Socket 775 — CPU Front Side Bus

J?A — Socket 775

FSB_A[3:35]#

Pin	Signal	Pin	Signal
A3#	L5	FSB_A3#	
A4#	P6	FSB_A4#	
A5#	M5	FSB_A5#	
A6#	L4	FSB_A6#	
A7#	M4	FSB_A7#	
A8#	R4	FSB_A8#	
A9#	T5	FSB_A9#	
A10#	U6	FSB_A10#	
A11#	T4	FSB_A11#	
A12#	U5	FSB_A12#	
A13#	U4	FSB_A13#	
A14#	V5	FSB_A14#	
A15#	V4	FSB_A15#	
A16#	W5	FSB_A16#	
A17#	W6	FSB_A17#	
A18#	AB6	FSB_A18#	
A19#	Y6	FSB_A19#	
A20#	Y4	FSB_A20#	
A21#	AA4	FSB_A21#	
A22#	AD6	FSB_A22#	
A23#	AA5	FSB_A35#	
A24#	AB5	FSB_A34#	
A25#	AC5	FSB_A33#	
A26#	AB4	FSB_A32#	
A27#	AF5	FSB_A31#	
A28#	AF4	FSB_A30#	
A29#	AG6	FSB_A29#	
A30#	AG4	FSB_A28#	
A31#	AG5	FSB_A27#	
A32#	AH4	FSB_A26#	
A33#	AH5	FSB_A25#	
A34#	AJ5	FSB_A24#	
A35#	AJ6	FSB_A23#	

K3 A20M# — FSB_A20M#
D2 ADS# — FSB_ADS# [6]
R6 ADSTB0# — FSB_ADSTB0# [6]
AD5 ADSTB1# — FSB_ADSTB1# [6]
U2 AP0# — FSB_AP0#
U3 AP1# — FSB_AP01

J?D — Socket 775

AD3 BINIT# — FSB_BINIT#
C2 BNR# — FSB_BNR# [6]
G8 BPRI# — FSB_BPRI# [6]
F3 BR0# — FSB_BR0# [6]
G29 BSEL0
H30 BSEL1
G30 BSEL2
AC2 DBR# — FSB_DBR#
B2 DBSY# — FSB_DBSY# [6]
G7 DEFER# — FSB_DEFER# [6]
C1 DRDY# — FSB_DRDY# [6]
R3 FERR#/PBE# — FSB_FERR#
AB2 IERR# — FSB_IERR#
N2 IGNNE# — FSB_IGNNE#
P3 INIT# — FSB_INIT#
K1 LINT0 — FSB_LINT0
L1 LINT1 — FSB_LINT1
V2 LL_ID0 — FSB_LL_ID0
AA2 LL_ID1 — FSB_LL_ID1

G23 RESET# — CPU_RESET# [6]
K4 REQ0# — FSB_REQ0# [6]
J5 REQ1# — FSB_REQ1# [6]
M6 REQ2# — FSB_REQ2# [6]
K6 REQ3# — FSB_REQ3# [6]
J6 REQ4# — FSB_REQ4# [6]
AG1 TRST# — FSB_TRST#
E3 TRDY# — FSB_TRDY# [6]
M3 STPCLK# — FSB_STPCLK#
P2 SMI# — FSB_SMI#
H4 RSP# — FSB_RSP#
B3 RS0# — FSB_RS0# [6]
F5 RS1# — FSB_RS1# [6]
A3 RS2# — FSB_RS2# [6]
W1 MSID0 — FSB_MSID0
V1 MSID1 — FSB_MSID1
AB3 MCERR# — FSB_MCERR#
C3 LOCK# — FSB_LOCK# [6]
D4 HIT# — FSB_HIT# [6]
E4 HITM# — FSB_HITM# [6]

J?C — Socket 775

F28 BCLK0 — CPU_BCLK0
G28 BCLK1 — CPU_BCLK1
AK3 ITP_CLK0 — CPU_ITP_CLK0
AJ3 ITP_CLK1 — CPU_ITP_CLK1

J?E — Socket 775

FSB_D[0:63]#

Pin	Signal
D0#	B4 FSB_D0#
D1#	C5 FSB_D1#
D2#	A4 FSB_D2#
D3#	C6 FSB_D3#
D4#	A5 FSB_D4#
D5#	B6 FSB_D5#
D6#	B7 FSB_D6#
D7#	A7 FSB_D7#
D8#	A10 FSB_D8#
D9#	A11 FSB_D9#
D10#	B10 FSB_D10#
D11#	C11 FSB_D11#
D12#	D8 FSB_D12#
D13#	B12 FSB_D13#
D14#	C12 FSB_D14#
D15#	D11 FSB_D15#
D16#	G9 FSB_D16#
D17#	F8 FSB_D17#
D18#	F9 FSB_D18#
D19#	E9 FSB_D19#
D20#	D7 FSB_D20#
D21#	E10 FSB_D21#
D22#	D10 FSB_D22#
D23#	F11 FSB_D23#
D24#	F12 FSB_D24#
D25#	D13 FSB_D25#
D26#	E13 FSB_D26#
D27#	G13 FSB_D27#
D28#	F14 FSB_D28#
D29#	G14 FSB_D29#
D30#	F15 FSB_D30#
D31#	G15 FSB_D31#
D32#	G16 FSB_D32#
D33#	E15 FSB_D33#
D34#	E16 FSB_D34#
D35#	G17 FSB_D35#
D36#	G17 FSB_D36#
D37#	F17 FSB_D37#
D38#	F18 FSB_D38#
D39#	E18 FSB_D39#
D40#	E19 FSB_D40#
D41#	F20 FSB_D41#

DSTBN0# C8 — FSB_DSTBN0# [6]
DSTBN1# G12 — FSB_DSTBN1# [6]
DSTBN2# G20 — FSB_DSTBN2# [6]
DSTBN3# A16 — FSB_DSTBN3# [6]
DSTBP0# B9 — FSB_DSTBP0# [6]
DSTBP1# E12 — FSB_DSTBP1# [6]
DSTBP2# G19 — FSB_DSTBP2# [6]
DSTBP3# C17 — FSB_DSTBP3# [6]
DP0# J16 — DP0#
DP1# H15 — DP1#
DP2# H16 — DP2#
DP3# J17 — DP3#
DBI0# A8 — FSB_DBI0# [6]
DBI1# G11 — FSB_DBI1# [6]
DBI2# D19 — FSB_DBI2# [6]
DBI3# C20 — FSB_DBI3# [6]

D63# B22 FSB_D63#
D62# A22 FSB_D62#
D61# A19 FSB_D61#
D60# B19 FSB_D60#
D59# B21 FSB_D59#
D58# C21 FSB_D58#
D57# B18 FSB_D57#
D56# A17 FSB_D56#
D55# B16 FSB_D55#
D54# C18 FSB_D54#
D53# B15 FSB_D53#
D52# C14 FSB_D52#
D51# C15 FSB_D51#
D50# A14 FSB_D50#
D49# D17 FSB_D49#
D48# D20 FSB_D48#
D47# G22 FSB_D47#
D46# D22 FSB_D46#
D45# E22 FSB_D45#
D44# G21 FSB_D44#
D43# F21 FSB_D43#
D42# E21 FSB_D42#

Core2 X48 Intel Motherboard

Title: CPU Front Side Bus

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J?B

Pin	Signal		Signal	Pin
A13	COMP0		THERMTRIP#	M2
T1	COMP1		THERMDC	AK1
J2	COMP4		THERMDA	AL1
T2	COMP5			
			SKTOCC#	AE8
G2	FC1			
AM5	FC11		PWRGOOD	N1
AM7	FC12			
H29	FC15		PROCHOT#	AL2
AN7	FC16			
R1	FC2		IMPSEL	F6
F2	FC5			
G5	FC7		GTLREF0	H1
AK6	FC8		GTLREF1	H2
E24	FC10			
Y3	FC17		BOOTSELECT	Y1
J3	FC22			
B13	FC19		BPM0#	AJ2
AE3	FC18		BPM1#	AJ1
E5	FC20		BPM2#	AD2
D23	FC9		BPM3#	AG2
			BPM4#	AF2
			BPM5#	AG3

Socket 775

J?G

Pin	Signal		Signal	Pin
AE1	TCK		TMS	AC1
AD1	TDI		TDO	AF1

Socket 775

J?F

Pin	Signal		Signal	Pin
A20	RESERVED1		RESERVED19	P5
AC4	RESERVED2		RESERVED18	N5
AE4	RESERVED3		RESERVED17	N4
AE6	RESERVED4		RESERVED16	G6
AH2	RESERVED5		RESERVED15	G10
C9	RESERVED6		RESERVED14	F29
D1	RESERVED7		RESERVED13	F23
D14	RESERVED8		RESERVED12	E7
D16	RESERVED9		RESERVED11	E6
E23	RESERVED10			

Socket 775

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CPU_VCC

J?I — Socket 775

CPU_VCC

Left pin	VCC	VCC (right)	Right pin
AA8	VCC1	VCC114	AM15
AB8	VCC2	VCC113	AM14
AC23	VCC3	VCC112	AM12
AC24	VCC4	VCC111	AM11
AC25	VCC5	VCC110	AL9
AC26	VCC6	VCC109	AL8
AC27	VCC7	VCC108	AL30
AC28	VCC8	VCC107	AL29
AC29	VCC9	VCC106	AL26
AC30	VCC10	VCC105	AL25
AC8	VCC11	VCC104	AL22
AD23	VCC12	VCC103	AL21
AD24	VCC13	VCC102	AL19
AD25	VCC14	VCC101	AL18
AD26	VCC15	VCC100	AL15
AD27	VCC16	VCC99	AL14
AD28	VCC17	VCC98	AL12
AD29	VCC18	VCC97	AL11
AD30	VCC19	VCC96	AK9
AD8	VCC20	VCC95	AK8
AE11	VCC21	VCC94	AK26
AE12	VCC22	VCC93	AK25
AE14	VCC23	VCC92	AK22
AE15	VCC24	VCC91	AK21
AE18	VCC25	VCC90	AK19
AE19	VCC26	VCC89	AK18
AE21	VCC27	VCC88	AK15
AE22	VCC28	VCC87	AK14
AE23	VCC29	VCC86	AK12
AE9	VCC30	VCC85	AK11
AF11	VCC31	VCC84	AJ9
AF12	VCC32	VCC83	AJ8
AF14	VCC33	VCC82	AJ26
AF15	VCC34	VCC81	AJ25
AF18	VCC35	VCC80	AJ22
AF19	VCC36	VCC79	AJ21
AF21	VCC37	VCC78	AJ19
AF22	VCC38	VCC77	AJ18
AF8	VCC39	VCC76	AJ15
AF9	VCC40	VCC75	AJ14
AG11	VCC41	VCC74	AJ12
AG12	VCC42	VCC73	AJ11
AG14	VCC43	VCC72	AH9
AG15	VCC44	VCC71	AH8
AG18	VCC45	VCC70	AH30
AG19	VCC46	VCC69	AH29
AG21	VCC47	VCC68	AH28
AG22	VCC48	VCC67	AH27
AG25	VCC49	VCC66	AH26
AG26	VCC50	VCC65	AH25
AG27	VCC51	VCC64	AH22
AG28	VCC52	VCC63	AH21
AG29	VCC53	VCC62	AH19
AG30	VCC54	VCC61	AH18
AG8	VCC55	VCC60	AH15
AG9	VCC56	VCC59	AH14
AH11	VCC57	VCC58	AH12

J?K — Socket 775

CPU_VCC

Left pin	VCC	VCC (right)	Right pin
Y8	VCC226	VCC115	AM18
Y30	VCC225	VCC116	AM19
Y29	VCC224	VCC117	AM21
Y28	VCC223	VCC118	AM22
Y27	VCC222	VCC119	AM25
Y26	VCC221	VCC120	AM26
Y25	VCC220	VCC121	AM29
Y24	VCC219	VCC122	AM30
Y23	VCC218	VCC123	AM8
W8	VCC217	VCC124	AM9
W30	VCC216	VCC125	AN11
W29	VCC215	VCC126	AN12
W28	VCC214	VCC127	AN14
W27	VCC213	VCC128	AN15
W26	VCC212	VCC129	AN18
W25	VCC211	VCC130	AN19
W24	VCC210	VCC131	AN21
W23	VCC209	VCC132	AN22
V8	VCC208	VCC133	AN25
U8	VCC207	VCC134	AN26
U30	VCC206	VCC135	AN29
U29	VCC205	VCC136	AN30
U28	VCC204	VCC137	AN8
U27	VCC203	VCC138	AN9
U26	VCC202	VCC139	J10
U25	VCC201	VCC140	J11
U24	VCC200	VCC141	J12
U23	VCC199	VCC142	J13
T8	VCC198	VCC143	J14
T30	VCC197	VCC144	J15
T29	VCC196	VCC145	J18
T28	VCC195	VCC146	J19
T27	VCC194	VCC147	J20
T26	VCC193	VCC148	J21
T25	VCC192	VCC149	J22
T24	VCC191	VCC150	J23
T23	VCC190	VCC151	J24
R8	VCC189	VCC152	J25
P8	VCC188	VCC153	J26
N8	VCC187	VCC154	J27
N30	VCC186	VCC155	J28
N29	VCC185	VCC156	J29
N28	VCC184	VCC157	J30
N27	VCC183	VCC158	J8
N26	VCC182	VCC159	J9
N25	VCC181	VCC160	K23
N24	VCC180	VCC161	K24
N23	VCC179	VCC162	K25
M8	VCC178	VCC163	K26
M30	VCC177	VCC164	K27
M29	VCC176	VCC165	K28
M28	VCC175	VCC166	K29
M27	VCC174	VCC167	K30
M26	VCC173	VCC168	K8
M25	VCC172	VCC169	L8
M24	VCC171	VCC170	M23

