

CONTENT	SHEET
Cover Sheet	1
Block Diagram	2
Clock Distribution	3
Power Delivery Map	4
Platform Sequence	5
Reset Map	6
CK505 ClockGen	7
VRD11.1-NCP5392	8
LGA775 -1~3	9~11
Eaglelake -GMCH-1~4	12~15
DDRII-CHA/DIMM 1 & 3	16
DDRII-CHB/DIMM 2 & 4	17
DDRII-Termination	18
1D1V/1D5V/FSB_VTT	19
STR1D8V 3D3V_DUAL 5V_DUAL	20
VGA / DVI Connector	21
PCI-E16X Slot / GenII Switch	22
ICH10-1~4	23~26
Intel BOAZMAN LAN	27
HDA Codec ALC888S	28
Super I/O -IT8720F	29
PCI Express x1 Slot	30
PCI Slot	31
ATX, FP, MISC Connector	32
CPU / System Fan	33
KB/MS, TPM, XDP	34
LAN / USB Connector	35
Front USB Connector	36
Front Audio / SPI / 80 PORT	37
Reserved-1~2	38~39
GPIO / IRQ / IDSEL Map	40
History	41

ELM01_uATX (Version: 0A)

CPU: Intel Conroe, Wolfdale, Yorkfield processors in LGA775 Package.

System Chipset:

North Bridge ... Eaglelake-Q
South Bridge ... ICH10-DO

Main Memory:

Dual Channel / DDR-II * 4 (Maximum to 8GB)

On Board Device:

Clock Generator ... IDTCV183-2BPAG
Super I/O ... IT8720F
LAN ... Intel BOAZMAN (82567LM) ... GbE
HDA Codec ... ALC888S
BIOS ... SPI Flash ROM

Expansion Slots:

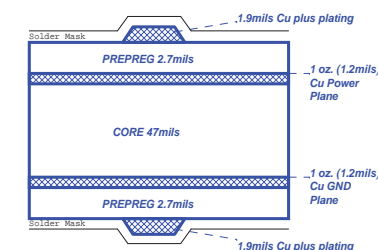
PCI EXPRESS 16X SLOT *1
PCI EXPRESS 1X SLOT * 2
PCI SLOT * 1

PWM Controller:

Controller ... NCP5392MNR2G (4Phase)
Driver ... NCP5359DR2G

Board Stack-up

(1080 Prepreg Considerations)

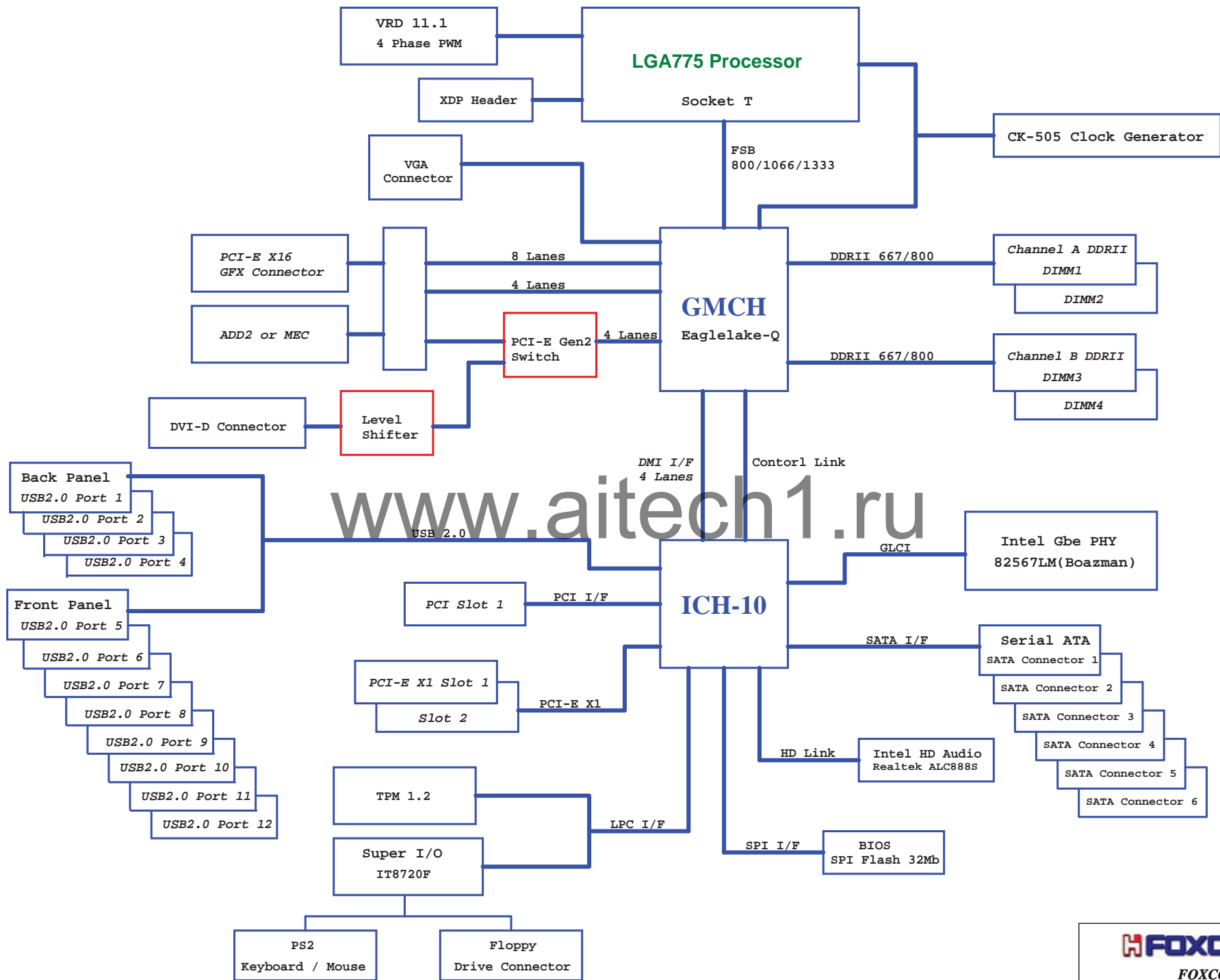


Single End 50ohm Top/Bottom : 4mils
USB2.0 - 90ohm : 15/4.5/7.5/4.5/15
SATA - 95ohm : 15/4/8/4/15
PCI-E - 95ohm : 15/4/8/4/15
DMI - 95ohm : 15/4/8/4/15

FOXCONN

FOXCONN PCEG

Title			Cover Sheet
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	1 of 41



FOXCONN®

FOXCONN PCEG

Title			Block Diagram
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	2 of 41

14.318MHz

CK-505

CPU

CPU 200/266/333 MHz Diff Pair

MCH 200/266/333 MHz Diff Pair

PCI Express 100 MHz Diff Pair

PCI Express x16 Gfx

DOT 96 MHz Diff Pair

PCI Express/DMI 100 MHz Diff Pair

PCI Express/DMI 100 MHz Diff Pair

USB/SIO 48 MHz

ICH 33 MHz

REF 14 MHz

PCI 33 MHz

PCI Slot 1

80 Port 33MHz

80 Port

TPM 33 MHz

TPM 1.2

LAN 25 MHz

Intel GbeLAN
82567LM(BOAZMAN)

SIO 33 MHz

SATA 100 MHz Diff Pair

PCI Express 100 Mhz Diff Pair

PCI Express x1 Slot 1

PCI Express 100 Mhz Diff Pair

PCI Express x1 Slot 2

XDP 100MHz Diff Pair

XDP

DDRII 4 Slots 12 Diff CLKs

Channel A DDRII
DIMM1

DDRII 667/800

DIMM2

Channel B DDRII
DIMM3

DDRII 667/800

DIMM4

GMCH
Eaglelake

ICH10

32.768KHz

Azalia Bit Clock

HD Audio

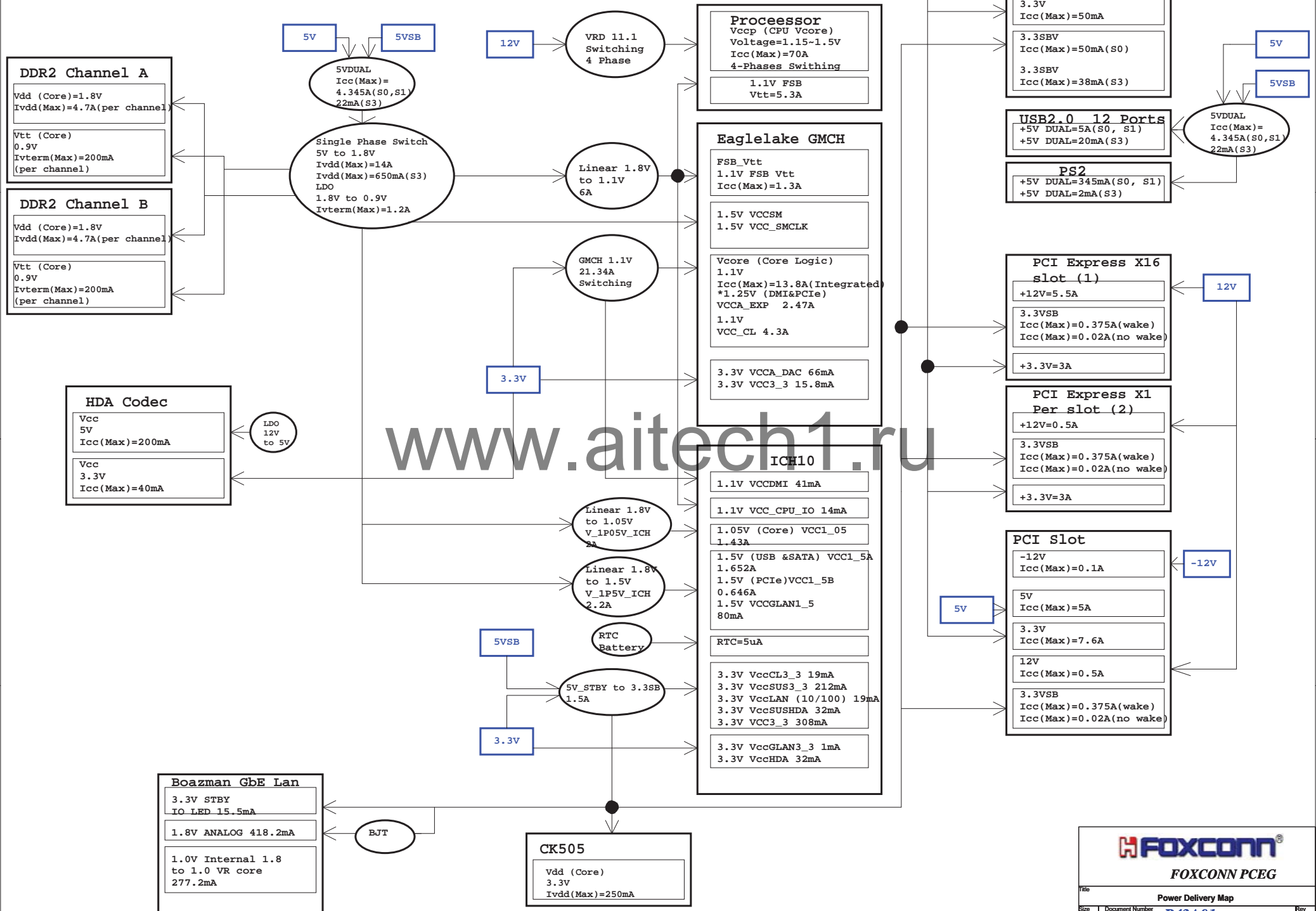
Super I/O

FOXCONN

FOXCONN PCEG

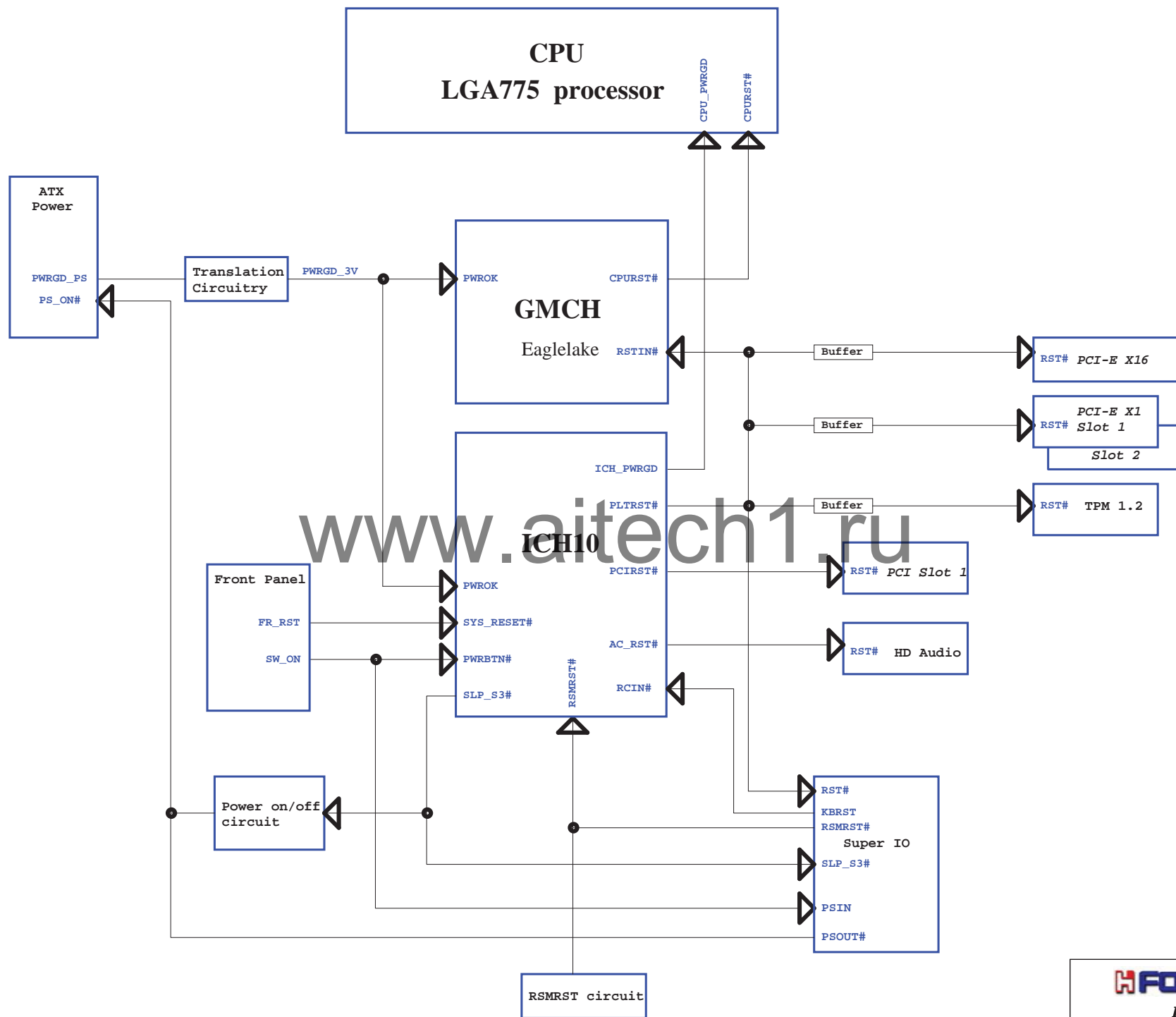
Title			
Clock Distribution			
Size	Document Number		Rev
C	P43A01		A
Date:	Monday, March 24, 2008	Sheet	3 of 41

