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P. Leader	Check by	Design by

Project Code & Schematics Subject:	**MS04 M/B-FUBAI**	**PCB P/N:**	1P-005B100-8012
Project Code & Schematics Subject:	**MS04 M/B-HANNSTAR**	**PCB P/N:**	1P-005B500-8012
Project Code & Schematics Subject:	**MS04 M/B-NAN YA**	**PCB P/N:**	1P-005B200-8012

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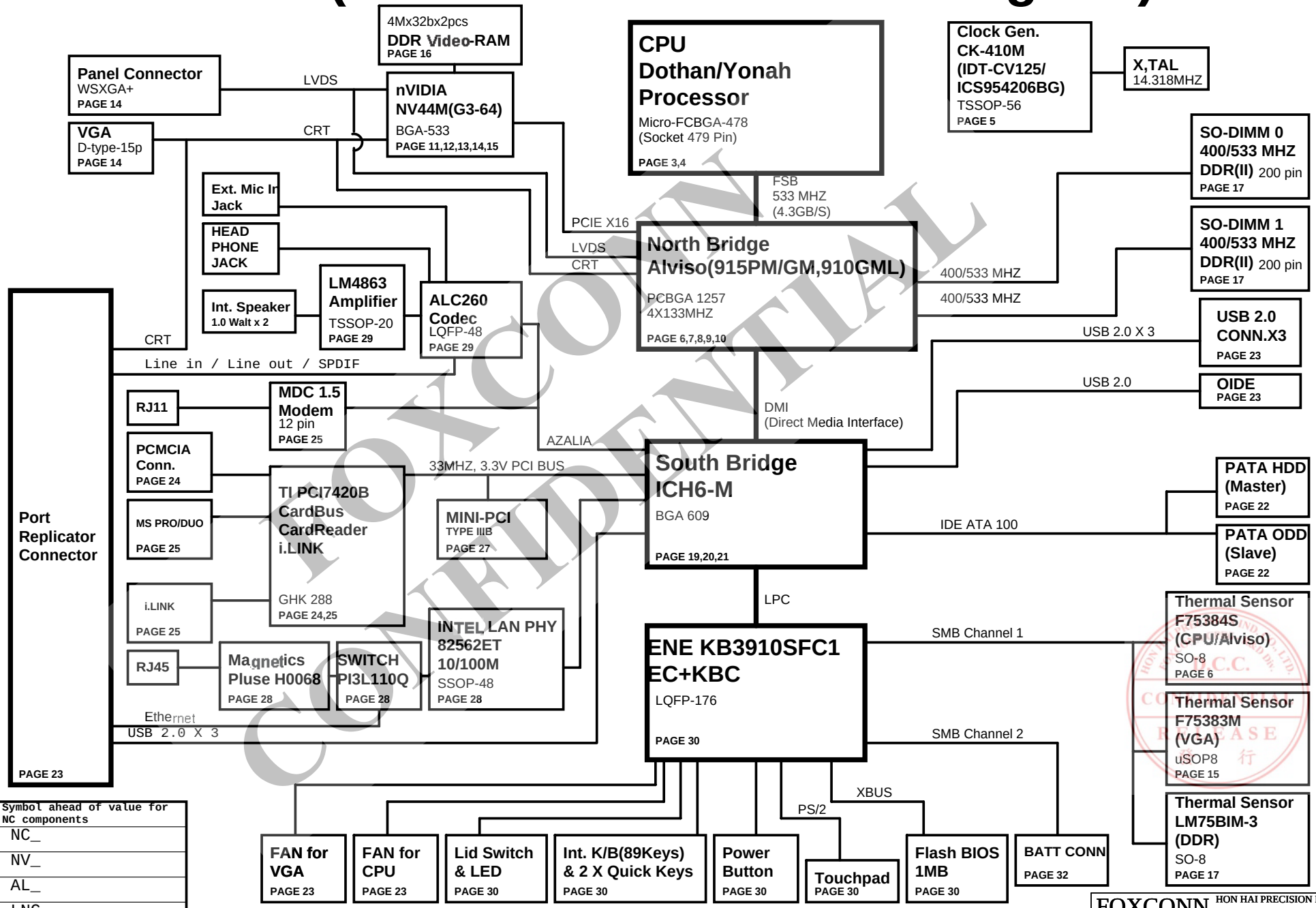
MS04(915PM/GM+Gfx Block Diagram)



	Symbol ahead of value for NC components
ALL	NC_
915PM + NV44M	NV_
915GM or 910GML	AL_
910GML	LNC_
915PM + NV44M or 915GM	HMNC_

BOM configuration

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Title: BLOCK DIAGRAM

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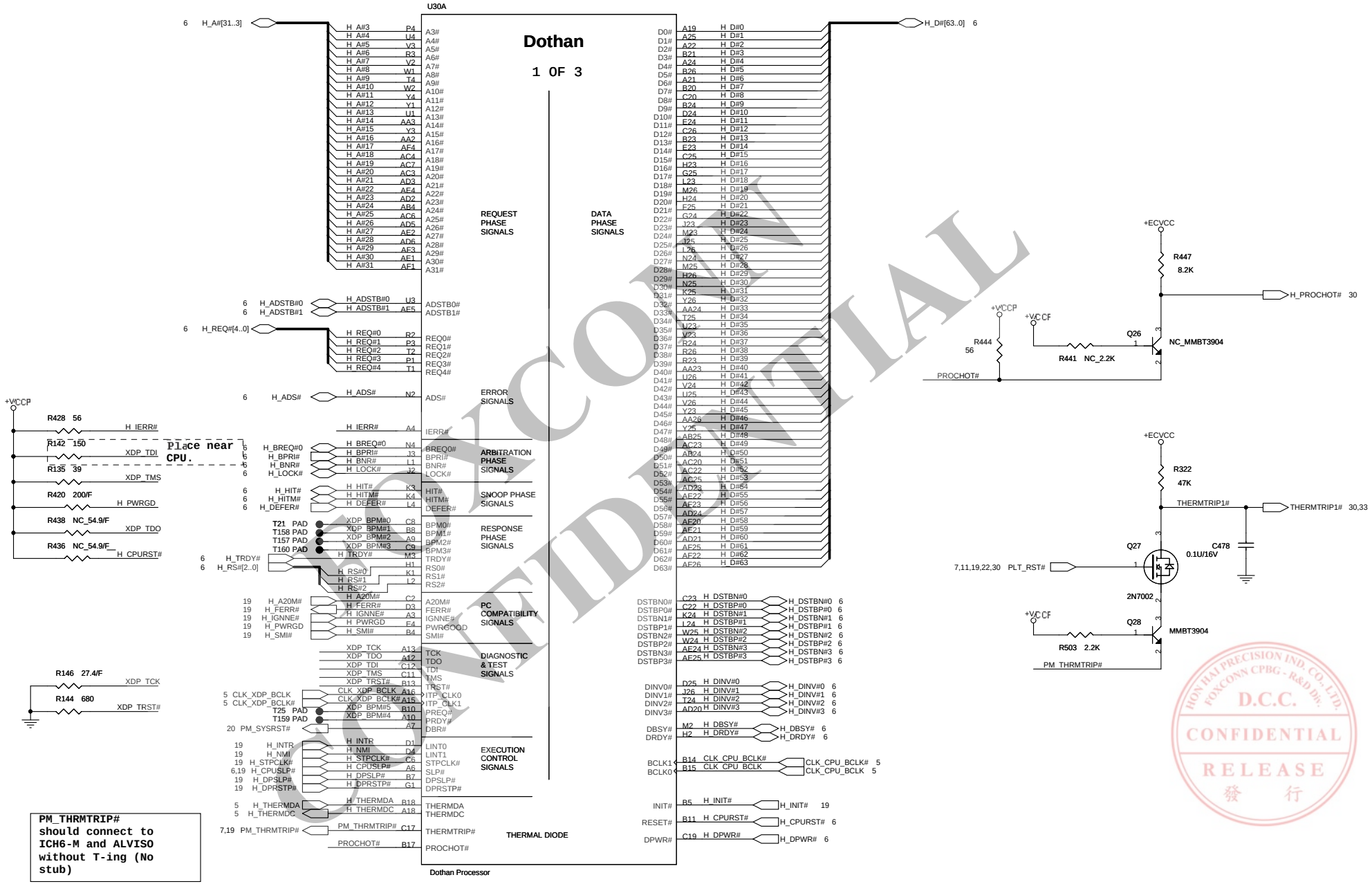