CPU_VTT

J?H

Pin	Signal		Signal	Pin
B25	VTT1		TESTHI0	F26
B26	VTT2		TESTHI1	W3
B27	VTT3		TESTHI2	F25
B28	VTT4		TESTHI3	G25
B29	VTT5		TESTHI4	G27
B30	VTT6		TESTHI5	G26
A25	VTT7		TESTHI6	G24
A26	VTT8		TESTHI7	F24
A27	VTT9		TESTHI8	G3
A28	VTT10		TESTHI9	G4
A29	VTT11		TESTHI10	H5
A30	VTT12		TESTHI11	P1
C25	VTT13		TESTHI12	W2
C26	VTT14		TESTHI13	L2
C27	VTT15			
C28	VTT16		VCC_MB_REGULATION	AN5
C29	VTT17			
C30	VTT18		VCC_SENSE	AN3
D25	VTT19			
D26	VTT20		VCCA	A23
D27	VTT21			
D28	VTT22		VCCIOPLL	C23
D29	VTT23			
D30	VTT24		VSSA	B23
J1	VTT_OUT_LEFT		VSS_SENSE	AN4
AA1	VTT_OUT_RIGHT			
			VSS_MB_REGULATION	AN6
F27	VTT_SEL			
			VID0	AM2
AM6	VTTPWRGD		VID1	AL5
			VID2	AM3
			VID3	AL6
			VID4	AK4
			VID5	AL4

VTT_PWR_GOOD

Socket 775

Core2 X48 Intel Motherboard

Title
CPU VTT

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J?J

Socket 775

J?L

Socket 775

FSB_A[3:35]#   FSB_A[3:35]#

U?K — X48 Express

Pin	Signal	Net		Signal	Pin	Net	
F43	FSB_A3#	FSB_AB_3		FSB_ADSTBB_1	V34	FSB_ADSTB1#	[1]
M38	FSB_A4#	FSB_AB_4		FSB_ADSTBB_0	M40	FSB_ADSTB0#	[1][1]
M36	FSB_A5#	FSB_AB_5		FSB_ADSB	U44	FSB_ADS#	[1][1]
K38	FSB_A6#	FSB_AB_6					
L40	FSB_A7#	FSB_AB_7		FSB_AB_35	AA38	FSB_A35#	[1]
N36	FSB_A8#	FSB_AB_8		FSB_AB_34	AB35	FSB_A34#	[1]
N40	FSB_A9#	FSB_AB_9		FSB_AB_33	AA40	FSB_A33#	[1]
R36	FSB_A10#	FSB_AB_10		FSB_AB_32	AA35	FSB_A32#	[1]
N39	FSB_A11#	FSB_AB_11		FSB_AB_31	AA33	FSB_A31#	[1]
N34	FSB_A12#	FSB_AB_12		FSB_AB_30	AB34	FSB_A30#	[1]
N38	FSB_A13#	FSB_AB_13		FSB_AB_29	W36	FSB_A29#	[1]
R39	FSB_A14#	FSB_AB_14		FSB_AB_28	V43	FSB_A28#	[1]
K42	FSB_A15#	FSB_AB_15		FSB_AB_27	W33	FSB_A27#	
R35	FSB_A16#	FSB_AB_16		FSB_AB_26	V35	FSB_A26#	
T40	FSB_A17#	FSB_AB_17		FSB_AB_25	W34	FSB_A25#	
T36	FSB_A18#	FSB_AB_18		FSB_AB_24	V39	FSB_A24#	
T34	FSB_A19#	FSB_AB_19		FSB_AB_23	V38	FSB_A23#	
T38	FSB_A20#	FSB_AB_20					
P43	FSB_A21#	FSB_AB_21					
W38	FSB_A22#	FSB_AB_22					

U?M — X48 Express

Pin	Signal	Net		Signal	Pin	Net	
U42	FSB_BNR#	FSB_BNRB		FSB_REQB_4	H39	FSB_REQ4#	[1]
H38	FSB_BPRI#	FSB_BPRIB		FSB_REQB_3	K36	FSB_REQ3#	[1]
W44	FSB_BR0#	FSB_BREQ0B		FSB_REQB_2	L39	FSB_REQ2#	[1]
T42	FSB_DBSY#	FSB_DBSYB		FSB_REQB_1	G40	FSB_REQ1#	[1]
R42	FSB_HIT#	FSB_HITB		FSB_REQB_0	C44	FSB_REQ0#	[1]
V42	FSB_HITM#	FSB_HITMB		FSB_TRDYB	W40	FSB_TRDY#	[1]
T39	FSB_DEFER#	FSB_DEFERB		FSB_DRDYB	U41	FSB_DRDY#	[1]
				FSB_LOCKB	T45	FSB_LOCK#	[1]
				FSB_CPURSTB	D35	CPU_RESET#	[1]

U?L — X48 Express

Pin	Signal		Signal	Pin
D27	FSB_ACCVREF		FSB_SCOMP	D28
E27	FSB_DVREF		FSB_SCOMPB	C28
R44	FSB_RSB_0		FSB_RCOMP	C26
W41	FSB_RSB_1		FSB_SWING	A28
R41	FSB_RSB_2			

[1] FSB_RS0#
[1] FSB_RS1#
[1] FSB_RS2#

U?N — X48 Express

FSB_D[0:63]#

Pin	Signal	Net		Signal	Pin	Net	
P42	FSB_D0#	FSB_DB_0		FSB_DINVB_3	B37	FSB_DBI3#	[1]
N41	FSB_D1#	FSB_DB_1		FSB_DINVB_2	N28	FSB_DBI2#	[1]
N44	FSB_D2#	FSB_DB_2		FSB_DINVB_1	E40	FSB_DBI1#	[1]
M42	FSB_D3#	FSB_DB_3		FSB_DINVB_0	L41	FSB_DBI0#	[1]
N42	FSB_D4#	FSB_DB_4		FSB_DSTBPB_3	C40	FSB_DSTBP3#	[1]
M45	FSB_D5#	FSB_DB_5		FSB_DSTBPB_2	N25	FSB_DSTBP2#	[1]
L44	FSB_D6#	FSB_DB_6		FSB_DSTBPB_1	H34	FSB_DSTBP1#	[1]
L42	FSB_D7#	FSB_DB_7		FSB_DSTBPB_0	J44	FSB_DSTBP0#	[1]
J43	FSB_D8#	FSB_DB_8		FSB_DSTBNB_3	D41	FSB_DSTBN3#	[1]
H42	FSB_D9#	FSB_DB_9		FSB_DSTBNB_2	M25	FSB_DSTBN2#	[1]
J41	FSB_D10#	FSB_DB_10		FSB_DSTBNB_1	G34	FSB_DSTBN1#	[1]
G42	FSB_D11#	FSB_DB_11		FSB_DSTBNB_0	K43	FSB_DSTBN0#	[1]
H45	FSB_D12#	FSB_DB_12		FSB_DB_63	E35	FSB_D63#	
G44	FSB_D13#	FSB_DB_13		FSB_DB_62	B35	FSB_D62#	
F41	FSB_D14#	FSB_DB_14		FSB_DB_61	E37	FSB_D61#	
E42	FSB_D15#	FSB_DB_15		FSB_DB_60	C37	FSB_D60#	
F38	FSB_D16#	FSB_DB_16		FSB_DB_59	D36	FSB_D59#	
F39	FSB_D17#	FSB_DB_17		FSB_DB_58	C36	FSB_D58#	
B43	FSB_D18#	FSB_DB_18		FSB_DB_57	D39	FSB_D57#	
L36	FSB_D19#	FSB_DB_19		FSB_DB_56	B39	FSB_D56#	
G38	FSB_D20#	FSB_DB_20		FSB_DB_55	B42	FSB_D55#	
K35	FSB_D21#	FSB_DB_21		FSB_DB_54	D38	FSB_D54#	
G36	FSB_D22#	FSB_DB_22		FSB_DB_53	D43	FSB_D53#	
G35	FSB_D23#	FSB_DB_23		FSB_DB_52	D44	FSB_D52#	
K34	FSB_D24#	FSB_DB_24		FSB_DB_51	C42	FSB_D51#	
H33	FSB_D25#	FSB_DB_25		FSB_DB_50	E41	FSB_D50#	
F33	FSB_D26#	FSB_DB_26		FSB_DB_49	A38	FSB_D49#	
L34	FSB_D27#	FSB_DB_27		FSB_DB_48	F35	FSB_D48#	
N33	FSB_D28#	FSB_DB_28		FSB_DB_47	G24	FSB_D47#	
L33	FSB_D29#	FSB_DB_29		FSB_DB_46	K24	FSB_D46#	
N31	FSB_D30#	FSB_DB_30		FSB_DB_45	H24	FSB_D45#	
M31	FSB_D31#	FSB_DB_31		FSB_DB_44	L24	FSB_D44#	
F31	FSB_D32#	FSB_DB_32		FSB_DB_43	L25	FSB_D43#	
K31	FSB_D33#	FSB_DB_33		FSB_DB_42	N24	FSB_D42#	
H31	FSB_D34#	FSB_DB_34		FSB_DB_41	L28	FSB_D41#	
M30	FSB_D35#	FSB_DB_35		FSB_DB_40	K28	FSB_D40#	
L30	FSB_D36#	FSB_DB_36					
N30	FSB_D37#	FSB_DB_37					
G30	FSB_D38#	FSB_DB_38					
H30	FSB_D39#	FSB_DB_39					

[17] PCI-E_0_RXN_[0:15]

U?P

PCI-Express Channel 0

X48 Express

PCI-E_0_RXN_0	B15	PEG_RXN_0	
PCI-E_0_RXN_1	C14	PEG_RXN_1	
PCI-E_0_RXN_2	G13	PEG_RXN_2	
PCI-E_0_RXN_3	K13	PEG_RXN_3	
PCI-E_0_RXN_4	M13	PEG_RXN_4	
PCI-E_0_RXN_5	G12	PEG_RXN_5	
PCI-E_0_RXN_6	L12	PEG_RXN_6	
PCI-E_0_RXN_7	H10	PEG_RXN_7	
PCI-E_0_RXN_8	D5	PEG_RXN_8	
PCI-E_0_RXN_9	G6	PEG_RXN_9	
PCI-E_0_RXN_10	C2	PEG_RXN_10	
PCI-E_0_RXN_11	K8	PEG_RXN_11	
PCI-E_0_RXN_12	L10	PEG_RXN_12	
PCI-E_0_RXN_13	M8	PEG_RXN_13	
PCI-E_0_RXN_14	J2	PEG_RXN_14	
PCI-E_0_RXN_15	N10	PEG_RXN_15	

[17] PCI-E_0_RXP_[0:15]

PCI-E_0_RXP_0	A16	PEG_RXP_0	
PCI-E_0_RXP_1	B13	PEG_RXP_1	
PCI-E_0_RXP_2	H13	PEG_RXP_2	
PCI-E_0_RXP_3	L13	PEG_RXP_3	
PCI-E_0_RXP_4	N13	PEG_RXP_4	
PCI-E_0_RXP_5	H12	PEG_RXP_5	
PCI-E_0_RXP_6	K11	PEG_RXP_6	
PCI-E_0_RXP_7	G10	PEG_RXP_7	
PCI-E_0_RXP_8	E6	PEG_RXP_8	
PCI-E_0_RXP_9	F7	PEG_RXP_9	
PCI-E_0_RXP_10	D2	PEG_RXP_10	
PCI-E_0_RXP_11	K7	PEG_RXP_11	
PCI-E_0_RXP_12	M11	PEG_RXP_12	
PCI-E_0_RXP_13	M7	PEG_RXP_13	
PCI-E_0_RXP_14	K3	PEG_RXP_14	
PCI-E_0_RXP_15	N8	PEG_RXP_15	

PCI-E_0_TXP_[0:15] [17]

