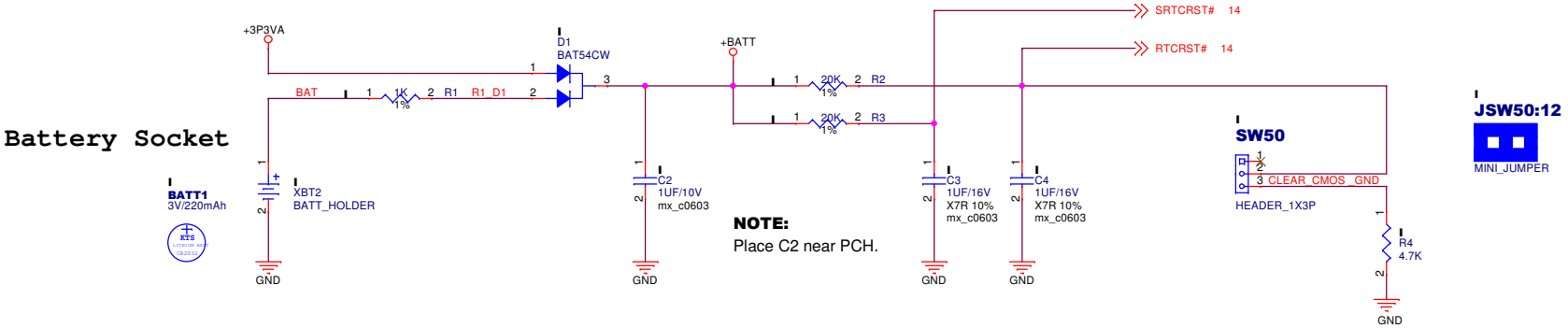
**+5VSB : GREEN**




PEGATRON DT-MB RESTRICTED SECRET

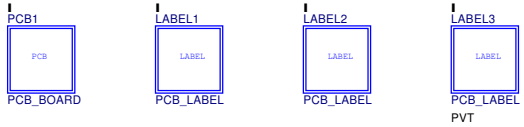
| | | |
|---|---|---|
| PEGATRON | Title : IR / SPKR | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 48 of 82 | |

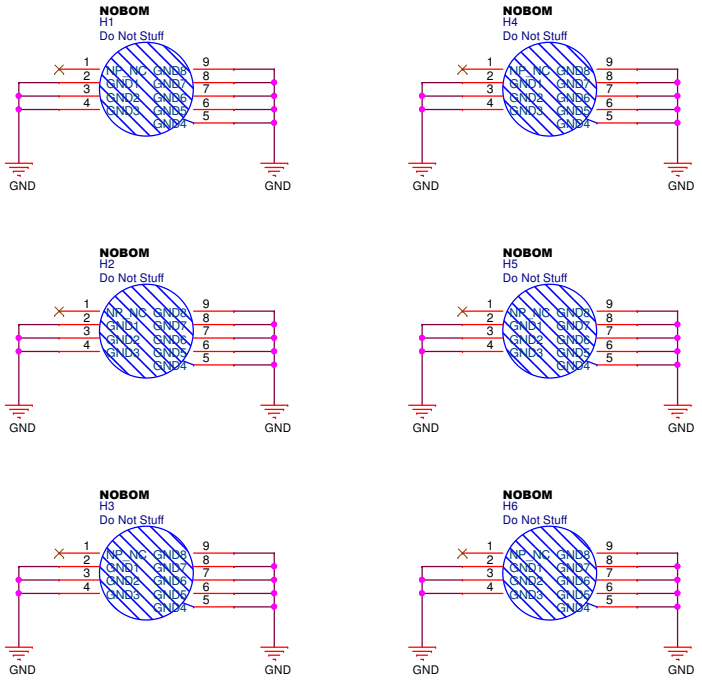
# External RTC Circuitry




# CLEAR CMOS





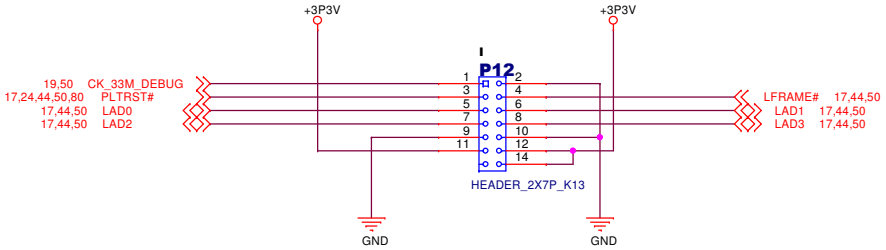

PEGATRON Title : RTC/COMS/SCREW

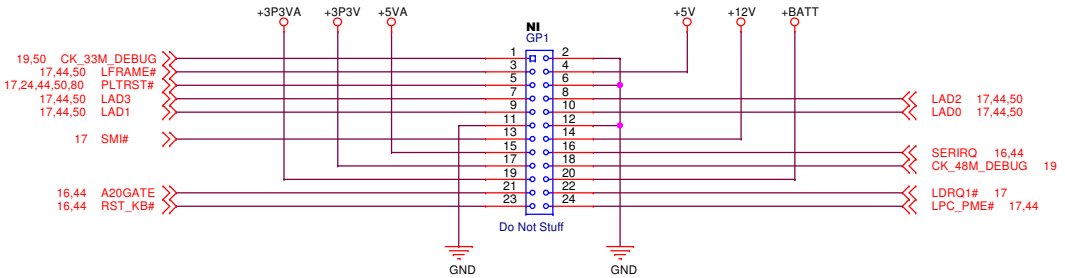
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 49 of 82

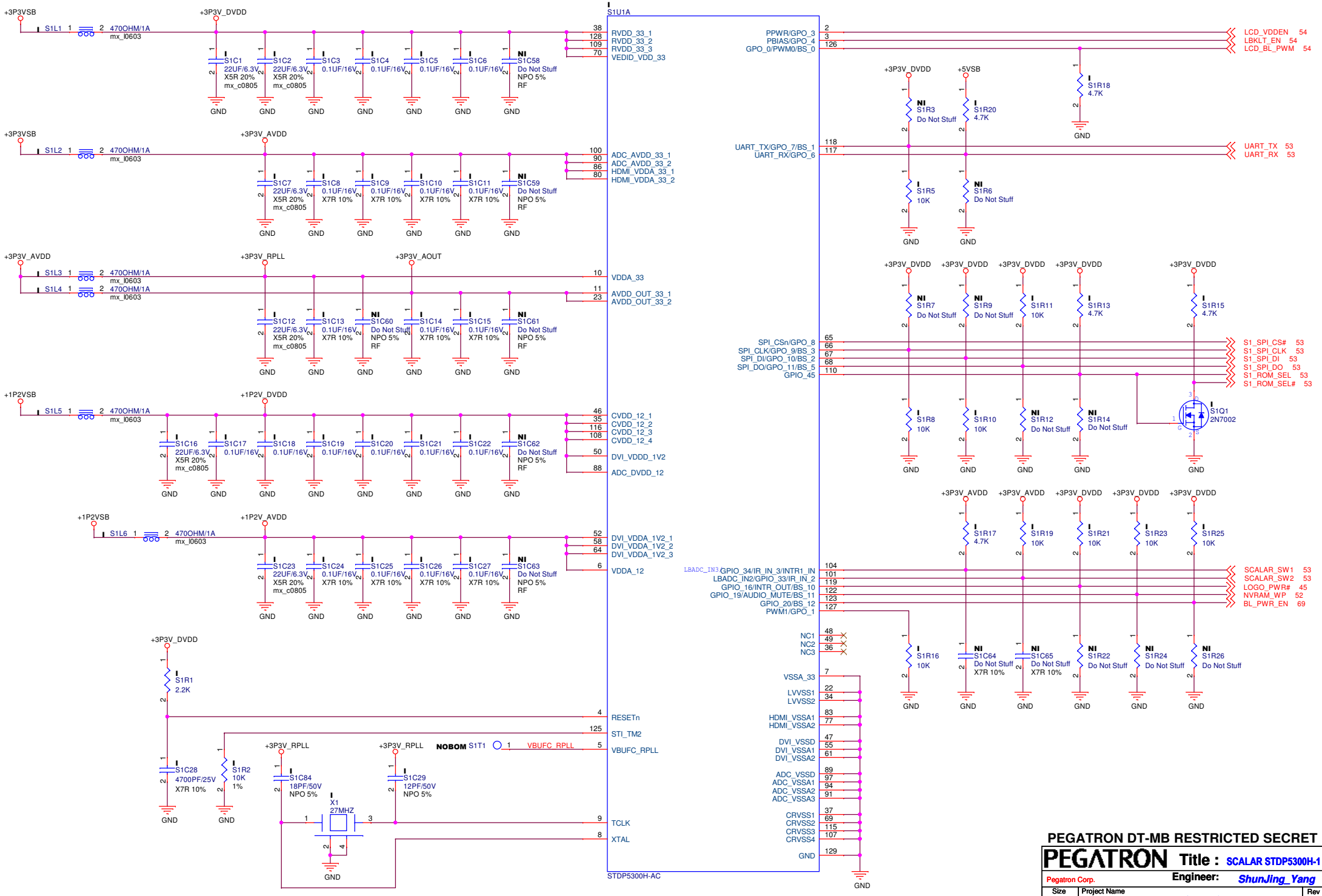
# LPC DEBUG




PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : DEBUG HEADER | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 50 of 82 | |



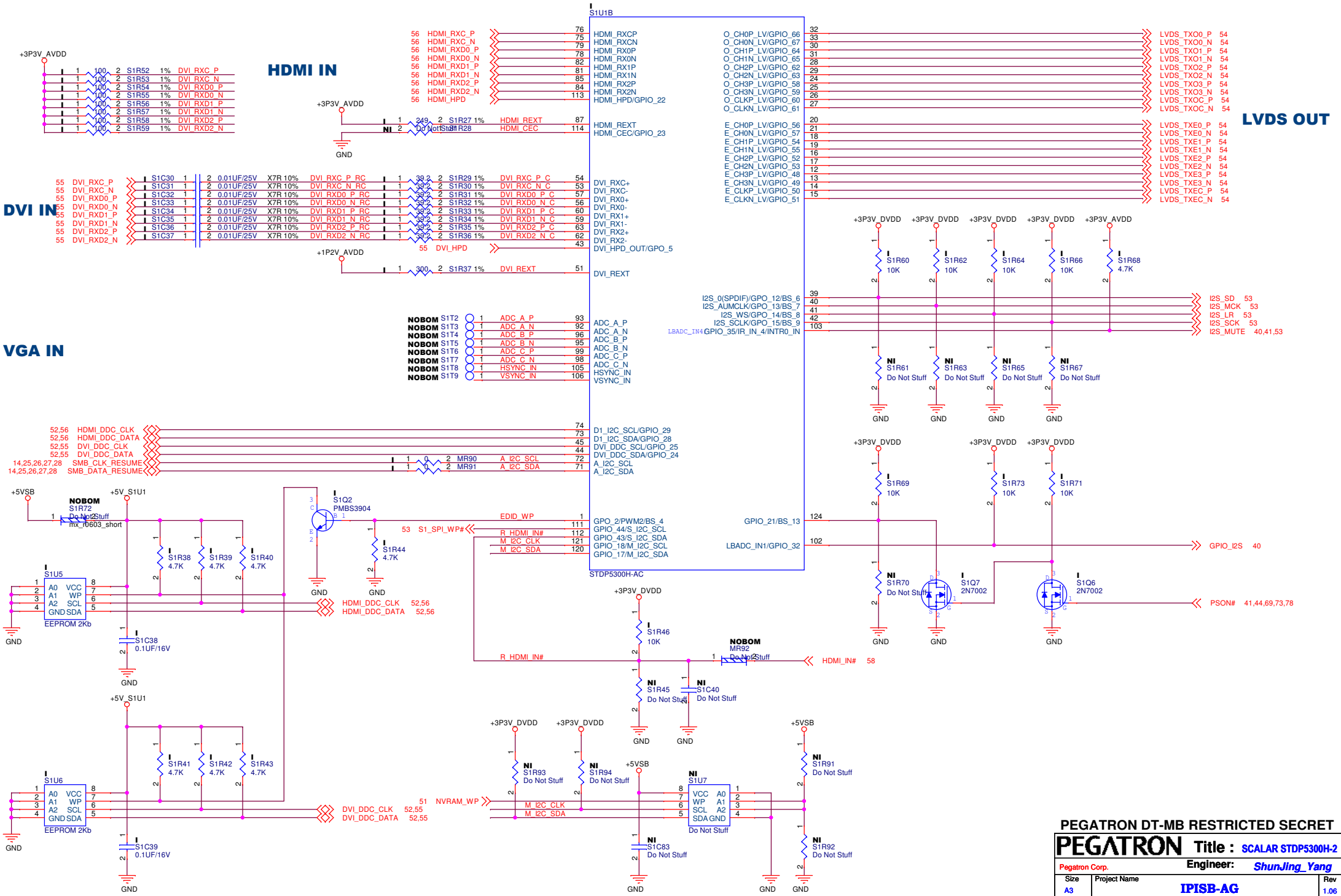

PEGATRON DT-MB RESTRICTED SECRET

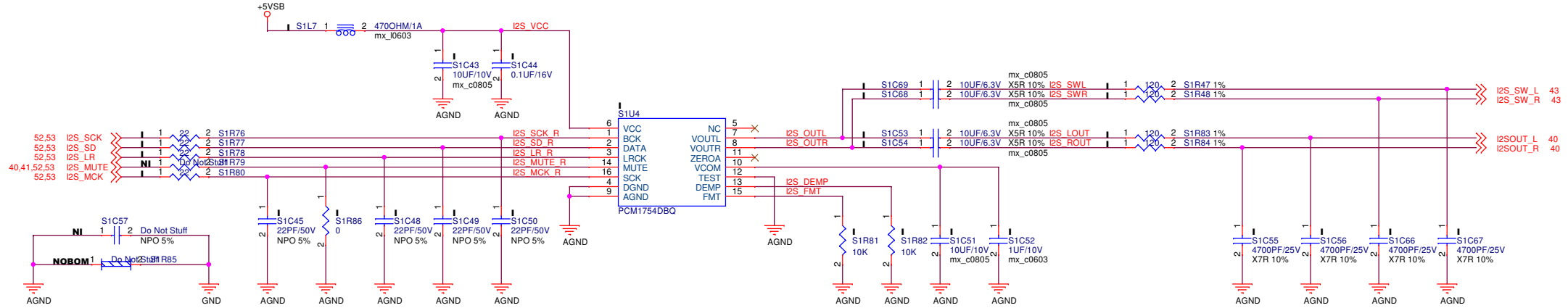
PEGATRON Title : SCALAR STDP5300H-1

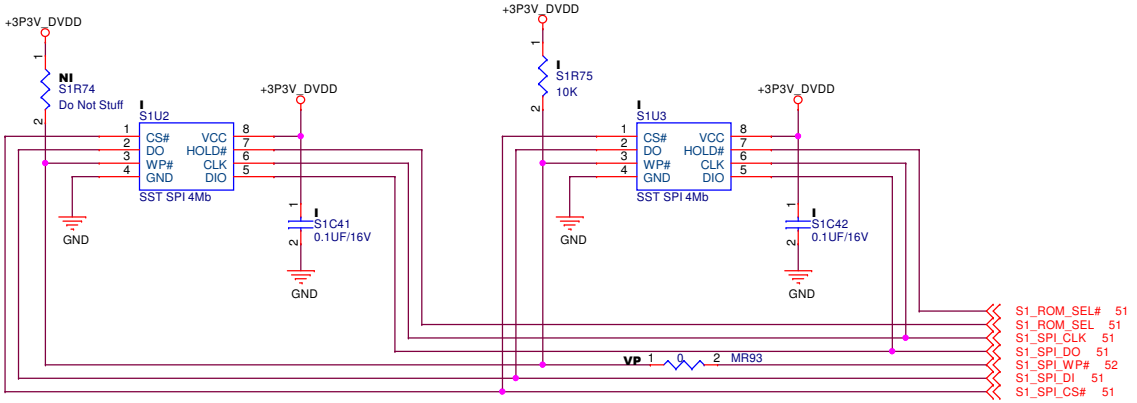
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

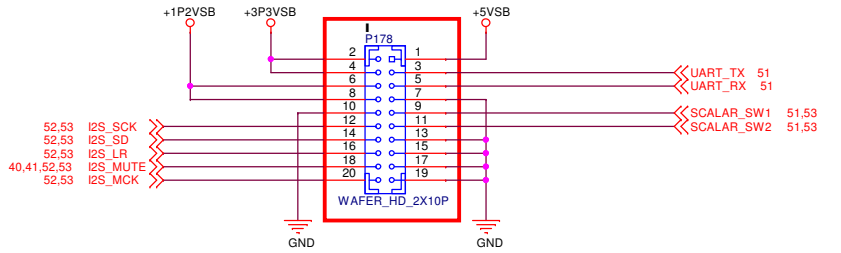
Date: Tuesday, February 21, 2012 Sheet 51 of 82