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Title	Dothan(HOST BUS) 1/2	
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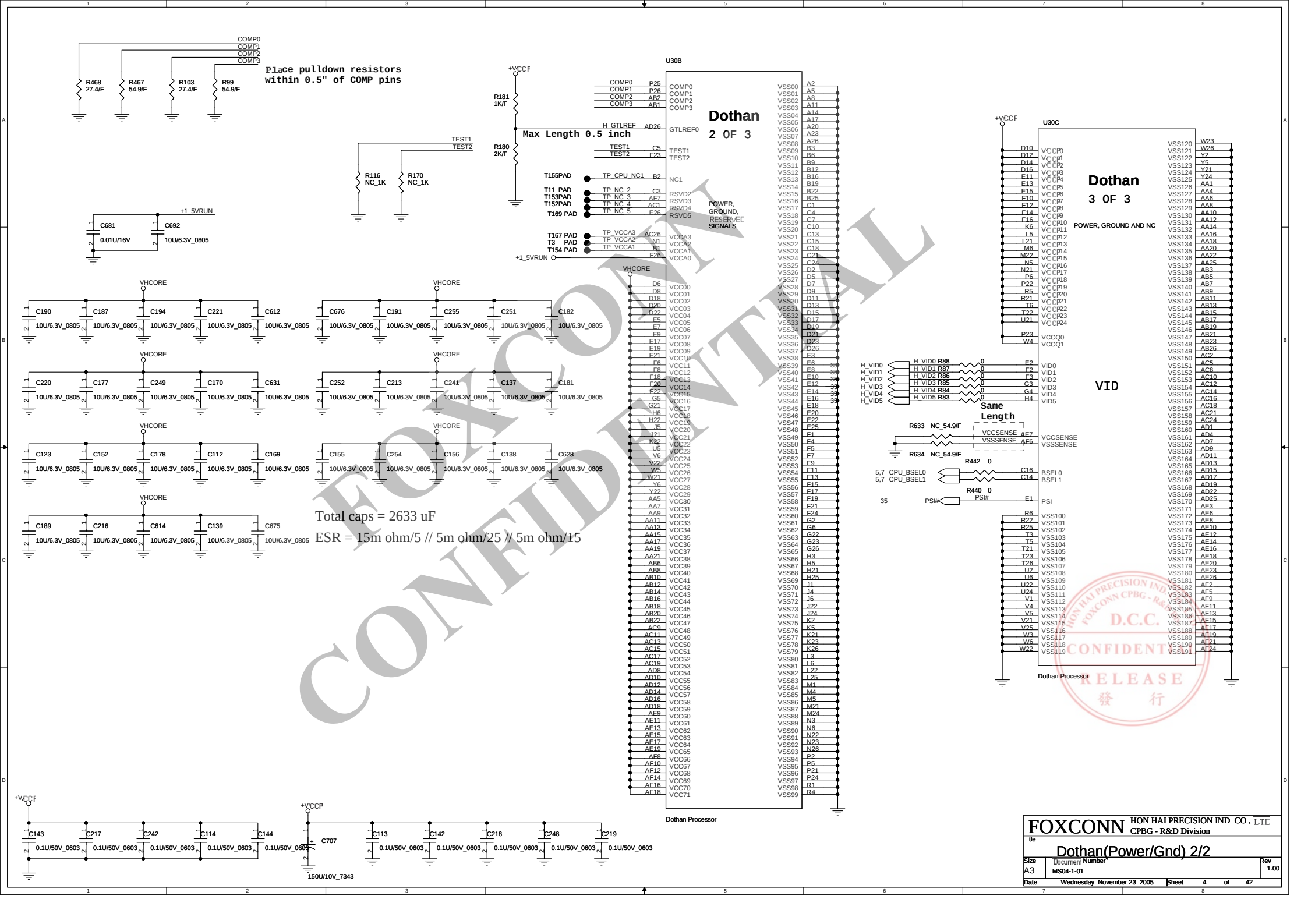

FOXCONN	HON HAI PRECISION IND CO, LTD CPBG - R&D Division	
title	Dothan(Power/Gnd) 2/2	
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FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

Length as short as possible.

Placed within 500mils of Y1

L5030-14.318MHZ/+-30ppm/20pF

SM bus Address : 1101001 (ICH6) For clock generator

SM bus Address : 1001101(EC) For F75384S

Place Thermal-Sensor near CPU & GMCH.

IDTCV125 / ICS954206BG

F75384S

Alviso Chip HOST

CPU

Alviso Chip

For NV44M & Alviso option

ICH6 DMI

Graphic NV44M

ALVISO SSCK

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CLOCK GEN(CK-410M)

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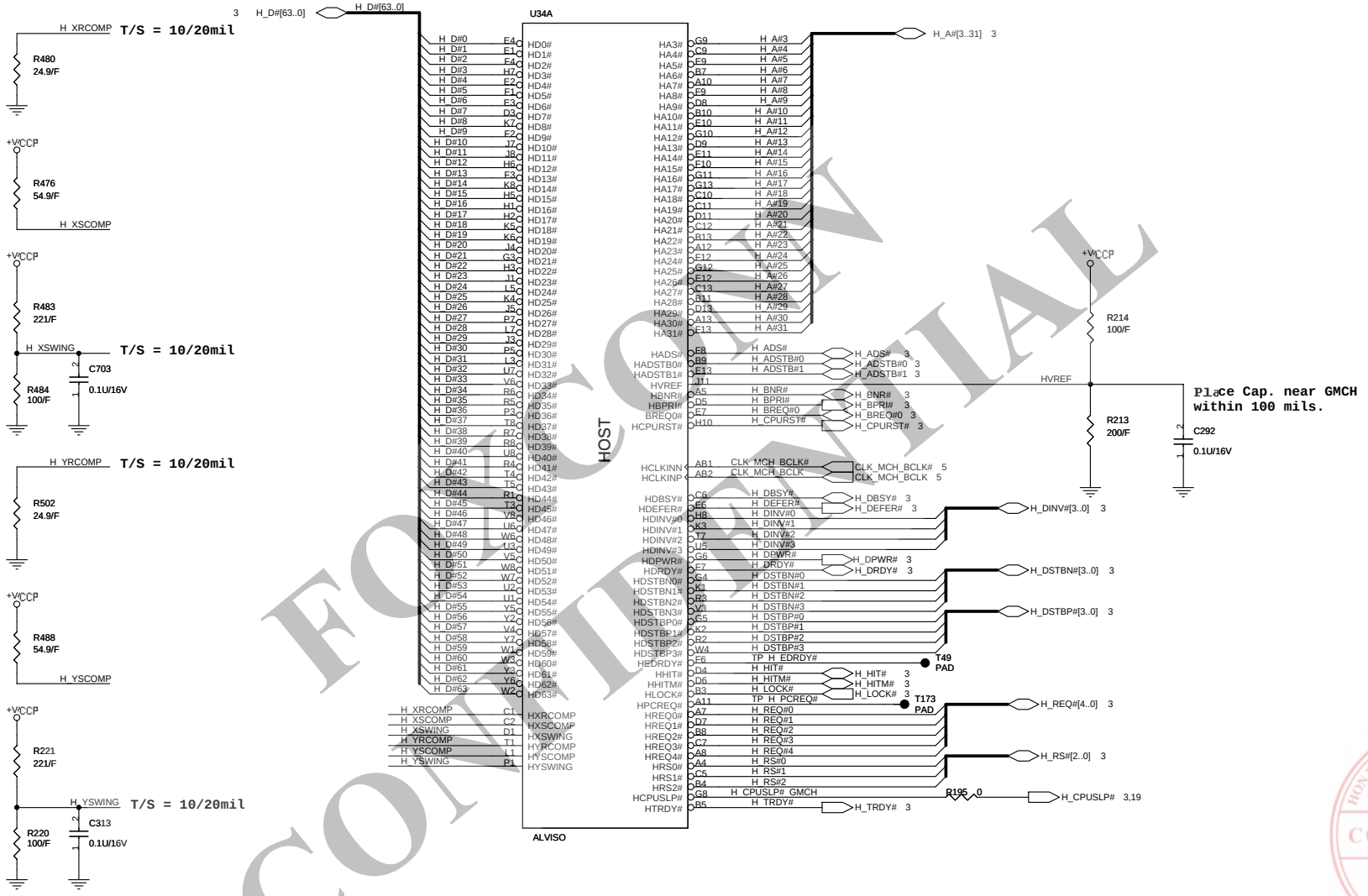