PEG_TXP_15	M1	PCI-E_0_TXP_15	
PEG_TXP_14	L5	PCI-E_0_TXP_14	
PEG_TXP_13	J5	PCI-E_0_TXP_13	
PEG_TXP_12	H1	PCI-E_0_TXP_12	
PEG_TXP_11	F5	PCI-E_0_TXP_11	
PEG_TXP_10	F3	PCI-E_0_TXP_10	
PEG_TXP_9	B3	PCI-E_0_TXP_9	
PEG_TXP_8	C6	PCI-E_0_TXP_8	
PEG_TXP_7	B7	PCI-E_0_TXP_7	
PEG_TXP_6	D8	PCI-E_0_TXP_6	
PEG_TXP_5	B9	PCI-E_0_TXP_5	
PEG_TXP_4	D10	PCI-E_0_TXP_4	
PEG_TXP_3	B11	PCI-E_0_TXP_3	
PEG_TXP_2	E13	PCI-E_0_TXP_2	
PEG_TXP_1	E15	PCI-E_0_TXP_1	
PEG_TXP_0	D16	PCI-E_0_TXP_0	

PCI-E_0_TXN_[0:15] [17]

PEG_TXN_15	L2	PCI-E_0_TXN_15	
PEG_TXN_14	K4	PCI-E_0_TXN_14	
PEG_TXN_13	H4	PCI-E_0_TXN_13	
PEG_TXN_12	G2	PCI-E_0_TXN_4	
PEG_TXN_11	E4	PCI-E_0_TXN_12	
PEG_TXN_10	D3	PCI-E_0_TXN_11	
PEG_TXN_9	B4	PCI-E_0_TXN_10	
PEG_TXN_8	C4	PCI-E_0_TXN_9	
PEG_TXN_7	A8	PCI-E_0_TXN_8	
PEG_TXN_6	E9	PCI-E_0_TXN_7	
PEG_TXN_5	C10	PCI-E_0_TXN_6	
PEG_TXN_4	E11	PCI-E_0_TXN_5	
PEG_TXN_3	A12	PCI-E_0_TXN_3	
PEG_TXN_2	D12	PCI-E_0_TXN_2	
PEG_TXN_1	D14	PCI-E_0_TXN_1	
PEG_TXN_0	E17	PCI-E_0_TXN_0	

U?R

PCI-Express Clocking

X48 Express

D18	EXP_CLKINN	
D19	EXP_CLKINP	
AD14	EXP2_CLKINN	
AE14	EXP2_CLKINP	
K19	EXP_SLR	

	EXP_COMPI	R10	R1	R_0805
	EXP_COMPO	T10	R2	R_0805
	EXP2_COMPI	AN10	R3	R_0805
	EXP2_COMPO	AN8	R4	R_0805

VCC_EXP

VCC_EXP

[18] PCI-E_1_RXN_[0:15]

U?Q

PCI-Express Channel 1

X48 Express

PCI-E_1_RXN_0	AA13	PEG2_RXN_0	
PCI-E_1_RXN_1	AA11	PEG2_RXN_1	
PCI-E_1_RXN_2	AA7	PEG2_RXN_2	
PCI-E_1_RXN_3	AB12	PEG2_RXN_3	
PCI-E_1_RXN_4	AC10	PEG2_RXN_4	
PCI-E_1_RXN_5	AC7	PEG2_RXN_5	
PCI-E_1_RXN_6	AD12	PEG2_RXN_6	
PCI-E_1_RXN_7	AE11	PEG2_RXN_7	
PCI-E_1_RXN_8	AE6	PEG2_RXN_8	
PCI-E_1_RXN_9	AH13	PEG2_RXN_9	
PCI-E_1_RXN_10	AH10	PEG2_RXN_10	
PCI-E_1_RXN_11	AH6	PEG2_RXN_11	
PCI-E_1_RXN_12	AK13	PEG2_RXN_12	
PCI-E_1_RXN_13	AL10	PEG2_RXN_13	
PCI-E_1_RXN_14	AL7	PEG2_RXN_14	
PCI-E_1_RXN_15	AP11	PEG2_RXN_15	

[18] PCI-E_1_RXP_[0:15]

PCI-E_1_RXP_0	W12	PEG2_RXP_0	
PCI-E_1_RXP_1	AA10	PEG2_RXP_1	
PCI-E_1_RXP_2	AA6	PEG2_RXP_2	
PCI-E_1_RXP_3	AC13	PEG2_RXP_3	
PCI-E_1_RXP_4	AC11	PEG2_RXP_4	
PCI-E_1_RXP_5	AC6	PEG2_RXP_5	
PCI-E_1_RXP_6	AE13	PEG2_RXP_6	
PCI-E_1_RXP_7	AE10	PEG2_RXP_7	
PCI-E_1_RXP_8	AE7	PEG2_RXP_8	
PCI-E_1_RXP_9	AG12	PEG2_RXP_9	
PCI-E_1_RXP_10	AH11	PEG2_RXP_10	
PCI-E_1_RXP_11	AH7	PEG2_RXP_11	
PCI-E_1_RXP_12	AK12	PEG2_RXP_12	
PCI-E_1_RXP_13	AL11	PEG2_RXP_13	
PCI-E_1_RXP_14	AL6	PEG2_RXP_14	
PCI-E_1_RXP_15	AP10	PEG2_RXP_15	

PCI-E_1_TXP_[0:15] [18]

PEG2_TXP_15	AP7	PCI-E_1_TXP_15	
PEG2_TXP_14	AU2	PCI-E_1_TXP_14	
PEG2_TXP_13	AT4	PCI-E_1_TXP_13	
PEG2_TXP_12	AR2	PCI-E_1_TXP_12	
PEG2_TXP_11	AP4	PCI-E_1_TXP_11	
PEG2_TXP_10	AN2	PCI-E_1_TXP_10	
PEG2_TXP_9	AM4	PCI-E_1_TXP_9	
PEG2_TXP_8	AL2	PCI-E_1_TXP_8	
PEG2_TXP_7	AK4	PCI-E_1_TXP_7	
PEG2_TXP_6	AJ2	PCI-E_1_TXP_6	
PEG2_TXP_5	AH4	PCI-E_1_TXP_5	
PEG2_TXP_4	AG2	PCI-E_1_TXP_4	
PEG2_TXP_3	AF4	PCI-E_1_TXP_3	
PEG2_TXP_2	AE2	PCI-E_1_TXP_2	
PEG2_TXP_1	AD4	PCI-E_1_TXP_1	
PEG2_TXP_0	AB3	PCI-E_1_TXP_0	

PCI-E_1_TXN_[0:15] [18]

PEG2_TXN_15	AP6	PCI-E_1_TXN_15	
PEG2_TXN_14	AT3	PCI-E_1_TXN_14	
PEG2_TXN_13	AR5	PCI-E_1_TXN_13	
PEG2_TXN_12	AP1	PCI-E_1_TXN_12	
PEG2_TXN_11	AN5	PCI-E_1_TXN_11	
PEG2_TXN_10	AM3	PCI-E_1_TXN_10	
PEG2_TXN_9	AL5	PCI-E_1_TXN_9	
PEG2_TXN_8	AK1	PCI-E_1_TXN_8	
PEG2_TXN_7	AJ5	PCI-E_1_TXN_7	
PEG2_TXN_6	AH3	PCI-E_1_TXN_6	
PEG2_TXN_5	AG5	PCI-E_1_TXN_5	
PEG2_TXN_4	AF1	PCI-E_1_TXN_4	
PEG2_TXN_3	AE5	PCI-E_1_TXN_3	
PEG2_TXN_2	AD3	PCI-E_1_TXN_2	
PEG2_TXN_1	AC4	PCI-E_1_TXN_1	
PEG2_TXN_0	AB1	PCI-E_1_TXN_0	

Core2 X48 Intel Motherboard

Title: X48 Express Northbridge PCI-Express

Size | Document Number | Rev 1.0

Date: Wednesday, August 25, 2010   Sheet   7   of   1

[13,14] DDR_A_DQ_[0:63]

U?B — X48 Express

[13,14] DDR_A_A_[0:14]

Pin	Signal		Signal	Pin
BC36	DDR_A_MA_0	DDR_A_DQS_0	DDR_A_DQS_0	BA6
BB31	DDR_A_MA_1	DDR_A_DQS_1	DDR_A_DQS_1	BA11
BB30	DDR_A_MA_2	DDR_A_DQS_2	DDR_A_DQS_2	BA15
BB29	DDR_A_MA_3	DDR_A_DQS_3	DDR_A_DQS_3	AT21
BA29	DDR_A_MA_4	DDR_A_DQS_4	DDR_A_DQS_4	AT43
BB28	DDR_A_MA_5	DDR_A_DQS_5	DDR_A_DQS_5	AM43
BD29	DDR_A_MA_6	DDR_A_DQS_6	DDR_A_DQS_6	AD43
AY27	DDR_A_MA_7	DDR_A_DQS_7	DDR_A_DQS_7	AA42
BC28	DDR_A_MA_8	DDR_A_DQS_8	DDR_A_DQS_8	AL38
BA27	DDR_A_MA_9			
BD37	DDR_A_MA_10	DDR_A_DQSB_0	DDR_A_DQSB_0	BC6
BD27	DDR_A_MA_11	DDR_A_DQSB_1	DDR_A_DQSB_1	AY11
BB27	DDR_A_MA_12	DDR_A_DQSB_2	DDR_A_DQSB_2	AY15
BA42	DDR_A_MA_13	DDR_A_DQSB_3	DDR_A_DQSB_3	AV21
BA25	DDR_A_MA_14	DDR_A_DQSB_4	DDR_A_DQSB_4	AT42
		DDR_A_DQSB_5	DDR_A_DQSB_5	AM42
BC37	DDR_A_BS_0	DDR_A_DQSB_6	DDR_A_DQSB_6	AD42
BB36	DDR_A_BS_1	DDR_A_DQSB_7	DDR_A_DQSB_7	AA44
BB26	DDR_A_BS_2	DDR_A_DQSB_8	DDR_A_DQSB_8	AL36

[13,14] DDR_A_DQS_[0:8]
[13,14] DDR_A_DQSB_[0:8]
[13,14] DDR_A_DM_[0:7]

DDR_A_BA_0 [13,14]
DDR_A_BA_1 [13,14]
DDR_A_BA_2 [13,14]

	Signal		Signal	Pin
	DDR_A_DM_0	DDR_A_DM_0		BB5
	DDR_A_DM_1	DDR_A_DM_1		BC10
	DDR_A_DM_2	DDR_A_DM_2		BC14
	DDR_A_DM_3	DDR_A_DM_3		AP21
	DDR_A_DM_4	DDR_A_DM_4		AU44
	DDR_A_DM_5	DDR_A_DM_5		AN44
	DDR_A_DM_6	DDR_A_DM_6		AE44
	DDR_A_DM_7	DDR_A_DM_7		AB40

U?D — X48 Express

Pin	Signal		Signal	Pin
BC4	DDR_A_DQ_0	DDR_A_DQ_0	DDR_A_DQ_63	Y45
BD4	DDR_A_DQ_1	DDR_A_DQ_1	DDR_A_DQ_62	AA41
BB8	DDR_A_DQ_2	DDR_A_DQ_2	DDR_A_DQ_61	AB39
BE8	DDR_A_DQ_3	DDR_A_DQ_3	DDR_A_DQ_60	AC40
BD3	DDR_A_DQ_4	DDR_A_DQ_4	DDR_A_DQ_59	W42
BB4	DDR_A_DQ_5	DDR_A_DQ_5	DDR_A_DQ_58	Y42
BD7	DDR_A_DQ_6	DDR_A_DQ_6	DDR_A_DQ_57	AB43
BB7	DDR_A_DQ_7	DDR_A_DQ_7	DDR_A_DQ_56	AB42
BD9	DDR_A_DQ_8	DDR_A_DQ_8	DDR_A_DQ_55	AC39
BB10	DDR_A_DQ_9	DDR_A_DQ_9	DDR_A_DQ_54	AD40
BB12	DDR_A_DQ_10	DDR_A_DQ_10	DDR_A_DQ_53	AF45
BE12	DDR_A_DQ_11	DDR_A_DQ_11	DDR_A_DQ_52	AF42
BA9	DDR_A_DQ_12	DDR_A_DQ_12	DDR_A_DQ_51	AC42
BC9	DDR_A_DQ_13	DDR_A_DQ_13	DDR_A_DQ_50	AC45
BD11	DDR_A_DQ_14	DDR_A_DQ_14	DDR_A_DQ_49	AE42
BB11	DDR_A_DQ_15	DDR_A_DQ_15	DDR_A_DQ_48	AE41
BD13	DDR_A_DQ_16	DDR_A_DQ_16	DDR_A_DQ_47	AL41
BB14	DDR_A_DQ_17	DDR_A_DQ_17	DDR_A_DQ_46	AL40
BB16	DDR_A_DQ_18	DDR_A_DQ_18	DDR_A_DQ_45	AP45
BE16	DDR_A_DQ_19	DDR_A_DQ_19	DDR_A_DQ_44	AP42
BA13	DDR_A_DQ_20	DDR_A_DQ_20	DDR_A_DQ_43	AL42
BB13	DDR_A_DQ_21	DDR_A_DQ_21	DDR_A_DQ_42	AL44
BD15	DDR_A_DQ_22	DDR_A_DQ_22	DDR_A_DQ_41	AN42
BB15	DDR_A_DQ_23	DDR_A_DQ_23	DDR_A_DQ_40	AN41
AN19	DDR_A_DQ_24	DDR_A_DQ_24	DDR_A_DQ_39	AR40
AY21	DDR_A_DQ_25	DDR_A_DQ_25	DDR_A_DQ_38	AR41
AN22	DDR_A_DQ_26	DDR_A_DQ_26	DDR_A_DQ_37	AU41
AT22	DDR_A_DQ_27	DDR_A_DQ_27	DDR_A_DQ_36	AW42
AV19	DDR_A_DQ_28	DDR_A_DQ_28	DDR_A_DQ_35	AR42
AW19	DDR_A_DQ_29	DDR_A_DQ_29	DDR_A_DQ_34	AR44
AN21	DDR_A_DQ_30	DDR_A_DQ_30	DDR_A_DQ_33	AU43
AW22	DDR_A_DQ_31	DDR_A_DQ_31	DDR_A_DQ_32	AV42