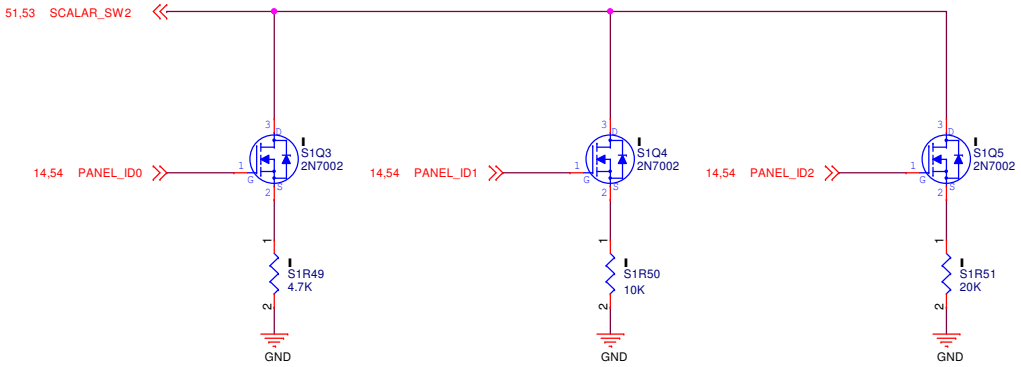

HDMI IN
DVI IN
VGA IN
LVDS OUT
S1U1B
STDP5300H-AC
+3P3V_AVDD
+1P2V_AVDD
+3P3V_DVDD
+5VSB
+5V_S1U1
GND
HDMI_RXCP
HDMI_RXCN
HDMI_RX0P
HDMI_RX0N
HDMI_RX1P
HDMI_RX1N
HDMI_RX2P
HDMI_RX2N
HDMI_HPD/GPIO_22
HDMI_REXT
HDMI_CEC/GPIO_23
DVI_RXC+
DVI_RXC-
DVI_RX0+
DVI_RX0-
DVI_RX1+
DVI_RX1-
DVI_RX2+
DVI_RX2-
DVI_HPD_OUT/GPO_5
DVI_REXT
ADC_A_P
ADC_A_N
ADC_B_P
ADC_B_N
ADC_C_P
ADC_C_N
HSYNC_IN
VSYNC_IN
D1_I2C_SCL/GPIO_29
D1_I2C_SDA/GPIO_28
DVI_DDC_SCL/GPIO_25
DVI_DDC_SDA/GPIO_24
A_I2C_SCL
A_I2C_SDA
GPO_2/PWM2/BS_4
GPO_44/S_I2C_SCL
GPO_43/S_I2C_SDA
GPIO_18/M_I2C_SCL
GPIO_17/M_I2C_SDA
GPIO_21/BS_13
LBADC_IN1/GPIO_32
I2S_0(SPDIF)/GPO_12/BS_6
I2S_AUMCLK/GPO_13/BS_7
I2S_WS/GPO_14/BS_8
I2S_SCLK/GPO_15/BS_9
LBADC_IN4/GPIO_35/IR_IN_4/INTR0_IN
O_CH0P_LV/GPIO_66
O_CH0N_LV/GPIO_67
O_CH1P_LV/GPIO_64
O_CH1N_LV/GPIO_65
O_CH2P_LV/GPIO_62
O_CH2N_LV/GPIO_63
O_CH3P_LV/GPIO_58
O_CH3N_LV/GPIO_59
O_CLKP_LV/GPIO_60
O_CLKN_LV/GPIO_61
E_CH0P_LV/GPIO_56
E_CH0N_LV/GPIO_57
E_CH1P_LV/GPIO_54
E_CH1N_LV/GPIO_55
E_CH2P_LV/GPIO_52
E_CH2N_LV/GPIO_53
E_CH3P_LV/GPIO_48
E_CH3N_LV/GPIO_49
E_CLKP_LV/GPIO_50
E_CLKN_LV/GPIO_51
EEPROM 2Kb
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : SCALAR STDP5300H-2
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 52 of 82



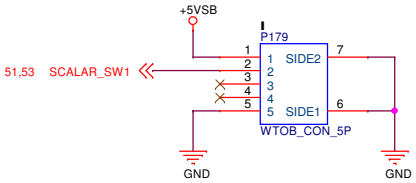




# 3D Scaler

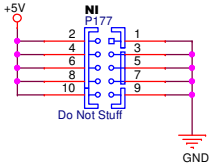



# KEYPAD



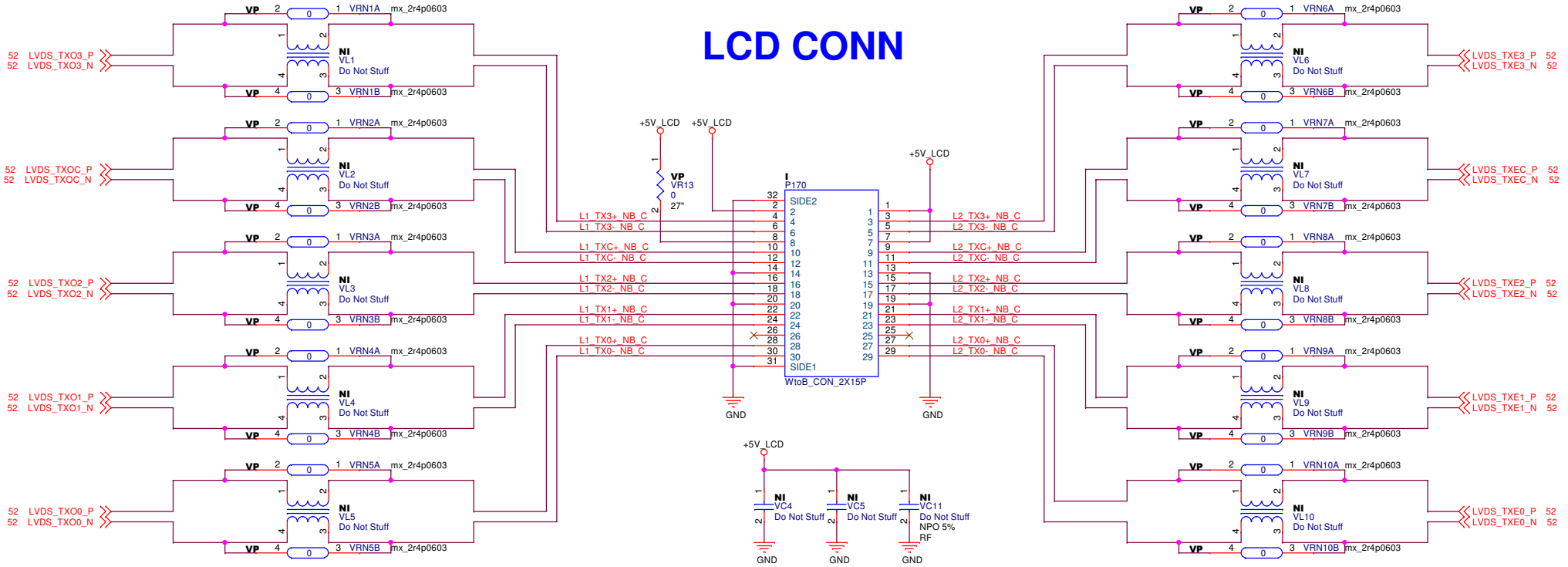

# 3D PANEL



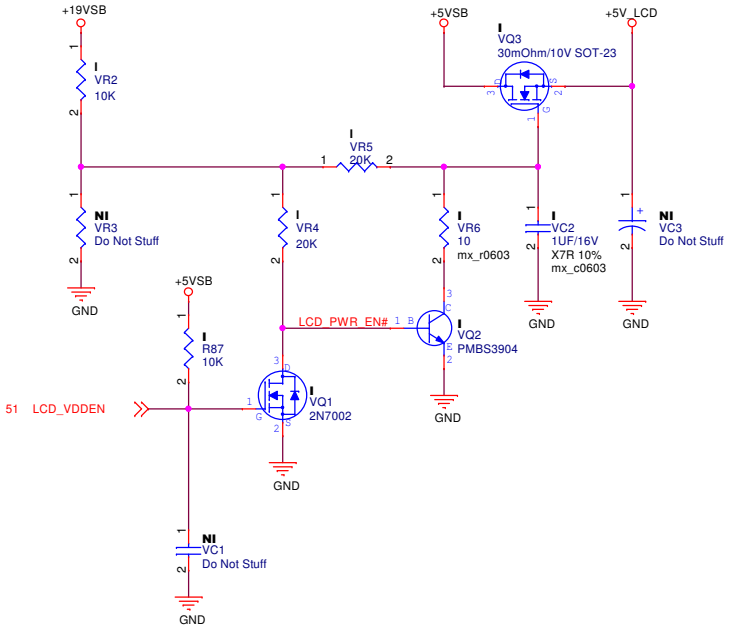

PEGATRON DT-MB RESTRICTED SECRET

| | | | |
|---|---|---|---|
| PEGATRON | Title : I2S AUDIO DAC | | |
| Pegatron Corp. | Engineer: ShunJing_Yang | | |
| Size A3 | Project Name IPISB-AG | | Rev 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 53 of 82 | | |