FOXCONN	HON HAI PRECISION IND CO , LTD CPBG - R&D Division	
Title	Alviso (HOST) 1/5	
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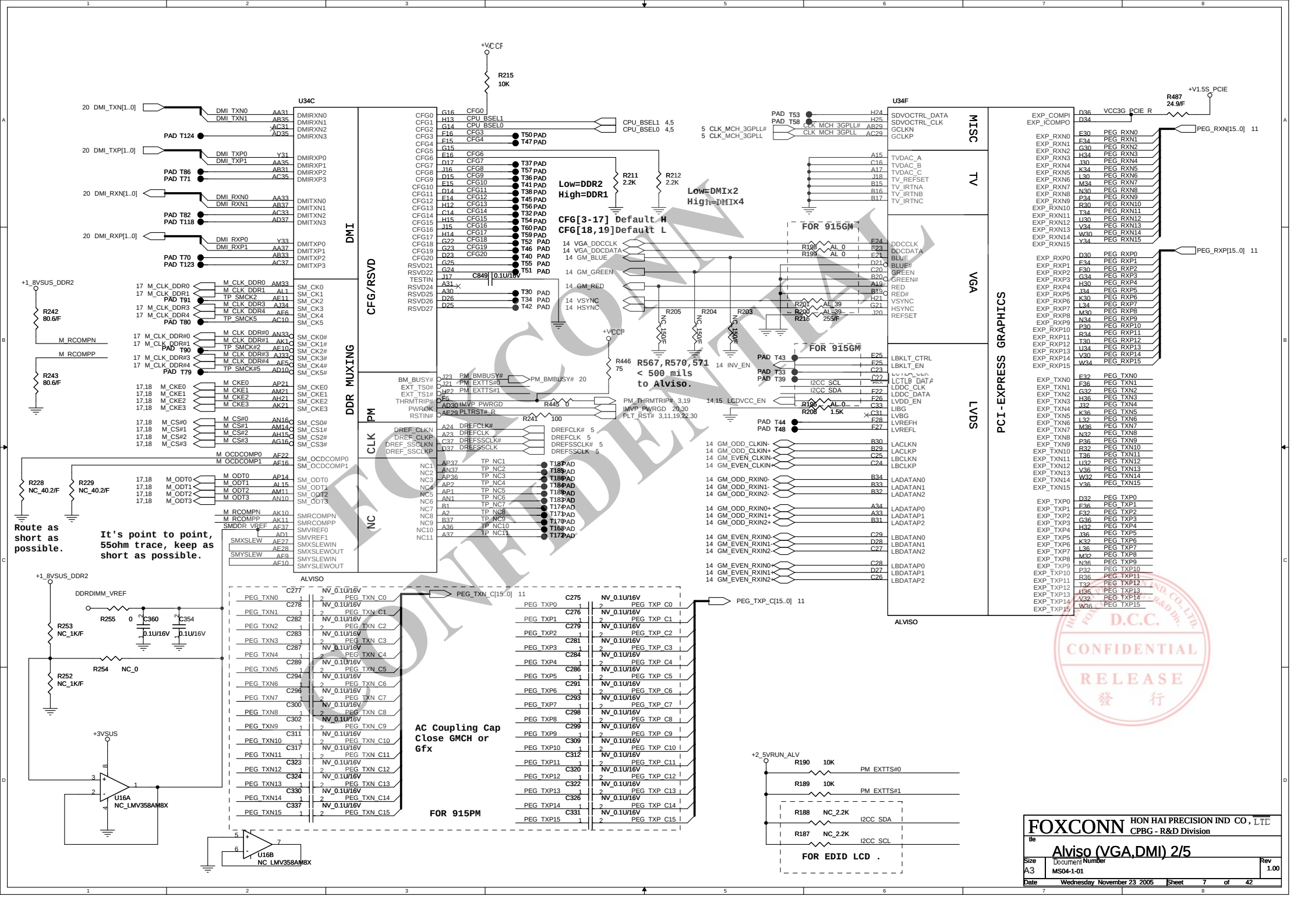
U34C
U34F
DMI
CFG/RSVD
DDR MUXING
CLK PM
NC
MISC
TV
VGA
LVDS
PCI-EXPRESS GRAPHICS
FOR 915GM
FOR 915GM
Low=DDR2
High=DDR1
Low=DMIx2
High=DMIx4
CFG[3-17] Default H
CFG[18,19]Default L
R567,R570,571
< 500 mils
to Alviso.
Route as
short as
possible.
It's point to point,
55ohm trace, keep as
short as possible.
AC Coupling Cap
Close GMCH or
Gfx
FOR 915PM
FOR EDID LCD .
U16A
NC_LMV358AM8X
U16B
NC_LMV358AM8X
ALVISO
ALVISO
FOXCONN
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RELEASE
發 行
FOXCONN HON HAI PRECISION IND CO., LTD.
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Alviso (VGA,DMI) 2/5
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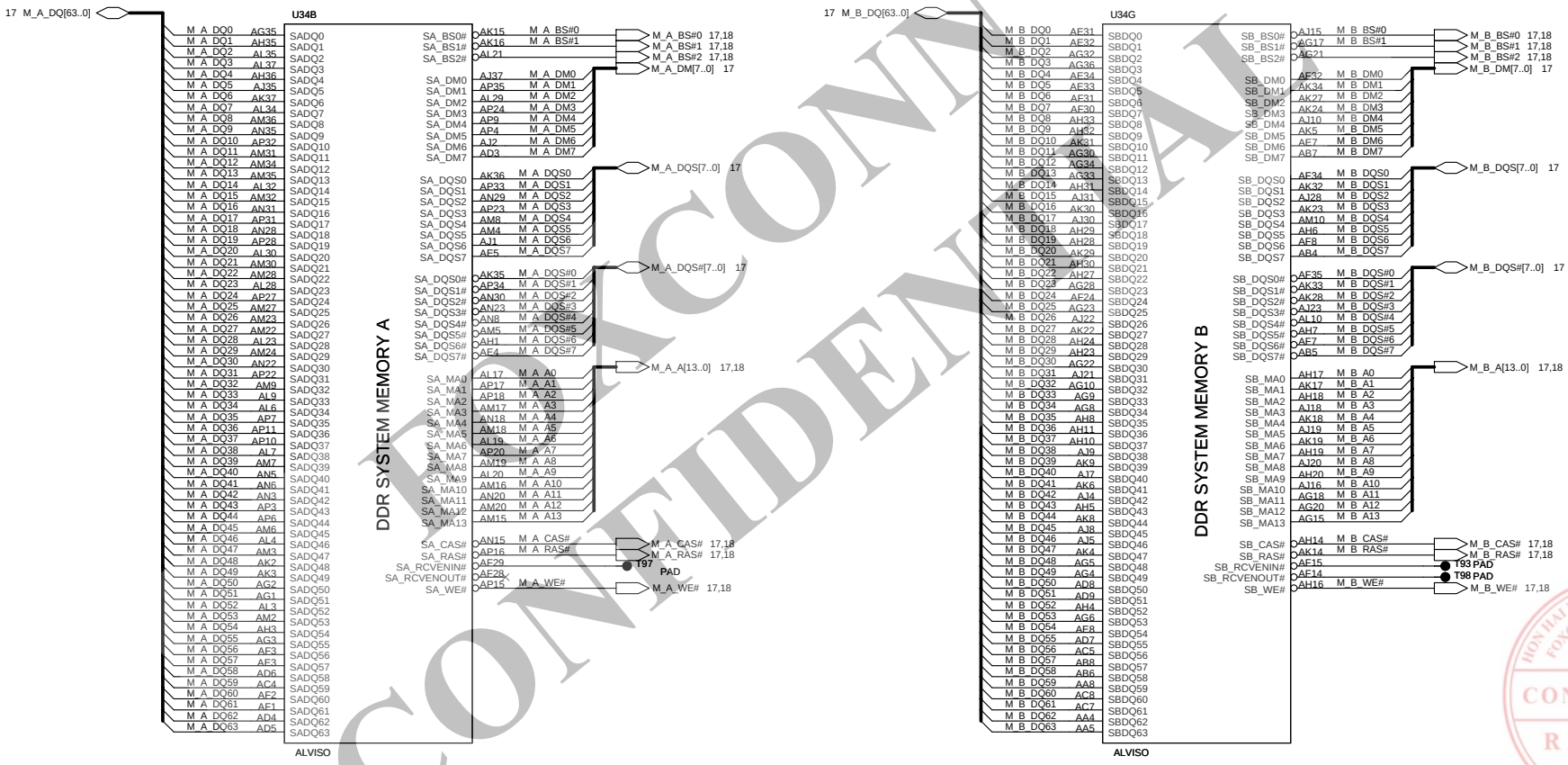