U?C — X48 Express

Pin	Signal		Signal	Pin
BB41	DDR_A_CASB			
BB38	DDR_A_RASB	DDR_A_CB_7	DDR_A_CB_7	AK39
BD39	DDR_A_WEB	DDR_A_CB_6	DDR_A_CB_6	AK34
		DDR_A_CB_5	DDR_A_CB_5	AL34
BD25	DDR_A_CKE_0	DDR_A_CB_4	DDR_A_CB_4	AK33
AY24	DDR_A_CKE_1	DDR_A_CB_3	DDR_A_CB_3	AK35
BB25	DDR_A_CKE_2	DDR_A_CB_2	DDR_A_CB_2	AK38
BC24	DDR_A_CKE_3	DDR_A_CB_1	DDR_A_CB_1	AN35
		DDR_A_CB_0	DDR_A_CB_0	AL33
AT33	DDR_A_CK_0			
AN28	DDR_A_CK_1	DDR_A_CSB_3	DDR_A_CSB_3	AY43
AT34	DDR_A_CK_2	DDR_A_CSB_2	DDR_A_CSB_2	BB39
AV31	DDR_A_CK_3	DDR_A_CSB_1	DDR_A_CSB_1	BD42
AN27	DDR_A_CK_4	DDR_A_CSB_0	DDR_A_CSB_0	BA40
AT35	DDR_A_CK_5			
AR33	DDR_A_CKB_0	DDR_A_ODT_3		AW44
AM28	DDR_A_CKB_1	DDR_A_ODT_2		BA41
AV35	DDR_A_CKB_2	DDR_A_ODT_1		AY41
AT31	DDR_A_CKB_3	DDR_A_ODT_0		BB43
AM27	DDR_A_CKB_4			
AT36	DDR_A_CKB_5			

DDR_A_CASB [13,14]
DDR_A_RASB [13,14]
DDR_A_WEB [13,14]
DDR_A_CKE_0 [13]
DDR_A_CKE_1 [13]
DDR_A_CKE_2 [14]
DDR_A_CKE_3 [14]
DDR_A_CK_0 [13]
DDR_A_CK_1 [13]
DDR_A_CK_2 [14]
DDR_A_CK_3 [14]
DDR_A_CKB_0 [13]
DDR_A_CKB_1 [13]
DDR_A_CKB_2 [14]
DDR_A_CKB_3 [14]

DDR_A_CSB_3 [14]
DDR_A_CSB_2 [14]
DDR_A_CSB_1 [13]
DDR_A_CSB_0 [13]

U?H — X48 Express

Pin	Signal	Signal	Pin
AT6	DDR_RCOMPVOH	DDR3_DRAMRSTB	BB23
AT7	DDR_RCOMPVOL	DDR3_A_CSB1	BB44
		DDR3_A_WEB	BC40
AY6	DDR_RCOMPXPD		
AY5	DDR_RCOMPXPU	DDR3_B_ODT3	BA37
		DDR3_DRAM_PWR_OK	AN11
BC42	DDR_RCOMPYPD	DDR3_A_MA0	BD35
BB42	DDR_RCOMPYPU	DDR_VREF	AV7

Core2 X48 Intel Motherboard

Title: X48 Express Northbridge DDR3 Channel 0

Size | Document Number | Rev 1.0

[15,16] DDR_B_DQ_[0:63]

[15,16] DDR_B_A_[0:14]

U?E

DDR_B_A_0 AY22
DDR_B_A_1 BC22
DDR_B_A_2 BB22
DDR_B_A_3 BA21
DDR_B_A_4 BD21
DDR_B_A_5 BB21
DDR_B_A_6 BB20
DDR_B_A_7 AY19
DDR_B_A_8 BE20
DDR_B_A_9 BB19
DDR_B_A_10 AW24
DDR_B_A_11 BA19
DDR_B_A_12 AY18
DDR_B_A_13 BA33
DDR_B_A_14 BC18

DDR_B_MA_0
DDR_B_MA_1
DDR_B_MA_2
DDR_B_MA_3
DDR_B_MA_4
DDR_B_MA_5
DDR_B_MA_6
DDR_B_MA_7
DDR_B_MA_8
DDR_B_MA_9
DDR_B_MA_10
DDR_B_MA_11
DDR_B_MA_12
DDR_B_MA_13
DDR_B_MA_14

[15,16] DDR_B_BA_0 BB24
[15,16] DDR_B_BA_1 AW23
[15,16] DDR_B_BA_2 BB18

DDR_B_BS_0
DDR_B_BS_1
DDR_B_BS_2

DDR_B_DQSB_8
DDR_B_DQSB_7
DDR_B_DQSB_6
DDR_B_DQSB_5
DDR_B_DQSB_4
DDR_B_DQSB_3
DDR_B_DQSB_2
DDR_B_DQSB_1
DDR_B_DQSB_0

AH42 DDR_B_DQS_0
AD33 DDR_B_DQS_1
AG38 DDR_B_DQS_2
AP40 DDR_B_DQS_3
AV38 DDR_B_DQS_4
AR24 DDR_B_DQS_5
AP16 DDR_B_DQS_6
AR12 DDR_B_DQS_7
AT10 DDR_B_DQS_8

[15,16] DDR_B_DQS_[0:8]

DDR_B_DQS_8
DDR_B_DQS_7
DDR_B_DQS_6
DDR_B_DQS_5
DDR_B_DQS_4
DDR_B_DQS_3
DDR_B_DQS_2
DDR_B_DQS_1
DDR_B_DQS_0

AH43 DDR_B_DQSB_0
AC33 DDR_B_DQSB_1
AG39 DDR_B_DQSB_2
AP39 DDR_B_DQSB_3
AW39 DDR_B_DQSB_4
AR25 DDR_B_DQSB_5
AN18 DDR_B_DQSB_6
AR13 DDR_B_DQSB_7
AW10 DDR_B_DQSB_8

[15,16] DDR_B_DQSB_[0:8]

DDR_B_DM_7
DDR_B_DM_6
DDR_B_DM_5
DDR_B_DM_4
DDR_B_DM_3
DDR_B_DM_2
DDR_B_DM_1
DDR_B_DM_0

AD35 DDR_B_DM_0
AG35 DDR_B_DM_1
AN36 DDR_B_DM_2
AY40 DDR_B_DM_3
AY25 DDR_B_DM_4
AW16 DDR_B_DM_5
AT13 DDR_B_DM_6
AY8 DDR_B_DM_7

[15,16] DDR_B_DM_[0:7]

X48 Express

U?G

DDR_B_DQ_0 AW8
DDR_B_DQ_1 AY7
DDR_B_DQ_2 AT11
DDR_B_DQ_3 AT12
DDR_B_DQ_4 AV8
DDR_B_DQ_5 AW6
DDR_B_DQ_6 AR11
DDR_B_DQ_7 AW11
DDR_B_DQ_8 AY12
DDR_B_DQ_9 AY13
DDR_B_DQ_10 AT15
DDR_B_DQ_11 AV15
DDR_B_DQ_12 AW12
DDR_B_DQ_13 AW13
DDR_B_DQ_14 AN15
DDR_B_DQ_15 AP15
DDR_B_DQ_16 AY16
DDR_B_DQ_17 AV16
DDR_B_DQ_18 AP19
DDR_B_DQ_19 AT19
DDR_B_DQ_20 AN16
DDR_B_DQ_21 AR16
DDR_B_DQ_22 AT18
DDR_B_DQ_23 AR18
DDR_B_DQ_24 AW25
DDR_B_DQ_25 AV25
DDR_B_DQ_26 AT27
DDR_B_DQ_27 AV27
DDR_B_DQ_28 AN24
DDR_B_DQ_29 AU24
DDR_B_DQ_30 AT25
DDR_B_DQ_31 AP27

DDR_B_DQ_0
DDR_B_DQ_1
DDR_B_DQ_2
DDR_B_DQ_3
DDR_B_DQ_4
DDR_B_DQ_5
DDR_B_DQ_6
DDR_B_DQ_7
DDR_B_DQ_8
DDR_B_DQ_9
DDR_B_DQ_10
DDR_B_DQ_11
DDR_B_DQ_12
DDR_B_DQ_13
DDR_B_DQ_14
DDR_B_DQ_15
DDR_B_DQ_16
DDR_B_DQ_17
DDR_B_DQ_18
DDR_B_DQ_19
DDR_B_DQ_20
DDR_B_DQ_21
DDR_B_DQ_22
DDR_B_DQ_23
DDR_B_DQ_24
DDR_B_DQ_25
DDR_B_DQ_26
DDR_B_DQ_27
DDR_B_DQ_28
DDR_B_DQ_29
DDR_B_DQ_30
DDR_B_DQ_31

DDR_B_DQ_63 AC34
DDR_B_DQ_62 AC36
DDR_B_DQ_61 AE34
DDR_B_DQ_60 AE35
DDR_B_DQ_59 AB38
DDR_B_DQ_58 AB32
DDR_B_DQ_57 AD36
DDR_B_DQ_56 AD39
DDR_B_DQ_55 AE33
DDR_B_DQ_54 AE40
DDR_B_DQ_53 AH36
DDR_B_DQ_52 AH33
DDR_B_DQ_51 AE38
DDR_B_DQ_50 AE39
DDR_B_DQ_49 AG33
DDR_B_DQ_48 AH34
DDR_B_DQ_47 AN40
DDR_B_DQ_46 AN39
DDR_B_DQ_45 AR34
DDR_B_DQ_44 AV36
DDR_B_DQ_43 AN33
DDR_B_DQ_42 AP35
DDR_B_DQ_41 AP36
DDR_B_DQ_40 AR36
DDR_B_DQ_39 AV40
DDR_B_DQ_38 AV39
DDR_B_DQ_37 AW36
DDR_B_DQ_36 AY38
DDR_B_DQ_35 AT40
DDR_B_DQ_34 AT38
DDR_B_DQ_33 AW38
DDR_B_DQ_32 AY39

DDR_B_DQ_63
DDR_B_DQ_62
DDR_B_DQ_61
DDR_B_DQ_60
DDR_B_DQ_59
DDR_B_DQ_58
DDR_B_DQ_57
DDR_B_DQ_56
DDR_B_DQ_55
DDR_B_DQ_54
DDR_B_DQ_53
DDR_B_DQ_52
DDR_B_DQ_51
DDR_B_DQ_50
DDR_B_DQ_49
DDR_B_DQ_48
DDR_B_DQ_47
DDR_B_DQ_46
DDR_B_DQ_45
DDR_B_DQ_44
DDR_B_DQ_43
DDR_B_DQ_42
DDR_B_DQ_41
DDR_B_DQ_40
DDR_B_DQ_39
DDR_B_DQ_38
DDR_B_DQ_37
DDR_B_DQ_36
DDR_B_DQ_35
DDR_B_DQ_34
DDR_B_DQ_33
DDR_B_DQ_32

X48 Express

U?F

[15,16] DDR_B_CASB BB32
[15,16] DDR_B_RASB BD31
[15,16] DDR_B_WEB AY31

DDR_B_CASB
DDR_B_RASB
DDR_B_WEB

[15] DDR_B_CKE_0 BD17
[15] DDR_B_CKE_1 BD19
[16] DDR_B_CKE_2 BB17
[16] DDR_B_CKE_3 BA17

DDR_B_CKE_0
DDR_B_CKE_1
DDR_B_CKE_2
DDR_B_CKE_3

[15] DDR_B_CK_0 AW30
[15] DDR_B_CK_1 AR28
[16] DDR_B_CK_2 AV33
[16] DDR_B_CK_3 AR31
DDR_B_CK_4 AY30
DDR_B_CK_5 AW34

DDR_B_CK_0
DDR_B_CK_1
DDR_B_CK_2
DDR_B_CK_3
DDR_B_CK_4
DDR_B_CK_5

[15] DDR_B_CKB_0 AV30
[15] DDR_B_CKB_1 AP28
[16] DDR_B_CKB_2 AW33
[16] DDR_B_CKB_3 AP31
DDR_B_CKB_4 AY28
DDR_B_CKB_5 AY34