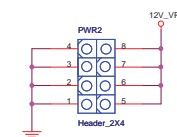
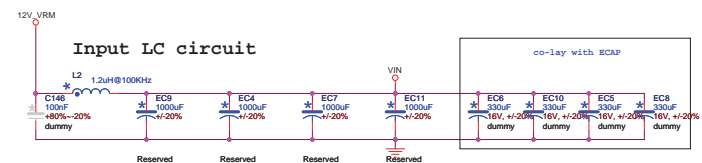
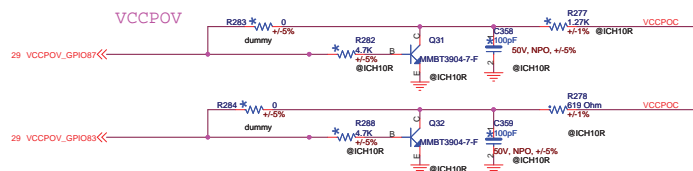
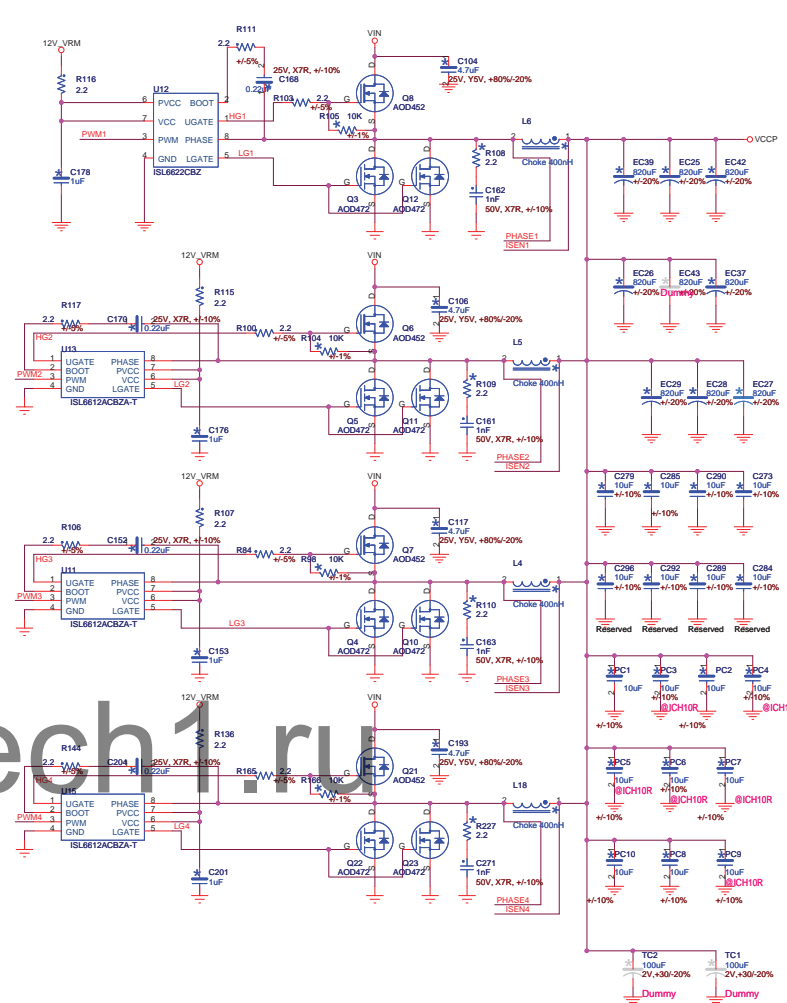
ATX P/S

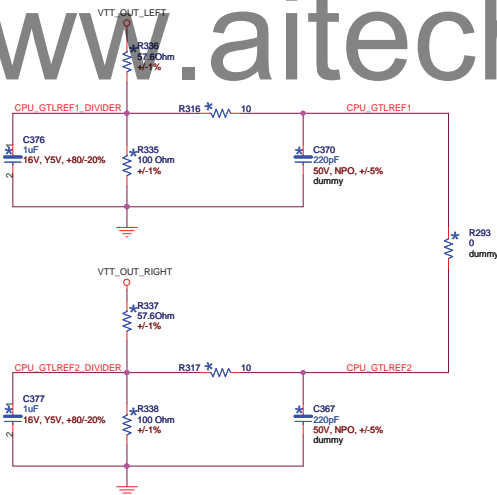
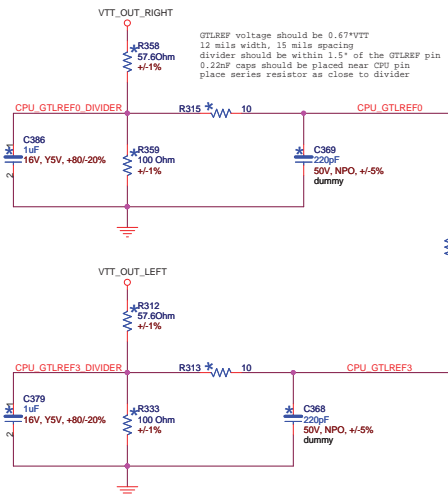
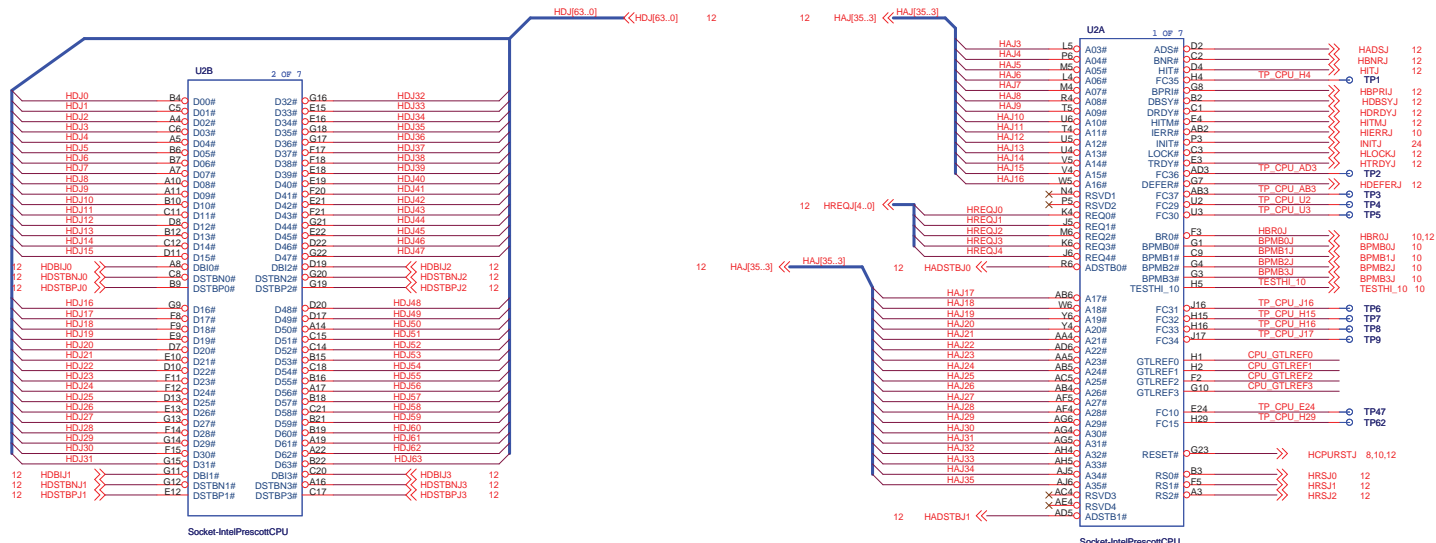


FOXCONN

FOXCONN PCEG



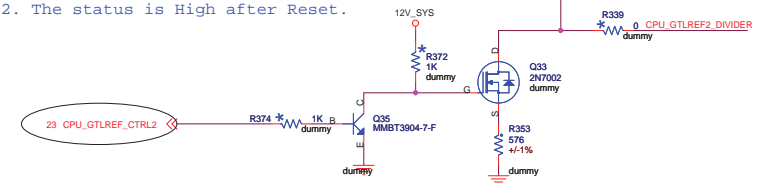


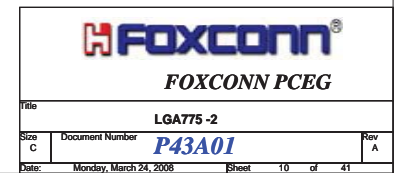


Reserved for CPU_GTLREF Adjusting(Double check)

23 CPU_GTLREF_CTRL1 << ICH_GPIO60 is OD output

GP20(CPU_GTLREF_CTRL2) is used as functional strap.
1. The status is Low during Reset.
2. The status is High after Reset.





UZE	5 OF 7
AG22	VCCP1
K28	VCCP3
AM26	VCCP2
AE12	VCCP9
AE11	VCCP5
W23	VCCP6
W24	VCCP7
W25	VCCP8
W26	VCCP9
T25	VCCP10
T26	VCCP11
AL18	VCCP12
AC25	VCCP13
W30	VCCP14
AN14	VCCP15
AD28	VCCP16
Y26	VCCP17
AC29	VCCP18
M29	VCCP19
U24	VCCP20
J23	VCCP21
AC27	VCCP22
AM18	VCCP23
AM19	VCCP24
AB8	VCCP25
AC26	VCCP26
J28	VCCP27
T30	VCCP28
AM9	VCCP29
AF15	VCCP30
AC8	VCCP31
AE14	VCCP32
N24	VCCP33
W28	VCCP34
U29	VCCP35
AC24	VCCP36
AC23	VCCP37
Y23	VCCP38
AN26	VCCP39
AN25	VCCP40
AN18	VCCP41
AN11	VCCP42
AN16	VCCP43
Y27	VCCP44
Y28	VCCP45
AD24	VCCP46
AE23	VCCP47
AE22	VCCP48
AN19	VCCP49
K8	VCCP50
AE21	VCCP51
AM30	VCCP52
AE10	VCCP53
AC30	VCCP54
AE15	VCCP55
M30	VCCP56
K27	VCCP57
M24	VCCP58
AN21	VCCP59
T8	VCCP60
AC28	VCCP61
N25	VCCP62
AE18	VCCP63
W26	VCCP64
AD25	VCCP65
N30	VCCP66
AD26	VCCP67
AJ26	VCCP68
M25	VCCP69
M26	VCCP70
LB	VCCP71
U25	VCCP72
Y8	VCCP73
AJ27	VCCP74
AD27	VCCP75
U23	VCCP76
M23	VCCP77
AG29	VCCP78
N27	VCCP79
AM22	VCCP80
U28	VCCP81
K28	VCCP82
LB	VCCP83
AK18	VCCP84
AD8	VCCP85
K24	VCCP86
AH28	VCCP87
AJ21	VCCP88
	VCCP89
	VCCP90
	VCCP91
	VCCP92
	VCCP93
	VCCP94
	VCCP95
	VCCP96
	VCCP97
	VCCP98
	VCCP99
	VCCP100

Socket-IntelPrescottCPU

UZF	6 OF 7
AF9	VSS41
AF22	VSS42
AH11	VSS43
AJ14	VSS44
AH19	VSS45
AM25	VSS46
AH29	VSS47
Y29	VSS48
AC26	VSS49
AK19	VSS50
AL26	VSS51
AM12	VSS52
J22	VSS53
J24	VSS54
J13	VSS55
T24	VSS56
W28	VSS57
W28	VSS58
W28	VSS59
W28	VSS60
W28	VSS61
W28	VSS62
W28	VSS63
W28	VSS64
W28	VSS65
W28	VSS66
W28	VSS67
W28	VSS68
W28	VSS69
W28	VSS70
W28	VSS71
W28	VSS72
W28	VSS73
W28	VSS74
W28	VSS75
W28	VSS76
W28	VSS77
W28	VSS78
W28	VSS79
W28	VSS80
W28	VSS81
W28	VSS82
W28	VSS83
W28	VSS84
W28	VSS85
W28	VSS86
W28	VSS87
W28	VSS88
W28	VSS89
W28	VSS90
W28	VSS91
W28	VSS92
W28	VSS93
W28	VSS94
W28	VSS95
W28	VSS96
W28	VSS97
W28	VSS98
W28	VSS99
W28	VSS100

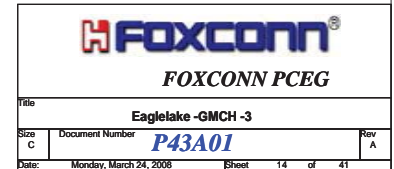
C10	VSS1
D12	VSS2
C24	VSS3
K2	VSS4
C22	VSS5
AN1	VSS6
B14	VSS7
K7	VSS8
AF16	VSS9
B11	VSS10
AL10	VSS11
AK23	VSS12
H12	VSS13
AF7	VSS14
AK19	VSS15
H17	VSS16
W28	VSS17
W28	VSS18
W28	VSS19
W28	VSS20
W28	VSS21
W28	VSS22
W28	VSS23
W28	VSS24
W28	VSS25
W28	VSS26
W28	VSS27
W28	VSS28
W28	VSS29
W28	VSS30
W28	VSS31
W28	VSS32
W28	VSS33
W28	VSS34
W28	VSS35
W28	VSS36
W28	VSS37
W28	VSS38
W28	VSS39
W28	VSS40

Socket-IntelPrescottCPU

U2G	7 OF 7
H22	VSS126
H21	VSS127
H20	VSS128
H19	VSS129
H18	VSS130
H17	VSS131
H16	VSS132
H15	VSS133
H14	VSS134
H13	VSS135
H12	VSS136
H11	VSS137
H10	VSS138
H9	VSS139
H8	VSS140
H7	VSS141
H6	VSS142
H5	VSS143
H4	VSS144
H3	VSS145
H2	VSS146
H1	VSS147
H0	VSS148
H-1	VSS149
H-2	VSS150
H-3	VSS151
H-4	VSS152
H-5	VSS153
H-6	VSS154
H-7	VSS155
H-8	VSS156
H-9	VSS157
H-10	VSS158
H-11	VSS159
H-12	VSS160
H-13	VSS161
H-14	VSS162
H-15	VSS163
H-16	VSS164
H-17	VSS165
H-18	VSS166
H-19	VSS167
H-20	VSS168
H-21	VSS169
H-22	VSS170
H-23	VSS171
H-24	VSS172
H-25	VSS173
H-26	VSS174
H-27	VSS175
H-28	VSS176
H-29	VSS177
H-30	VSS178
H-31	VSS179
H-32	VSS180
H-33	VSS181
H-34	VSS182
H-35	VSS183
H-36	VSS184
H-37	VSS185
H-38	VSS186
H-39	VSS187
H-40	VSS188
H-41	VSS189
H-42	VSS190
H-43	VSS191
H-44	VSS192
H-45	VSS193
H-46	VSS194
H-47	VSS195
H-48	VSS196
H-49	VSS197
H-50	VSS198
H-51	VSS199
H-52	VSS200

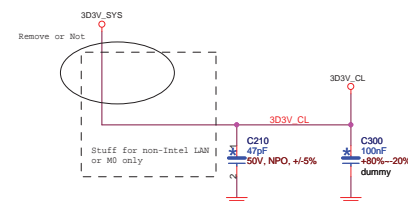
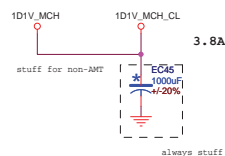
Socket-IntelPrescottCPU