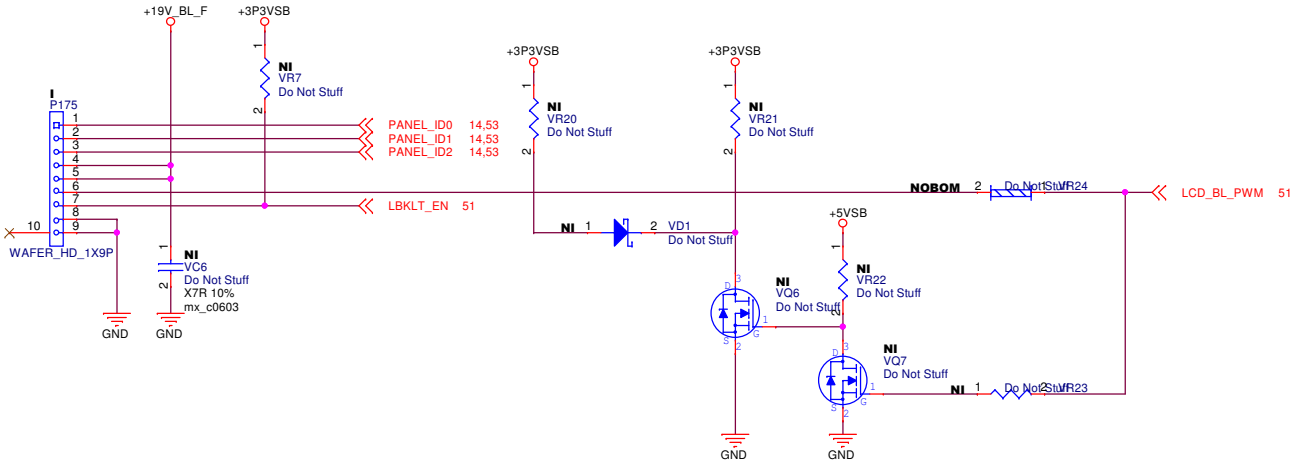
# LCD CONN



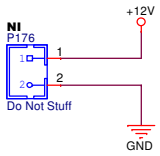

# LCD ON/OFF




# CONVERTER CONN.




# TOUCH



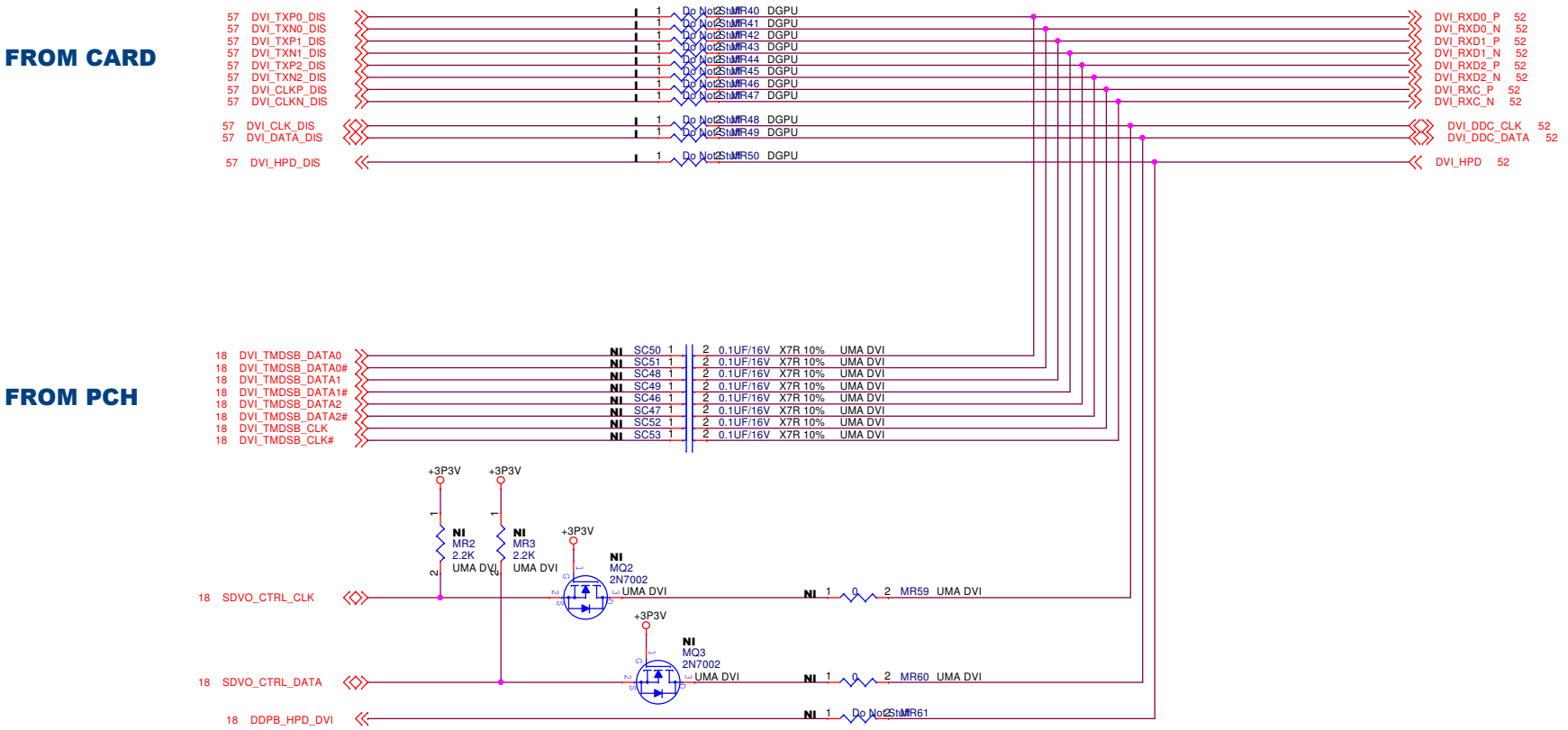



PEGATRON Title : LVDS CONNECTOR

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 54 of 82



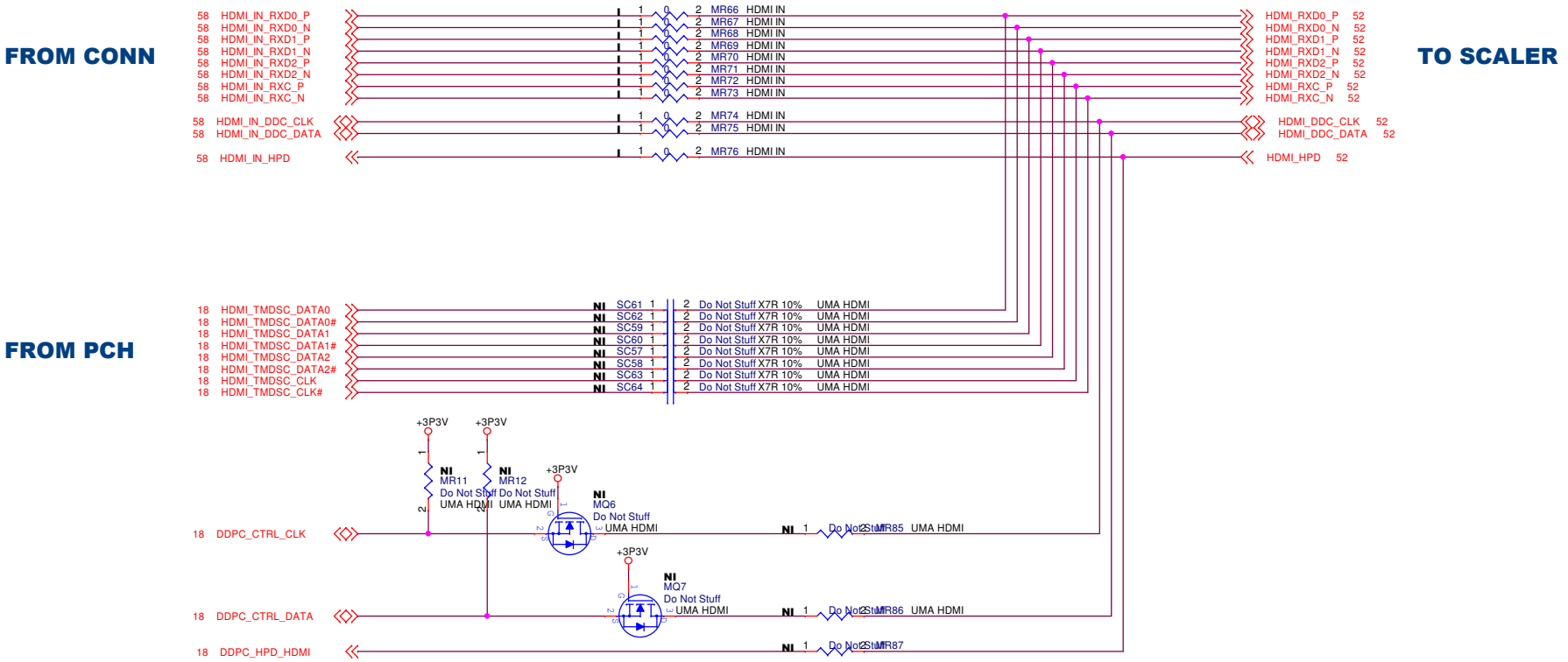



PEGATRON Title : DVI MUX

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 55 of 82



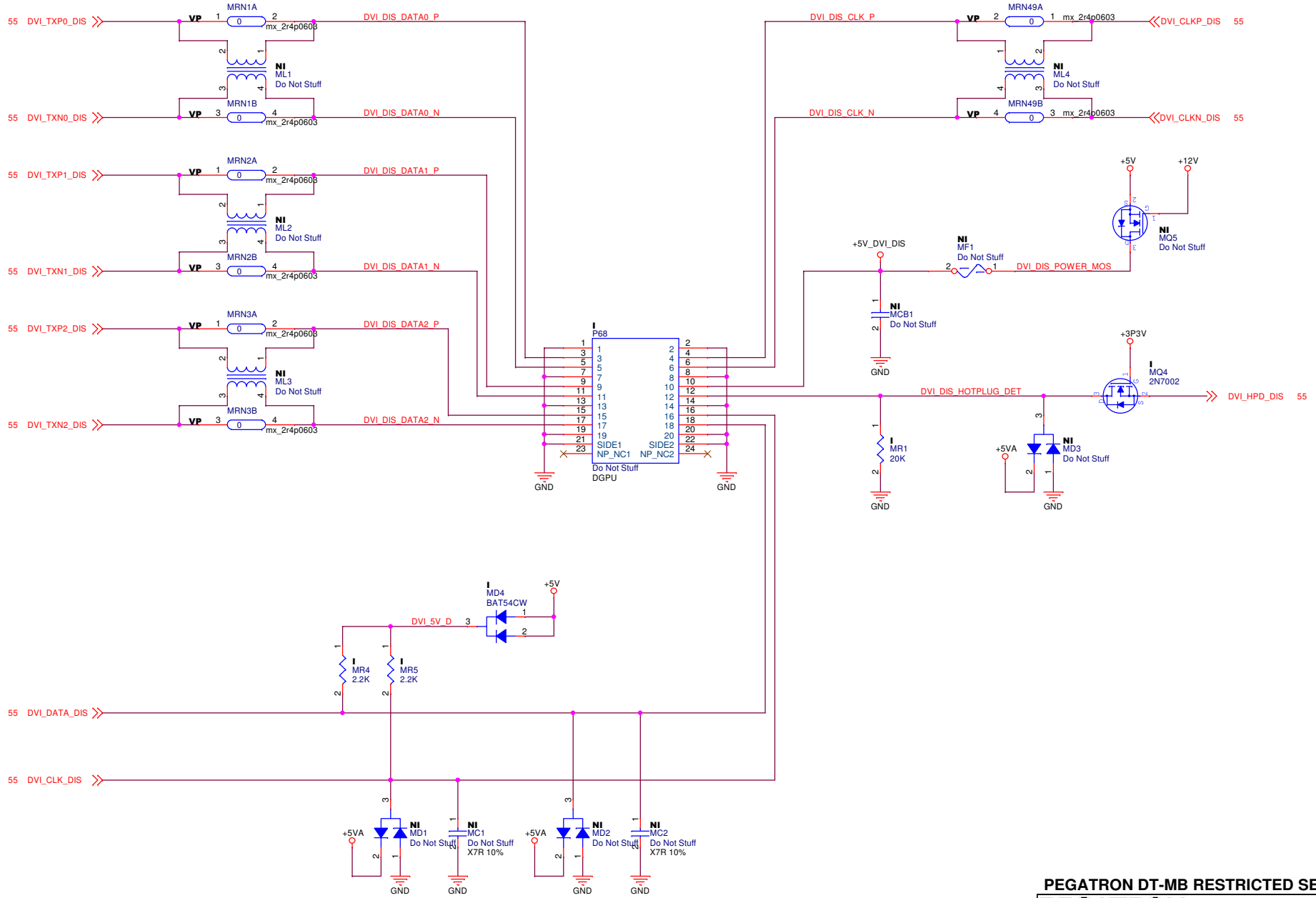

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : HDMI MUX

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 56 of 82



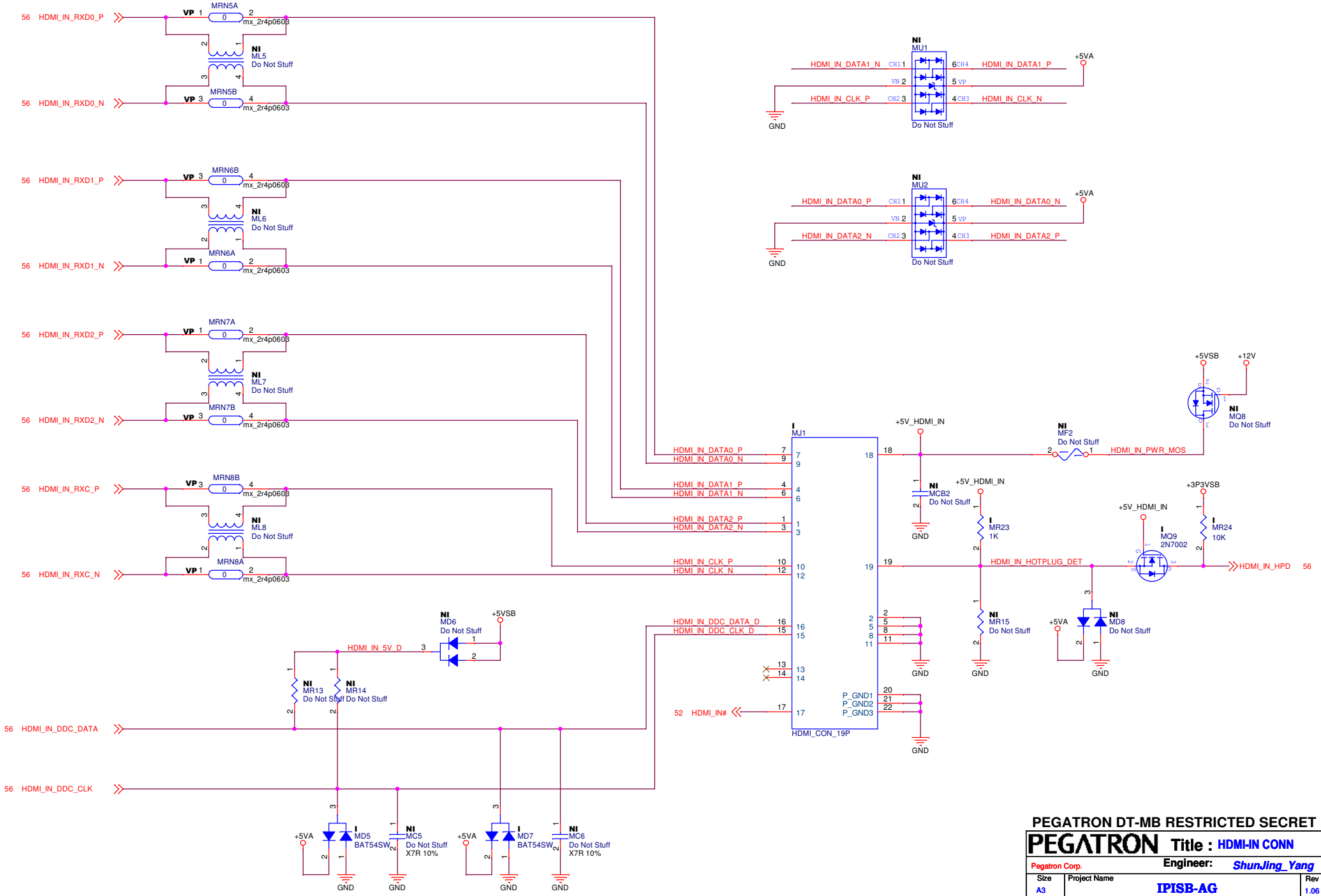

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : DVI CONNECTOR

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 57 of 82



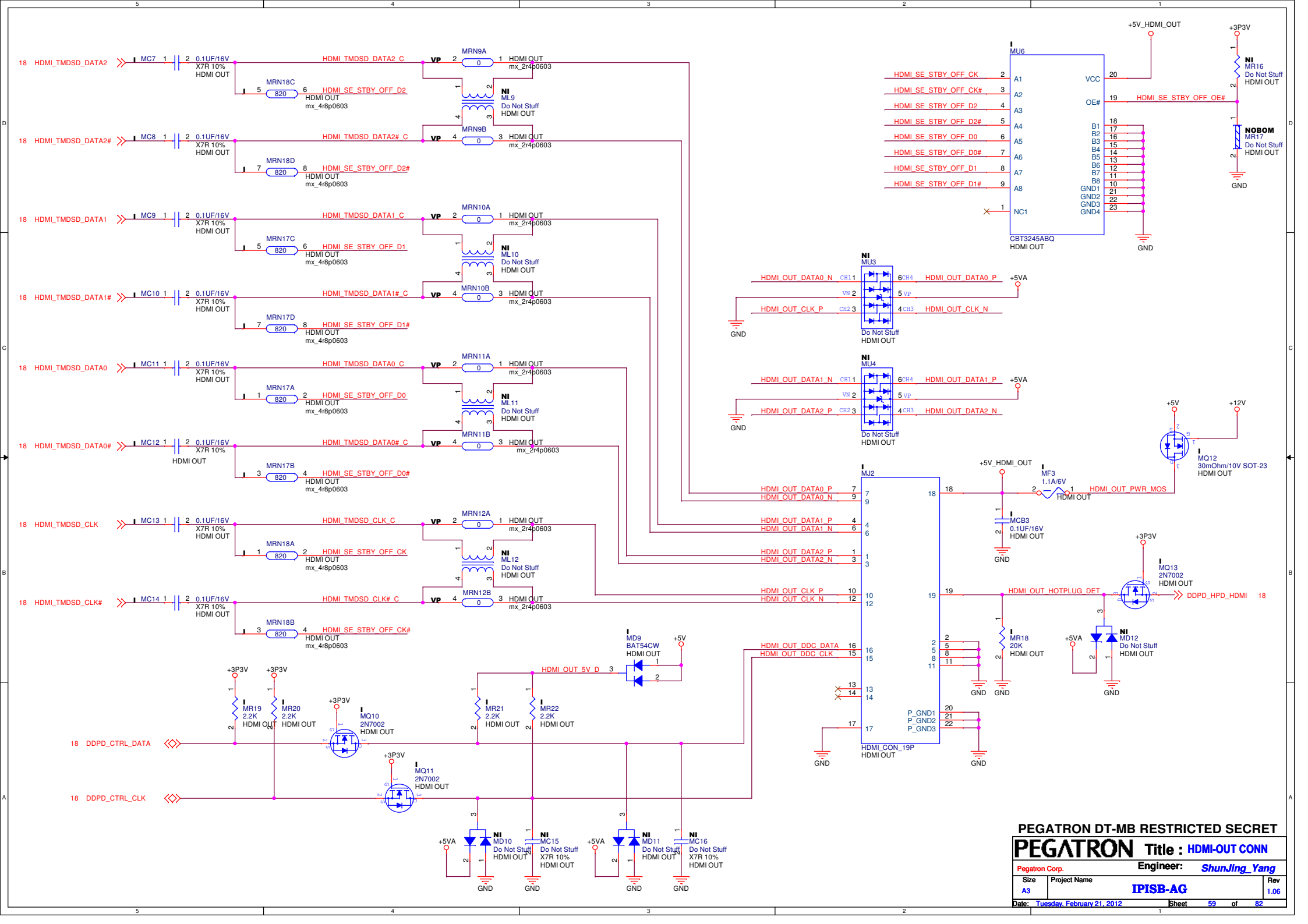

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : HDMI-IN CONN

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 58 of 82




PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : HDMI-OUT CONN

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 59 of 82

PEGATRON DT-MB RESTRICTED SECRET

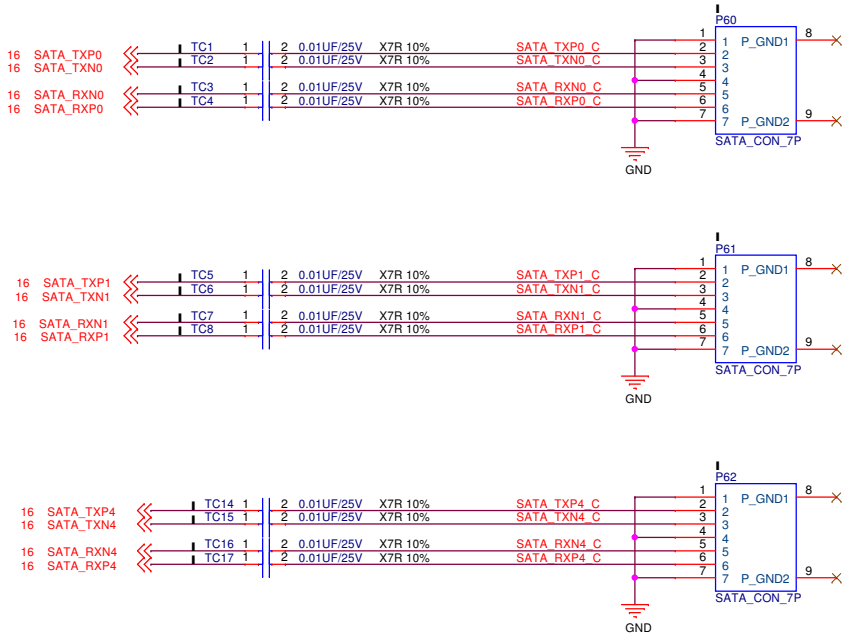
PEGATRON Title : HDMI CONNECTOR

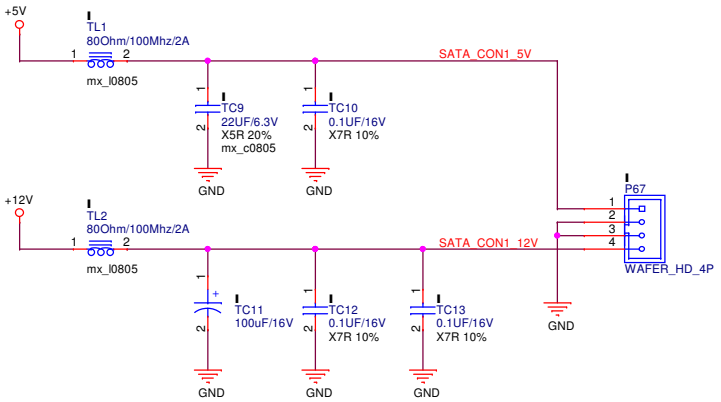
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 60 of 82