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Title: Alviso (DDR) 3/5

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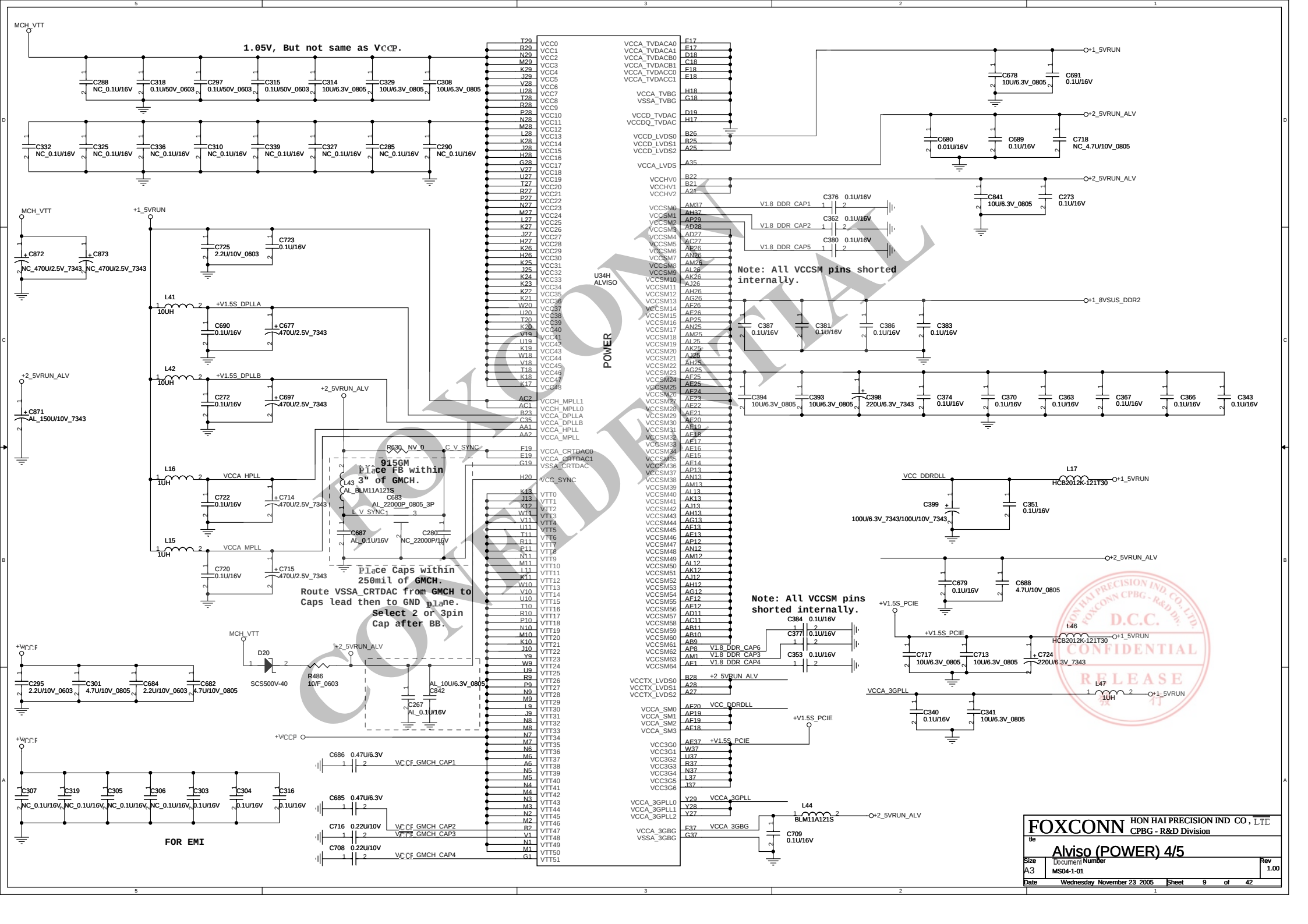
1.05V, But not same as VCCP.
MCH_VTT
+1_5VRUN
+2_5VRUN_ALV
+V1.5S_DPLLA
+V1.5S_DPLLB
VCCA_HPLL
VCCA_MPLL
U34H
ALVISO
POWER
Note: All VCCSM pins shorted internally.
Note: All VCCSM pins shorted internally.
915GM
Place FB within 3" of GMCH.
Place Caps within 250mil of GMCH.
Route VSSA_CRTDAC from GMCH to Caps lead then to GND plane.
Select 2 or 3pin Cap after BB.
FOR EMI
+VCCP
VCC_DDRDLL
+V1.5S_PCIE
VCCA_3GPLL
VCCA_3GBG
+1_8VSUS_DDR2
V1.8_DDR_CAP1
V1.8_DDR_CAP2
V1.8_DDR_CAP5
V1.8_DDR_CAP6
V1.8_DDR_CAP3
V1.8_DDR_CAP4
VCCP_GMCH_CAP1
VCCP_GMCH_CAP2
VCCP_GMCH_CAP3
VCCP_GMCH_CAP4
R630 NV 0
C_V_SYNC
L_V_SYNC
SCS500V-40
R486 10/F_0603
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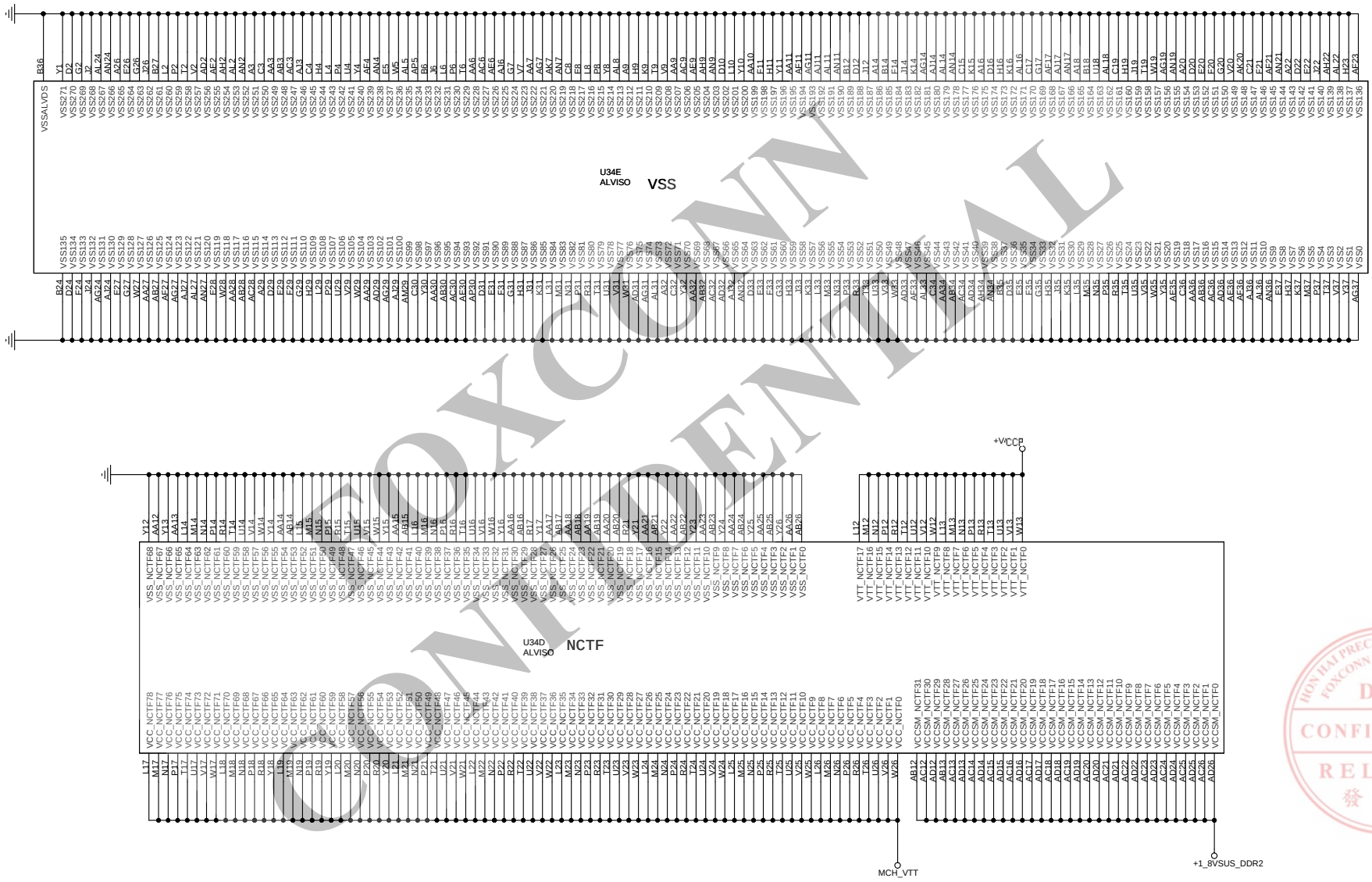