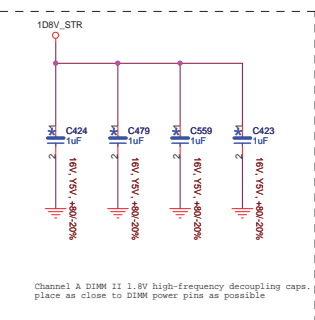
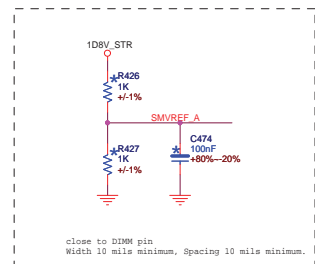
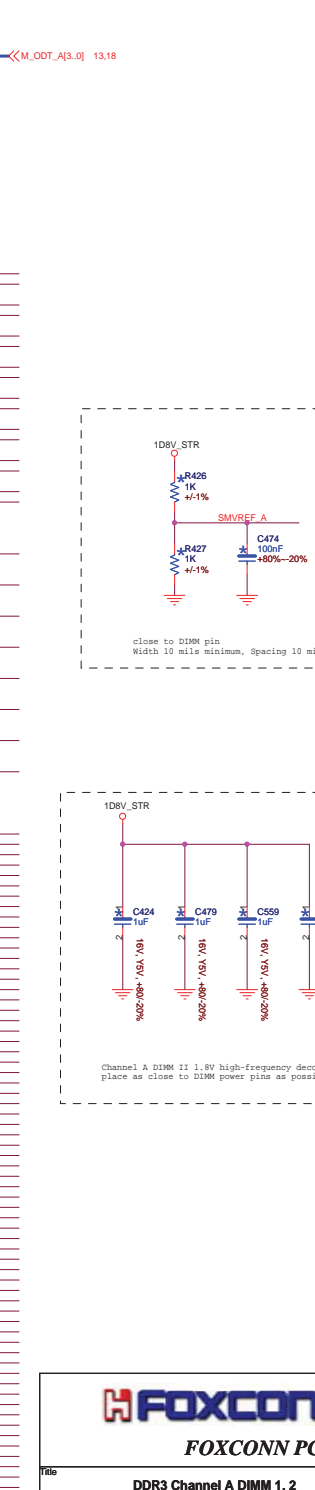
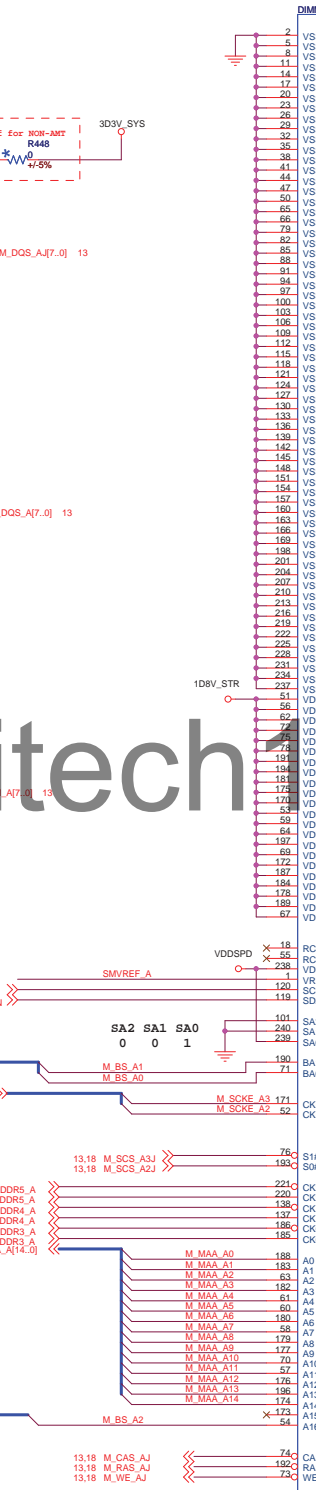
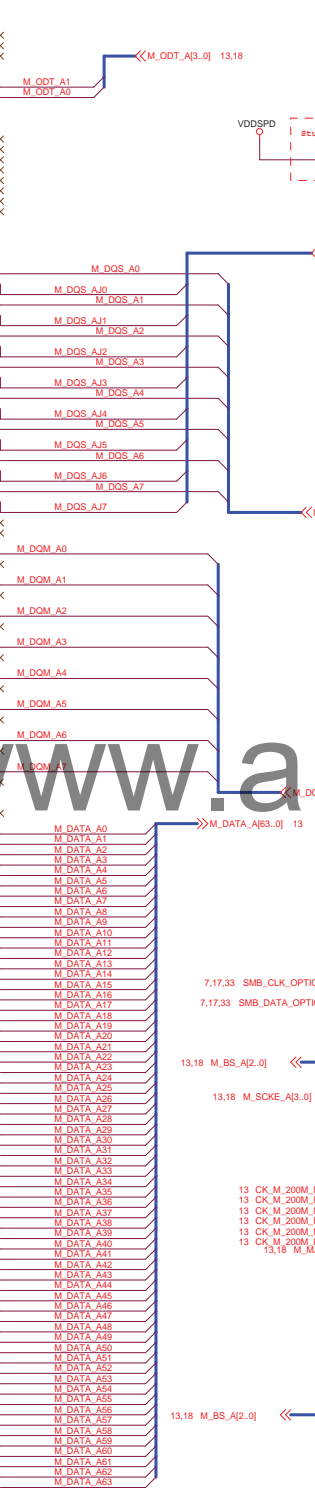
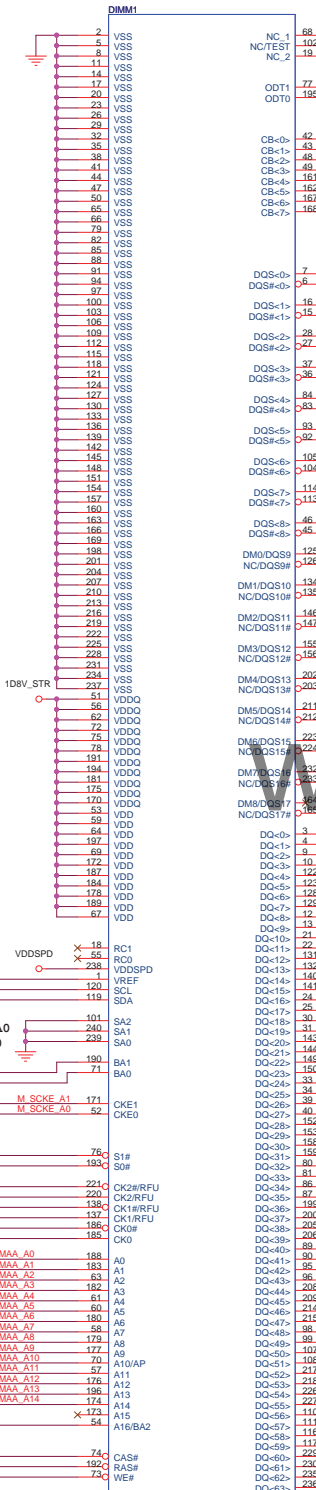
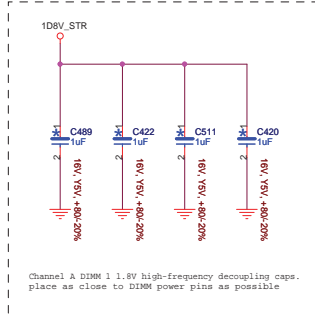
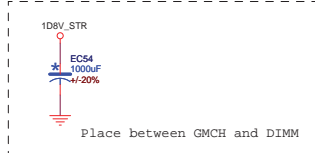
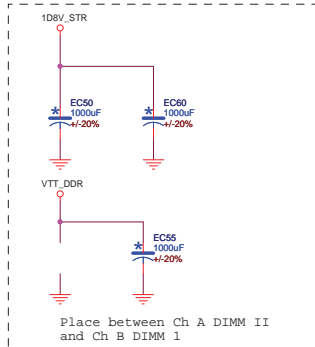
VCCDQ_CRT is very sensitive to low frequency noise (noise below 1MHz)

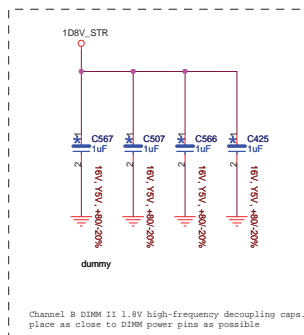
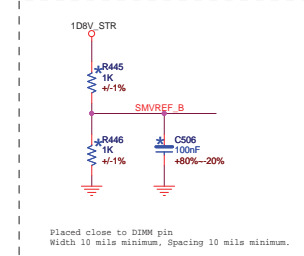
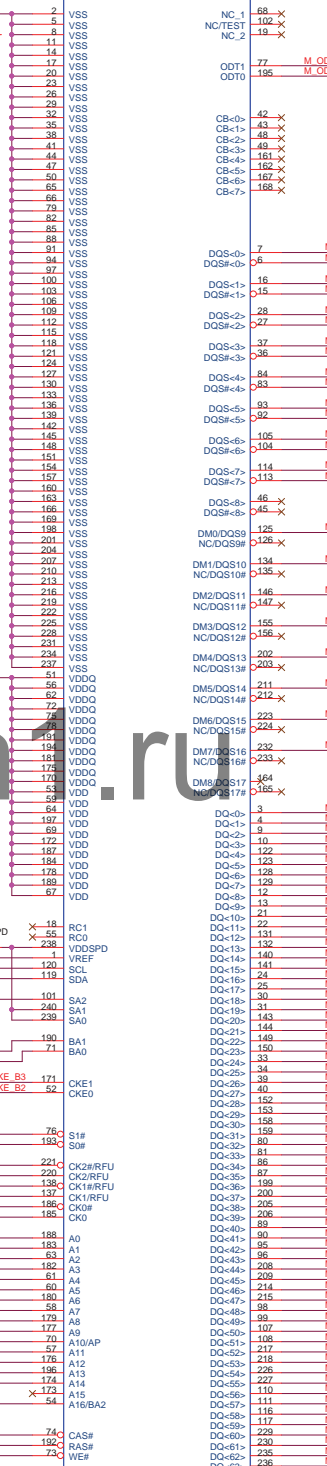
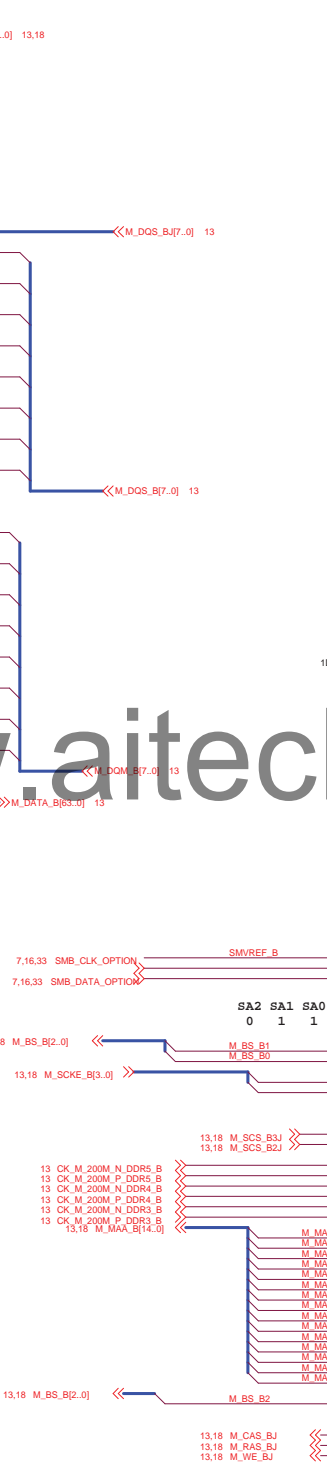
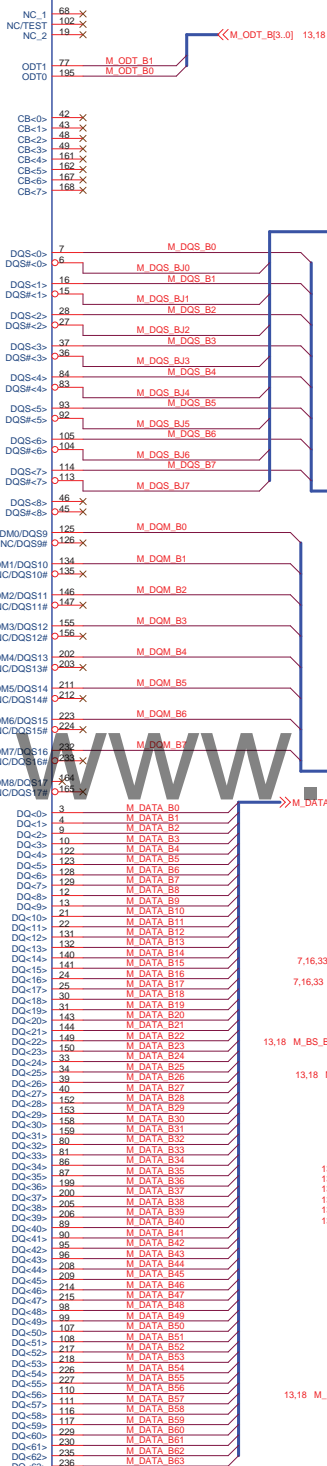
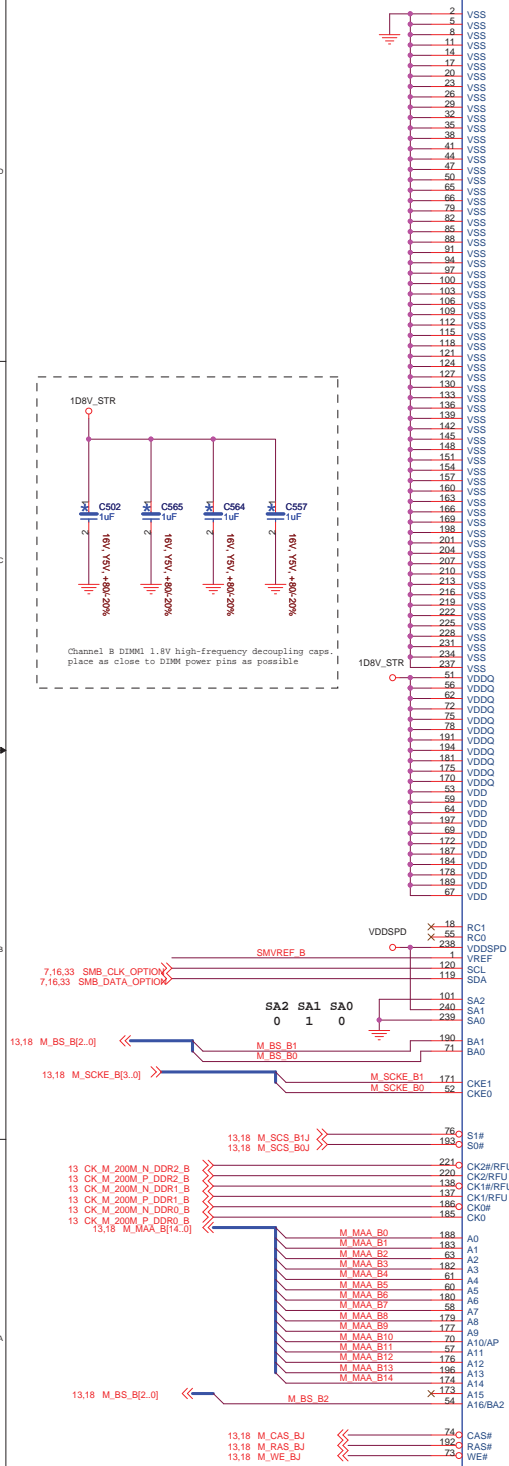
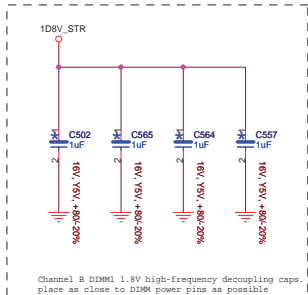




Title				
Eaglelake -GMCH -4				
Size	Document Number			Rev
C	P43A01			A
Date	Monday, March 24, 2008		KSoot	14 of 41