# SATA CONNECTOR



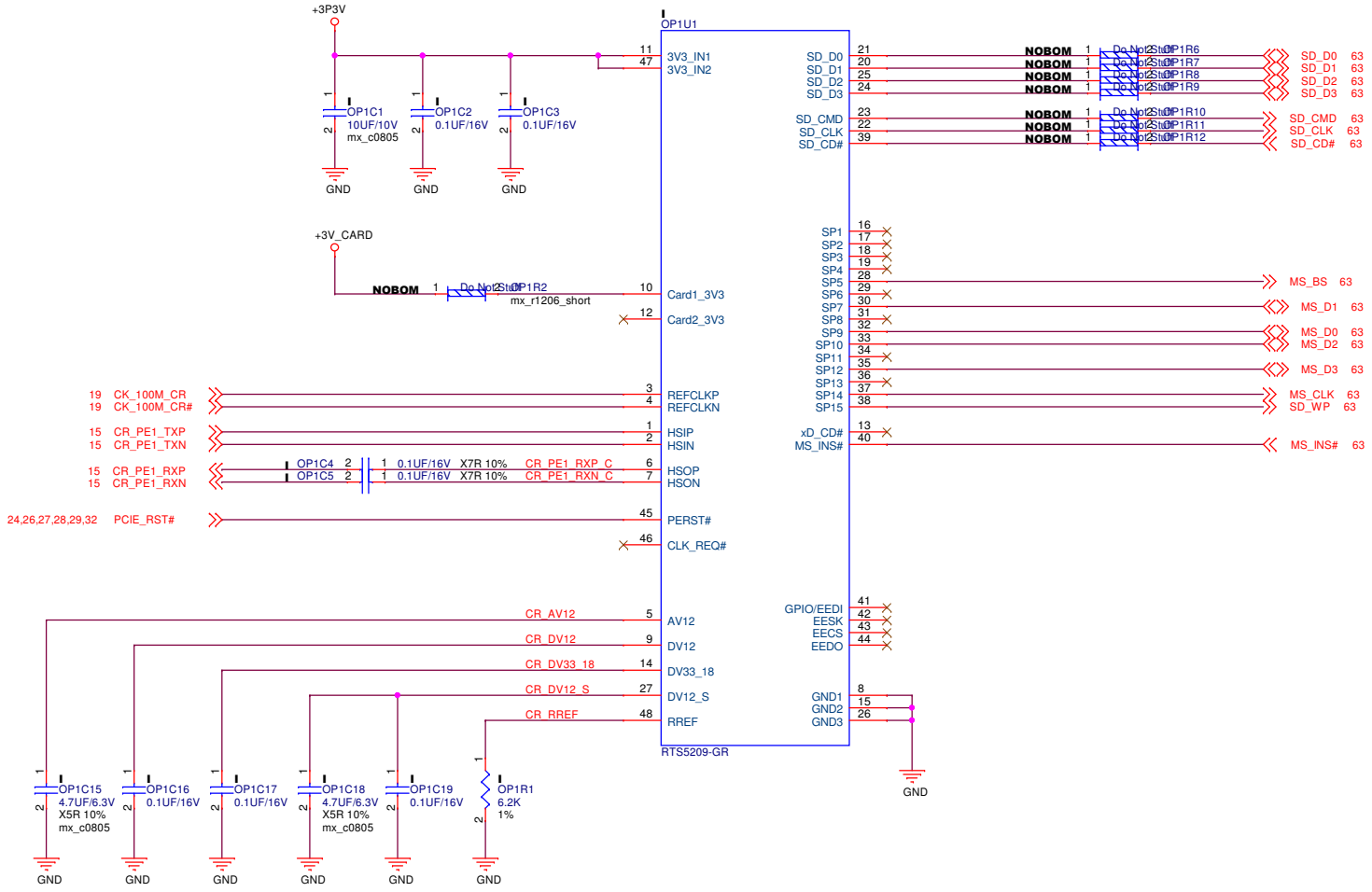

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : SATA CONNECTOR

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 61 of 82



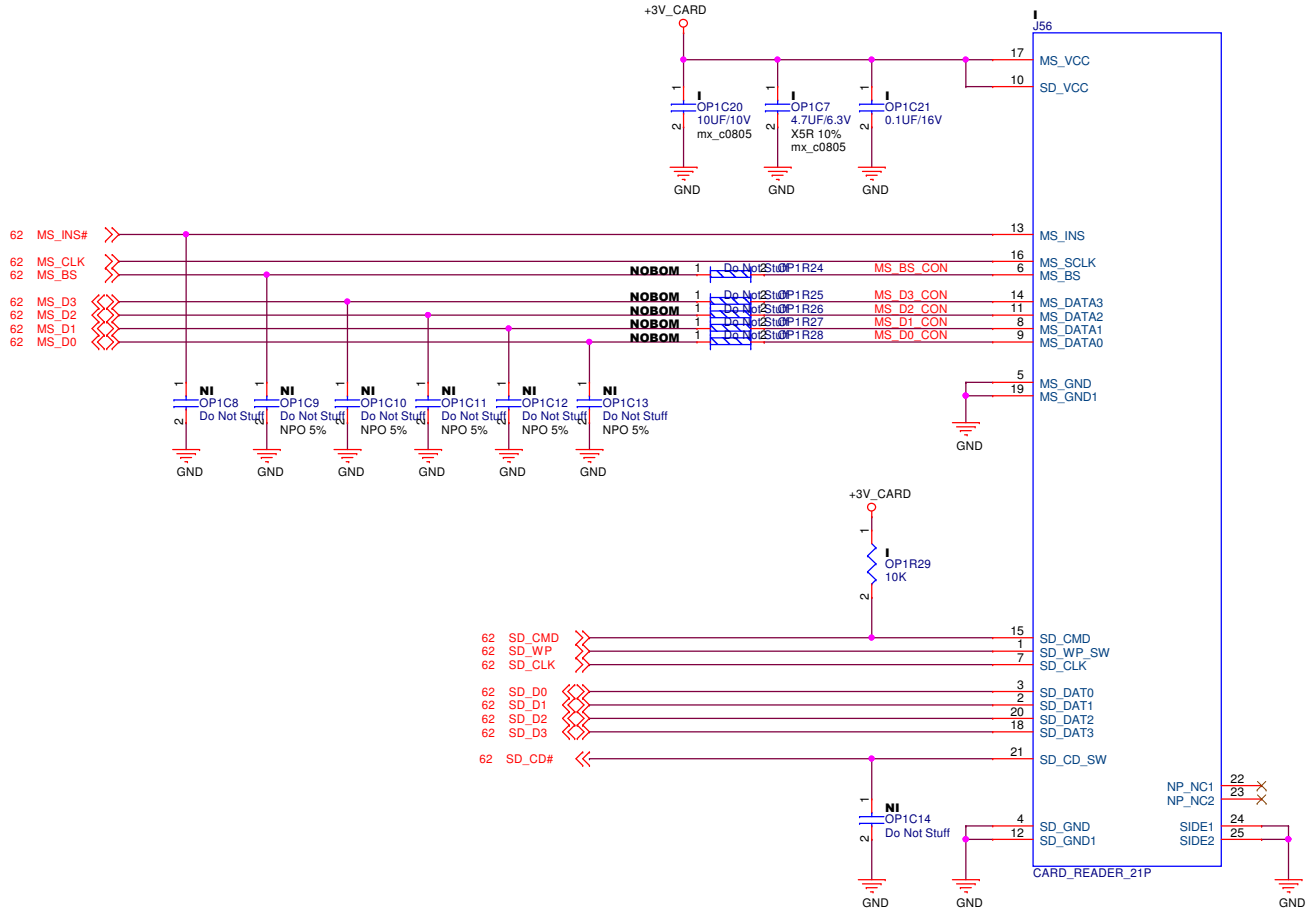



PEGATRON Title : CARD READER

Pegatron Corp. Engineer: ShunJing_Yang

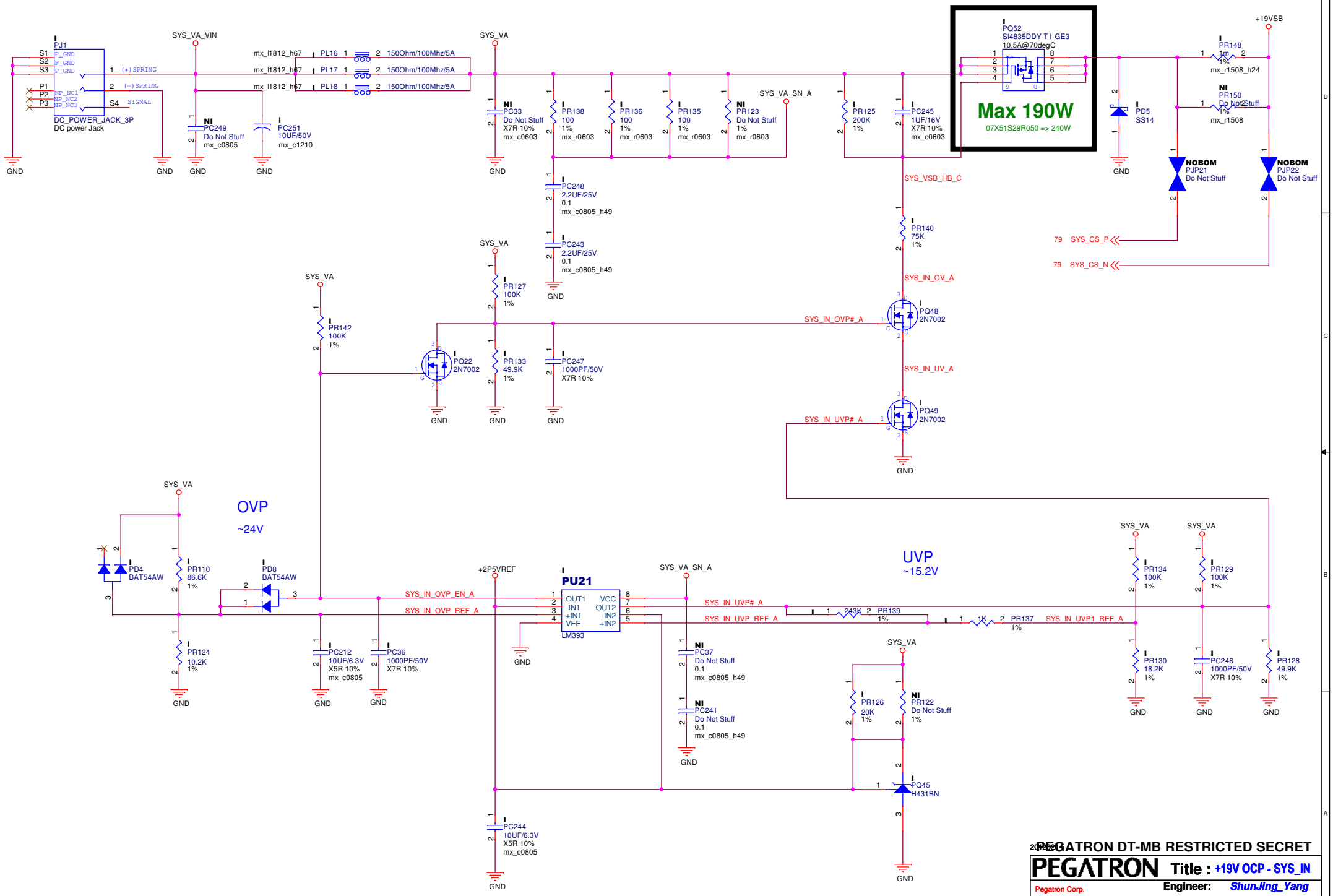
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 62 of 82






| | | |
|---|---|---|
| PEGATRON | Title : CARD READER CONN | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 63 of 82 | |



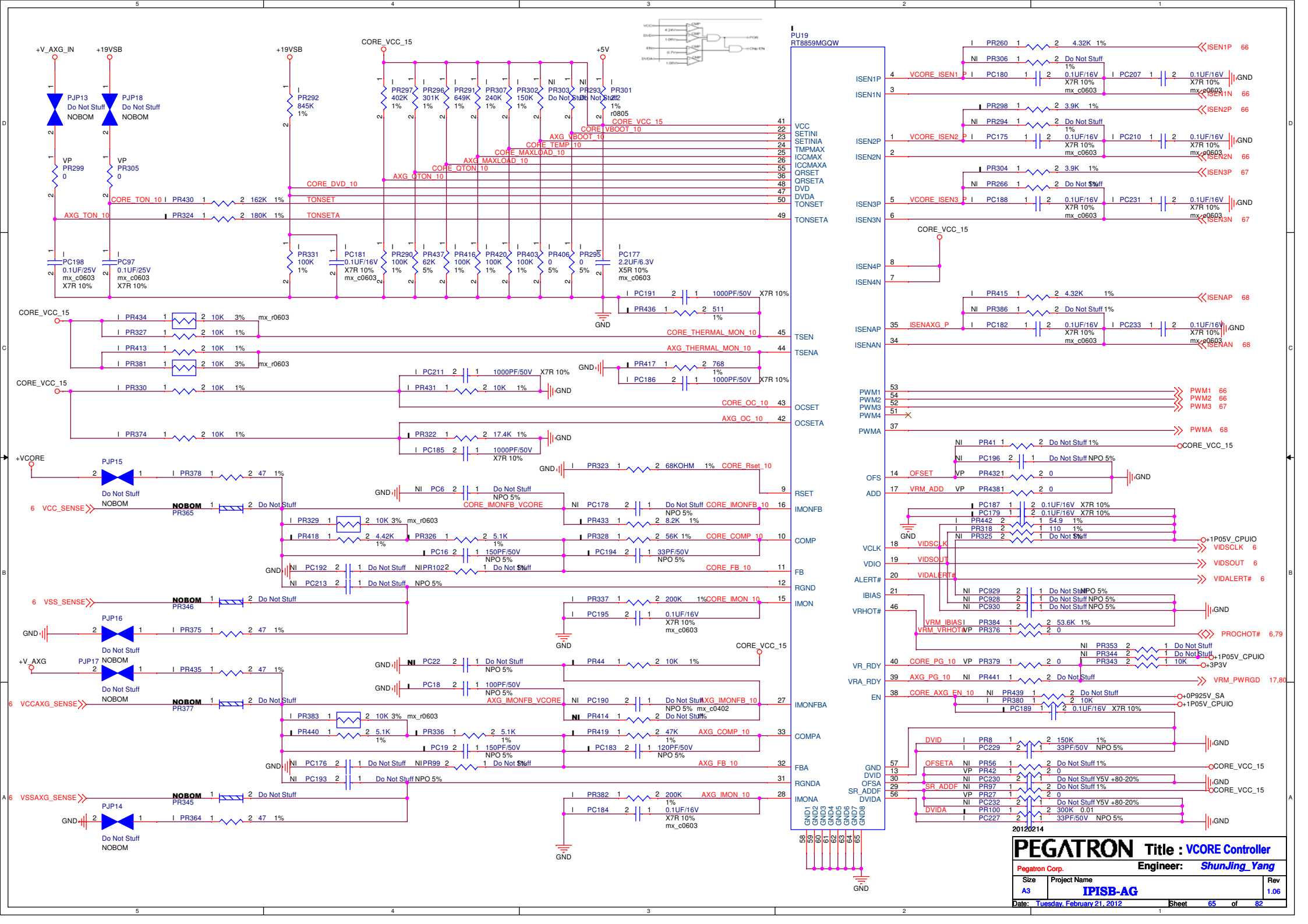


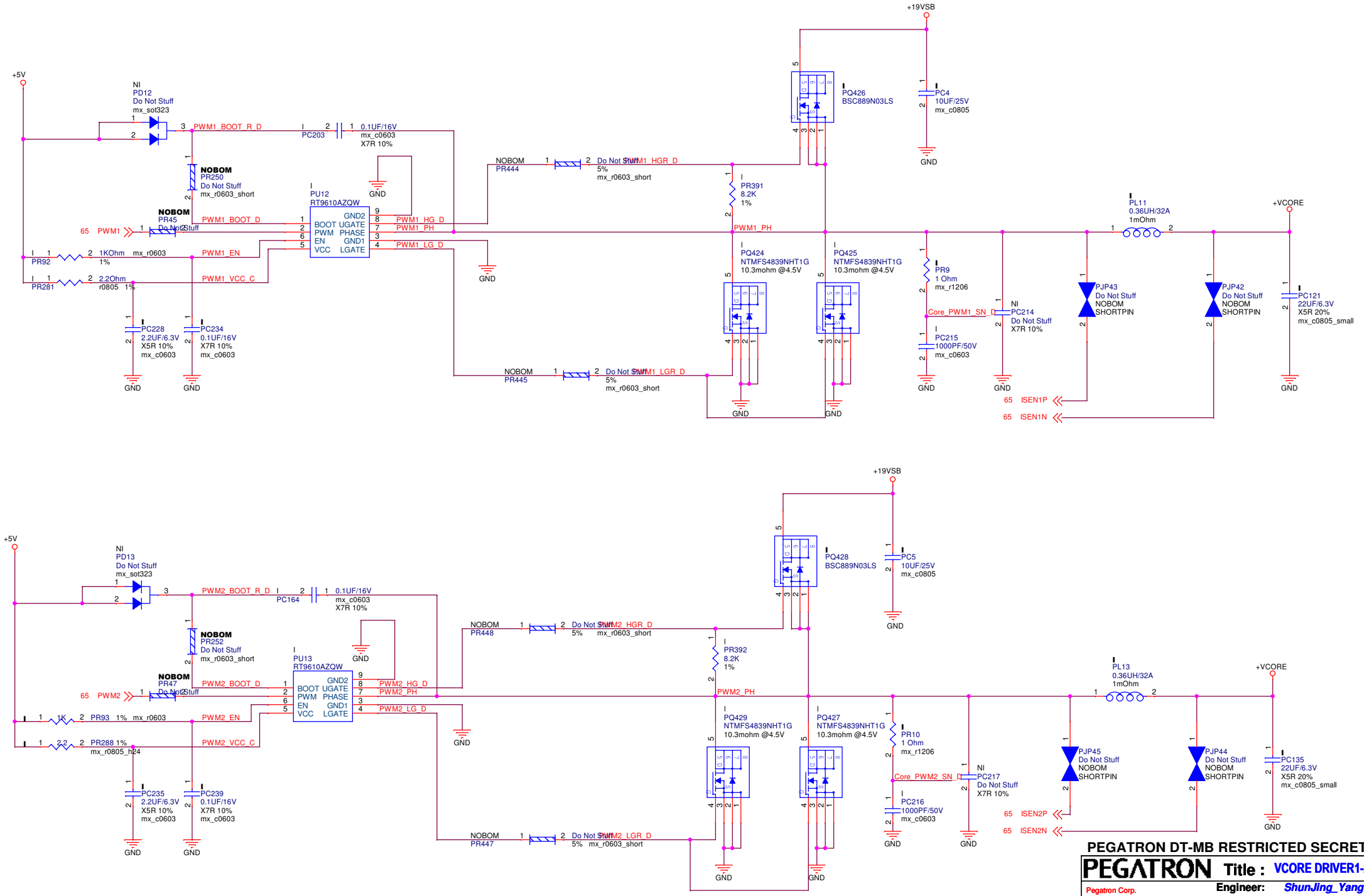

PEGATRON Title : +19V OCP - SYS_IN

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 64 of 82


PU19
RT8859MGQW
VCC
SETINI
SETINIA
TMPMAX
ICCMAX
ICCMAXA
QRSET
QRSETA
DVD
DVDA
TONSET
TONSETA
TSEN
TSENA
OCSET
OCSETA
RSET
IMONFB
COMP
FB
RGND
IMON
IMONFBA
COMPA
FBA
RGNDA
IMONA
GND1
GND2
GND3
GND4
GND5
GND6
GND7
GND8
+V_AXG_IN
+19VSB
+5V
+VCORE
+V_AXG
CORE_VCC_15
PJP13
PJP18
PJP15
PJP16
PJP17
PJP14
Do Not Stuff
NOBOM
VP
PR299
PR305
PR292
845K
PR297
402K
PR296
301K
PR291
649K
PR307
240K
PR302
150K
PR303
PR293
PR301
22
r0805
CORE_VCC_15
CORE_VBOOT_10
AXG_VBOOT_10
CORE_TEMP_10
CORE_MAXLOAD_10
AXG_MAXLOAD_10
CORE_QTON_10
AXG_QTON_10
CORE_DVD_10
CORE_TON_10
AXG_TON_10
PR430
162K
PR324
180K
TONSET
TONSETA
PR331
100K
PR181
0.1UF/16V
X7R 10%
mx_c0603
PR290
PR437
62K
PR416
PR420
PR403
PR406
PR295
PC177
2.2UF/6.3V
X5R 10%
PC198
0.1UF/25V
PC97
PC191
1000PF/50V
PR436
511
CORE_THERMAL_MON_10
AXG_THERMAL_MON_10
PR434
PR327
PR413
PR381
PR330
PR374
PC211
PR431
10K
PR417
768
PC186
CORE_OC_10
AXG_OC_10
PR322
17.4K
PC185
PR323
68KOHM
CORE_Rset_10
PC6
CORE_IMONFB_VCORE
PC178
CORE_IMONFB_10
PR433
8.2K
PR329
PR418
4.42K
PR326
5.1K
PR328
56K
CORE_COMP_10
PC16
150PF/50V
PC194
33PF/50V
PR102
CORE_FB_10
PC192
PC213
VCC_SENSE
VSS_SENSE
PR365
PR346
PR375
PR337
200K
CORE_IMON_10
PC195
0.1UF/16V
PR435
PR377
PC22
PR44
PC18
100PF/50V
PC190
AXG_IMONFB_10
PR414
PR383
PR440
PR336
PR419
47K
AXG_COMP_10
PC19
PC183
120PF/50V
PR99
AXG_FB_10
PC176
PC193
VCCAXG_SENSE
VSSAXG_SENSE
PR345
PR364
PR382
AXG_IMON_10
PC184
ISEN1P
ISEN1N
ISEN2P
ISEN2N
ISEN3P
ISEN3N
ISEN4P
ISEN4N
ISENAP
ISENAN
VCORE_ISEN1_P
VCORE_ISEN2_P
VCORE_ISEN3_P
ISENAXG_P
PR260
4.32K
PR306
Do Not Stuff
PC180
0.1UF/16V
X7R 10%
mx_c0603
PC207
PR298
3.9K
PR294
PC175
PC210
PR304
PR266
PC188
PC231
PR415
PR386
PC182
PC233
PWM1
PWM2
PWM3
PWM4
PWMA
PR41
CORE_VCC_15
PC196
Do Not Stuff NPO 5%
OFS
OFSET
PR4321
ADD
VRM_ADD
PR4381
PC187
PC179
PR442
54.9
PR318
110
PR325
VCLK
VIDSCLK
VDIO
VIDSOUT
ALERT#
VIDALERT#
IBIAS
VRHOT#
PC929
PC928
PC930
VRM_IBIAS
PR384
53.6K
VRM_VRHOT#
PR376
PROCHOT#
6,79
PR353
PR344
PR343
10K
+1P05V_CPUIO
+3P3V
VR_RDY
CORE_PG_10
PR379
VRA_RDY
AXG_PG_10
PR441
VRM_PWRGD
17,80
EN
CORE_AXG_EN_10
PR439
PR380
+0P925V_SA
PC189
DVID
PR8
150K
PC229
OFSETA
PR56
PR42
PC230
SR_ADDF
PR97
PR27
PC232
DVIDA
PR100
300K
0.01
PC227
GND
20120214
PEGATRON
Title : VCORE Controller
Pegatron Corp.
Engineer: ShunJing_Yang
Size
A3
Project Name
IPISB-AG
Rev
1.06
Date: Tuesday, February 21, 2012
Sheet 65 of 82