DDR_B_CKB_0
DDR_B_CKB_1
DDR_B_CKB_2
DDR_B_CKB_3
DDR_B_CKB_4
DDR_B_CKB_5

DDR_B_CB_7 AG44 DDR_B_CB_7
DDR_B_CB_6 AG41 DDR_B_CB_6
DDR_B_CB_5 AK42 DDR_B_CB_5
DDR_B_CB_4 AJ42 DDR_B_CB_4
DDR_B_CB_3 AG40 DDR_B_CB_3
DDR_B_CB_2 AG42 DDR_B_CB_2
DDR_B_CB_1 AJ44 DDR_B_CB_1
DDR_B_CB_0 AK45 DDR_B_CB_0

DDR_B_CSB_3 BA35 DDR_B_CSB_3 [16]
DDR_B_CSB_2 BC32 DDR_B_CSB_2 [16]
DDR_B_CSB_1 BB35 DDR_B_CSB_1 [15]
DDR_B_CSB_0 BA31 DDR_B_CSB_0 [15]

DDR_B_ODT_3 AY35
DDR_B_ODT_2 BB33
DDR_B_ODT_1 BB34
DDR_B_ODT_0 BD33

X48 Express

Core2 X48 Intel Motherboard

Title
X48 Express Northbridge DDR3 Channel 1

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U?I

Pin	Signal	Signal	Pin
M4	DMI_RXN_0	DMI_TXP_3	V10
T8	DMI_RXN_1	DMI_TXP_2	R2
R5	DMI_RXN_2	DMI_TXP_1	N2
V6	DMI_RXN_3	DMI_TXP_0	R7
N5	DMI_RXP_0	DMI_TXN_3	V11
T7	DMI_RXP_1	DMI_TXN_2	T1
P4	DMI_RXP_2	DMI_TXN_1	P3
V7	DMI_RXP_3	DMI_TXN_0	R6
P16	ICH_SYNCB		

X48 Express

U?J

Pin	Signal	Signal	Pin
L18	RSVD_L18	RSVD_P19	P19
BC2	RSVD_BC2	RSVD_M19	M19
AP34	RSVD_AP34	RSVD_H15	H15
AP12	RSVD_AP12	RSVD_G15	G15
AN31	RSVD_AN31	RSVD_B19	B19
AN30	RSVD_AN30	RSVD_F19	F19
AN25	RSVD_AN25	RSVD_G22	G22
AN13	RSVD_AN13	RSVD_H21	H21
AN12	RSVD_AN12	RSVD_K21	K21
AM32	RSVD_AM32	RSVD_K22	K22
AM25	RSVD_AM25	RSVD_L19	L19
AM14	RSVD_AM14	RSVD_M16	M16
AL28	RSVD_AL28	RSVD_N11	N11
AH28	RSVD_AH28	RSVD_N12	N12
AG32	RSVD_AG32	RSVD_N18	N18
AG28	RSVD_AG28	RSVD_N21	N21
AD32	RSVD_AD32	RSVD_P21	P21
W32	RSVD_W32	RSVD_R19	R19
V32	RSVD_V32	RSVD_R22	R22
V12	RSVD_V12	RSVD_R33	R33
T33	RSVD_T33	RSVD_T12	T12

X48 Express

U?A

Pin	Signal	Signal	Pin
M22	BSEL0	ALLZTEST	M21
F21	BSEL1	XORTEST	L22
F18	BSEL2		
P28	HPL_CLKINP	MTYPE	G19
P30	HPL_CLKINN		
		PWROK	AM19
AK14	CL_CLK		
AG14	CL_VREF	TEST3	A45
AG11	CL_RSTB	TEST2	A2
AL13	CL_PWROK	TEST1	BE1
AK15	CL_DATA	TEST0	BE45
AM18	RSTINB	TCEN	G21

X48 Express

TP1 — X48 TP3 — 1
TP2 — X48 TP2 — 1
TP3 — X48 TP1 — 1
TP4 — X48 TP0 — 1

U?O

Pin	Signal	Signal	Pin
BE2	NC_BE2	NC_A44	A44
BD45	NC_BD45	NC_B1	B1
BD1	NC_BD1	NC_B45	B45

X48 Express

Core2 X48 Intel Motherboard

Title
X48 Express Northbridge Misc.

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U?U — X48 Express

VCC_CL

Pin	Net		Net	Pin
V31	VCC_CL_V31		VCC_CL_V29	V29
AM30	VCC_CL_AM30		VCC_CL_W29	W29
AM23	VCC_CL_AM23		VCC_CL_Y29	Y29
AM22	VCC_CL_AM22		VCC_CL_AA29	AA29
AL30	VCC_CL_AL30		VCC_CL_AA31	AA31
AL27	VCC_CL_AL27		VCC_CL_AB29	AB29
AL25	VCC_CL_AL25		VCC_CL_AB31	AB31
AL24	VCC_CL_AL24		VCC_CL_AC29	AC29
AL23	VCC_CL_AL23		VCC_CL_AC31	AC31
AL22	VCC_CL_AL22		VCC_CL_AD29	AD29
AL21	VCC_CL_AL21		VCC_CL_AD31	AD31
AL19	VCC_CL_AL19		VCC_CL_AE29	AE29
AL18	VCC_CL_AL18		VCC_CL_AE31	AE31
AL16	VCC_CL_AL16		VCC_CL_AF29	AF29
AK31	VCC_CL_AK31		VCC_CL_AG29	AG29
AJ29	VCC_CL_AJ29		VCC_CL_AG31	AG31
AJ28	VCC_CL_AJ28		VCC_CL_AH14	AH14
AJ27	VCC_CL_AJ27		VCC_CL_AH15	AH15
AJ26	VCC_CL_AJ26		VCC_CL_AH29	AH29
AJ25	VCC_CL_AJ25		VCC_CL_AH31	AH31
AJ24	VCC_CL_AJ24		VCC_CL_AJ17	AJ17
AJ23	VCC_CL_AJ23		VCC_CL_AJ18	AJ18
AJ22	VCC_CL_AJ22		VCC_CL_AJ19	AJ19
AJ21	VCC_CL_AJ21		VCC_CL_AJ20	AJ20

U?V — X48 Express

VCC_EXP

Pin	Net		Net	Pin
AD11	VCC_EXP_AD11		VCCR_EXP_C8	C8
AD10	VCC_EXP_AD10		VCCR_EXP_C12	C12
AD8	VCC_EXP_AD8		VCCR_EXP_C16	C16
AD7	VCC_EXP_AD7		VCCR_EXP_H3	H3
AB11	VCC_EXP_AB11		VCCR_EXP_M3	M3
AB10	VCC_EXP_AB10		VCCR_EXP_T14	T14
AB8	VCC_EXP_AB8		VCCR_EXP_T15	T15
AB7	VCC_EXP_AB7		VCCR_EXP_V14	V14
AB6	VCC_EXP_AB6		VCCR_EXP_V15	V15
AB4	VCC_EXP_AB4		VCCR_EXP_W15	W15
AA5	VCC_EXP_AA5		VCCR_EXP_AA14	AA14
AA4	VCC_EXP_AA4		VCCR_EXP_AA15	AA15
AA2	VCC_EXP_AA2		VCCR_EXP_AB14	AB14
Y4	VCC_EXP_Y4		VCCR_EXP_AC3	AC3
Y3	VCC_EXP_Y3		VCCR_EXP_AC15	AC15
Y1	VCC_EXP_Y1		VCCR_EXP_AD15	AD15
W11	VCC_EXP_W11		VCCR_EXP_AE15	AE15
W10	VCC_EXP_W10		VCCR_EXP_AF3	AF3
W8	VCC_EXP_W8		VCCR_EXP_AK3	AK3
W7	VCC_EXP_W7		VCCR_EXP_AP3	AP3
W5	VCC_EXP_W5			
W4	VCC_EXP_W4		VCCAPLL_EXP2	AR10
W2	VCC_EXP_W2		VCCAPLL_EXP	A20
V4	VCC_EXP_V4			
V3	VCC_EXP_V3			
V1	VCC_EXP_V1			
U5	VCC_EXP_U5			
U4	VCC_EXP_U4			
U2	VCC_EXP_U2			
T4	VCC_EXP_T4			
T3	VCC_EXP_T3			

U?S — X48 Express

Pin	Net		Net	Pin
N15	VCC_N15		VCC_E25	E25
AH26	VCC_AH26		VCC_C18	C18
AH24	VCC_AH24		VCC_B25	B25
AH22	VCC_AH22		VCC_R16	R16
AH20	VCC_AH20		VCC_R18	R18
AH19	VCC_AH19		VCC_U17	U17
AH18	VCC_AH18		VCC_U18	U18
AH17	VCC_AH17		VCC_U19	U19
AG27	VCC_AG27		VCC_U20	U20
AG25	VCC_AG25		VCC_U21	U21
AG23	VCC_AG23		VCC_U22	U22
AG21	VCC_AG21		VCC_U23	U23
AG19	VCC_AG19		VCC_U24	U24
AG18	VCC_AG18		VCC_U25	U25
AG17	VCC_AG17		VCC_U26	U26
AG15	VCC_AG15		VCC_U27	U27
AF28	VCC_AF28		VCC_U28	U28
AF26	VCC_AF26		VCC_V17	V17
AF24	VCC_AF24		VCC_V18	V18
AF22	VCC_AF22		VCC_V20	V20
AF20	VCC_AF20		VCC_V22	V22
AF18	VCC_AF18		VCC_V24	V24
AF17	VCC_AF17		VCC_V26	V26
AE28	VCC_AE28		VCC_V28	V28
AE27	VCC_AE27		VCC_W17	W17
AE25	VCC_AE25		VCC_W18	W18
AE23	VCC_AE23		VCC_W19	W19
AE21	VCC_AE21		VCC_W21	W21
AE19	VCC_AE19		VCC_W23	W23
AE18	VCC_AE18		VCC_W25	W25
AE17	VCC_AE17		VCC_W27	W27
AD28	VCC_AD28		VCC_W28	W28
AD26	VCC_AD26		VCC_Y17	Y17
AD24	VCC_AD24		VCC_Y18	Y18
AD22	VCC_AD22		VCC_Y20	Y20
AD20	VCC_AD20		VCC_Y22	Y22
AD18	VCC_AD18		VCC_Y24	Y24
AD17	VCC_AD17		VCC_Y26	Y26
AC28	VCC_AC28		VCC_Y28	Y28
AC27	VCC_AC27		VCC_AA17	AA17
AC25	VCC_AC25		VCC_AA18	AA18
AC23	VCC_AC23		VCC_AA19	AA19
AC21	VCC_AC21		VCC_AA21	AA21
AC19	VCC_AC19		VCC_AA23	AA23
AC18	VCC_AC18		VCC_AA25	AA25
AC17	VCC_AC17		VCC_AA27	AA27
AB28	VCC_AB28		VCC_AA28	AA28
AB26	VCC_AB26		VCC_AB15	AB15
AB24	VCC_AB24		VCC_AB17	AB17
AB22	VCC_AB22		VCC_AB18	AB18
AB20	VCC_AB20			

U?T — X48 Express

Pin	Net		Net	Pin
AB13	VCC_EXT_PLL		VCC_DDR_AY23	AY23
			VCC_DDR_AY45	AY45
A23	VCC3_3_A23		VCC_DDR_BC20	BC20
G16	VCC3_3_G16		VCC_DDR_BC23	BC23
L16	VCC3_3_L16		VCC_DDR_BC26	BC26
			VCC_DDR_BC30	BC30
D20	VCCA_EXP		VCC_DDR_BC34	BC34
AU5	VCCA_EXP2		VCC_DDR_BC38	BC38
			VCC_DDR_BE22	BE22
D26	VCCA_HPL_D26		VCC_DDR_BE24	BE24
D25	VCCA_HPL_D25		VCC_DDR_BE28	BE28
B27	VCCA_MPL		VCC_DDR_BE32	BE32
			VCC_DDR_BE36	BE36
U29	VCCAUX_U29		VCC_DDR_BE40	BE40
T31	VCCAUX_T31			
R30	VCCAUX_R30		VCC_CKDDR_BC44	BC44
R28	VCCAUX_R28		VCC_CKDDR_BC45	BC45
R27	VCCAUX_R27		VCC_CKDDR_BD43	BD43
R25	VCCAUX_R25		VCC_CKDDR_BD44	BD44
R24	VCCAUX_R24		VCC_CKDDR_BE43	BE43
R23	VCCAUX_R23		VCC_CKDDR_BE44	BE44

U?Y — X48 Express

Pin	Net		Net	Pin
M27	VTT_FSB_M27		VTT_FSB_A30	A30
L27	VTT_FSB_L27		VTT_FSB_A32	A32
K27	VTT_FSB_K27		VTT_FSB_B31	B31
K25	VTT_FSB_K25		VTT_FSB_B33	B33
H28	VTT_FSB_H28		VTT_FSB_C32	C32
H27	VTT_FSB_H27		VTT_FSB_D30	D30
H25	VTT_FSB_H25		VTT_FSB_D31	D31
G28	VTT_FSB_G28		VTT_FSB_D32	D32
G27	VTT_FSB_G27		VTT_FSB_D33	D33
G25	VTT_FSB_G25		VTT_FSB_E29	E29
F30	VTT_FSB_F30		VTT_FSB_E31	E31
F28	VTT_FSB_F28		VTT_FSB_E33	E33
F27	VTT_FSB_F27		VTT_FSB_F25	F25