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Title: Alviso (VSS,NCTF) 5/5

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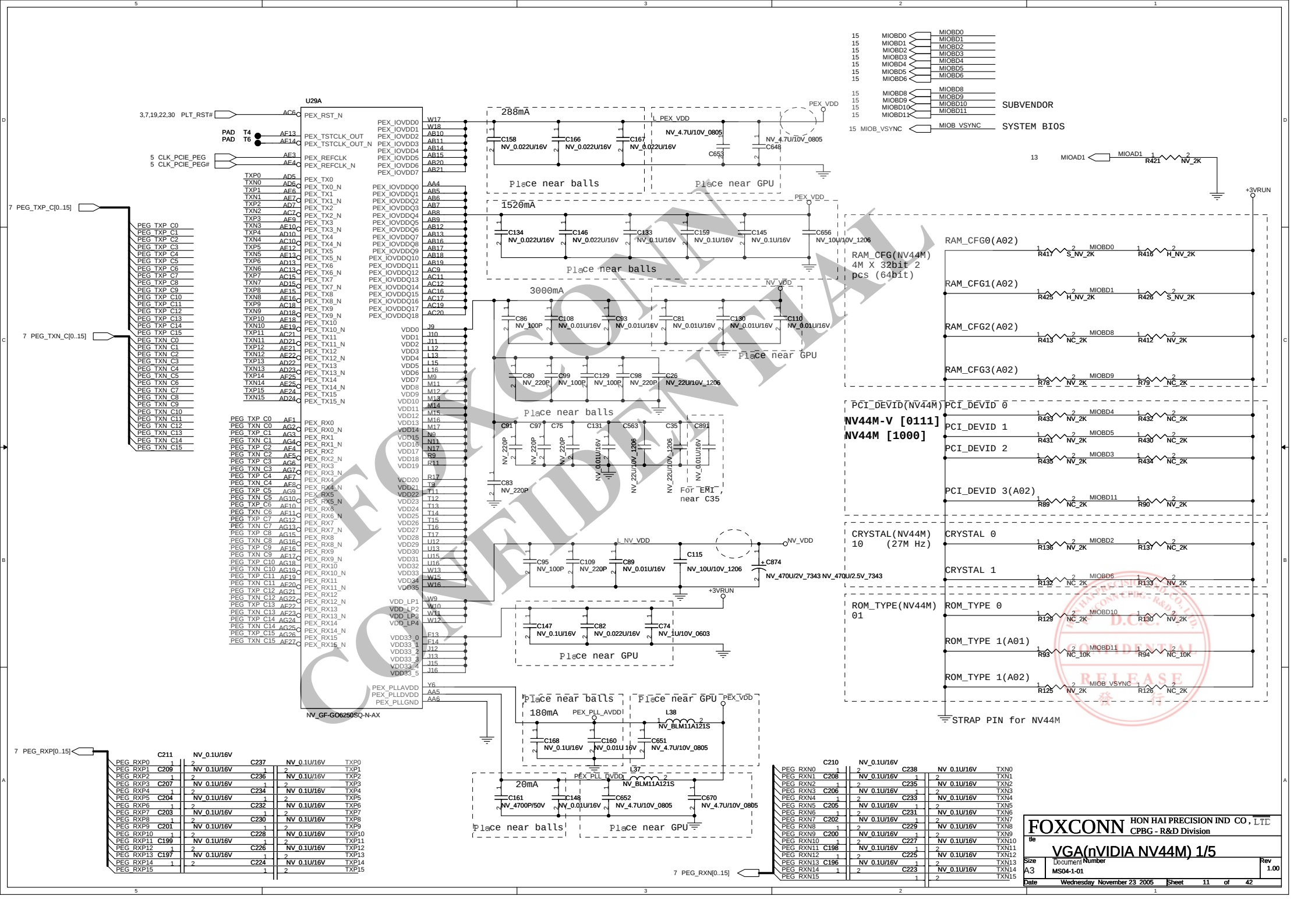
U29A
NV_GF-GO6250SQ-N-AX
PEX_RST_N
PEX_REFCLK
PEX_REFCLK_N
PEX_TSTCLK_OUT
PEX_TSTCLK_OUT_N
PEX_TX0
PEX_TX0_N
PEX_TX1
PEX_TX1_N
PEX_TX2
PEX_TX2_N
PEX_TX3
PEX_TX3_N
PEX_TX4
PEX_TX4_N
PEX_TX5
PEX_TX5_N
PEX_TX6
PEX_TX6_N
PEX_TX7
PEX_TX7_N
PEX_TX8
PEX_TX8_N
PEX_TX9
PEX_TX9_N
PEX_TX10
PEX_TX10_N
PEX_TX11
PEX_TX11_N
PEX_TX12
PEX_TX12_N
PEX_TX13
PEX_TX13_N
PEX_TX14
PEX_TX14_N
PEX_TX15
PEX_TX15_N
PEX_RX0
PEX_RX0_N
PEX_RX1
PEX_RX1_N
PEX_RX2
PEX_RX2_N
PEX_RX3
PEX_RX3_N
PEX_RX4
PEX_RX4_N
PEX_RX5
PEX_RX5_N
PEX_RX6
PEX_RX6_N
PEX_RX7
PEX_RX7_N
PEX_RX8
PEX_RX8_N
PEX_RX9
PEX_RX9_N
PEX_RX10
PEX_RX10_N
PEX_RX11
PEX_RX11_N
PEX_RX12
PEX_RX12_N
PEX_RX13
PEX_RX13_N
PEX_RX14
PEX_RX14_N
PEX_RX15
PEX_RX15_N
PEX_IOVDD0
PEX_IOVDD1
PEX_IOVDD2
PEX_IOVDD3
PEX_IOVDD4
PEX_IOVDD5
PEX_IOVDD6
PEX_IOVDD7
PEX_IOVDDQ0
PEX_IOVDDQ1
PEX_IOVDDQ2
PEX_IOVDDQ3
PEX_IOVDDQ4
PEX_IOVDDQ5
PEX_IOVDDQ6
PEX_IOVDDQ7
PEX_IOVDDQ8
PEX_IOVDDQ9
PEX_IOVDDQ10
PEX_IOVDDQ11
PEX_IOVDDQ12
PEX_IOVDDQ13
PEX_IOVDDQ14
PEX_IOVDDQ15
PEX_IOVDDQ16
PEX_IOVDDQ17
PEX_IOVDDQ18
VDD0
VDD1
VDD2
VDD3
VDD4
VDD5
VDD6
VDD7
VDD8
VDD9
VDD10
VDD11
VDD12
VDD13
VDD14
VDD15
VDD16
VDD17
VDD18
VDD19
VDD20
VDD21
VDD22
VDD23
VDD24
VDD25
VDD26
VDD27
VDD28
VDD29
VDD30
VDD31
VDD32
VDD33
VDD34
VDD35
VDD_LP1
VDD_LP2
VDD_LP3
VDD_LP4
VDD33_0
VDD33_1
VDD33_2
VDD33_3
VDD33_4
VDD33_5
PEX_PLLAVDD
PEX_PLLDVDD
PEX_PLLGND
3,7,19,22,30 PLT_RST#
PAD T4
PAD T6
5 CLK_PCIE_PEG
5 CLK_PCIE_PEG#
7 PEG_TXP_C[0..15]
7 PEG_TXN_C[0..15]
7 PEG_RXP[0..15]
7 PEG_RXN[0..15]
288mA
1520mA
3000mA
180mA
20mA
Place near balls
Place near GPU
PEX_VDD
NV_VDD
L_PEX_VDD
L_NV_VDD
+3VRUN
For EMI, near C35
C158 NV_0.022U/16V
C166 NV_0.022U/16V
C167 NV_0.022U/16V
NV_4.7U/10V_0805
C653
C648
C134 NV_0.022U/16V
C146 NV_0.022U/16V
C133 NV_0.1U/16V
C159 NV_0.1U/16V
C145 NV_0.1U/16V
C656 NV_10U/10V_1206
C86 NV_100P