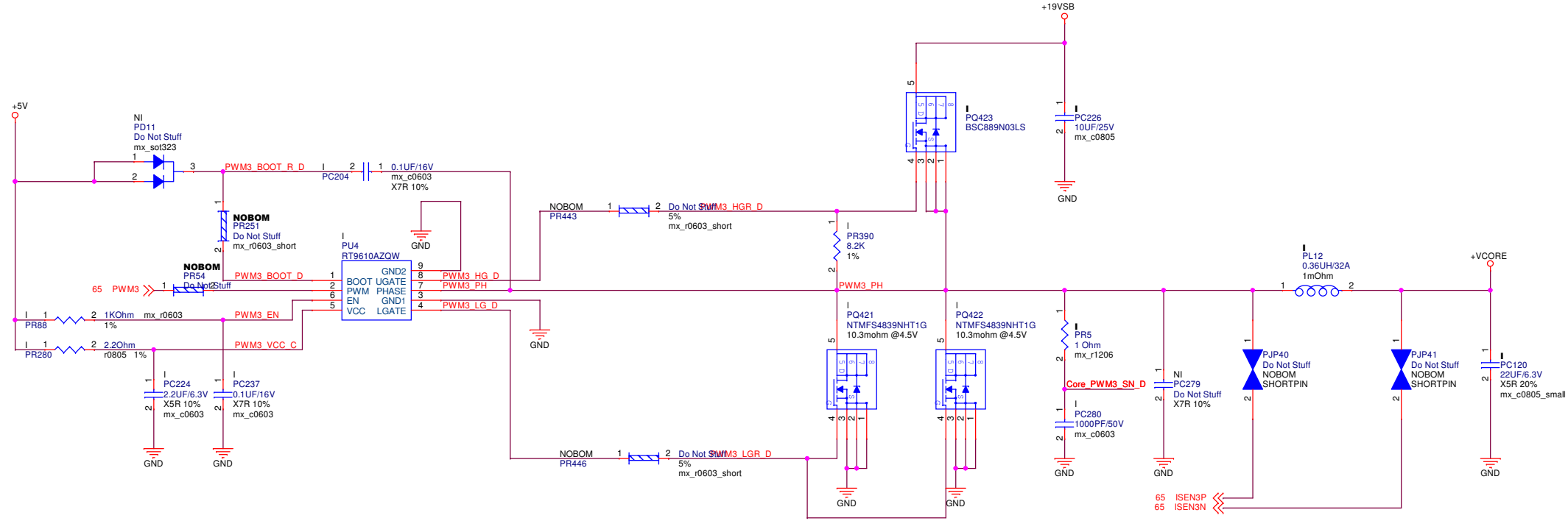

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : VCORE DRIVER1-2

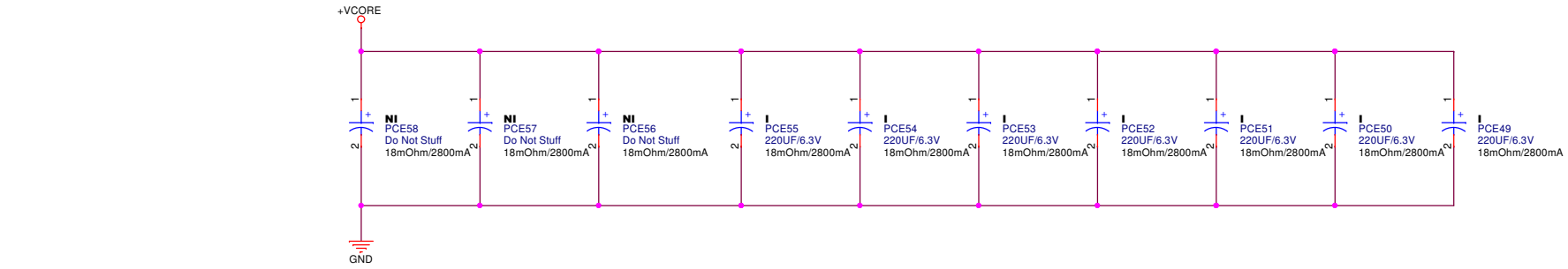
Pegatron Corp. Engineer: ShunJing_Yang

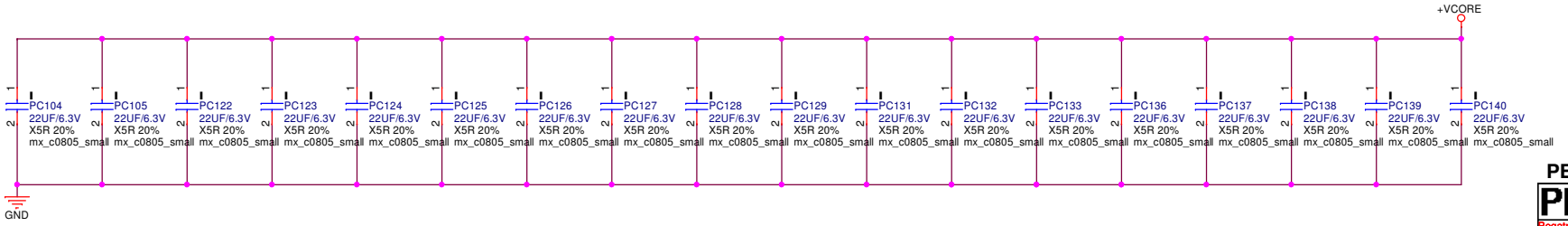
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 66 of 82




# Output CAP



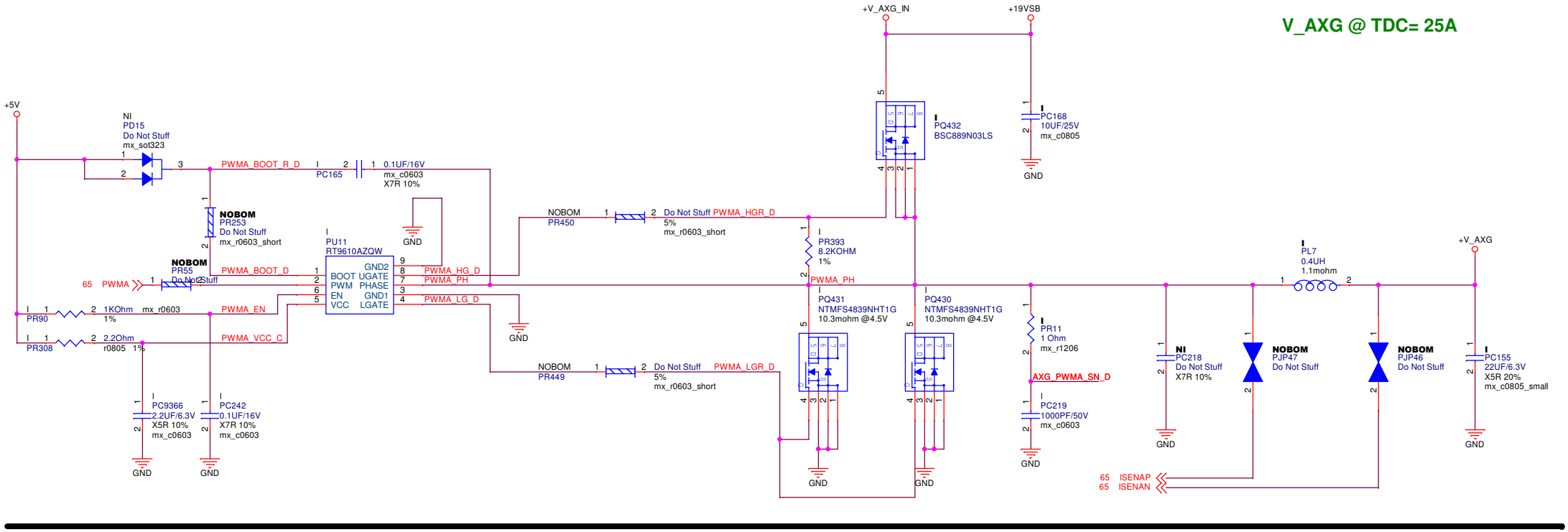

PEGATRON DT-MB RESTRICTED SECRET

PEGATRON Title : VCORE DRIVER 2-2

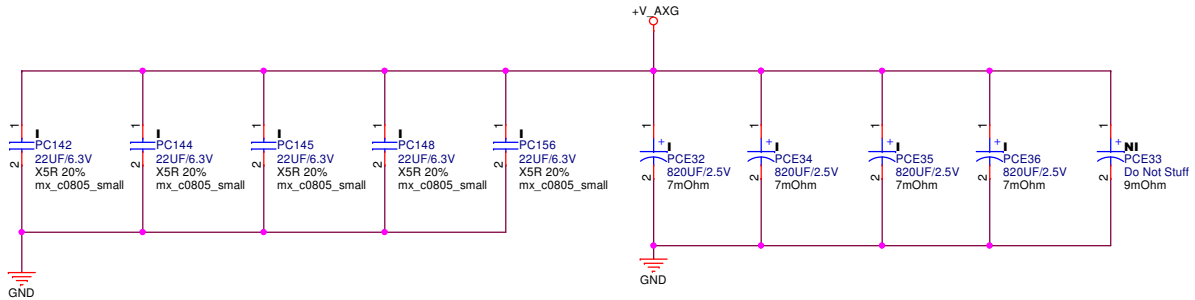
Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 67 of 82




## Output CAP




PEGATRON DT-MB RESTRICTED SECRET

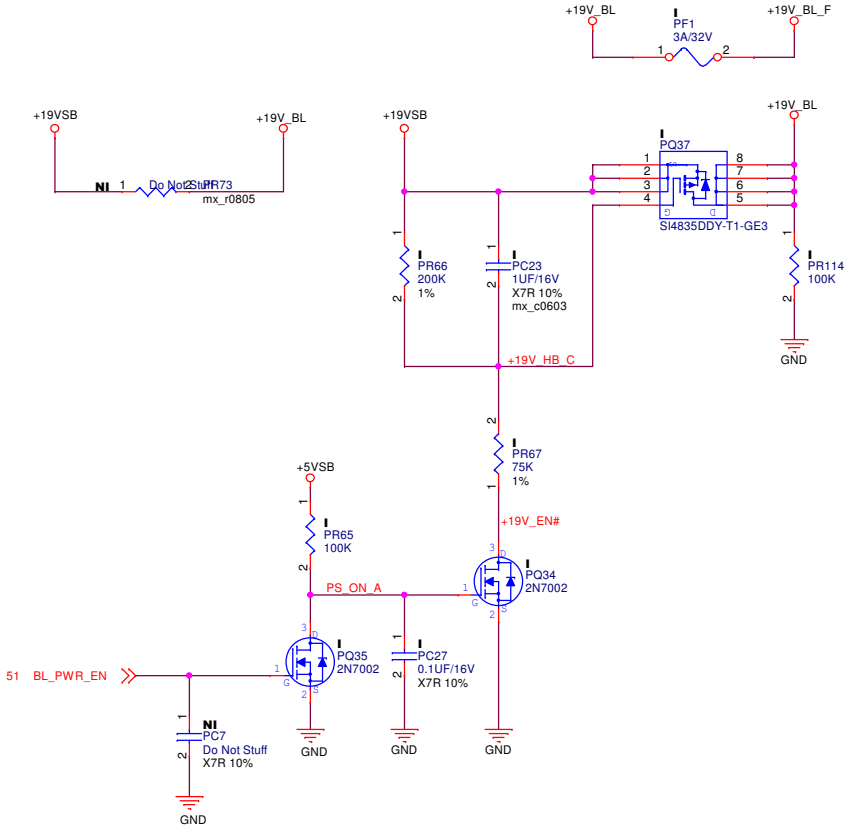
PEGATRON Title : +V_AXG DRIVER

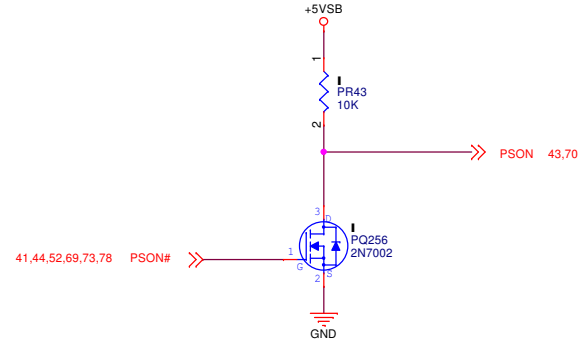
Pegatron Corp. Engineer: ShunJing_Yang

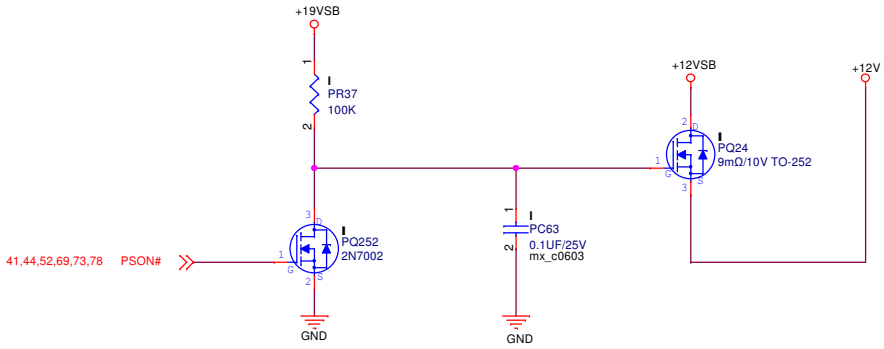
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 68 of 82