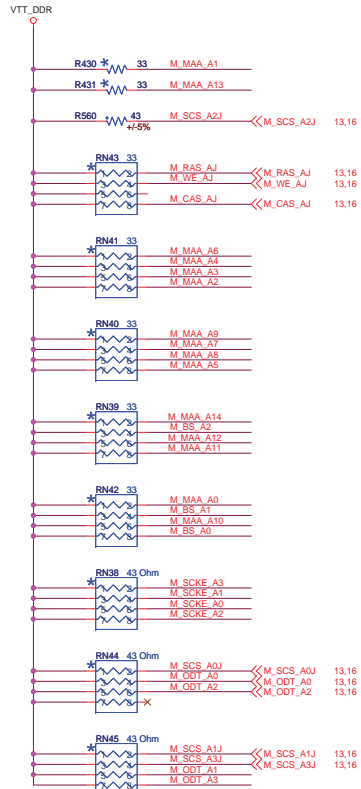




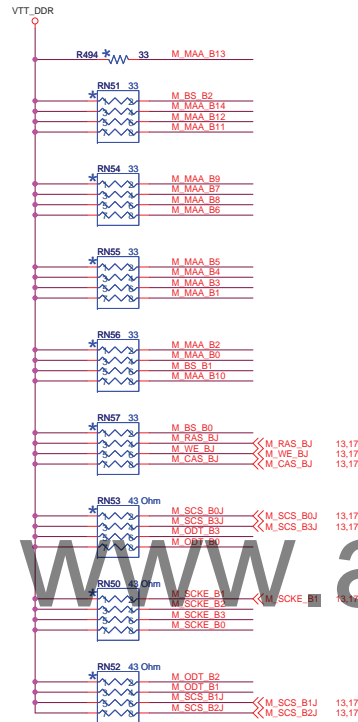


<<M_ODT_A[3..0] 13,16
 <<M_SCKE_A[3..0] 13,16
 <<M_BS_A[2..0] 13,16
 <<M_MAA_A[14..0] 13,16

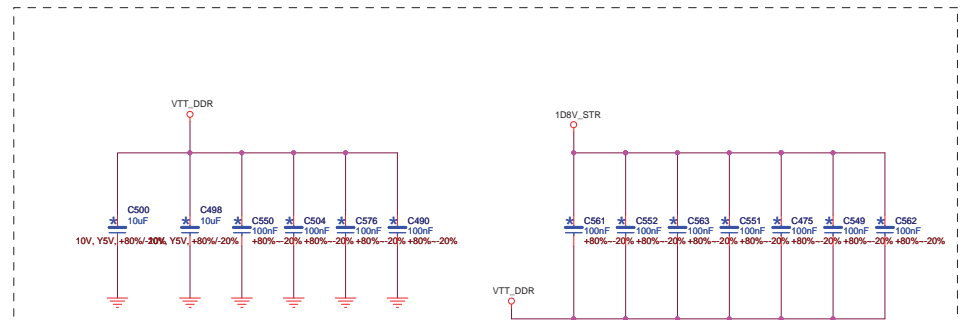
<<M_SCKE_B[3..0] 13,17
 <<M_BS_B[2..0] 13,17
 <<M_MAA_B[14..0] 13,17
 <<M_ODT_B[3..0] 13,17



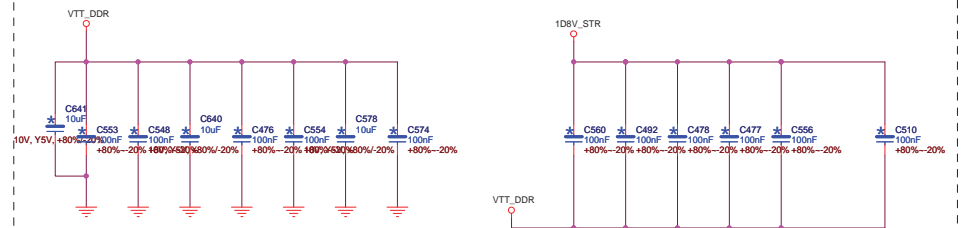
Channel A VTT_0.9V Mid Range decoupling caps.
Placed in termination Island



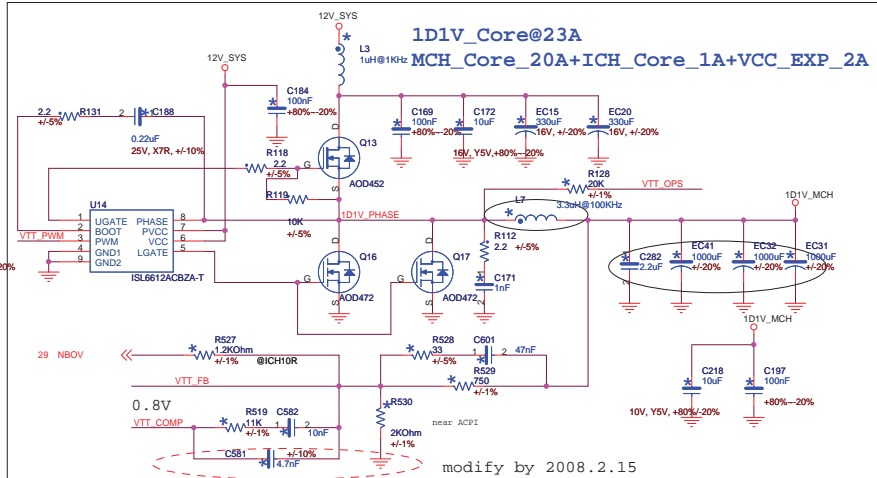
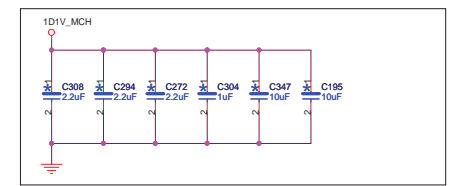
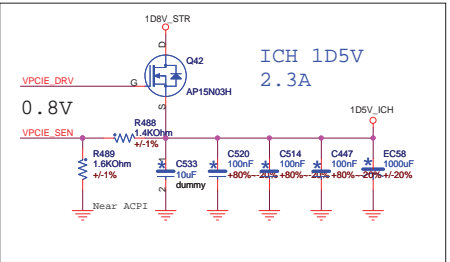
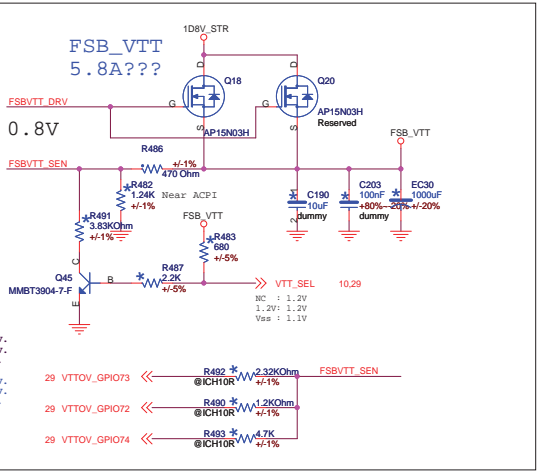
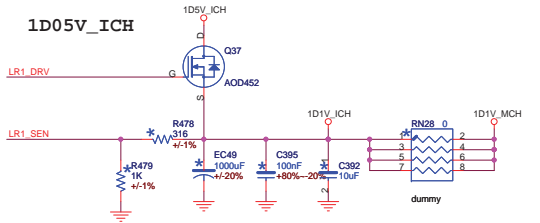
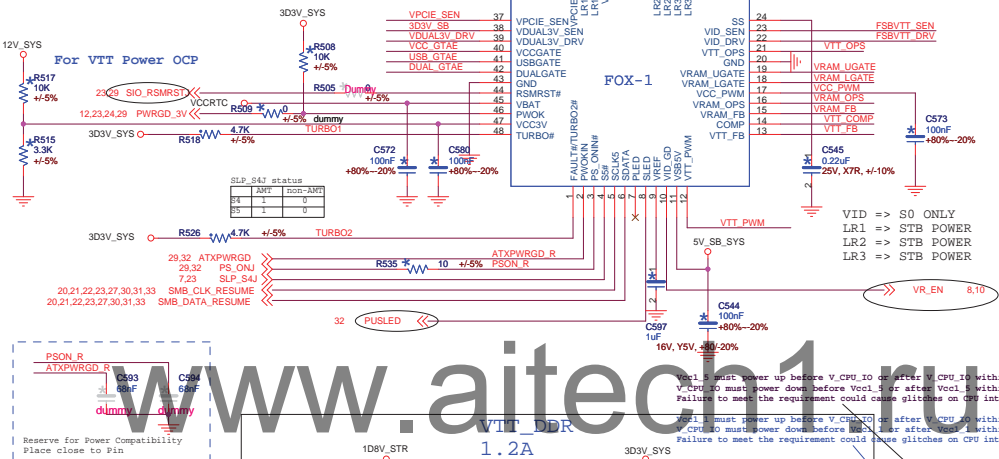
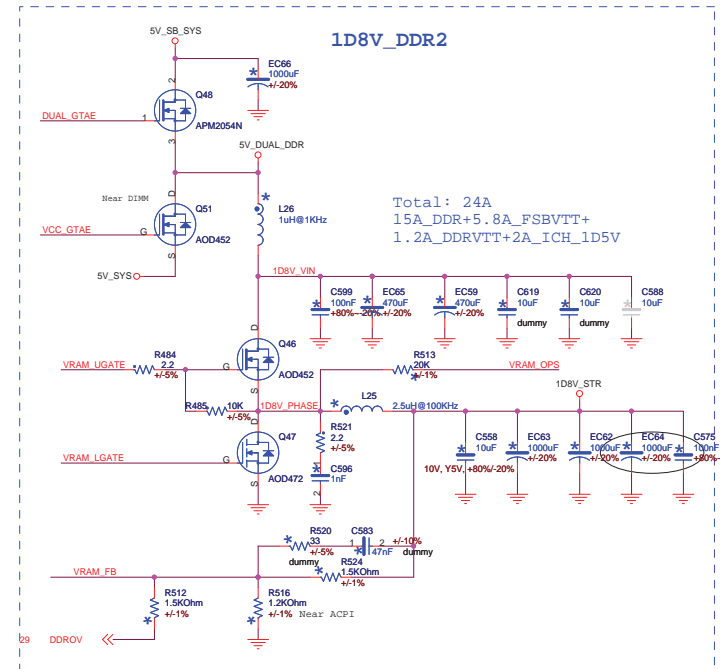
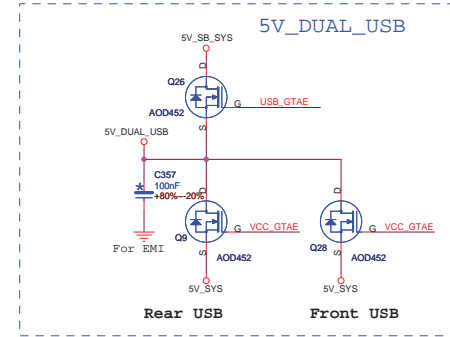
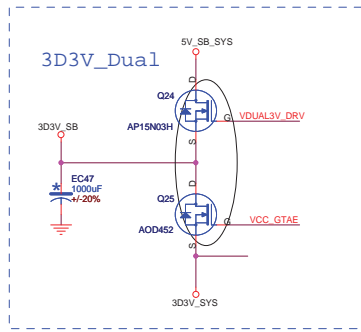
Channel B VTT_0.9V Mid Range decoupling caps.
Placed in termination Island

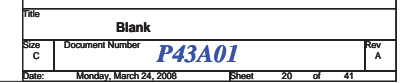


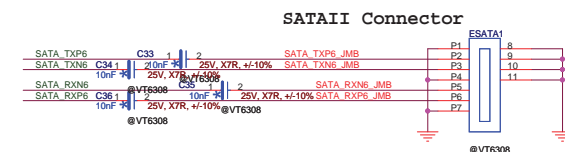
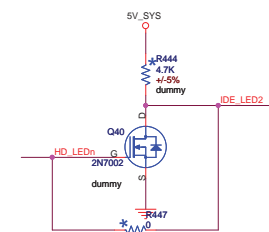
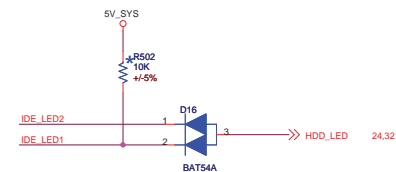
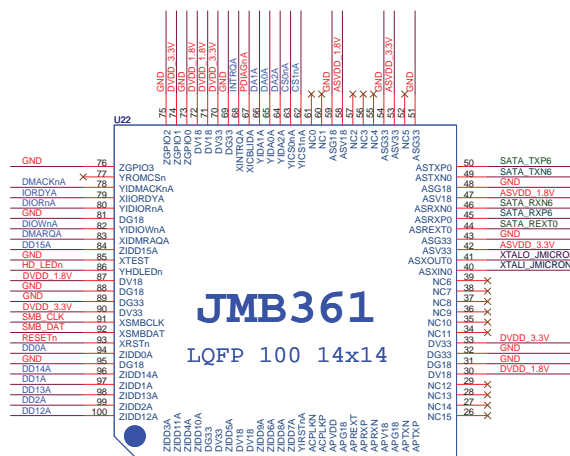
Channel A VTT_0.9V high-frequency decoupling caps.
Place as close to termination resistors as possible



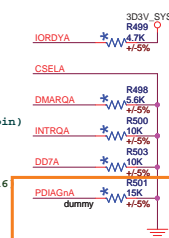
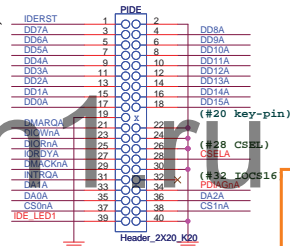
Channel B VTT_0.9V high-frequency decoupling caps.
Place as close to termination resistors as possible





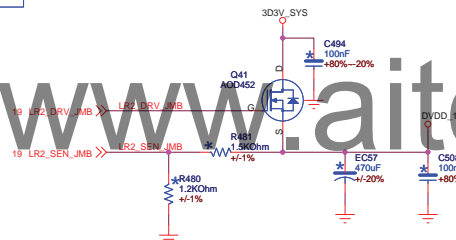
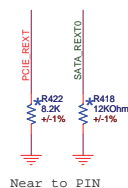


IDE Connector



HI:40 PIN CABLE

Double check with JMicro



placed within 250 mils C42 @B361

100%
C42 -20%
C42 +20%

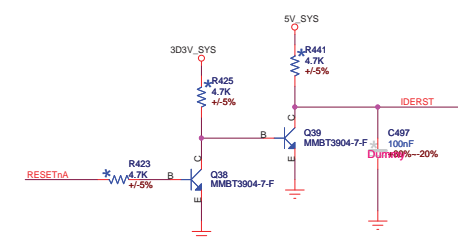
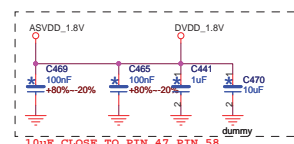
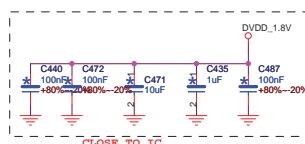
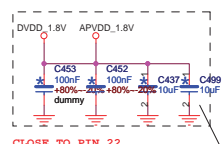
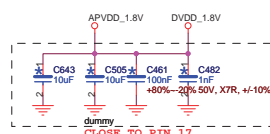
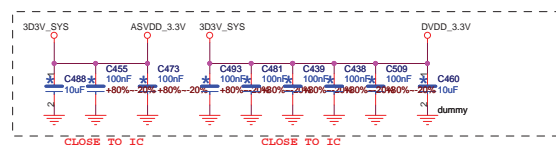
PCIE_TXP HSI_P6_IMB 23
PCIE_TXN HSI_N6_IMB 23