C108 NV_0.01U/16V
C93 NV_0.01U/16V
C81 NV_0.01U/16V
C130 NV_0.01U/16V
C110 NV_0.01U/16V
C80 NV_220P
C99 NV_100P
C129 NV_100P
C98 NV_220P
C26 NV_22U/10V_1206
C91
C97
C75
C131
C563
C35
C891
C83 NV_220P
C95 NV_100P
C109 NV_220P
C89 NV_0.01U/16V
C115 NV_10U/10V_1206
C874 NV_470U/2V_7343 NV_470U/2.5V_7343
C147 NV_0.1U/16V
C82 NV_0.022U/16V
C74 NV_1U/10V_0603
C168 NV_0.1U/16V
C160 NV_0.01U/16V
C651 NV_4.7U/10V_0805
L38 NV_BLM11A121S
C161 NV_4700P/50V
C148 NV_0.01U/16V
C652 NV_4.7U/10V_0805
C670 NV_4.7U/10V_0805
L37 NV_BLM11A121S
PEX_PLL_AVDD
PEX_PLL_DVDD
15 MIOBD0
15 MIOBD1
15 MIOBD2
15 MIOBD3
15 MIOBD4
15 MIOBD5
15 MIOBD6
15 MIOBD8
15 MIOBD9
15 MIOBD10
15 MIOBD11
15 MIOB_VSYNC
SUBVENDOR
SYSTEM BIOS
13 MIOAD1
R421 NV_2K
RAM_CFG(NV44M)
4M X 32bit 2 pcs (64bit)
RAM_CFG0(A02)
RAM_CFG1(A02)
RAM_CFG2(A02)
RAM_CFG3(A02)
R417 S_NV_2K
R416 H_NV_2K
R425 H_NV_2K
R426 S_NV_2K
R413 NC_2K
R412 NV_2K
R78 NV_2K
R79 NC_2K
PCI_DEVID(NV44M)
NV44M-V [0111]
NV44M [1000]
PCI_DEVID 0
PCI_DEVID 1
PCI_DEVID 2
PCI_DEVID 3(A02)
R433 NV_2K
R432 NC_2K
R431 NV_2K
R430 NC_2K
R435 NV_2K
R434 NC_2K
R89 NC_2K
R90 NV_2K
CRYSTAL(NV44M)
10 (27M Hz)
CRYSTAL 0
CRYSTAL 1
R136 NV_2K
R137 NC_2K
R132 NC_2K
R133 NV_2K
ROM_TYPE(NV44M)
01
ROM_TYPE 0
ROM_TYPE 1(A01)
ROM_TYPE 1(A02)
R129 NV_2K
R130 NV_2K
R93 NC_10K
R94 NC_10K
R125 NV_2K
R126 NC_2K
MIOB_VSYNC
STRAP PIN for NV44M
C211 NV_0.1U/16V
C237 NV_0.1U/16V
C209 NV_0.1U/16V
C236 NV_0.1U/16V
C207 NV_0.1U/16V
C234 NV_0.1U/16V
C204 NV_0.1U/16V
C232 NV_0.1U/16V
C203 NV_0.1U/16V
C230 NV_0.1U/16V
C201 NV_0.1U/16V
C228 NV_0.1U/16V
C199 NV_0.1U/16V
C226 NV_0.1U/16V
C197 NV_0.1U/16V
C224 NV_0.1U/16V
C210 NV_0.1U/16V
C238 NV_0.1U/16V
C208 NV_0.1U/16V
C235 NV_0.1U/16V
C206 NV_0.1U/16V
C233 NV_0.1U/16V
C205 NV_0.1U/16V
C231 NV_0.1U/16V
C202 NV_0.1U/16V
C229 NV_0.1U/16V
C200 NV_0.1U/16V
C227 NV_0.1U/16V
C198 NV_0.1U/16V
C225 NV_0.1U/16V
C196 NV_0.1U/16V
C223 NV_0.1U/16V
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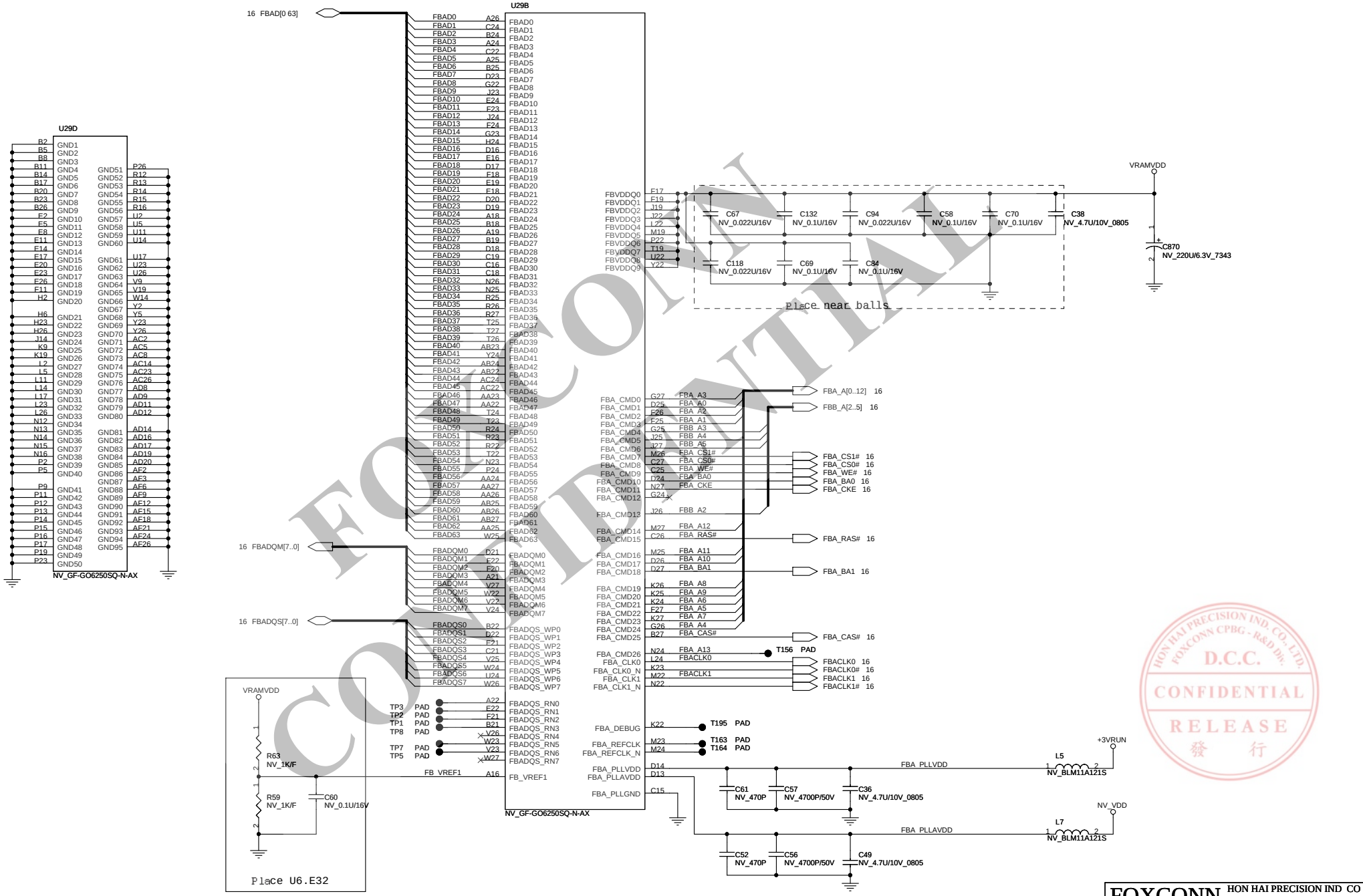