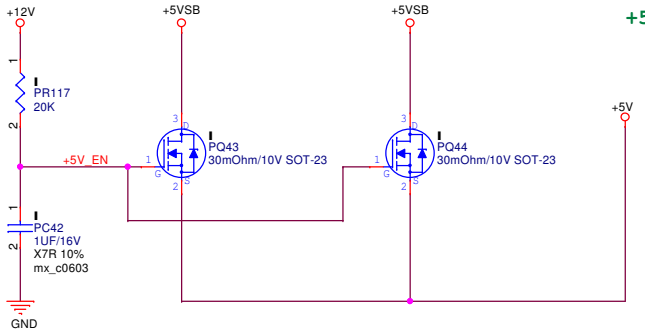
## +19V / max=2.1A / TDC:1.58A



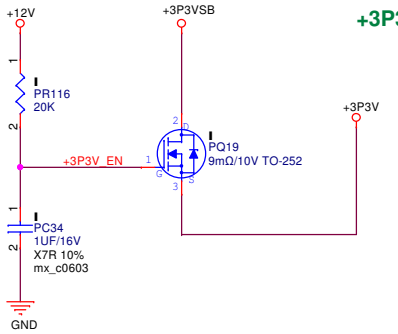




## +5V/Imax:1.3A/TDC:1A




## +3P3V / max:6.879A / TDC:5.2A



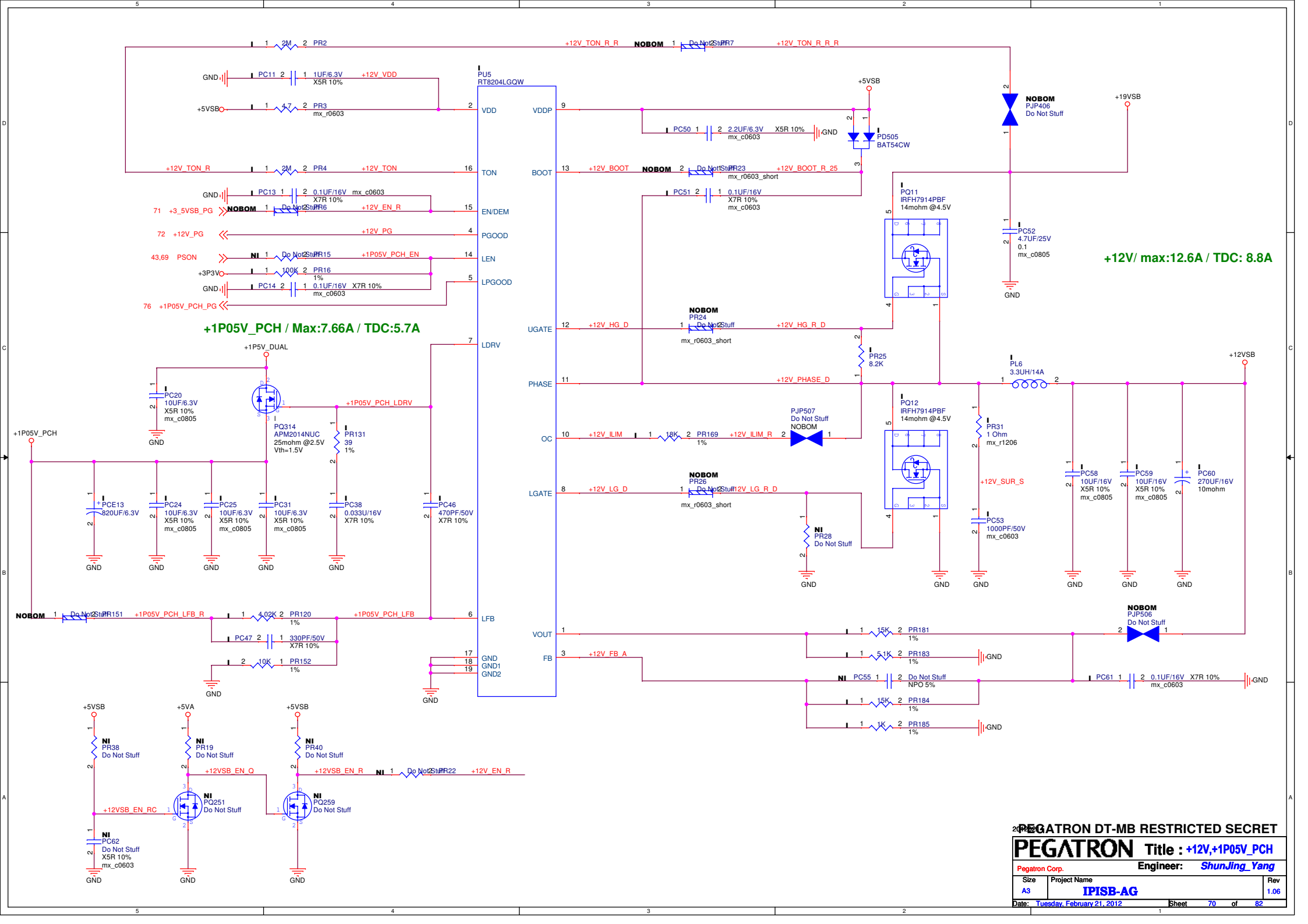


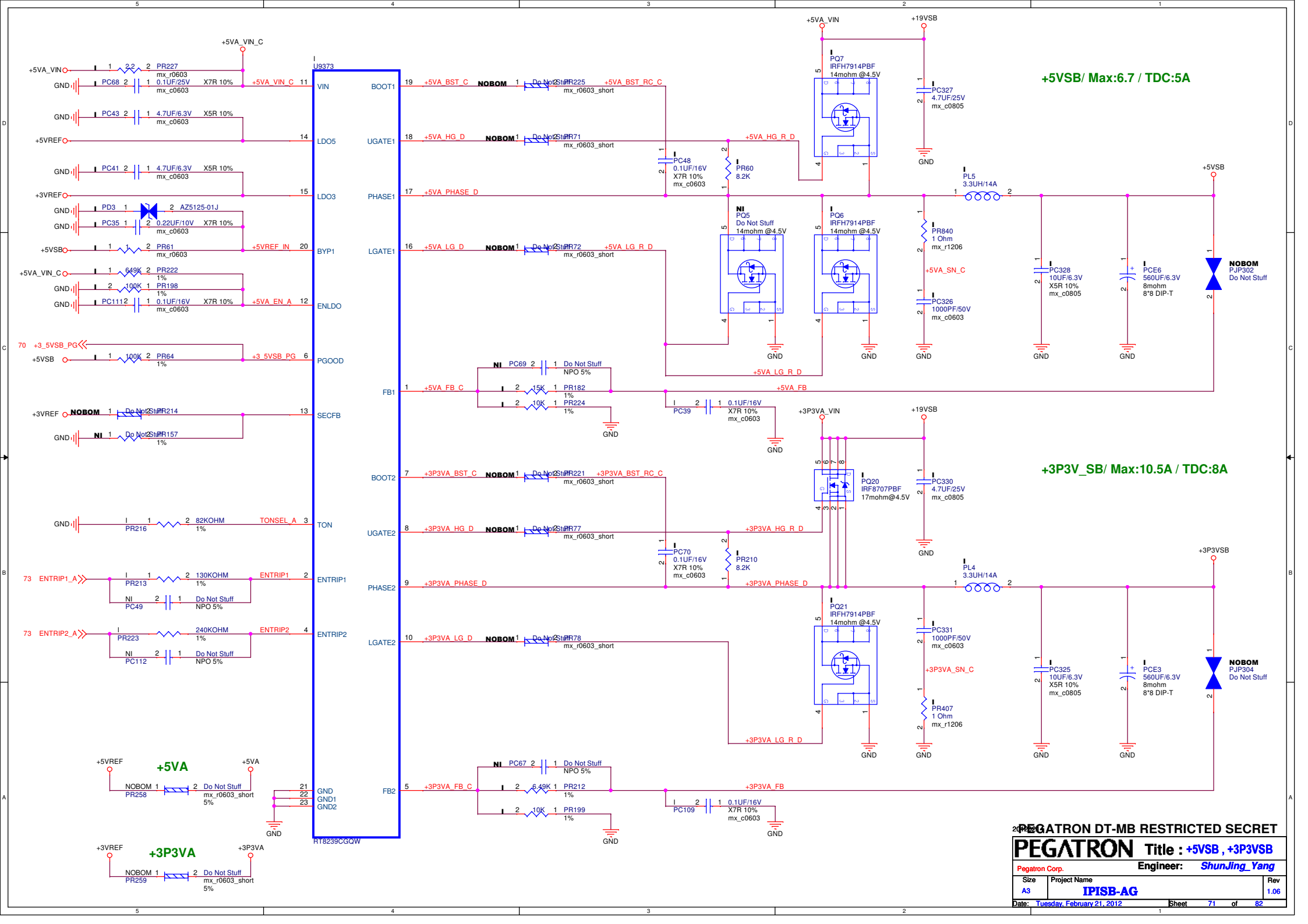

PEGATRON Title : +19V,+5V,+3P3V

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 69 of 82


+1P05V_PCH / Max:7.66A / TDC:5.7A
+12V/ max:12.6A / TDC: 8.8A
PU5
RT8204LGQW
VDD
TON
EN/DEM
PGOOD
LEN
LPGOOD
LDRV
LFB
GND
GND1
GND2
VDDP
BOOT
UGATE
PHASE
OC
LGATE
VOUT
FB
PD505
BAT54CW
PQ11
IRFH7914PBF
14mohm @4.5V
PQ12
IRFH7914PBF
14mohm @4.5V
PQ314
APM2014NUC
25mohm @2.5V
Vth=1.5V
PL6
3.3UH/14A
PR31
1 Ohm
mx_r1206
PR25
8.2K
PJP406
Do Not Stuff
PJP507
Do Not Stuff
NOBOM
PJP506
Do Not Stuff
PR28
Do Not Stuff
PR251
Do Not Stuff
PR259
Do Not Stuff
PC52
4.7UF/25V
0.1
mx_c0805
PC53
1000PF/50V
mx_c0603
PC58
10UF/16V
X5R 10%
mx_c0805
PC59
10UF/16V
X5R 10%
mx_c0805
PC60
270UF/16V
10mohm
PC46
470PF/50V
X7R 10%
PC47
330PF/50V
X7R 10%
PC61
0.1UF/16V
X7R 10%
mx_c0603
PC62
Do Not Stuff
X5R 10%
mx_c0603
+5VSB
+19VSB
+12VSB
+5VA
+1P05V_DUAL
+1P05V_PCH
+12V_VDD
+12V_TON_R
+12V_TON
+12V_EN_R
+12V_PG
+1P05V_PCH_EN
+1P05V_PCH_PG
+12V_BOOT
+12V_BOOT_R_25
+12V_HG_D
+12V_HG_R_D
+12V_PHASE_D
+12V_ILIM
+12V_ILIM_R
+12V_LG_D
+12V_LG_R_D
+12V_SUR_S
+1P05V_PCH_LDRV
+1P05V_PCH_LFB
+1P05V_PCH_LFB_R
+12V_FB_A
+12VSB_EN_R
+12VSB_EN_Q
+12VSB_EN_RC
+3_5VSB_PG
+3P3V
PSON
+12V_TON_R_R
+12V_TON_R_R_R
+12V_BOOT_R_25
PR2 2M
PR3 4.7
PR4 2M
PR6 Do Not Stuff
PR7 Do Not Stuff
PR15 Do Not Stuff
PR16 100K 1%
PR23 mx_r0603_short
PR24 mx_r0603_short
PR26 mx_r0603_short
PR120 4.02K 1%
PR131 39 1%
PR151 Do Not Stuff
PR152 10K 1%
PR169 18K 1%
PR181 15K 1%
PR183 5.1K 1%
PR184 15K 1%
PR185 1K 1%
PR19 Do Not Stuff
PR22 Do Not Stuff
PR38 Do Not Stuff
PR40 Do Not Stuff
PC11 1UF/6.3V X5R 10%
PC13 0.1UF/16V X7R 10% mx_c0603
PC14 0.1UF/16V X7R 10% mx_c0603
PC20 10UF/6.3V X5R 10% mx_c0805
PC24 10UF/6.3V X5R 10% mx_c0805
PC25 10UF/6.3V X5R 10% mx_c0805
PC31 10UF/6.3V X5R 10% mx_c0805
PC38 0.033U/16V X7R 10%
PC50 2.2UF/6.3V X5R 10% mx_c0603
PC51 0.1UF/16V X7R 10% mx_c0603
PCE13 820UF/6.3V
PC55 Do Not Stuff NPO 5%
NOBOM
NI
GND
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : +12V,+1P05V_PCH
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 70 of 82


+5VSB/ Max:6.7 / TDC:5A
+3P3V_SB/ Max:10.5A / TDC:8A
+5VA
+3P3VA
U9373
RT8239CGQW
VIN
BOOT1
UGATE1
PHASE1
LGATE1
LDO5
LDO3
BYP1
ENLDO
PGOOD
SECFB
TON
ENTRIP1
ENTRIP2
FB1
BOOT2
UGATE2
PHASE2
LGATE2
FB2
GND
GND1
GND2
+5VA_VIN
+19VSB
+5VSB
+3P3VA_VIN
+3P3VSB
PQ7 IRFH7914PBF 14mohm @4.5V
PQ6 IRFH7914PBF 14mohm @4.5V
NI PQ5 Do Not Stuff 14mohm @4.5V
PQ20 IRF8707PBF 17mohm@4.5V
PQ21 IRFH7914PBF 14mohm @4.5V
PL5 3.3UH/14A
PL4 3.3UH/14A
NOBOM PJP302 Do Not Stuff
NOBOM PJP304 Do Not Stuff
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : +5VSB , +3P3VSB
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
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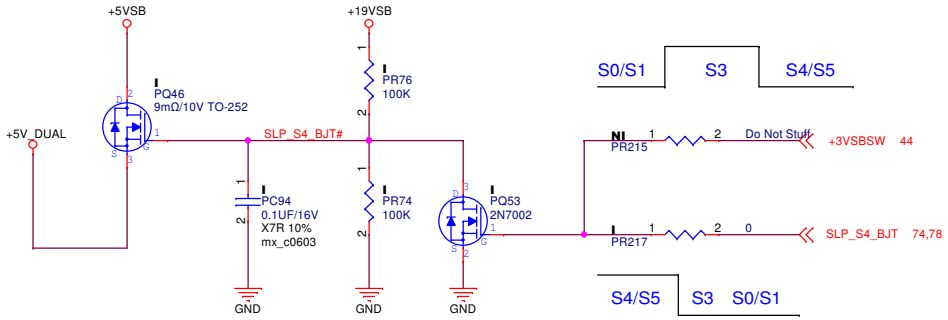
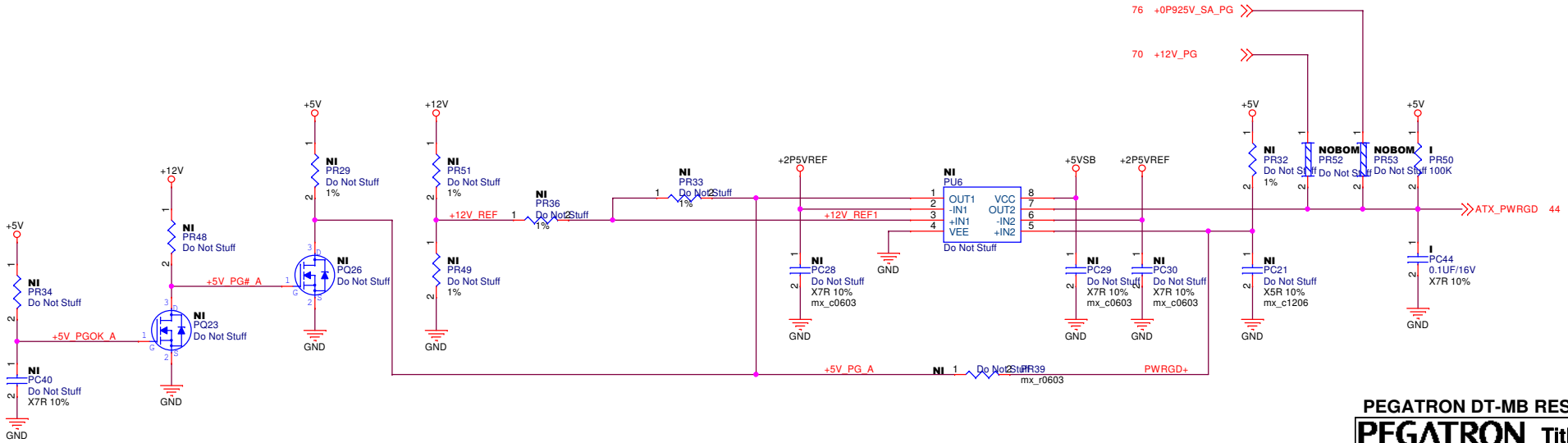
## +5V_DUAL / max:5.3A / TDC:4A



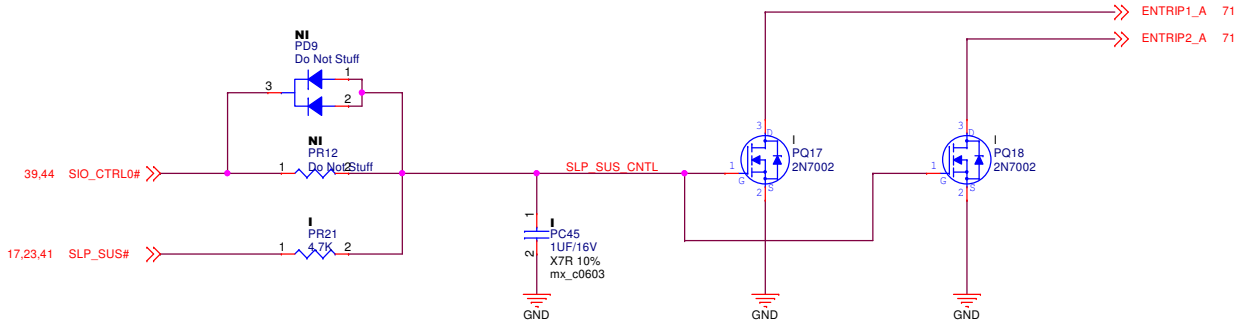

## ATX_PWRGD



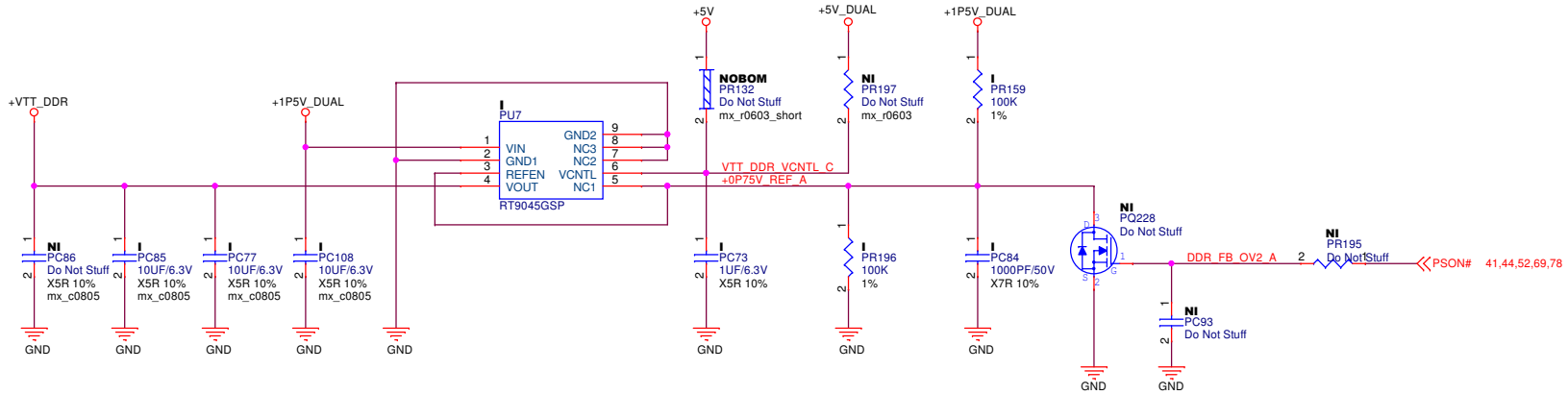

PEGATRON DT-MB RESTRICTED SECRET

| | | |
|---|---|---|
| PEGATRON | Title : +5V_DUAL | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 72 of 82 | |