HSO_P6_IMB HSO_P6_IMB 23
HSO_N6_IMB HSO_N6_IMB 23

PCIE_CLKP CK_PE_100M_P_IMB 7
PCIE_CLKN CK_PE_100M_N_IMB 7

SMB_CLK SMB_CLK_RESUME 19,20,22,23,27,30,31,33
SMB_DATA SMB_DATA_RESUME 19,20,22,23,27,30,31,33

RESETn PI_TRST_IMB_29

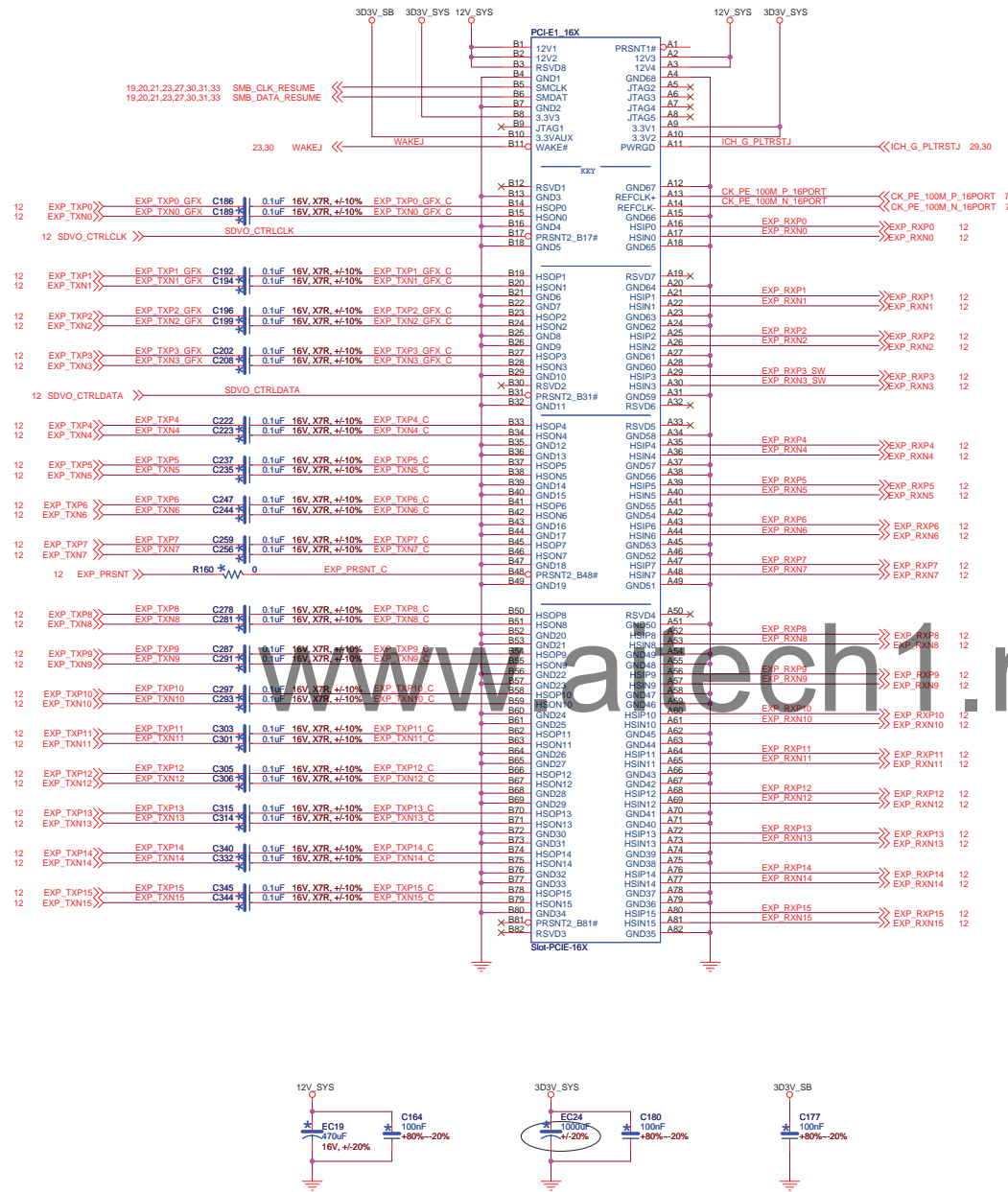


Title	VGA / DVI-D Connector
-------	-----------------------

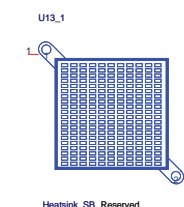
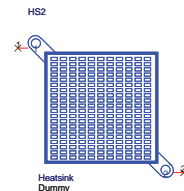
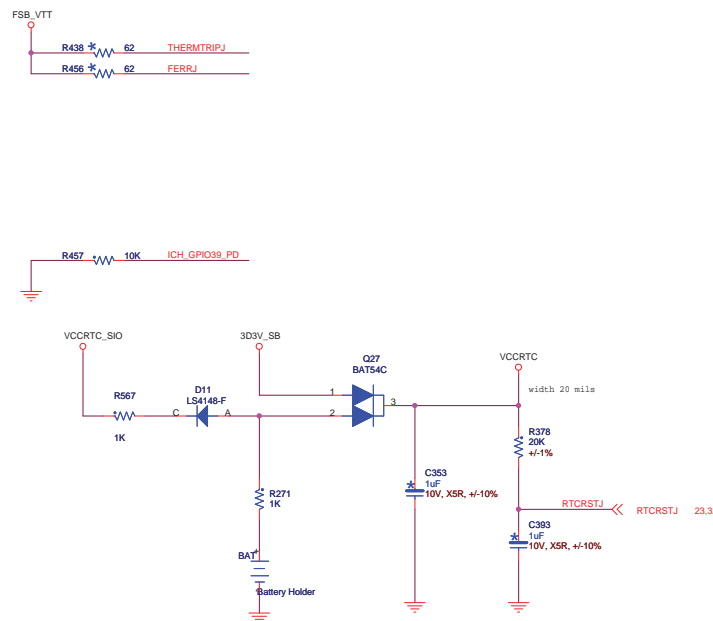
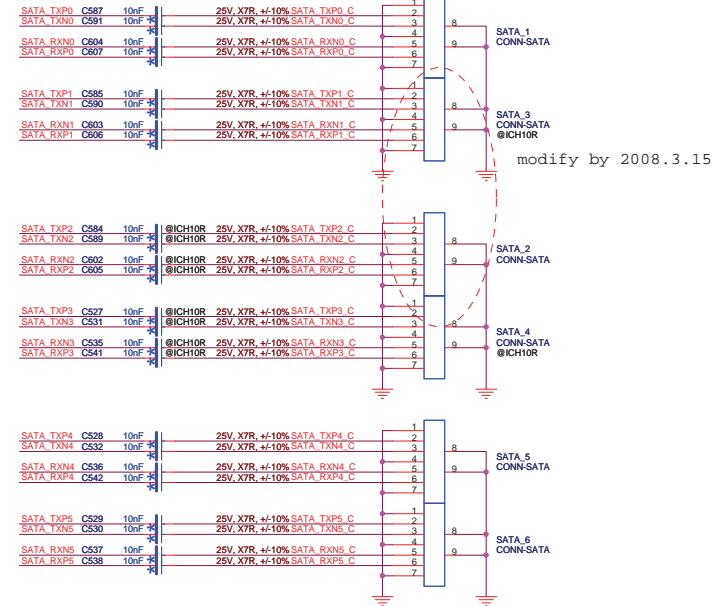
Size	Document Number
------	-----------------

P43A01

Date: Monday, March 24, 2008 Sheet 21 of 41



SATA		SATA R_XN0		SATA R_XN1		SATA R_XN2		SATA R_XN3		SATA R_XN4		SATA R_XN5		SATA R_XN6		SATA R_XN7		SATA R_XN8		SATA R_XN9		SATA R_XN10		SATA R_XN11		SATA R_XN12		SATA R_XN13		SATA R_XN14		SATA R_XN15		SATA R_XN16		SATA R_XN17		SATA R_XN18		SATA R_XN19		SATA R_XN20		SATA R_XN21		SATA R_XN22		SATA R_XN23		SATA R_XN24		SATA R_XN25		SATA R_XN26		SATA R_XN27		SATA R_XN28		SATA R_XN29		SATA R_XN30		SATA R_XN31		SATA R_XN32		SATA R_XN33		SATA R_XN34		SATA R_XN35		SATA R_XN36		SATA R_XN37		SATA R_XN38		SATA R_XN39		SATA R_XN40		SATA R_XN41		SATA R_XN42		SATA R_XN43		SATA R_XN44		SATA R_XN45		SATA R_XN46		SATA R_XN47		SATA R_XN48		SATA R_XN49		SATA R_XN50		SATA R_XN51		SATA R_XN52		SATA R_XN53		SATA R_XN54		SATA R_XN55		SATA R_XN56		SATA R_XN57		SATA R_XN58		SATA R_XN59		SATA R_XN60		SATA R_XN61		SATA R_XN62		SATA R_XN63		SATA R_XN64		SATA R_XN65		SATA R_XN66		SATA R_XN67		SATA R_XN68		SATA R_XN69		SATA R_XN70		SATA R_XN71		SATA R_XN72		SATA R_XN73		SATA R_XN74		SATA R_XN75		SATA R_XN76		SATA R_XN77		SATA R_XN78		SATA R_XN79		SATA R_XN80		SATA R_XN81		SATA R_XN82		SATA R_XN83		SATA R_XN84		SATA R_XN85		SATA R_XN86		SATA R_XN87		SATA R_XN88		SATA R_XN89		SATA R_XN90		SATA R_XN91		SATA R_XN92		SATA R_XN93		SATA R_XN94		SATA R_XN95		SATA R_XN96		SATA R_XN97		SATA R_XN98		SATA R_XN99		SATA R_XN100		SATA R_XN101		SATA R_XN102		SATA R_XN103		SATA R_XN104		SATA R_XN105		SATA R_XN106		SATA R_XN107		SATA R_XN108		SATA R_XN109		SATA R_XN110		SATA R_XN111		SATA R_XN112		SATA R_XN113		SATA R_XN114		SATA R_XN115		SATA R_XN116		SATA R_XN117		SATA R_XN118		SATA R_XN119		SATA R_XN120		SATA R_XN121		SATA R_XN122		SATA R_XN123		SATA R_XN124		SATA R_XN125		SATA R_XN126		SATA R_XN127		SATA R_XN128		SATA R_XN129		SATA R_XN130		SATA R_XN131		SATA R_XN132		SATA R_XN133		SATA R_XN134		SATA R_XN135		SATA R_XN136		SATA R_XN137		SATA R_XN138		SATA R_XN139		SATA R_XN140		SATA R_XN141		SATA R_XN142		SATA R_XN143		SATA R_XN144		SATA R_XN145		SATA R_XN146		SATA R_XN147		SATA R_XN148		SATA R_XN149		SATA R_XN150		SATA R_XN151		SATA R_XN152		SATA R_XN153		SATA R_XN154		SATA R_XN155		SATA R_XN156		SATA R_XN157		SATA R_XN158		SATA R_XN159		SATA R_XN160		SATA R_XN161		SATA R_XN162		SATA R_XN163		SATA R_XN164		SATA R_XN165		SATA R_XN166		SATA R_XN167		SATA R_XN168		SATA R_XN169		SATA R_XN170		SATA R_XN171		SATA R_XN172		SATA R_XN173		SATA R_XN174		SATA R_XN175		SATA R_XN176		SATA R_XN177		SATA R_XN178		SATA R_XN179		SATA R_XN180		SATA R_XN181		SATA R_XN182		SATA R_XN183		SATA R_XN184		SATA R_XN185		SATA R_XN186		SATA R_XN187		SATA R_XN188		SATA R_XN189		SATA R_XN190		SATA R_XN191		SATA R_XN192		SATA R_XN193		SATA R_XN194		SATA R_XN195		SATA R_XN196		SATA R_XN197		SATA R_XN198		SATA R_XN199		SATA R_XN200		SATA R_XN201		SATA R_XN202		SATA R_XN203		SATA R_XN204		SATA R_XN205		SATA R_XN206		SATA R_XN207		SATA R_XN208		SATA R_XN209		SATA R_XN210		SATA R_XN211		SATA R_XN212		SATA R_XN213		SATA R_XN214		SATA R_XN215		SATA R_XN216		SATA R_XN217		SATA R_XN218		SATA R_XN219		SATA R_XN220		SATA R_XN221		SATA R_XN222		SATA R_XN223		SATA R_XN224		SATA R_XN225		SATA R_XN226		SATA R_XN227		SATA R_XN228		SATA R_XN229		SATA R_XN230		SATA R_XN231		SATA R_XN232		SATA R_XN233		SATA R_XN234		SATA R_XN235		SATA R_XN236		SATA R_XN237		SATA R_XN238		SATA R_XN239		SATA R_XN240		SATA R_XN241		SATA R_XN242		SATA R_XN243		SATA R_XN244		SATA R_XN245	
------	--	------------	--	------------	--	------------	--	------------	--	------------	--	------------	--	------------	--	------------	--	------------	--	------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	-------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--	--------------	--



ICH10

PCI

1 OF 6

VccSATAPLL LC Filter

VccGLANPLL LRC Filter

VccDMIPLL LRC Filter

PCI-E (VCC1_5_B) Filter

Boot Device	*GNT0	*SPI CS1#
PCI	0	0
FWH	1	1

*Internal pull-up

Place LC near pin A20

Place LRC near pin A25

Place LRC near pin T30

ICH8 Core decoupling caps.

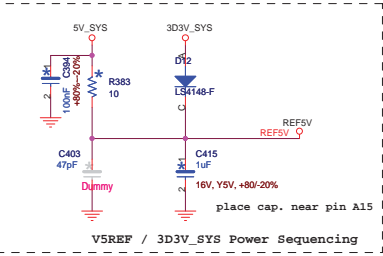
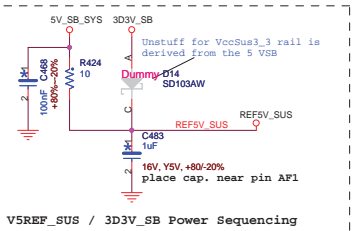
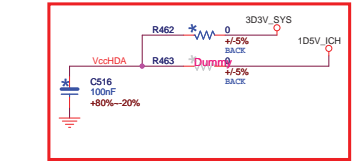
PCI-E decoupling caps.

Placed near AG30

DMI decoupling caps.

ICH10

5 OF 6



ICH10

G30	VSS_100	VSS_099	H13
G29	VSS_101	VSS_098	H19
G25	VSS_102	VSS_097	H2
G16	VSS_103	VSS_096	H22
F9	VSS_104	VSS_095	H25
F6	VSS_105	VSS_094	H26
F28	VSS_106	VSS_093	H28
F21	VSS_107	VSS_092	H9
E30	VSS_108	VSS_091	J29
E29	VSS_109	VSS_090	J30
E22	VSS_110	VSS_089	K6
E18	VSS_111	VSS_088	K26
E15	VSS_112	VSS_087	K28
D28	VSS_113	VSS_086	L2
D25	VSS_114	VSS_085	L23
D8	VSS_115	VSS_084	L29
D5	VSS_116	VSS_083	L30
B5	VSS_117	VSS_082	M14
B28	VSS_118	VSS_081	M16
B25	VSS_119	VSS_080	M26
B22	VSS_120	VSS_079	M28
B2	VSS_121	VSS_078	M8
B19	VSS_122	VSS_077	M13
B17	VSS_123	VSS_076	N14
B14	VSS_124	VSS_075	N15
B11	VSS_125	VSS_074	N16
AK9	VSS_126	VSS_073	N17
AK30	VSS_127	VSS_072	N18
AK29	VSS_128	VSS_071	N23
AK2	VSS_129	VSS_070	N29
AK16	VSS_130	VSS_069	N30
AK14	VSS_131	VSS_068	P12
AK12	VSS_132	VSS_067	P13
AJ8	VSS_133	VSS_066	P14
AJ5	VSS_134	VSS_065	P15
AJ28	VSS_135	VSS_064	P16
AJ23	VSS_136	VSS_063	P17
AJ20	VSS_137	VSS_062	P18
AJ16	VSS_138	VSS_061	P19
AJ14	VSS_139	VSS_060	P2
AJ12	VSS_140	VSS_059	P26
AJ8	VSS_141	VSS_058	P28
AH6	VSS_142	VSS_056	P6
AH20	VSS_143	VSS_055	R13
AH17	VSS_144	VSS_054	R14
AH19	VSS_145	VSS_053	R15
AH13	VSS_146	VSS_052	R16
AG28	VSS_147	VSS_051	R17
AE9	VSS_148	VSS_050	R18
AE7	VSS_149	VSS_049	R23
AF29	VSS_150	VSS_048	R29
AF25	VSS_151	VSS_047	R30
AF23	VSS_152	VSS_046	R8
AF20	VSS_153	VSS_045	T12
AF16	VSS_154	VSS_044	T13
AF13	VSS_155	VSS_043	T14
AE9	VSS_156	VSS_042	T15
AE8	VSS_157	VSS_041	T16
AE6	VSS_158	VSS_040	T17
AE5	VSS_159	VSS_039	T18
AE29	VSS_160	VSS_038	T19
AE18	VSS_161	VSS_037	T2
AE16	VSS_162	VSS_036	T29
AE15	VSS_163	VSS_035	T5
AE14	VSS_164	VSS_034	U13
AE12	VSS_165	VSS_033	U14
AE10	VSS_166	VSS_032	U15
AD7	VSS_167	VSS_031	U16
AD3	VSS_168	VSS_030	U17
AD22	VSS_169	VSS_029	U18
AD18	VSS_170	VSS_028	U23
AD16	VSS_171	VSS_027	V13
AD15	VSS_172	VSS_026	V14
AD14	VSS_173	VSS_025	V15
AC9	VSS_174	VSS_024	V16
AC30	VSS_175	VSS_023	V17
AC29	VSS_176	VSS_022	V18
AC24	VSS_177	VSS_021	V26
AC12	VSS_178	VSS_020	V28
AC1	VSS_179	VSS_019	V3
AB3	VSS_180	VSS_018	V7
AB28	VSS_181	VSS_017	W1
AB25	VSS_182	VSS_016	W14
AA6	VSS_183	VSS_015	W16
AA5	VSS_184	VSS_014	W23
AK27	VSS_185	VSS_013	W29
AK29	VSS_186	VSS_012	W30
AK28	VSS_187	VSS_011	W5
AJ4	VSS_188	VSS_010	W6
AF3	VSS_189	VSS_009	Y26
B27	VSS_190	VSS_008	Y28
	VSS_191	VSS_007	Y3
	VSS_192	VSS_006	Y7
	VSS_193	VSS_005	AA30
	VSS_194	VSS_004	AA29
	VSS_195	VSS_003	AA1
	VSS_196	VSS_002	A30
	VSS_197	VSS_001	A1
	VSS_198		

6 OF 6

PCI decoupling caps.