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Title: VGA(nVIDIA NV44M) 2/5

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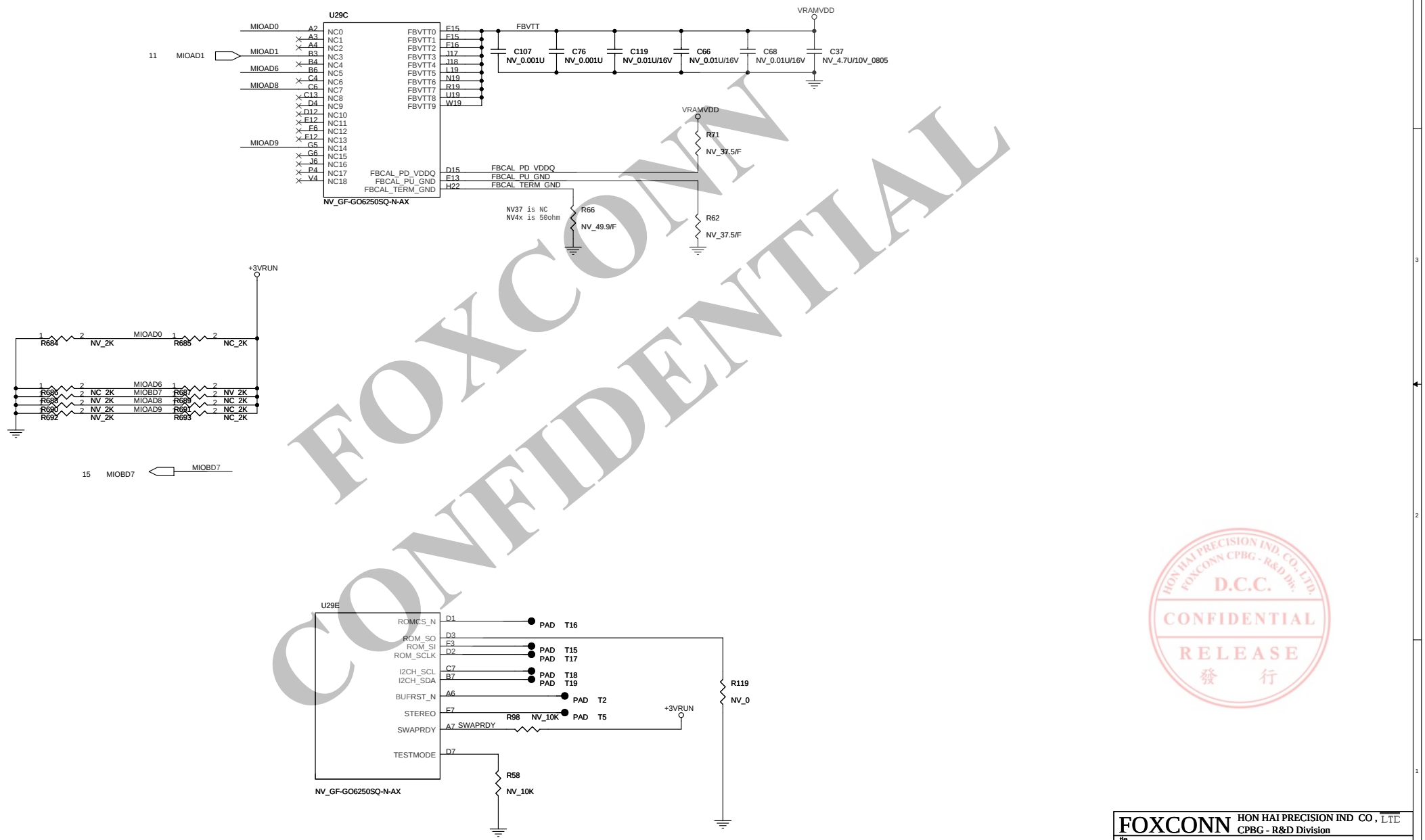