U?W

X48 Express

U?X

X48 Express

[14,8] DDR_A_A_[0:14]

J?A

DDR_A_A_0 188	A0	
DDR_A_A_1 181	A1	
DDR_A_A_2 61	A2	
DDR_A_A_3 180	A3	
DDR_A_A_4 59	A4	
DDR_A_A_5 58	A5	
DDR_A_A_6 178	A6	
DDR_A_A_7 56	A7	
DDR_A_A_8 177	A8	
DDR_A_A_9 175	A9	
DDR_A_A_10 70	A10	
DDR_A_A_11 55	A11	
DDR_A_A_12 174	A12	
DDR_A_A_13 196	A13	

BA2 52 DDR_A_BA_2 [14,8]
BA1 190 DDR_A_BA_1 [14,8]
BA0 71 DDR_A_BA_0 [14,8]

DDR3 Socket

J?B

SA0 117
SA1 237
SA2 119

RESET 168
SDA 238 DDR_SDA [14,15,16]
SCL 118 DDR_SCL [14,15,16]

[14,8] DDR_A_CASB 74 CAS#
[14,8] DDR_A_RASB 192 RAS#
[14,8] DDR_A_WEB 73 WE#

S1# 76 DDR_A_CSB_1 [8]
S0# 193 DDR_A_CSB_0 [8]

[8] DDR_A_CK_0 184 CK0
[8] DDR_A_CKB_0 185 CK0#
[8] DDR_A_CK_1 63 CK1
[8] DDR_A_CKB_1 64 CK1#

ODT1 77
ODT0 195

CKE1/NC 169 DDR_A_CKE_1 [8]
CKE0 50 DDR_A_CKE_0 [8]

DDR3 Socket

[14,8] DDR_A_DM_[0:7]

DDR_A_DM_0 125 DM0
DDR_A_DM_1 134 DM1
DDR_A_DM_2 143 DM2
DDR_A_DM_3 152 DM3
DDR_A_DM_4 203 DM4
DDR_A_DM_5 212 DM5
DDR_A_DM_6 221 DM6
DDR_A_DM_7 230 DM7
161 DM8

J?D

DQS0# 6 DDR_A_DQS_0
DQS1# 15 DDR_A_DQS_1
DQS2# 24 DDR_A_DQS_2
DQS3# 33 DDR_A_DQS_3
DQS4# 84 DDR_A_DQS_4
DQS5# 93 DDR_A_DQS_5
DQS6# 102 DDR_A_DQS_6
DQS7# 111 DDR_A_DQS_7

DDR_A_DQS_[0:8] [14,8]

DQS0 7 DDR_A_DQSB_0
DQS1 16 DDR_A_DQSB_1
DQS2 25 DDR_A_DQSB_2
DQS3 34 DDR_A_DQSB_3
DQS4 85 DDR_A_DQSB_4
DQS5 94 DDR_A_DQSB_5
DQS6 103 DDR_A_DQSB_6
DQS7 112 DDR_A_DQSB_7

DDR_A_DQSB_[0:8] [14,8]

DDR3 Socket

J?G

2	VSS1	
5	VSS2	
8	VSS3	VSS59 239
11	VSS4	VSS58 235
14	VSS5	VSS57 232
17	VSS6	VSS56 229
20	VSS7	VSS55 226
23	VSS8	VSS54 223
26	VSS9	VSS53 220
29	VSS10	VSS52 217
32	VSS11	VSS51 214
35	VSS12	VSS50 211
38	VSS13	VSS49 208
41	VSS14	VSS48 205
44	VSS15	VSS47 202
47	VSS16	VSS46 199
80	VSS17	VSS45 166
83	VSS18	VSS44 163
86	VSS19	VSS43 160
89	VSS20	VSS42 157
92	VSS21	VSS41 154
95	VSS22	VSS40 151
98	VSS23	VSS39 148
101	VSS24	VSS38 145
104	VSS25	VSS37 142
107	VSS26	VSS36 139
110	VSS27	VSS35 136
113	VSS28	VSS34 133
116	VSS29	VSS33 130
121	VSS30	VSS32 127
		VSS31 124

DDR3 Socket

OFFPAGERIGHT-R DDR_A_DQ_[0:63] [14,8]

J?C

DDR_A_DQ_0 3	DQ0	DQ63 234 DDR_A_DQ_63
DDR_A_DQ_1 4	DQ1	DQ62 233 DDR_A_DQ_62
DDR_A_DQ_2 9	DQ2	DQ61 228 DDR_A_DQ_61
DDR_A_DQ_3 10	DQ3	DQ60 227 DDR_A_DQ_60
DDR_A_DQ_4 122	DQ4	DQ59 115 DDR_A_DQ_59
DDR_A_DQ_5 123	DQ5	DQ58 114 DDR_A_DQ_58
DDR_A_DQ_6 128	DQ6	DQ57 109 DDR_A_DQ_57
DDR_A_DQ_7 129	DQ7	DQ56 108 DDR_A_DQ_56
DDR_A_DQ_8 12	DQ8	DQ55 225 DDR_A_DQ_55
DDR_A_DQ_9 13	DQ9	DQ54 224 DDR_A_DQ_54
DDR_A_DQ_10 18	DQ10	DQ53 219 DDR_A_DQ_53
DDR_A_DQ_11 19	DQ11	DQ52 218 DDR_A_DQ_52
DDR_A_DQ_12 131	DQ12	DQ51 106 DDR_A_DQ_51
DDR_A_DQ_13 132	DQ13	DQ50 105 DDR_A_DQ_50
DDR_A_DQ_14 137	DQ14	DQ49 100 DDR_A_DQ_49
DDR_A_DQ_15 138	DQ15	DQ48 99 DDR_A_DQ_48
DDR_A_DQ_16 21	DQ16	DQ47 216 DDR_A_DQ_47
DDR_A_DQ_17 22	DQ17	DQ46 215 DDR_A_DQ_46
DDR_A_DQ_18 27	DQ18	DQ45 209 DDR_A_DQ_45
DDR_A_DQ_19 28	DQ19	DQ44 97 DDR_A_DQ_44
DDR_A_DQ_20 140	DQ20	DQ43 96 DDR_A_DQ_43
DDR_A_DQ_21 141	DQ21	DQ42 91 DDR_A_DQ_42
DDR_A_DQ_22 146	DQ22	DQ41 90 DDR_A_DQ_41
DDR_A_DQ_23 147	DQ23	DQ40 207 DDR_A_DQ_40
DDR_A_DQ_24 30	DQ24	DQ39 206 DDR_A_DQ_39
DDR_A_DQ_25 31	DQ25	DQ38 201 DDR_A_DQ_38
DDR_A_DQ_26 36	DQ26	DQ37 200 DDR_A_DQ_37
DDR_A_DQ_27 37	DQ27	DQ36 88 DDR_A_DQ_36
DDR_A_DQ_28 149	DQ28	DQ35 87 DDR_A_DQ_35
DDR_A_DQ_29 150	DQ29	DQ34 82 DDR_A_DQ_34
DDR_A_DQ_30 155	DQ30	DQ33 81 DDR_A_DQ_33
DDR_A_DQ_31 156	DQ31	DQ32 DDR_A_DQ_32

DDR3 Socket

J?E

39	NC1	NC29 144
40	NC2	NC28 231
42	NC3	NC27 222
43	NC4	NC26 213
45	NC5	NC25 204
46	NC6	NC24 198
48	NC7	NC23 187
49	NC8	NC22 172
53	NC9	NC21 171
68	NC10	NC20 167
79	NC11	NC19 165
126	NC12	NC18 164
135	NC13	NC17 162
153	NC14	NC16 159
158	NC15	

DDR3 Socket

VCC_1p5

J?F

51	VDD1
54	VDD2
57	VDD3
60	VDD4
62	VDD5
65	VDD6
66	VDD7
69	VDD8
72	VDD9
75	VDD10
78	VDD11
170	VDD12
173	VDD13
176	VDD14
179	VDD15
182	VDD16
183	VDD17
186	VDD18
189	VDD19
191	VDD20
194	VDD21
197	VDD22

VCC_0p75
VTT2 240
VTT1 120

VREFDQ 1 VCC_3v3
VREFCA 67

VDDSPD 236

DDR3 Socket

[13,8] DDR_A_A_[0:14]

J?A

DDR_A_A_0 188	A0
DDR_A_A_1 181	A1
DDR_A_A_2 61	A2
DDR_A_A_3 180	A3
DDR_A_A_4 59	A4
DDR_A_A_5 58	A5
DDR_A_A_6 178	A6
DDR_A_A_7 56	A7
DDR_A_A_8 177	A8
DDR_A_A_9 175	A9
DDR_A_A_10 70	A10
DDR_A_A_11 55	A11
DDR_A_A_12 174	A12
DDR_A_A_13 196	A13

BA2 52 DDR_A_BA_2 [13,8]
BA1 190 DDR_A_BA_1 [13,8]
BA0 71 DDR_A_BA_0 [13,8]

DDR3 Socket

J?B

VCC_1p5

117	SA0
237	SA1
119	SA2

RESET 168
SDA 238 DDR_SDA [13,15,16]
SCL 118 DDR_SCL [13,15,16]

DDR_A_CASB 74 CAS# [13,8]
DDR_A_RASB 192 RAS# [13,8]
DDR_A_WEB 73 WE# [13,8]

S1# 76 DDR_A_CSB_3 [8]
S0# 193 DDR_A_CSB_2 [8]

DDR_A_CK_2 184 CK0 [8]
DDR_A_CKB_2 185 CK0# [8]
DDR_A_CK_3 63 CK1 [8]
DDR_A_CKB_3 64 CK1# [8]

ODT1 77
ODT0 195

CKE1/NC 169 DDR_A_CKE_3 [8]
CKE0 50 DDR_A_CKE_2 [8]

DDR3 Socket

[13,8] DDR_A_DM_[0:7]

J?D

DDR_A_DM_0 125	DM0
DDR_A_DM_1 134	DM1
DDR_A_DM_2 143	DM2
DDR_A_DM_3 152	DM3
DDR_A_DM_4 203	DM4
DDR_A_DM_5 212	DM5
DDR_A_DM_6 221	DM6
DDR_A_DM_7 230	DM7
161	DM8

DQS0# 6 DDR_A_DQS_0
DQS1# 15 DDR_A_DQS_1
DQS2# 24 DDR_A_DQS_2
DQS3# 33 DDR_A_DQS_3
DQS4# 84 DDR_A_DQS_4
DQS5# 93 DDR_A_DQS_5
DQS6# 102 DDR_A_DQS_6
DQS7# 111 DDR_A_DQS_7

DDR_A_DQS_[0:8] [13,8]

DQS0 7 DDR_A_DQSB_0
DQS1 16 DDR_A_DQSB_1
DQS2 25 DDR_A_DQSB_2
DQS3 34 DDR_A_DQSB_3
DQS4 85 DDR_A_DQSB_4
DQS5 94 DDR_A_DQSB_5
DQS6 103 DDR_A_DQSB_6
DQS7 112 DDR_A_DQSB_7

DDR_A_DQSB_[0:8] [13,8]

DDR3 Socket

J?G

2	VSS1	VSS59	239
5	VSS2	VSS58	235
8	VSS3	VSS57	232
11	VSS4	VSS56	229
14	VSS5	VSS55	226
17	VSS6	VSS54	223
20	VSS7	VSS53	220
23	VSS8	VSS52	217
26	VSS9	VSS51	214
29	VSS10	VSS50	211
32	VSS11	VSS49	208
35	VSS12	VSS48	205
38	VSS13	VSS47	202
41	VSS14	VSS46	199
44	VSS15	VSS45	166
47	VSS16	VSS44	163
80	VSS17	VSS43	160
83	VSS18	VSS42	157
86	VSS19	VSS41	154
89	VSS20	VSS40	151
92	VSS21	VSS39	148
95	VSS22	VSS38	145
98	VSS23	VSS37	142
101	VSS24	VSS36	139
104	VSS25	VSS35	136
107	VSS26	VSS34	133
110	VSS27	VSS33	130
113	VSS28	VSS32	124
116	VSS29	VSS31	
121	VSS30		