LAN decoupling caps.

Audio decoupling caps.

SATA decoupling caps.

Placed near AH28 and AJ30

CPU decoupling caps.

Placed near A22

RTC decoupling caps.

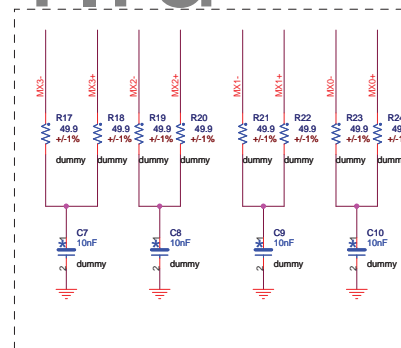
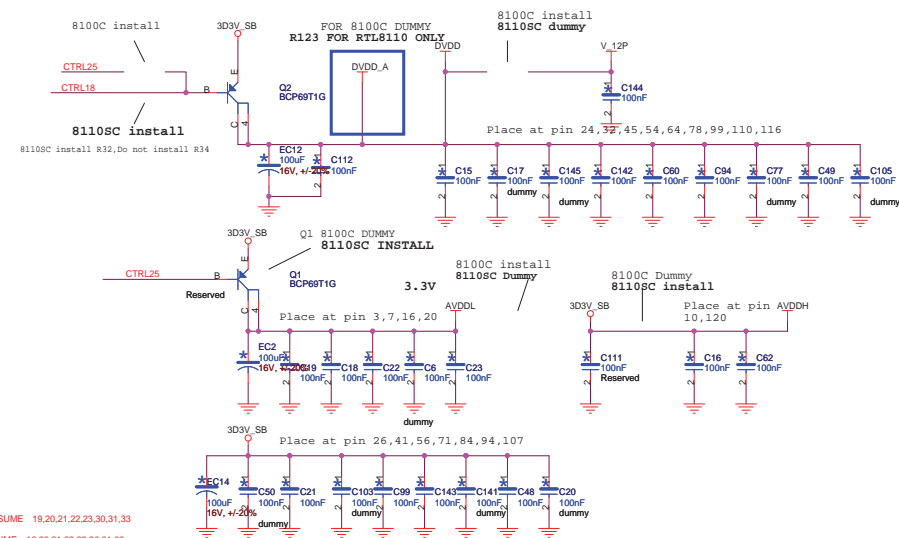
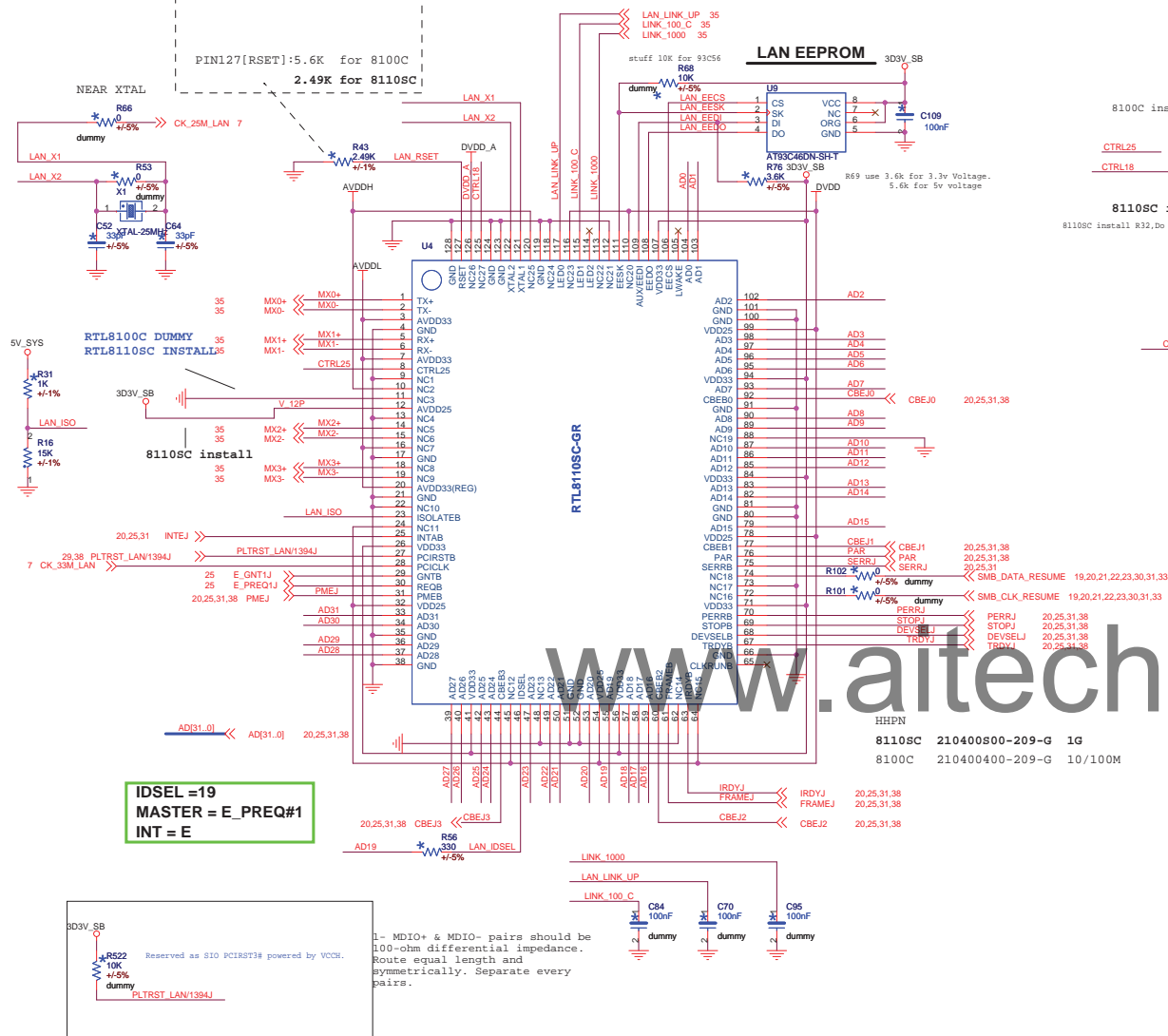
USB decoupling caps.

Del PLTRST# and PCIRST# buffer
Use SIO PCIRST# buffer

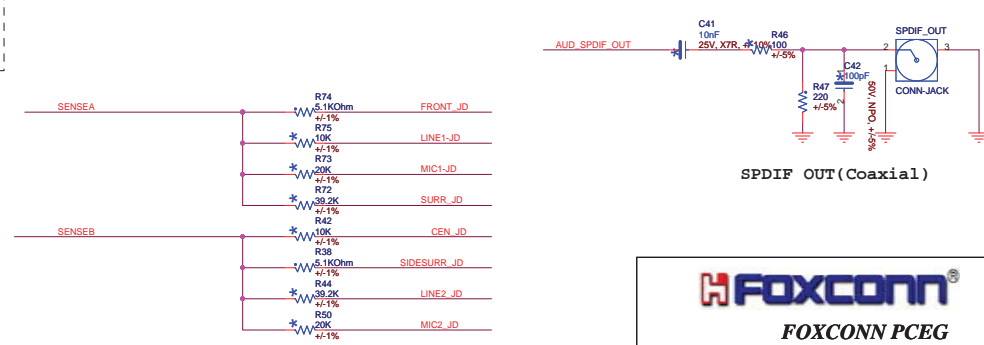
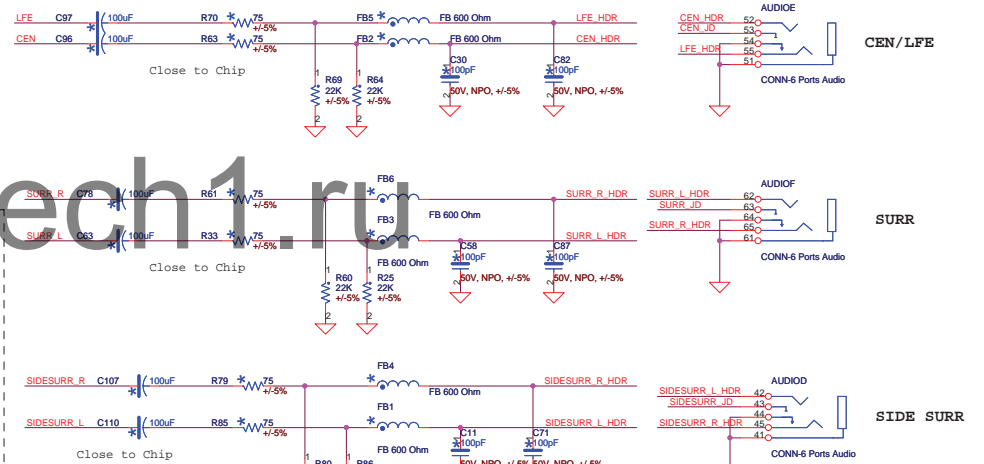
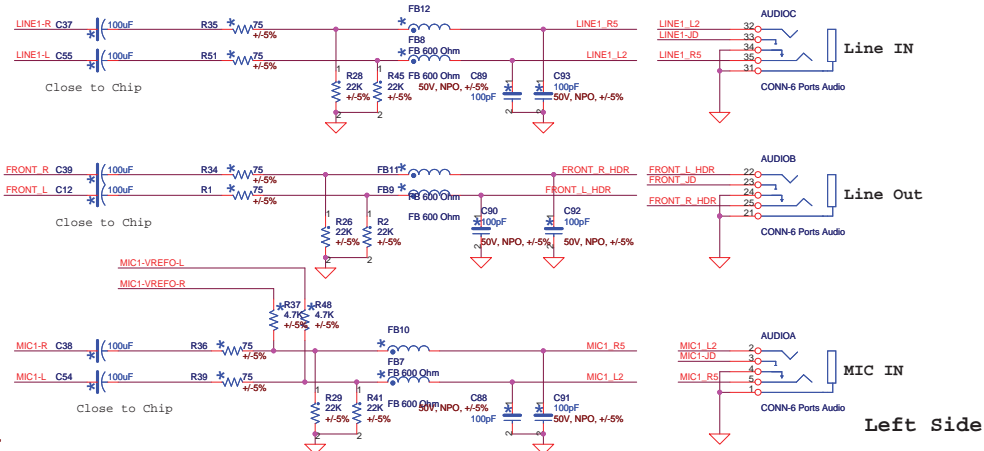
FOXCONN
FOXCONN PCEG

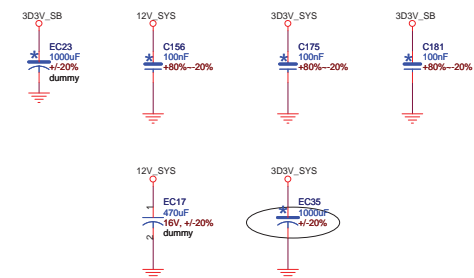
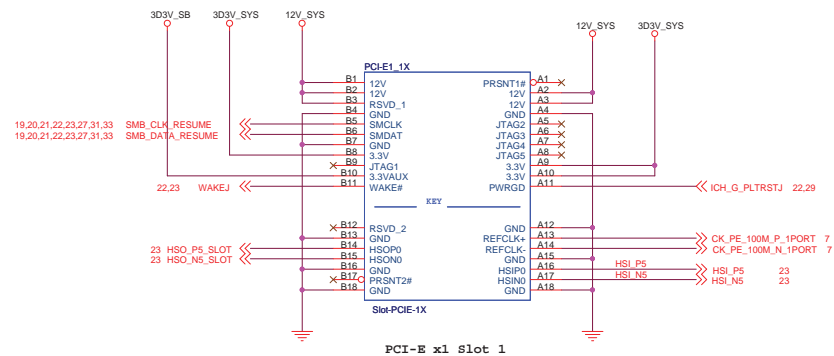
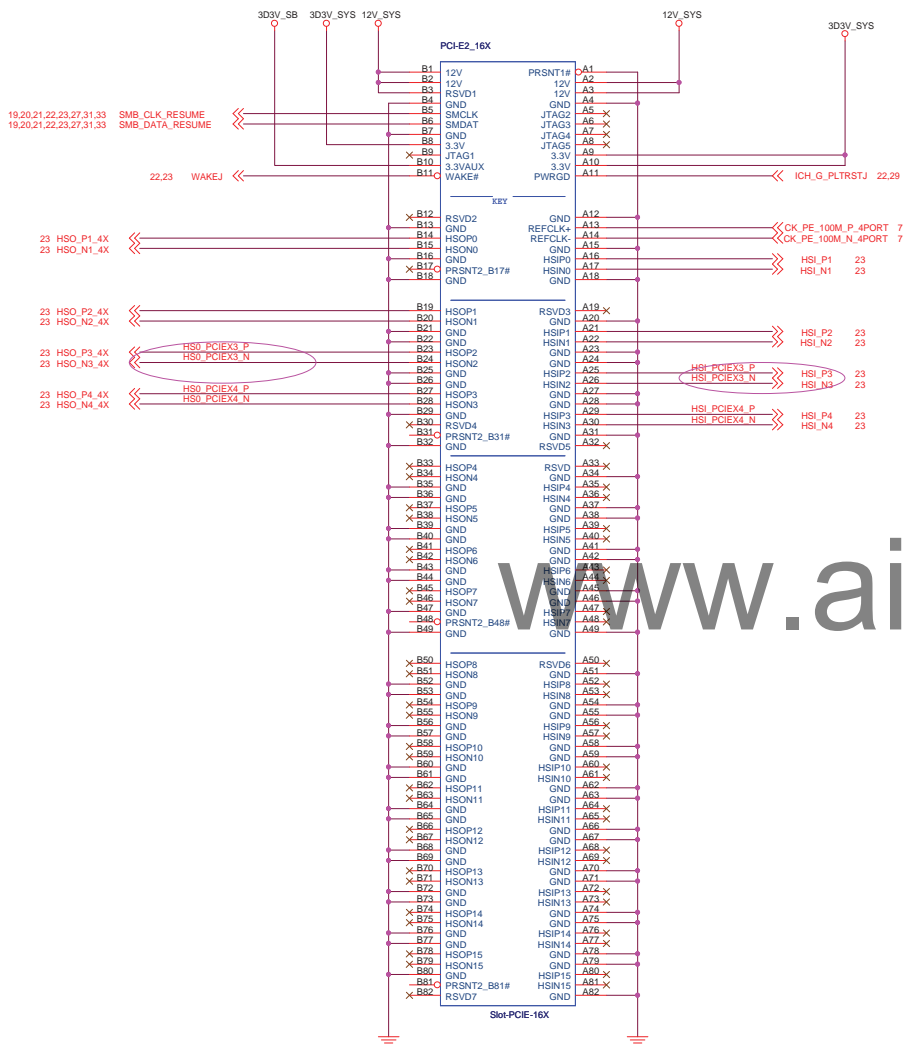
Title			ICH10 -4
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	26 of 41