# +5VSB-EN
# +3VSB-EN




## +VTT_DDR / Max:3A / TDC:2.25A



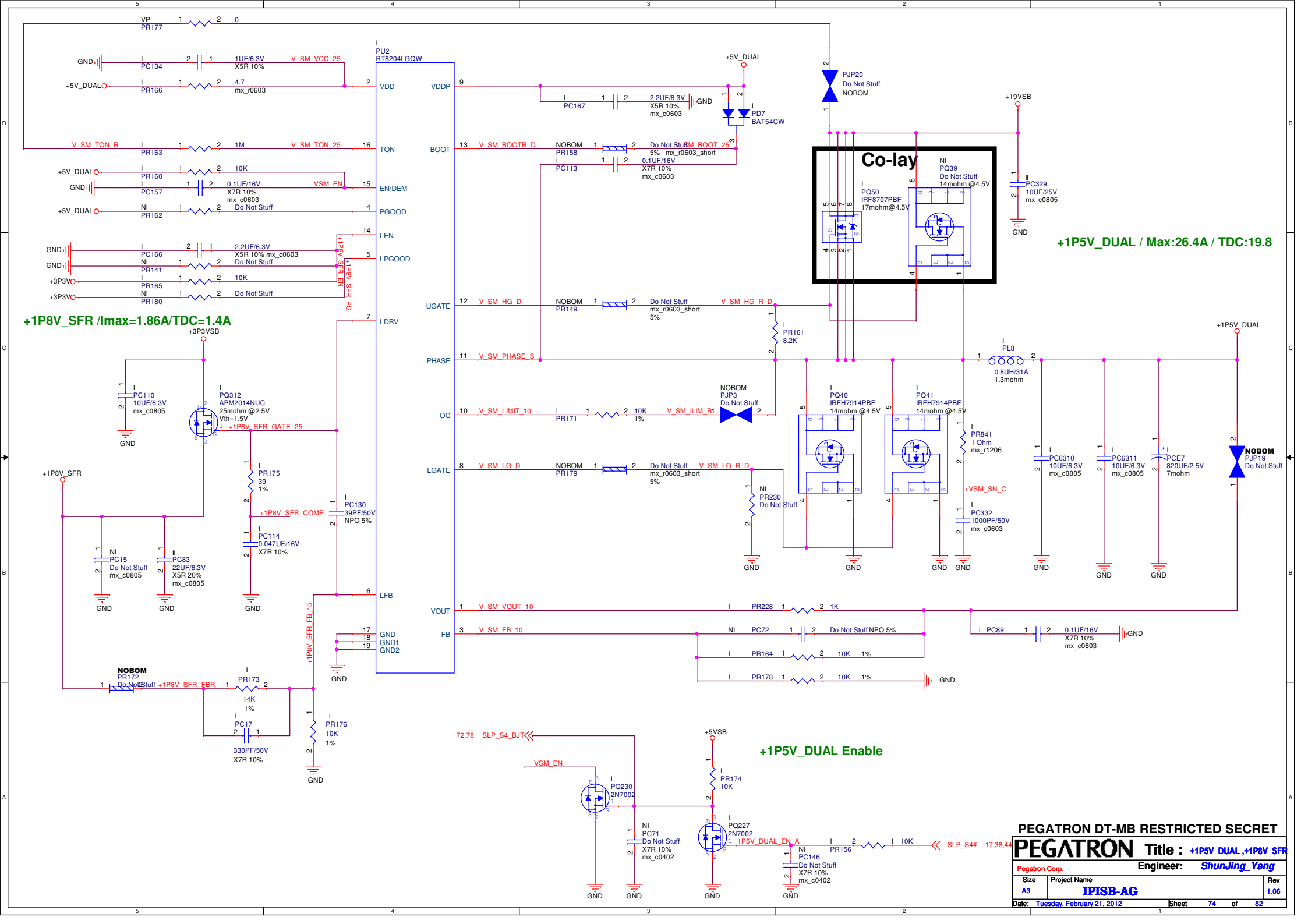



PEGATRON Title : +VTT_DDR

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 73 of 82


+1P8V_SFR /Imax=1.86A/TDC=1.4A
+1P5V_DUAL / Max:26.4A / TDC:19.8
+1P5V_DUAL Enable
Co-lay
PU2
RT8204LGQW
VDD
VDDP
BOOT
TON
EN/DEM
PGOOD
LEN
LPGOOD
LDRV
UGATE
PHASE
OC
LGATE
LFB
VOUT
FB
GND
GND1
GND2
PJP20
Do Not Stuff
NOBOM
PD7
BAT54CW
PQ312
APM2014NUC
25mohm @2.5V
Vth=1.5V
PQ50
IRF8707PBF
17mohm@4.5V
PQ39
Do Not Stuff
14mohm @4.5V
PQ40
IRFH7914PBF
14mohm @4.5V
PQ41
IRFH7914PBF
14mohm @4.5V
PJP3
Do Not Stuff
PJP19
Do Not Stuff
PL8
0.8UH/31A
1.3mohm
PQ230
2N7002
PQ227
2N7002
+19VSB
+5V_DUAL
+3P3VSB
+5VSB
+1P8V_SFR
+1P8V_SFR_GATE_25
+1P8V_SFR_COMP
+1P8V_SFR_FB_15
+1P8V_SFR_FBR
+1P8V_SFR_EN
+1P8V_SFR_PG
+VSM_SN_C
1P5V_DUAL_EN_A
VSM_EN
SLP_S4_BJT
SLP_S4#
V_SM_VCC_25
V_SM_TON_25
V_SM_TON_R
V_SM_BOOTR_D
V_SM_BOOT_25
V_SM_HG_D
V_SM_HG_R_D
V_SM_PHASE_S
V_SM_LIMIT_10
V_SM_ILIM_R1
V_SM_LG_D
V_SM_LG_R_D
V_SM_VOUT_10
V_SM_FB_10
VP
VSM_EN
PR177
PC134
PR166
PR163
PR160
PR157
PR162
PC166
PR141
PR165
PR180
PC167
PC113
PR158
PR149
PR161
PR171
PR179
PR230
PR841
PC329
PC110
PC130
PC114
PC15
PC83
PR175
PR172
PR173
PR176
PC17
PC6310
PC6311
PCE7
PC332
PR228
PC72
PR164
PR178
PC89
PR174
PC71
PR156
PC146
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : +1P5V_DUAL ,+1P8V_SFR
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
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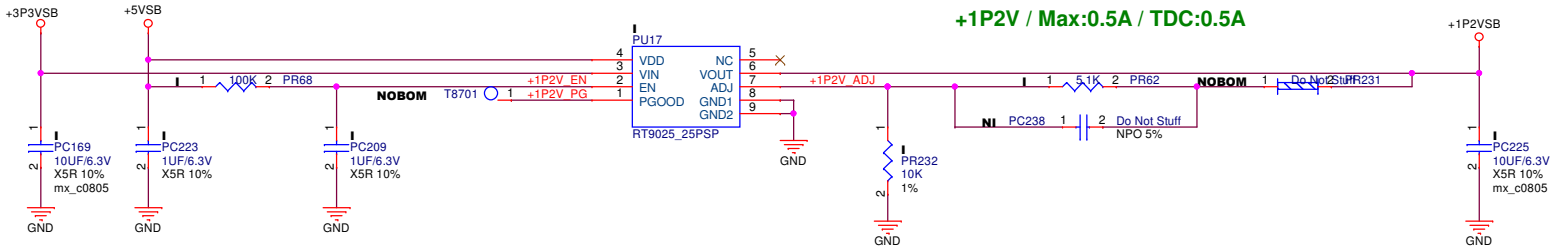
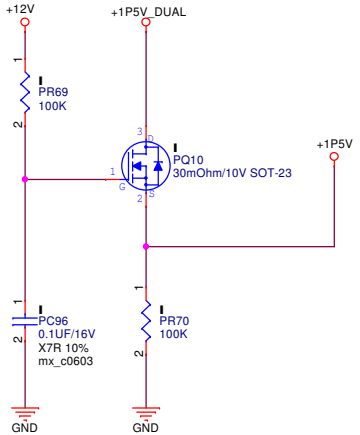



For Scalar




For mini-PCIE



PEGATRON Title : +1P2V , +1P5V

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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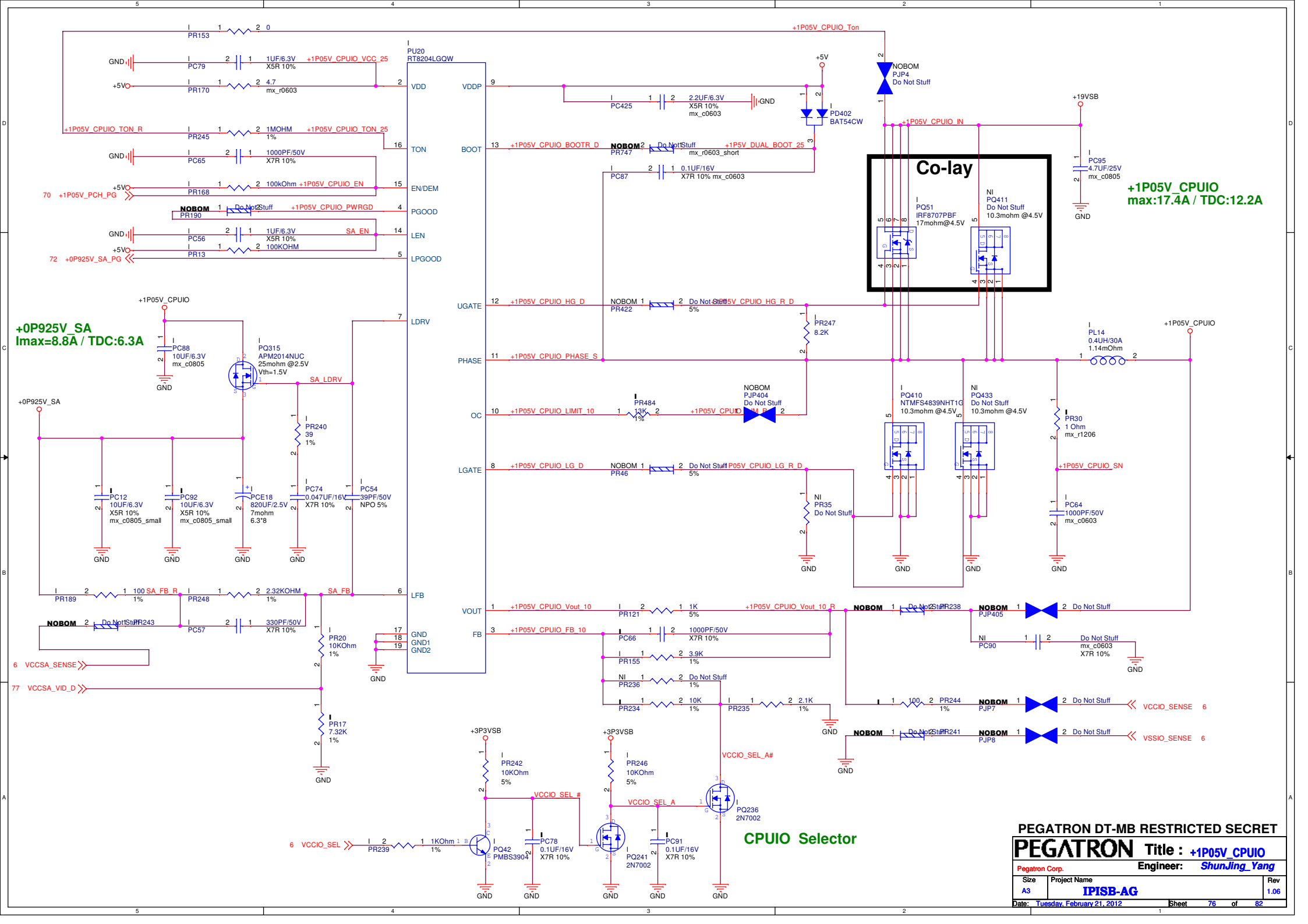
+0P925V_SA
Imax=8.8A / TDC:6.3A
+1P05V_CPUIO
max:17.4A / TDC:12.2A
Co-lay
CPUIO Selector
PU20
RT8204LGQW
VDD
VDDP
BOOT
TON
EN/DEM
PGOOD
LEN
LPGOOD
UGATE
PHASE
LDRV
OC
LGATE
LFB
VOUT
FB
GND
GND1
GND2
PR153
PC79
PR170
PR245
PC65
PR168
PR190
PC56
PR13
PC425
PC87
PD402
BAT54CW
PJP4
PR747
PR422
PR247
PR484
PR46
PR35
PR121
PC66
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PR236
PR234
PR235
PR238
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PC90
PR244
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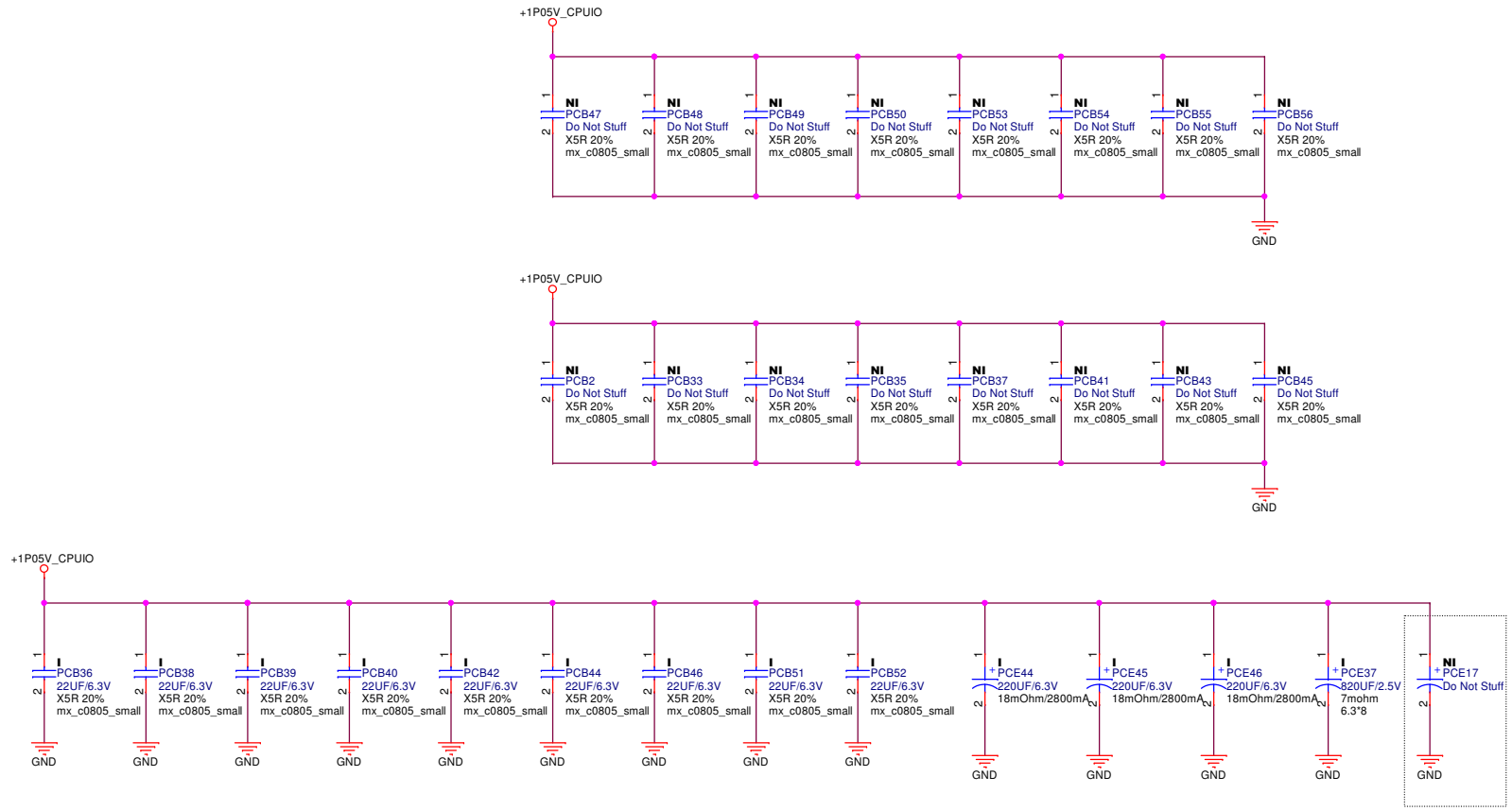
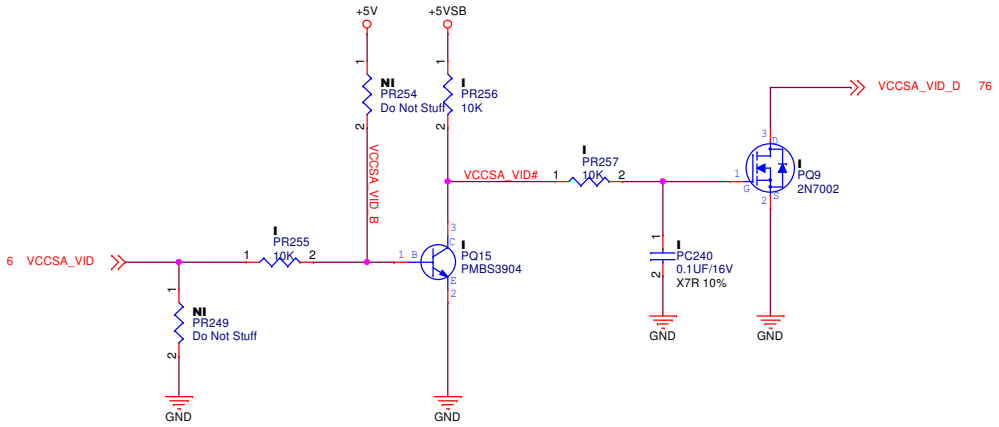
PR241
PJP8
PC88
PQ315
APM2014NUC
PC12
PC92
PCE18
PC74
PC54
PR240
PR189
PR248
PR243
PR57
PR20
PR17
PQ51
IRF8707PBF
PQ411
PQ410
NTMFS4839NHT1G
PQ433
PJP404
PL14
PR30
PC64
PC95
PR242
PR246
PQ42
PMBS3904
PQ241
2N7002
PQ236
PC78
PC91
PR239
+1P05V_CPUIO_Ton
+1P05V_CPUIO_IN
+1P05V_CPUIO_SN
+19VSB
+5V
+3P3VSB
+0P925V_SA
SA_LDRV
SA_FB
SA_EN
VCCIO_SEL_A#
VCCIO_SEL_A
VCCIO_SEL #
VCCIO_SEL
VCCIO_SENSE
VSSIO_SENSE
VCCSA_SENSE
VCCSA_VID_D
+1P05V_PCH_PG
+0P925V_SA_PG
PEGATRON DT-MB RESTRICTED SECRET
PEGATRON
Title : +1P05V_CPUIO
Pegatron Corp.
Engineer: ShunJing_Yang
Size A3
Project Name IPISB-AG
Rev 1.06
Date: Tuesday, February 21, 2012
Sheet 76 of 82