DDR3 Socket

DDR_A_DQ_[0:63] [13,8]
OFFPAGERIGHT-R

J?C

DDR_A_DQ_0 3	DQ0	DQ63 234	DDR_A_DQ_63
DDR_A_DQ_1 4	DQ1	DQ62 233	DDR_A_DQ_62
DDR_A_DQ_2 9	DQ2	DQ61 228	DDR_A_DQ_61
DDR_A_DQ_3 10	DQ3	DQ60 227	DDR_A_DQ_60
DDR_A_DQ_4 122	DQ4	DQ59 115	DDR_A_DQ_59
DDR_A_DQ_5 123	DQ5	DQ58 114	DDR_A_DQ_58
DDR_A_DQ_6 128	DQ6	DQ57 109	DDR_A_DQ_57
DDR_A_DQ_7 129	DQ7	DQ56 108	DDR_A_DQ_56
DDR_A_DQ_8 12	DQ8	DQ55 225	DDR_A_DQ_55
DDR_A_DQ_9 13	DQ9	DQ54 224	DDR_A_DQ_54
DDR_A_DQ_10 18	DQ10	DQ53 219	DDR_A_DQ_53
DDR_A_DQ_11 19	DQ11	DQ52 218	DDR_A_DQ_52
DDR_A_DQ_12 131	DQ12	DQ51 106	DDR_A_DQ_51
DDR_A_DQ_13 132	DQ13	DQ50 105	DDR_A_DQ_50
DDR_A_DQ_14 137	DQ14	DQ49 100	DDR_A_DQ_49
DDR_A_DQ_15 138	DQ15	DQ48 99	DDR_A_DQ_48
DDR_A_DQ_16 21	DQ16	DQ47 216	DDR_A_DQ_47
DDR_A_DQ_17 22	DQ17	DQ46 215	DDR_A_DQ_46
DDR_A_DQ_18 27	DQ18	DQ45 210	DDR_A_DQ_45
DDR_A_DQ_19 28	DQ19	DQ44 209	DDR_A_DQ_44
DDR_A_DQ_20 140	DQ20	DQ43 97	DDR_A_DQ_43
DDR_A_DQ_21 141	DQ21	DQ42 96	DDR_A_DQ_42
DDR_A_DQ_22 146	DQ22	DQ41 91	DDR_A_DQ_41
DDR_A_DQ_23 147	DQ23	DQ40 90	DDR_A_DQ_40
DDR_A_DQ_24 30	DQ24	DQ39 207	DDR_A_DQ_39
DDR_A_DQ_25 31	DQ25	DQ38 206	DDR_A_DQ_38
DDR_A_DQ_26 36	DQ26	DQ37 201	DDR_A_DQ_37
DDR_A_DQ_27 37	DQ27	DQ36 200	DDR_A_DQ_36
DDR_A_DQ_28 149	DQ28	DQ35 88	DDR_A_DQ_35
DDR_A_DQ_29 150	DQ29	DQ34 87	DDR_A_DQ_34
DDR_A_DQ_30 155	DQ30	DQ33 82	DDR_A_DQ_33
DDR_A_DQ_31 156	DQ31	DQ32 81	DDR_A_DQ_32

DDR3 Socket

J?E

39	NC1	NC29 144
40	NC2	NC28 231
42	NC3	NC27 222
43	NC4	NC26 213
45	NC5	NC25 204
46	NC6	NC24 198
48	NC7	NC23 187
49	NC8	NC22 172
53	NC9	NC21 171
68	NC10	NC20 167
79	NC11	NC19 165
126	NC12	NC18 164
135	NC13	NC17 162
153	NC14	NC16 159
158	NC15	

DDR3 Socket

VCC_1p5

J?F

51	VDD1
54	VDD2
57	VDD3
60	VDD4
62	VDD5
65	VDD6
66	VDD7
69	VDD8
72	VDD9
75	VDD10
78	VDD11
170	VDD12
173	VDD13
176	VDD14
179	VDD15
182	VDD16
183	VDD17
186	VDD18
189	VDD19
191	VDD20
194	VDD21
197	VDD22

VTT2 240 VCC_0p75
VTT1 120
VREFDQ 1
VREFCA 67 VCC_3v3
VDDSPD 236

DDR3 Socket

[16,9] DDR_B_A_[0:14]

J?A

DDR_B_A_0	188	A0
DDR_B_A_1	181	A1
DDR_B_A_2	61	A2
DDR_B_A_3	180	A3
DDR_B_A_4	59	A4
DDR_B_A_5	58	A5
DDR_B_A_6	178	A6
DDR_B_A_7	56	A7
DDR_B_A_8	177	A8
DDR_B_A_9	175	A9
DDR_B_A_10	70	A10
DDR_B_A_11	55	A11
DDR_B_A_12	174	A12
DDR_B_A_13	196	A13

BA2 52 DDR_B_BA_2 [16,9]
BA1 190 DDR_B_BA_1 [16,9]
BA0 71 DDR_B_BA_0 [16,9]

DDR3 Socket

J?B

VCC_1p5

117	SA0	
237	SA1	
119	SA2	

RESET 168
SDA 238 DDR_SDA [13,14,16]
SCL 118 DDR_SCL [13,14,16]

DDR_B_CASB 74 CAS# [16,9]
DDR_B_RASB 192 RAS# [16,9]
DDR_B_WEB 73 WE# [16,9]

S1# 76 DDR_B_CSB_1 [9]
S0# 193 DDR_B_CSB_0 [9]

DDR_B_CK_0 84 CK0 [9]
DDR_B_CKB_0 185 CK0# [9]
DDR_B_CK_1 63 CK1 [9]
DDR_B_CKB_1 64 CK1# [9]

ODT1 77
ODT0 195

CKE1/NC 169 DDR_B_CKE_1 [9]
CKE0 50 DDR_B_CKE_0 [9]

DDR3 Socket

J?D

DDR_B_DQS_[0:8] [16,9]

[16,9] DDR_B_DM_[0:7]

DDR_B_DM_0	125	DM0
DDR_B_DM_1	134	DM1
DDR_B_DM_2	143	DM2
DDR_B_DM_3	152	DM3
DDR_B_DM_4	203	DM4
DDR_B_DM_5	212	DM5
DDR_B_DM_6	221	DM6
DDR_B_DM_7	230	DM7
	161	DM8

DQS0# 6 DDR_B_DQS_0
DQS1# 15 DDR_B_DQS_1
DQS2# 24 DDR_B_DQS_2
DQS3# 33 DDR_B_DQS_3
DQS4# 84 DDR_B_DQS_4
DQS5# 93 DDR_B_DQS_5
DQS6# 102 DDR_B_DQS_6
DQS7# 111 DDR_B_DQS_7

DDR_B_DQSB_[0:8] [16,9]

DQS0 7 DDR_B_DQSB_0
DQS1 16 DDR_B_DQSB_1
DQS2 25 DDR_B_DQSB_2
DQS3 34 DDR_B_DQSB_3
DQS4 85 DDR_B_DQSB_4
DQS5 94 DDR_B_DQSB_5
DQS6 103 DDR_B_DQSB_6
DQS7 112 DDR_B_DQSB_7

DDR3 Socket

J?G

2	VSS1	
5	VSS2	
8	VSS3	
11	VSS4	
14	VSS5	
17	VSS6	
20	VSS7	
23	VSS8	
26	VSS9	
29	VSS10	
32	VSS11	
35	VSS12	
38	VSS13	
41	VSS14	
44	VSS15	
47	VSS16	
80	VSS17	
83	VSS18	
86	VSS19	
89	VSS20	
92	VSS21	
95	VSS22	
98	VSS23	
101	VSS24	
104	VSS25	
107	VSS26	
110	VSS27	
113	VSS28	
116	VSS29	
121	VSS30	

VSS59	239	
VSS58	235	
VSS57	232	
VSS56	229	
VSS55	226	
VSS54	223	
VSS53	220	
VSS52	217	
VSS51	214	
VSS50	211	
VSS49	208	
VSS48	205	
VSS47	202	
VSS46	199	
VSS45	166	
VSS44	163	
VSS43	160	
VSS42	157	
VSS41	154	
VSS40	151	
VSS39	148	
VSS38	145	
VSS37	142	
VSS36	139	
VSS35	136	
VSS34	133	
VSS33	130	
VSS32	127	
VSS31	124	

DDR3 Socket

J?F

VCC_1p5

51	VDD1	
54	VDD2	
57	VDD3	
60	VDD4	
62	VDD5	
65	VDD6	
66	VDD7	
69	VDD8	
72	VDD9	
75	VDD10	
78	VDD11	
170	VDD12	
173	VDD13	
176	VDD14	
179	VDD15	
182	VDD16	
183	VDD17	
186	VDD18	
189	VDD19	
191	VDD20	
194	VDD21	
197	VDD22	

VTT2 240 VCC_0p75
VTT1 120

VREFDQ 1
VREFCA 67 VCC_3v3
VDDSPD 236

DDR3 Socket

J?C

DDR_B_DQ_[0:63] [16,9]

DDR_B_DQ_0	3	DQ0	DQ63	234	DDR_B_DQ_63
DDR_B_DQ_1	4	DQ1	DQ62	233	DDR_B_DQ_62
DDR_B_DQ_2	9	DQ2	DQ61	228	DDR_B_DQ_61
DDR_B_DQ_3	10	DQ3	DQ60	227	DDR_B_DQ_60
DDR_B_DQ_4	122	DQ4	DQ59	115	DDR_B_DQ_59
DDR_B_DQ_5	123	DQ5	DQ58	114	DDR_B_DQ_58
DDR_B_DQ_6	128	DQ6	DQ57	109	DDR_B_DQ_57
DDR_B_DQ_7	129	DQ7	DQ56	108	DDR_B_DQ_56
DDR_B_DQ_8	12	DQ8	DQ55	225	DDR_B_DQ_55
DDR_B_DQ_9	13	DQ9	DQ54	224	DDR_B_DQ_54
DDR_B_DQ_10	18	DQ10	DQ53	219	DDR_B_DQ_53
DDR_B_DQ_11	19	DQ11	DQ52	218	DDR_B_DQ_52
DDR_B_DQ_12	131	DQ12	DQ51	106	DDR_B_DQ_51
DDR_B_DQ_13	132	DQ13	DQ50	105	DDR_B_DQ_50
DDR_B_DQ_14	137	DQ14	DQ49	100	DDR_B_DQ_49
DDR_B_DQ_15	138	DQ15	DQ48	99	DDR_A_DQ_48
DDR_B_DQ_16	21	DQ16	DQ47	216	DDR_B_DQ_47
DDR_B_DQ_17	22	DQ17	DQ46	215	DDR_B_DQ_46
DDR_B_DQ_18	27	DQ18	DQ45	210	DDR_B_DQ_45
DDR_B_DQ_19	28	DQ19	DQ44	209	DDR_B_DQ_44
DDR_B_DQ_20	140	DQ20	DQ43	97	DDR_B_DQ_43
DDR_B_DQ_21	141	DQ21	DQ42	96	DDR_B_DQ_42
DDR_B_DQ_22	146	DQ22	DQ41	91	DDR_B_DQ_41
DDR_B_DQ_23	147	DQ23	DQ40	90	DDR_B_DQ_40
DDR_B_DQ_24	30	DQ24	DQ39	207	DDR_B_DQ_39
DDR_B_DQ_25	31	DQ25	DQ38	206	DDR_B_DQ_38
DDR_B_DQ_26	36	DQ26	DQ37	201	DDR_B_DQ_37
DDR_B_DQ_27	37	DQ27	DQ36	200	DDR_B_DQ_36
DDR_B_DQ_28	149	DQ28	DQ35	88	DDR_B_DQ_35
DDR_B_DQ_29	150	DQ29	DQ34	87	DDR_B_DQ_34
DDR_B_DQ_30	155	DQ30	DQ33	82	DDR_B_DQ_33
DDR_B_DQ_31	156	DQ31	DQ32	81	DDR_B_DQ_32

DDR3 Socket

J?E

39	NC1	NC29	144	
40	NC2	NC28	231	
42	NC3	NC27	222	
43	NC4	NC26	213	
45	NC5	NC25	204	
46	NC6	NC24	198	
48	NC7	NC23	187	
49	NC8	NC22	172	
53	NC9	NC21	171	
68	NC10	NC20	167	
79	NC11	NC19	165	
126	NC12	NC18	164	
135	NC13	NC17	162	
153	NC14	NC16	159	
158	NC15			

DDR3 Socket

Core2 X48 Intel Motherboard

Title: DDR3 Channel 1 Slot 0

Size   Document Number   Rev 1.0

Date: Wednesday, August 25, 2010   Sheet 15 of 1

J?A — DDR3 Socket

[15,9] DDR_B_A_[0:14]

Pin	Signal
DDR_B_A_0	188 A0
DDR_B_A_1	181 A1
DDR_B_A_2	61 A2
DDR_B_A_3	180 A3
DDR_B_A_4	59 A4
DDR_B_A_5	58 A5
DDR_B_A_6	178 A6
DDR_B_A_7	56 A7
DDR_B_A_8	177 A8
DDR_B_A_9	175 A9
DDR_B_A_10	70 A10
DDR_B_A_11	55 A11
DDR_B_A_12	174 A12
DDR_B_A_13	196 A13

BA2 52 DDR_B_BA_2 [15,9]
BA1 190 DDR_B_BA_1 [15,9]
BA0 71 DDR_B_BA_0 [15,9]