PCI LAN RTL8100C/8110SC



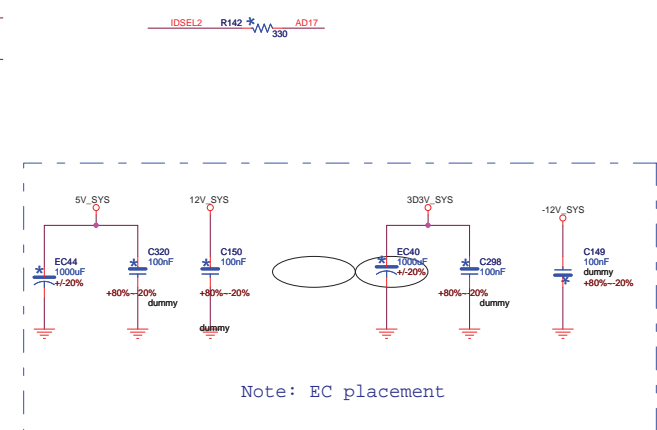
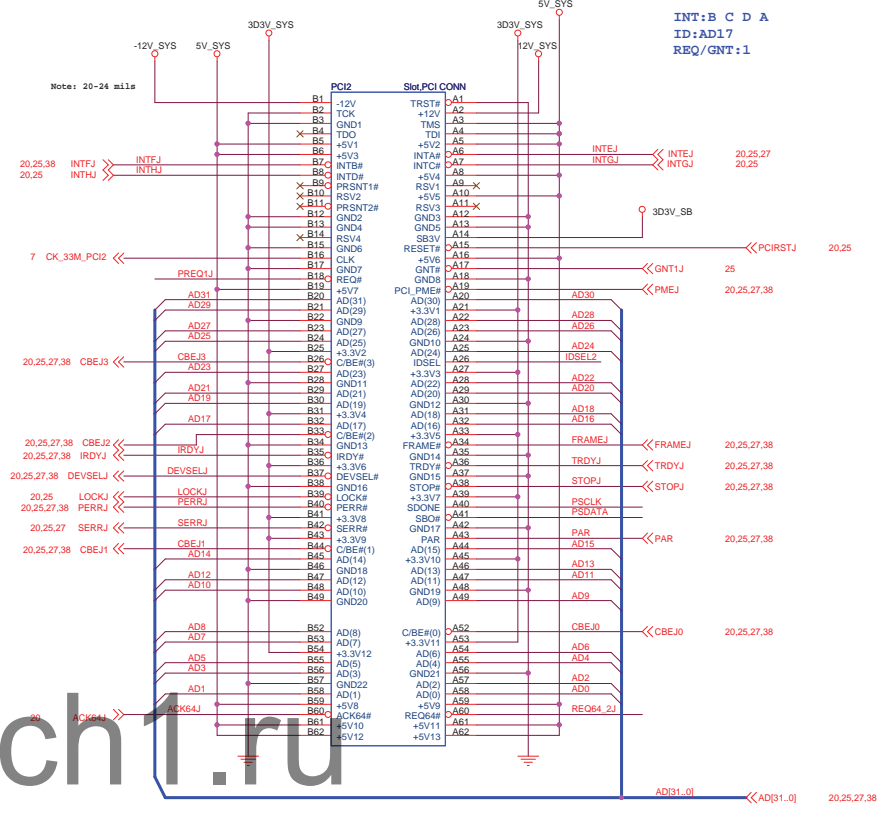
	RTL8100C	RTL8110S
AVDDH	N/A	3.3AVDD
V_12P	2.5AVDD	3.3AVDD
AVDDL	3.3AVDD	1.8AVDD
V_DAC	N/A	N/A
DVDD	2.5VDD	1.5VDD
DVDD_A	N/A	1.5AVDD

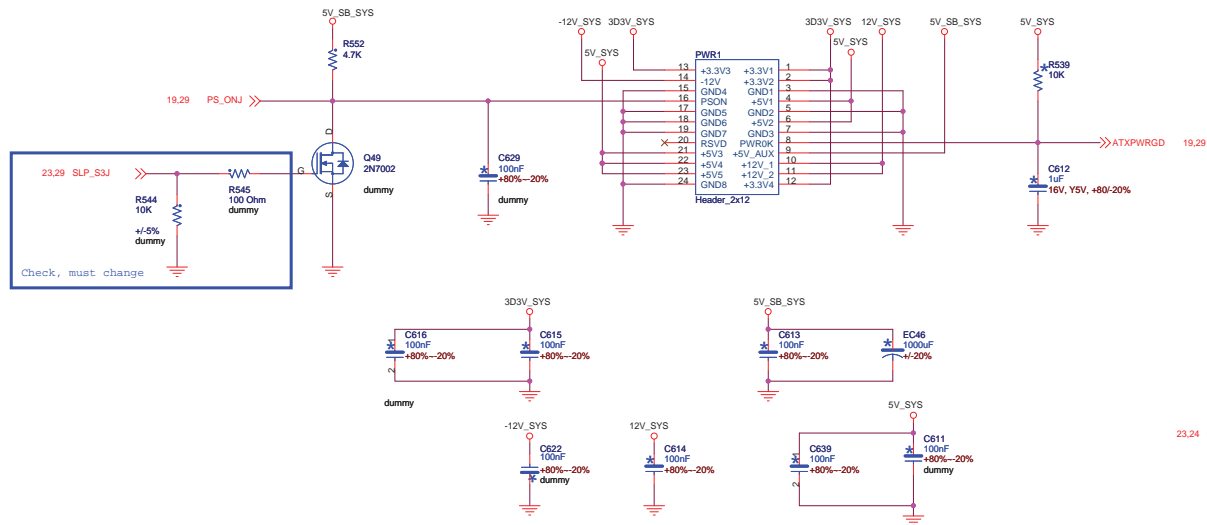




FOXCONN
FOXCONN PCEG

Title			PCI Express x1 Slot
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	30 of 41





Clear CMOS

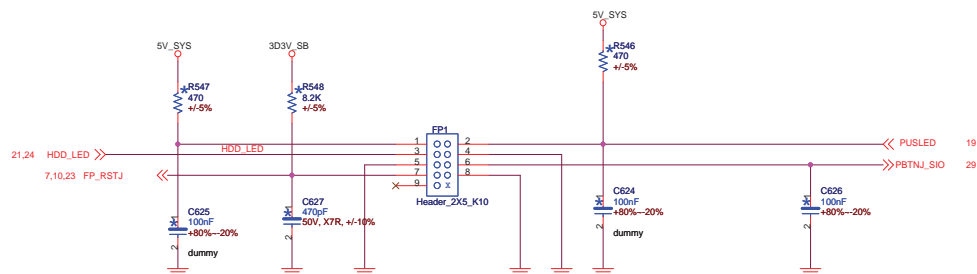
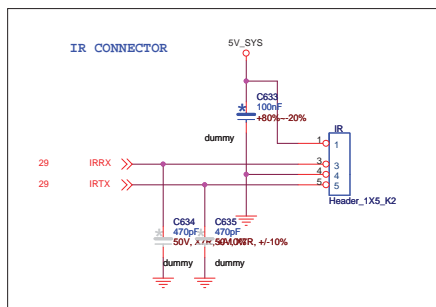
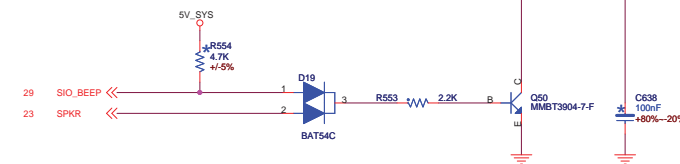
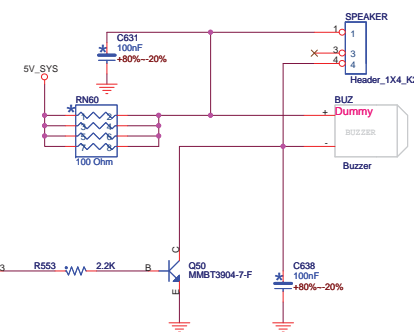
CLR_CMOS	CMOS
Clear	(1-2)
Normal	(2-3)

CLR_CMOS(2-3)
Jumper_2P_Blu

Chassis Intruder Header



SPEAKER HEADER



Front Panel Switch/LED

HDD_LED+	1	2	Power
HDD_LED-	3	4	Power LED(Green)
Reset button	5	6	Power button
Reset button	7	8	Power
NC	9	10	Key

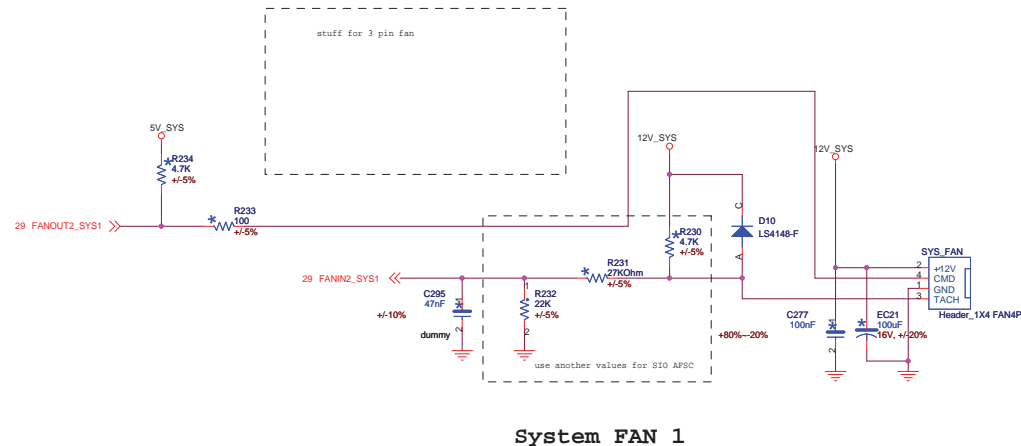
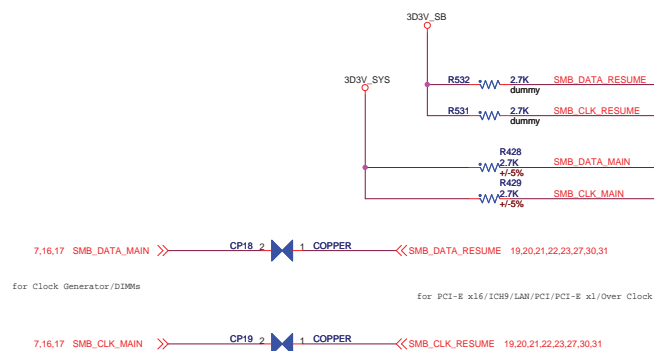
www.aitech1.ru

FOXCONN

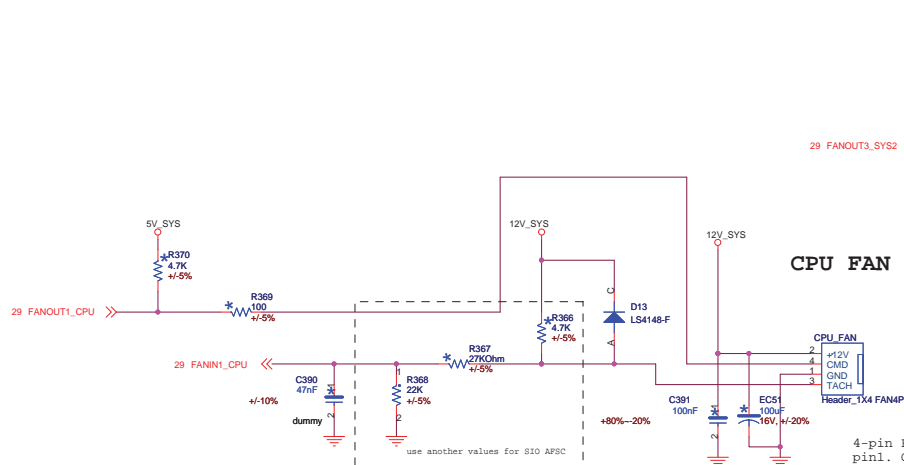
FOXCONN PCEG

Title		ATX, FP, MISC Connector	
Size	C	Document Number	P43A01
Date:	Monday, March 24, 2008	Sheet	32 of 41

SM Bus Bridge

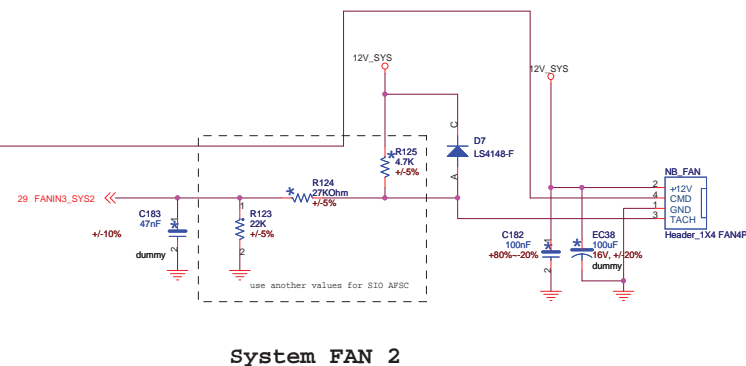


www.aitech1.ru



4-pin FAN Header Definition
pin1. GND
pin2. +12V
pin3. Sense
pin4. Control

Peak fan current draw: 1.5A
Average fan current draw: 1.1A
Fan start-up current draw: 2.2A
Fan start-up current draw maximum duration: 1.0 second
Fan header voltage: 12V +/- 10%



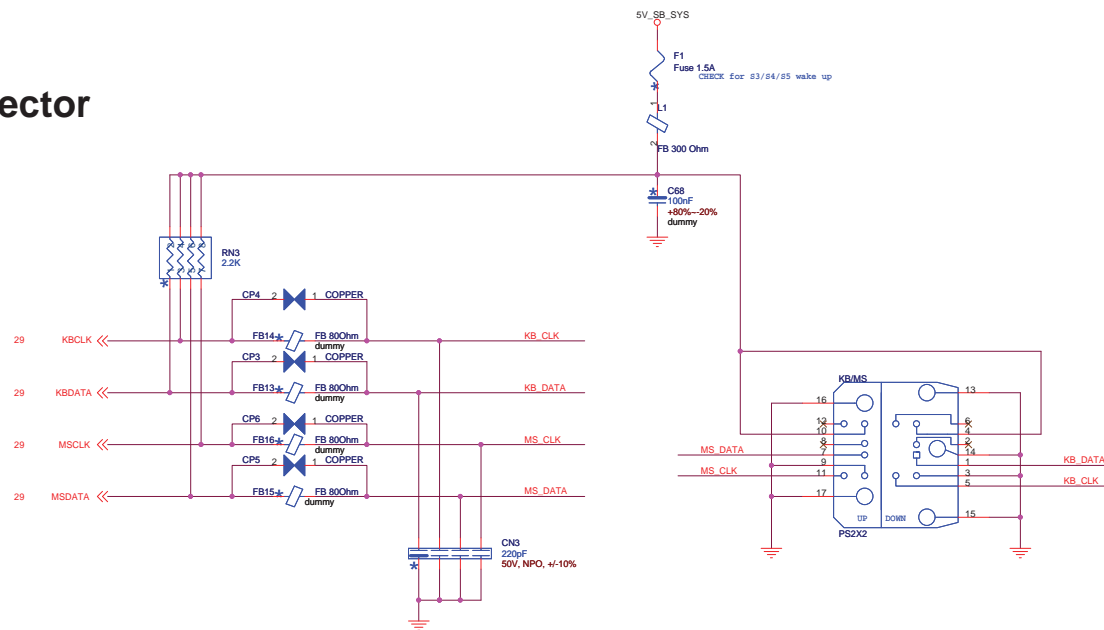
FOXCONN

FOXCONN PCEG

Title			
CPU / System Fan			
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	33 of 41

www.aitech1.ru

KB / MS Connector



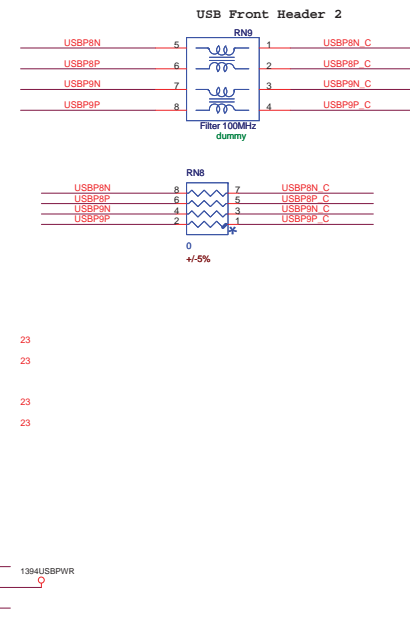
FOXCONN

FOXCONN PCEG

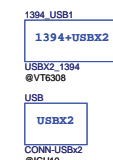
Title		KB/MS, TPM, XDP	
Size	Document Number	P43A01	
C		Rev	
Date: Monday, March 24, 2008		Sheet	34 of 41