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tle VGA(nVIDIA NV44M) 3/5

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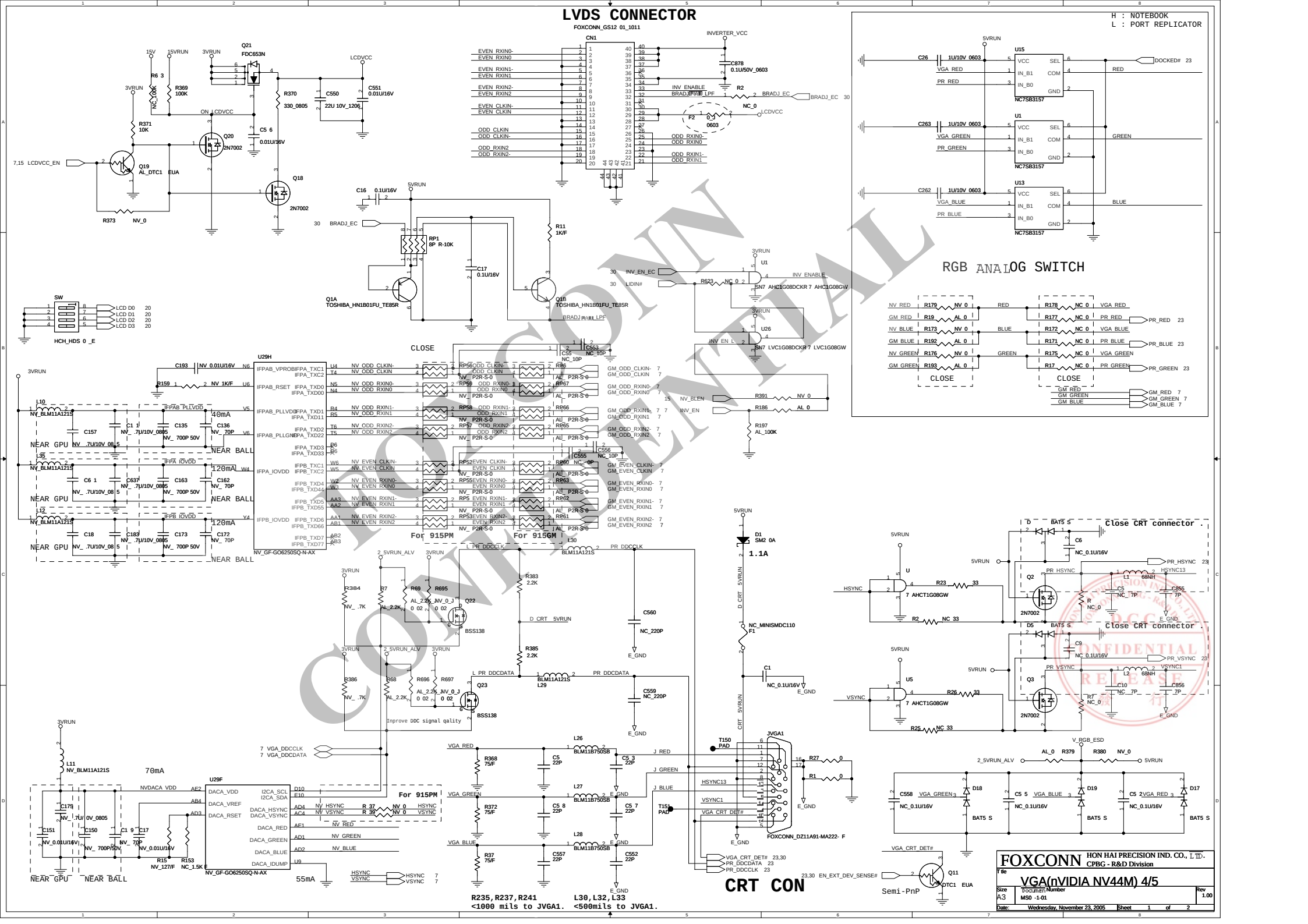
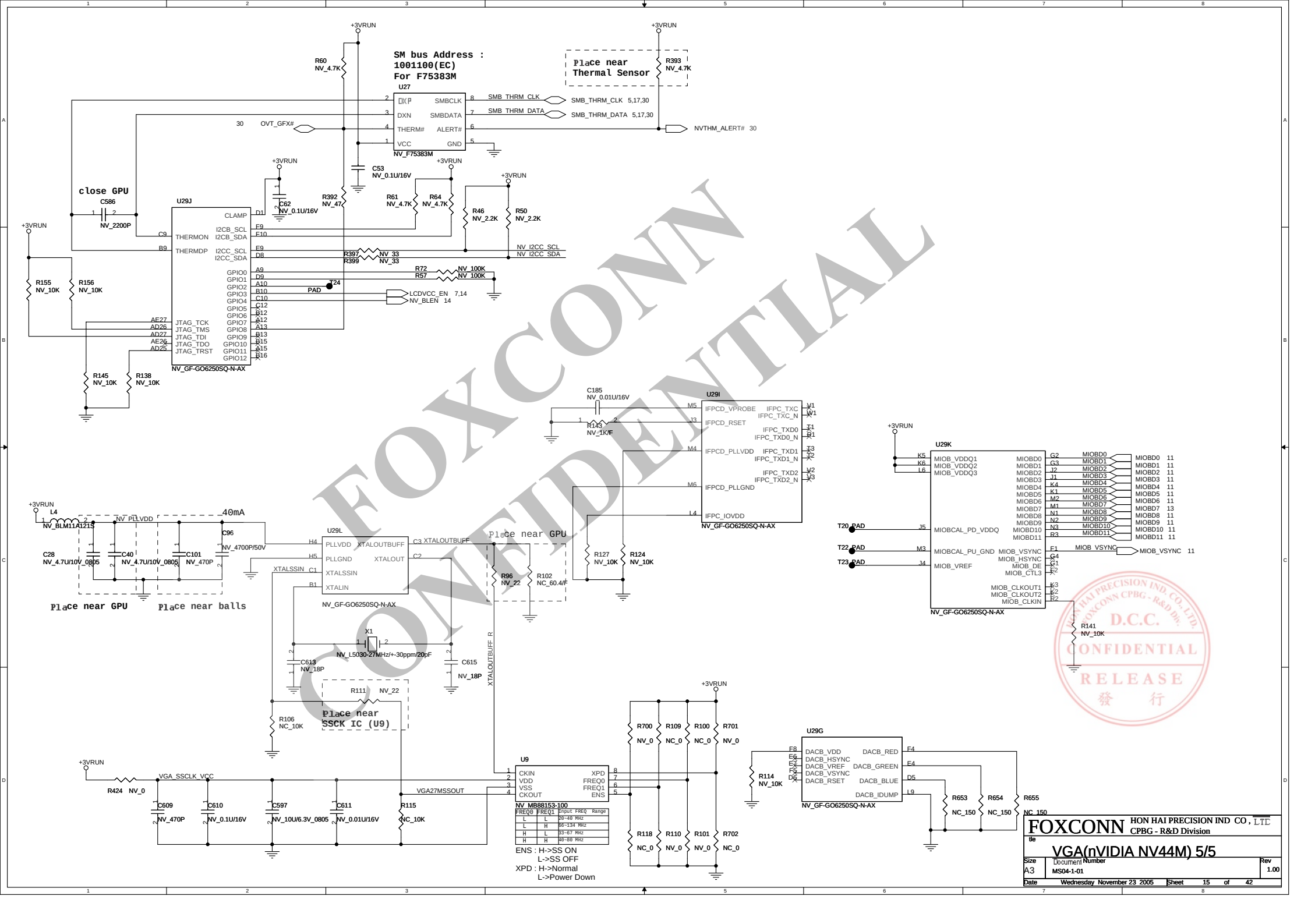
LVDS CONNECTOR




SM bus Address :
1001100(EC)
For F75383M
Place near
Thermal Sensor
U27
NV_F75383M
SMB_THRM_CLK
SMB_THRM_DATA
NVTHM_ALERT#
OVT_GFX#
close GPU
U29J
NV_GF-GO6250SQ-N-AX
U29I
U29K
U29L
U29G
U9
Place near GPU
Place near balls
Place near SSCK IC (U9)
ENS : H->SS ON
L->SS OFF
XPD : H->Normal
L->Power Down
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