## +0P925V_SA Selector




## +1P05V_ME

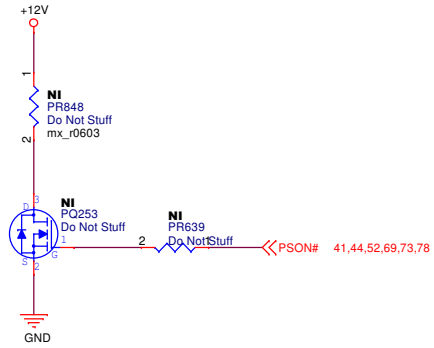


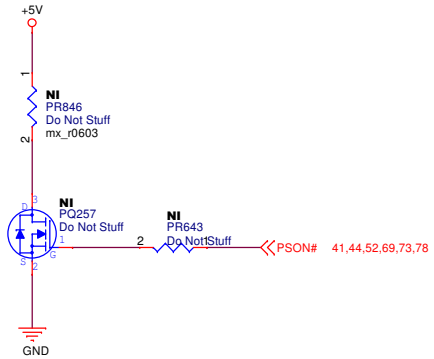

PEGATRON Title : +1P05V_CPUIO CAP

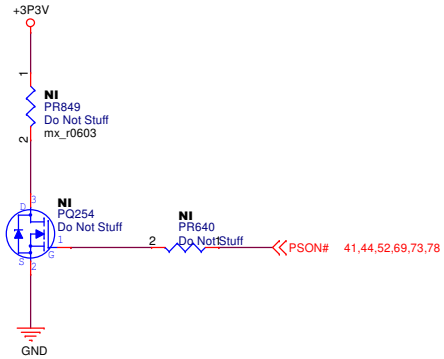
Pegatron Corp. Engineer: ShunJing_Yang

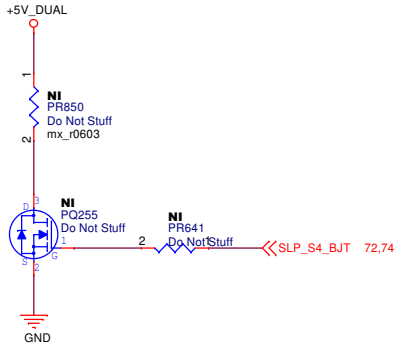
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

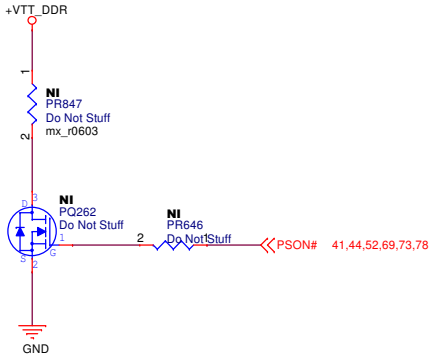
Date: Tuesday, February 21, 2012 Sheet 77 of 82

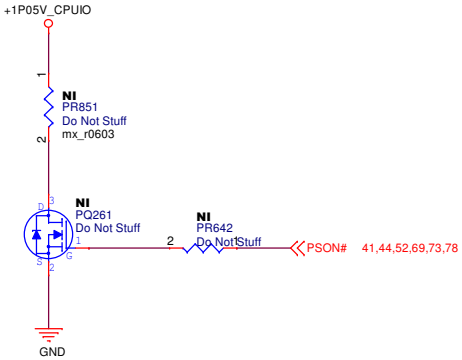





PEGATRON Title : DISCHARGE

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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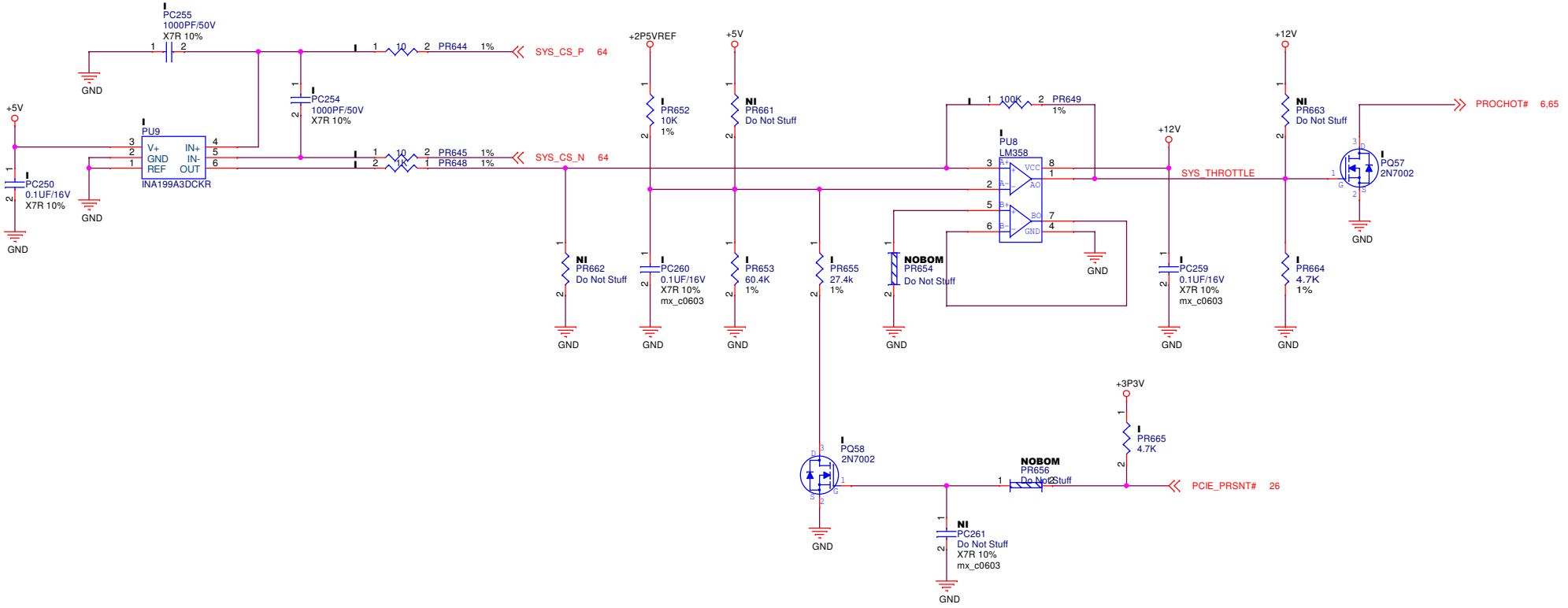




PEGATRON Title : CURRENT SENSE

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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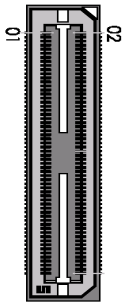
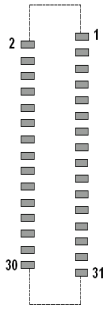


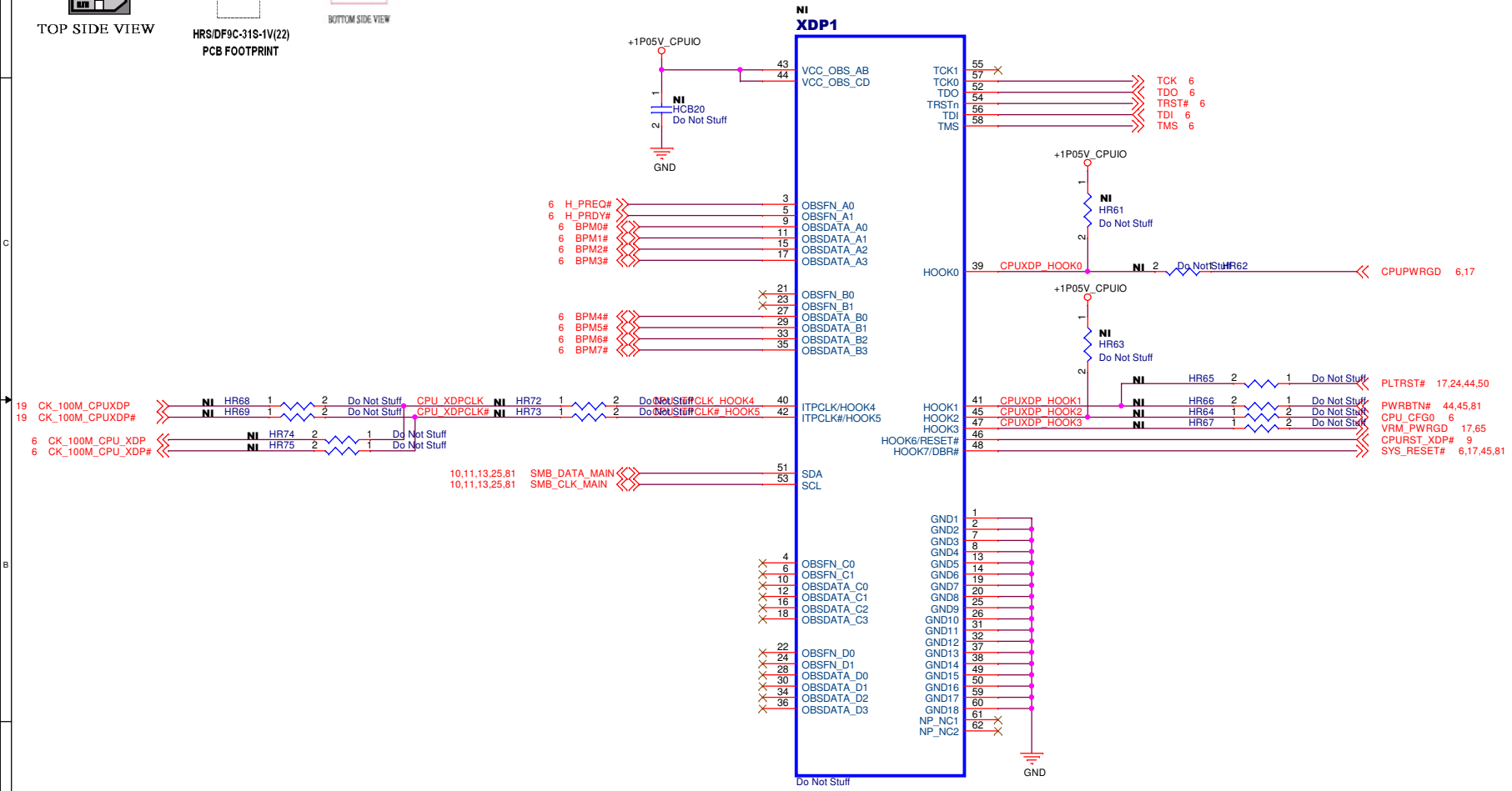

TOP SIDE VIEW




HRS/DF9C-31S-1V(22)
PCB FOOTPRINT

BOTTOM SIDE VIEW

# INTEL CPU XDP DEBUG PORT





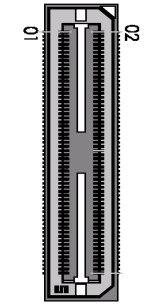

PEGATRON Title : CPU XDP DEBUG

Pegatron Corp. Engineer: ShunJing_Yang

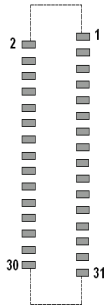
| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

Date: Tuesday, February 21, 2012 Sheet 80 of 82

# INTEL PCH XDP DEBUG PORT

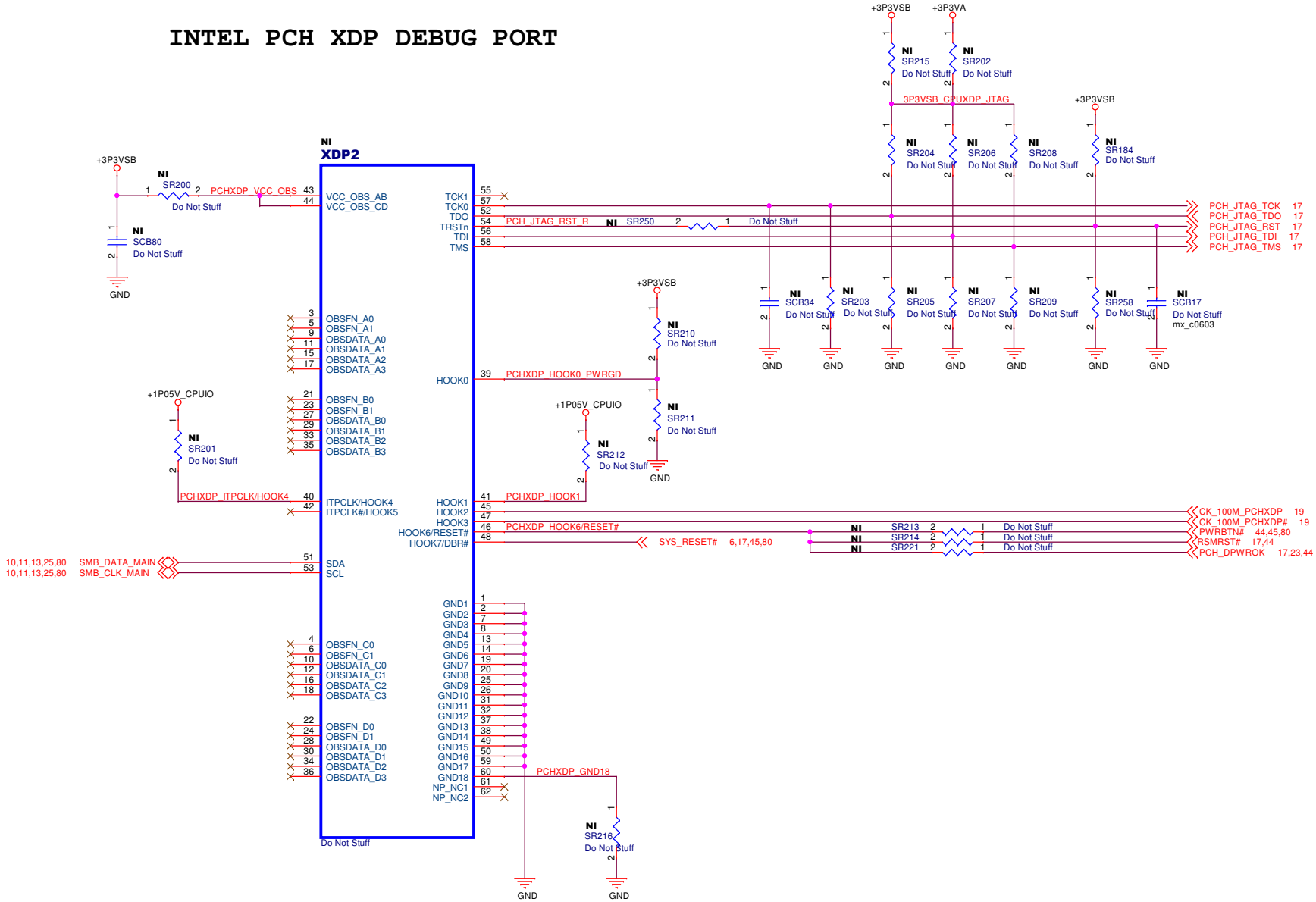



TOP SIDE VIEW



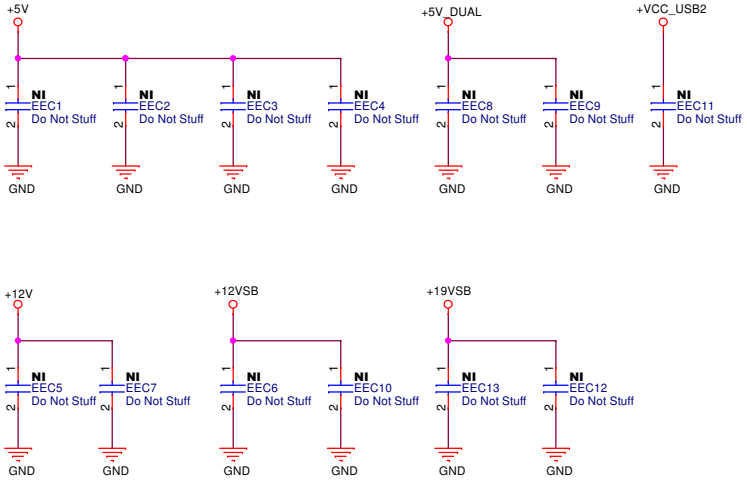

HRS/DF9C-31S-1V(22)
PCB FOOTPRINT

BOTTOM SIDE VIEW






| | | |
|---|---|---|
| PEGATRON | Title : PCH XDP DEBUG | |
| Pegatron Corp. | Engineer: ShunJing_Yang | |
| Size: A3 | Project Name: IPISB-AG | Rev: 1.06 |
| Date: Tuesday, February 21, 2012 | Sheet 81 of 82 | |






PEGATRON Title : EMI CAP

Pegatron Corp. Engineer: ShunJing_Yang

| Size | Project Name | Rev |
|---|---|---|
| A3 | IPISB-AG | 1.06 |

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