USE CONNECTOR(Foxconn P/N: JFM38U1A-21U5-4N) WITH GIGABIT DESIGN

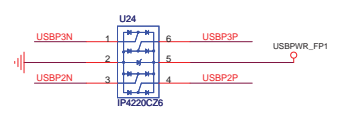
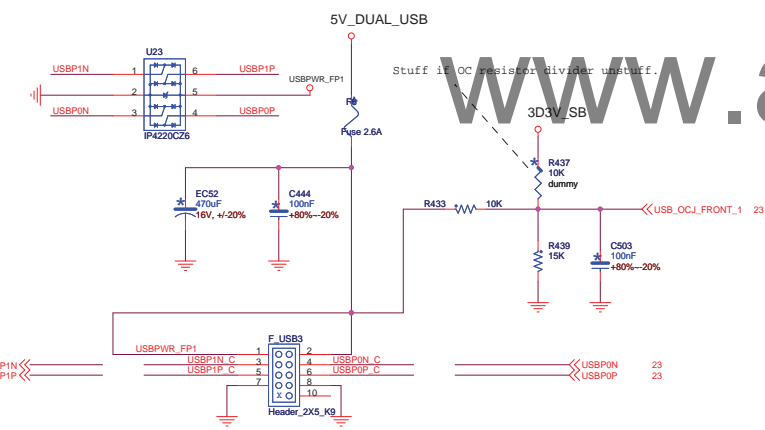
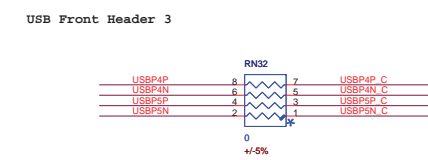
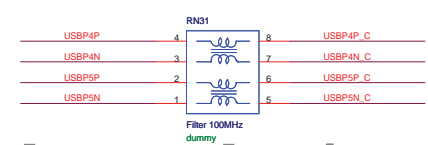
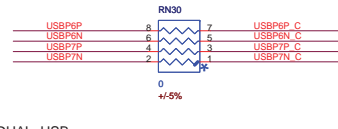
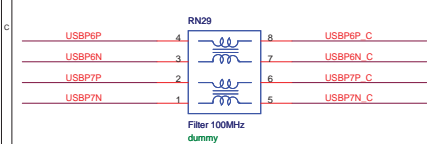
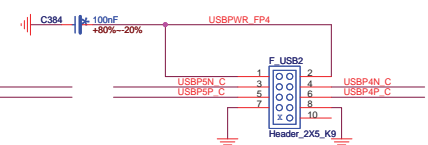
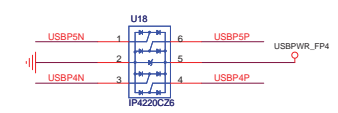
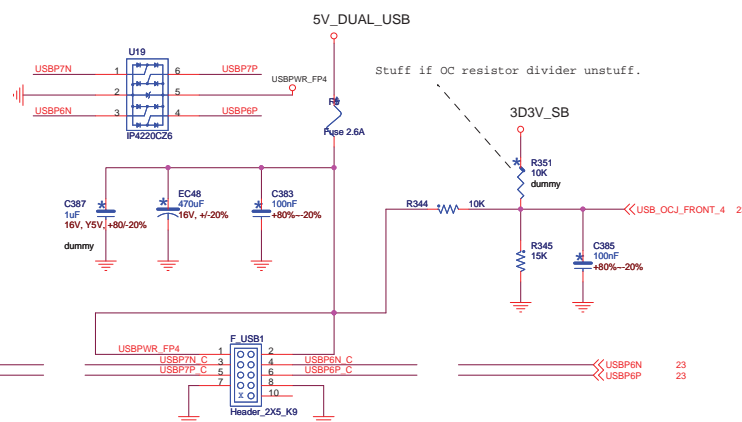
SPEED LED	
LINK 10M	OFF
LINK 100M	GREEN
LINK 1000M	YELLOW



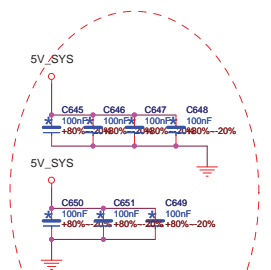
www.aitech1.ru



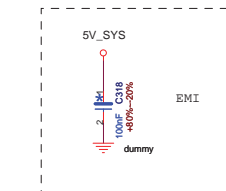
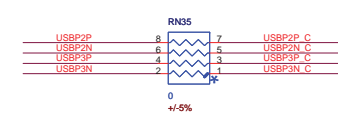
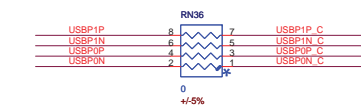
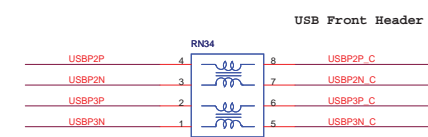
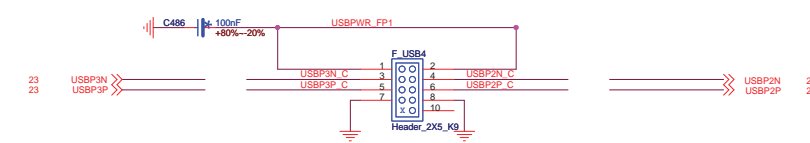
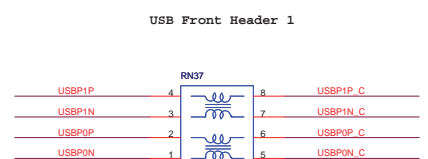
www.aitech1.ru

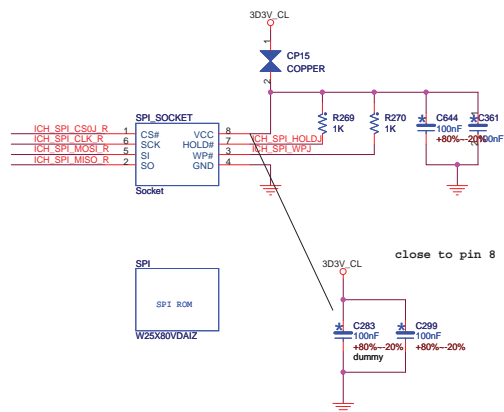
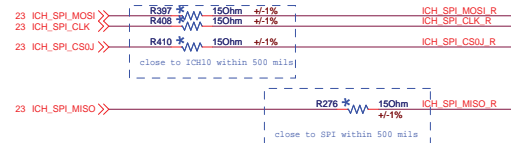


Stuff if OC resistor divider unstuff.



close to FRONT USB CONNECTOR





Del 80Port circuit

www.aitech1.ru

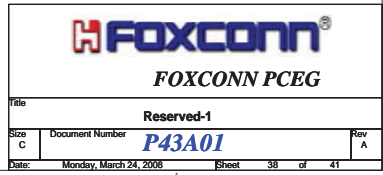


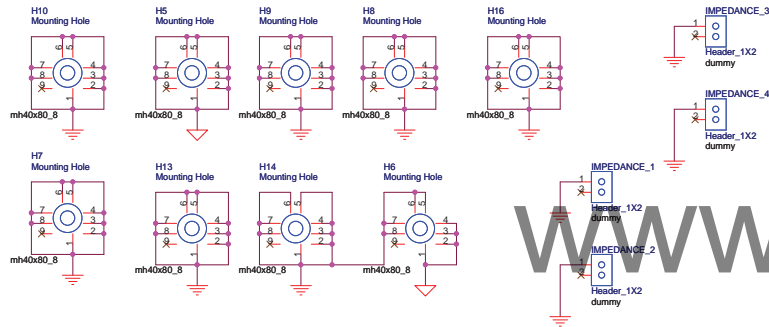
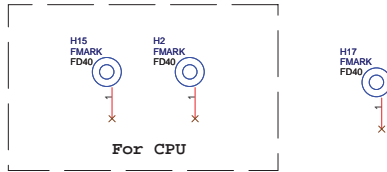
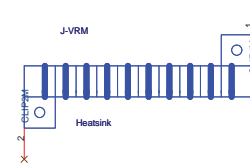
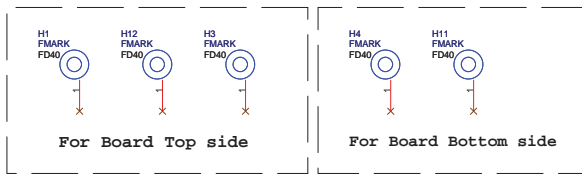
FOXCONN PCEG

Title		Front Audio / SPI / 80 PORT	
Size	Document Number	P43A01	
C		Rev	
Date: Monday, March 24, 2008		Sheet 37 of 41	

MIC IN

SIDE SURR OUT

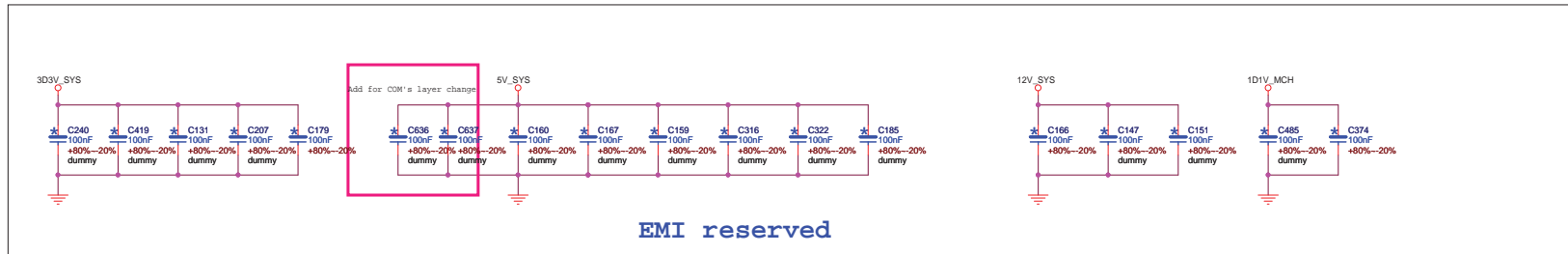
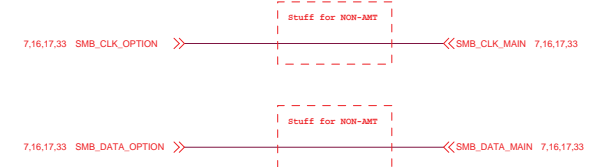
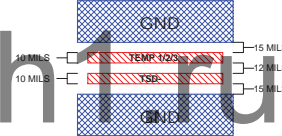




SIO Thermal DA/DC PC Board Layout Checklist

1. Keep traces away from high voltages (+12V bus).
2. Keep traces away from fast data buses and CRTs.
3. Use recommended trace widths and spacing.
4. Place a ground plane under the traces
5. Place C58, C59, C60 close to IT8720

Recommend Thermal Diode PCB Traces



FOXCONN PCEG

Title			Reserved-2
Size	Document Number	P43A01	
C		Rev	A
Date: Monday, March 24, 2008 Sheet 39 of 41			

ICH10 GPIO Summary

Name	Power Well	Type	Description
GPIO0	3.3V	I/O	FP_AUD_DETECT
GPIO1	3.3V	I/O	TACH_1
GPIO2	5V	I/OD	PIRQE#
GPIO3	5V	I/OD	PIRQF#
GPIO4	5V	I/OD	PIRQG#
GPIO5	5V	I/OD	PIRQH#
GPIO6	3.3V	I/O	TACH_2
GPIO7	3.3V	I/O	TACH_3
GPIO8	3.3V_SB	I/O	Unused(pull up)
GPIO9	3.3V_SB	I/O	WOL_ONLY
GPIO10	3.3V_SB	I/O	Unused(pull-up)
GPIO11	3.3V_SB	I/O	SMBALERT#
GPIO12	3.3V_SB	I/O	LAN_DISABLE#
GPIO13	3.3V_SB	I/O	L_PME#
GPIO14	3.3V_SB	I/O	Unused(pull-up)
GPIO15	3.3V_SB	I/O	CK_PCI_STOP
GPIO16	3.3V	I/O	Unused(NC)
GPIO17	3.3V	I/O	TACH_0
GPIO18	3.3V	I/O	Unused(NC)
GPIO19	3.3V	I/O	SATA_1GP
GPIO20	3.3V	I/O	Unused(NC)
GPIO21	3.3V	I/O	SATA_0GP
GPIO22	3.3V	I/O	Unused(pull-up)
GPIO23	3.3V	I/O	LDRQ1#
GPIO24	3.3V_SB	I/O	AMT_LED
GPIO25	3.3V_SB	I/O	CK_CPU_STOP
GPIO26	3.3V_SB	I/O	S4_STATE#
GPIO27	3.3V_SB	I/O	QRT_STATE0
GPIO28	3.3V_SB	I/O	QRT_STATE1
GPIO29	3.3V_SB	I/O	USB_OC3_FRONT#
GPIO30	3.3V_SB	I/O	USB_OC4_FRONT#
GPIO31	3.3V_SB	I/O	USB_OC4_FRONT#
GPIO32	3.3V	I/O	Unused(NC)
GPIO33	3.3V	I/O	MFG
GPIO34	3.3V	I/O	Unused(NC)
GPIO35	3.3V	I/O	Unused(NC)
GPIO36	3.3V	I/O	SATA_2GP
GPIO37	3.3V	I/O	SATA_3GP
GPIO38	3.3V	I/O	Unused(pull-up)
GPIO39	3.3V	I/O	Unused(pull-down)
GPIO40	3.3V_SB	I/O	USB_OC1_FRONT#
GPIO41	3.3V_SB	I/O	USB_OC2_FRONT#
GPIO42	3.3V_SB	I/O	USB_OC2_FRONT#
GPIO43	3.3V_SB	I/O	USB_OC3_FRONT#
GPIO44	3.3V_SB	N/A	USB_OC_BACK#
GPIO45	3.3V_SB	N/A	USB_OC_BACK#
GPIO46	3.3V_SB	N/A	USB_OC_BACK_LAN#
GPIO47	3.3V_SB	N/A	USB_OC_BACK_LAN#
GPIO48	3.3V	I/O	Unused(pull-up)
GPIO49	3.3V	I/O	DMI_STRAP(pull-down)
GPIO50	5.5V	I/O	REQ_1#
GPIO51	3.3V	I/O	Unused(NC)
GPIO52	5.5V	I/O	REQ_2#
GPIO53	3.3V	I/O	Unused(NC)
GPIO54	5.5V	I/O	REQ_3#
GPIO55	3.3V	I/O	Unused(NC)
GPIO56	3.3V_SB	I/O	Unused(pull-up)
GPIO57	3.3V_SB	I/O	Unused(pull-up)
GPIO58	3.3V_SB	I/O	Unused(pull-up)
GPIO59	3.3V_SB	I/O	USB_OC1_FRONT#
GPIO60	3.3V_SB	I/O	Unused(pull-up)

PCI Routing Summary

	PCI1				
INTAJ	F				
INTBJ	G				
INTCJ	H				
INTDJ	E				
INTEJ					
INTFJ					
INTGJ					
INTHJ					
REG#/GNT#	0				
IDSEL	16				

www.aitech1.ru



FOXCONN PCEG

Title			
GPIO / IRQ / IDSEL Map			
Size	Document Number	Rev	
C	P43A01	A	
Date:	Monday, March 24, 2008	Sheet	40 of 41

www.aitech1.ru



FOXCONN PCEG

History			
File			
Size	Document Number		Rev
Custom	P43A01		A
Date:	Monday, March 24, 2008	Sheet	41 of 41