[15,9] DDR_B_DM_[0:7]

J?D — DDR3 Socket

Pin	Signal		Pin	Signal
DDR_B_DM_0	125 DM0	DQS0#	6	DDR_B_DQS_0
DDR_B_DM_1	134 DM1	DQS1#	15	DDR_B_DQS_1
DDR_B_DM_2	143 DM2	DQS2#	24	DDR_B_DQS_2
DDR_B_DM_3	152 DM3	DQS3#	33	DDR_B_DQS_3
DDR_B_DM_4	203 DM4	DQS4#	84	DDR_B_DQS_4
DDR_B_DM_5	212 DM5	DQS5#	93	DDR_B_DQS_5
DDR_B_DM_6	221 DM6	DQS6#	102	DDR_B_DQS_6
DDR_B_DM_7	230 DM7	DQS7#	111	DDR_B_DQS_7
	161 DM8	DQS0	7	DDR_B_DQSB_0
		DQS1	16	DDR_B_DQSB_1
		DQS2	25	DDR_B_DQSB_2
		DQS3	34	DDR_B_DQSB_3
		DQS4	85	DDR_B_DQSB_4
		DQS5	94	DDR_B_DQSB_5
		DQS6	103	DDR_B_DQSB_6
		DQS7	112	DDR_B_DQSB_7

DDR_B_DQS_[0:8] [15,9]
DDR_B_DQSB_[0:8] [15,9]

J?G — DDR3 Socket

Pin	Signal	Pin	Signal
2	VSS1	239	VSS59
5	VSS2	235	VSS58
8	VSS3	232	VSS57
11	VSS4	229	VSS56
14	VSS5	226	VSS55
17	VSS6	223	VSS54
20	VSS7	220	VSS53
23	VSS8	217	VSS52
26	VSS9	214	VSS51
29	VSS10	211	VSS50
32	VSS11	208	VSS49
35	VSS12	205	VSS48
38	VSS13	202	VSS47
41	VSS14	199	VSS46
44	VSS15	166	VSS45
47	VSS16	163	VSS44
80	VSS17	160	VSS43
83	VSS18	157	VSS42
86	VSS19	154	VSS41
89	VSS20	151	VSS40
92	VSS21	148	VSS39
95	VSS22	145	VSS38
98	VSS23	142	VSS37
101	VSS24	139	VSS36
104	VSS25	136	VSS35
107	VSS26	133	VSS34
110	VSS27	130	VSS33
113	VSS28	127	VSS32
116	VSS29	124	VSS31
121	VSS30		

J?B — DDR3 Socket

VCC_1p5

Pin	Signal	Pin	Signal
117	SA0	168	RESET
237	SA1	238	SDA DDR_SDA [13,14,15]
119	SA2	118	SCL DDR_SCL [13,14,15]
74	CAS# DDR_B_CASB [15,9]	76	S1# DDR_B_CSB_3 [9]
192	RAS# DDR_B_RASB [15,9]	193	S0# DDR_B_CSB_2 [9]
73	WE# DDR_B_WEB [15,9]	77	ODT1
184	CK0 DDR_B_CK_2 [9]	195	ODT0
185	CK0# DDR_B_CKB_2 [9]	169	CKE1/NC DDR_B_CKE_3 [9]
63	CK1 DDR_B_CK_3 [9]	50	CKE0 DDR_B_CKE_2 [9]
64	CK1# DDR_B_CKB_3 [9]		

J?E — DDR3 Socket

Pin	Signal	Pin	Signal
39	NC1	144	NC29
40	NC2	231	NC28
42	NC3	222	NC27
43	NC4	213	NC26
45	NC5	204	NC25
46	NC6	198	NC24
48	NC7	187	NC23
49	NC8	172	NC22
53	NC9	171	NC21
68	NC10	167	NC20
79	NC11	165	NC19
126	NC12	164	NC18
135	NC13	162	NC17
153	NC14	159	NC16
158	NC15		

J?F — DDR3 Socket

VCC_1p5

Pin	Signal
51	VDD1
54	VDD2
57	VDD3
60	VDD4
62	VDD5
65	VDD6
66	VDD7
69	VDD8
72	VDD9
75	VDD10
78	VDD11
170	VDD12
173	VDD13
176	VDD14
179	VDD15
182	VDD16
183	VDD17
186	VDD18
189	VDD19
191	VDD20
194	VDD21
197	VDD22

VTT2 240 VCC_0p75
VTT1 120
VREFDQ 1
VREFCA 67 VCC_3v3
VDDSPD 236

J?C — DDR3 Socket

[15,9] DDR_B_DQ_[0:63]

Signal	Pin		Pin	Signal
DDR_B_DQ_0	3 DQ0	DQ63	234	DDR_B_DQ_63
DDR_B_DQ_1	4 DQ1	DQ62	233	DDR_B_DQ_62
DDR_B_DQ_2	9 DQ2	DQ61	228	DDR_B_DQ_61
DDR_B_DQ_3	10 DQ3	DQ60	227	DDR_B_DQ_60
DDR_B_DQ_4	122 DQ4	DQ59	115	DDR_B_DQ_59
DDR_B_DQ_5	123 DQ5	DQ58	114	DDR_B_DQ_58
DDR_B_DQ_6	128 DQ6	DQ57	109	DDR_B_DQ_57
DDR_B_DQ_7	129 DQ7	DQ56	108	DDR_B_DQ_56
DDR_B_DQ_8	12 DQ8	DQ55	225	DDR_B_DQ_55
DDR_B_DQ_9	13 DQ9	DQ54	224	DDR_B_DQ_54
DDR_B_DQ_10	18 DQ10	DQ53	219	DDR_B_DQ_53
DDR_B_DQ_11	19 DQ11	DQ52	218	DDR_B_DQ_52
DDR_B_DQ_12	131 DQ12	DQ51	106	DDR_B_DQ_51
DDR_B_DQ_13	132 DQ13	DQ50	105	DDR_B_DQ_50
DDR_B_DQ_14	137 DQ14	DQ49	100	DDR_B_DQ_49
DDR_B_DQ_15	138 DQ15	DQ48	99	DDR_A_DQ_48
DDR_B_DQ_16	21 DQ16	DQ47	216	DDR_B_DQ_47
DDR_B_DQ_17	22 DQ17	DQ46	215	DDR_B_DQ_46
DDR_B_DQ_18	27 DQ18	DQ45	210	DDR_B_DQ_45
DDR_B_DQ_19	28 DQ19	DQ44	209	DDR_B_DQ_44
DDR_B_DQ_20	140 DQ20	DQ43	97	DDR_B_DQ_43
DDR_B_DQ_21	141 DQ21	DQ42	96	DDR_B_DQ_42
DDR_B_DQ_22	146 DQ22	DQ41	90	DDR_B_DQ_41
DDR_B_DQ_23	147 DQ23	DQ40	90	DDR_B_DQ_40
DDR_B_DQ_24	30 DQ24	DQ39	207	DDR_B_DQ_39
DDR_B_DQ_25	31 DQ25	DQ38	206	DDR_B_DQ_38
DDR_B_DQ_26	36 DQ26	DQ37	201	DDR_B_DQ_37
DDR_B_DQ_27	37 DQ27	DQ36	200	DDR_B_DQ_36
DDR_B_DQ_28	149 DQ28	DQ35	88	DDR_B_DQ_35
DDR_B_DQ_29	150 DQ29	DQ34	87	DDR_B_DQ_34
DDR_B_DQ_30	155 DQ30	DQ33	82	DDR_B_DQ_33
DDR_B_DQ_31	156 DQ31	DQ32	81	DDR_B_DQ_32

J?A

VCC_12v VCC_3v3

1	+12V _1	3.3VAUX	10
2	+12V _2	+3.3V _92	92
84	+12V _84	+3.3V _91	91
85	+12V _85	+3.3V _8	8

PCI Express x16 Socket

J?C

9	JTAG1	RSVD#2	82
87	JTAG2	RSVD _12	12
88	JTAG3	RSVD _132	132
89	JTAG4	RSVD _115	115
90	JTAG5	RSVD _114	114
		RSVD _101	101
96	REFCLK-	RSVD _30	30
95	REFCLK+	RSVD _3	3
5	SMCLK	PRSNT#2 _81	81
6	SMDAT	PRSNT#2 _48	48
		PRSNT#2 _31	31
11	WAKE#	PRSNT#2 _17	17
93	PWRGD	PRSNT#1	83

PCI Express x16 Socket

J?B

4	GND _4	GND _161	161
7	GND _7	GND _157	157
13	GND _13	GND _153	153
16	GND _16	GND _149	149
18	GND _18	GND _145	145
21	GND _21	GND _141	141
22	GND _22	GND _137	137
25	GND _25	GND _133	133
26	GND _26	GND _128	128
29	GND _29	GND _124	124
32	GND _32	GND _120	120
35	GND _35	GND _116	116
36	GND _36	GND _110	110
39	GND _39	GND _106	106
40	GND _40	GND _102	102
43	GND _43	GND _97	97
44	GND _44	GND _94	94
47	GND _47	GND _164	164
49	GND _49	GND _160	160
52	GND _52	GND _156	156
53	GND _53	GND _152	152
56	GND _56	GND _148	148
57	GND _57	GND _144	144
60	GND _60	GND _140	140
61	GND _61	GND _136	136
64	GND _64	GND _131	131
65	GND _65	GND _127	127
68	GND _68	GND _123	123
69	GND _69	GND _119	119
72	GND _72	GND _113	113
73	GND _73	GND _109	109
76	GND _76	GND _105	105
77	GND _77	GND _100	100
80	GND _80	GND _86	86

PCI Express x16 Socket

J?D

[7] PCI-E_0_RXN_[0:15]

[7] PCI-E_0_RXP_[0:15]

PCI-E_0_TXP_[0:15] [7]

PCI-E_0_TXN_[0:15] [7]

PCI-E_0_RXN_0	15	HSON(0)	HSIP(15)	162	PCI-E_0_TXP_15
PCI-E_0_RXN_1	20	HSON(1)	HSIP(14)	158	PCI-E_0_TXP_14
PCI-E_0_RXN_2	24	HSON(2)	HSIP(13)	154	PCI-E_0_TXP_13
PCI-E_0_RXN_3	28	HSON(3)	HSIP(12)	150	PCI-E_0_TXP_12
PCI-E_0_RXN_4	34	HSON(4)	HSIP(11)	146	PCI-E_0_TXP_11
PCI-E_0_RXN_5	38	HSON(5)	HSIP(10)	142	PCI-E_0_TXP_10
PCI-E_0_RXN_6	42	HSON(6)	HSIP(9)	138	PCI-E_0_TXP_9
PCI-E_0_RXN_7	46	HSON(7)	HSIP(8)	134	PCI-E_0_TXP_8
PCI-E_0_RXN_8	51	HSON(8)	HSIP(7)	129	PCI-E_0_TXP_7
PCI-E_0_RXN_9	55	HSON(9)	HSIP(6)	125	PCI-E_0_TXP_6
PCI-E_0_RXN_10	59	HSON(10)	HSIP(5)	121	PCI-E_0_TXP_5
PCI-E_0_RXN_11	63	HSON(11)	HSIP(4)	117	PCI-E_0_TXP_4
PCI-E_0_RXN_12	67	HSON(12)	HSIP(3)	111	PCI-E_0_TXP_3
PCI-E_0_RXN_13	71	HSON(13)	HSIP(2)	107	PCI-E_0_TXP_2
PCI-E_0_RXN_14	75	HSON(14)	HSIP(1)	103	PCI-E_0_TXP_1
PCI-E_0_RXN_15	79	HSON(15)	HSIP(0)	98	PCI-E_0_TXP_0
PCI-E_0_RXP_0	14	HSOP(0)	HSIN(15)	163	PCI-E_0_TXN_15
PCI-E_0_RXP_1	19	HSOP(1)	HSIN(14)	159	PCI-E_0_TXN_14
PCI-E_0_RXP_2	23	HSOP(2)	HSIN(13)	155	PCI-E_0_TXN_13
PCI-E_0_RXP_3	27	HSOP(3)	HSIN(12)	151	PCI-E_0_TXN_4
PCI-E_0_RXP_4	33	HSOP(4)	HSIN(11)	147	PCI-E_0_TXN_12
PCI-E_0_RXP_5	37	HSOP(5)	HSIN(10)	143	PCI-E_0_TXN_11
PCI-E_0_RXP_6	41	HSOP(6)	HSIN(9)	139	PCI-E_0_TXN_10
PCI-E_0_RXP_7	45	HSOP(7)	HSIN(8)	135	PCI-E_0_TXN_9
PCI-E_0_RXP_8	50	HSOP(8)	HSIN(7)	130	PCI-E_0_TXN_8
PCI-E_0_RXP_9	54	HSOP(9)	HSIN(6)	126	PCI-E_0_TXN_7
PCI-E_0_RXP_10	58	HSOP(10)	HSIN(5)	122	PCI-E_0_TXN_6
PCI-E_0_RXP_11	62	HSOP(11)	HSIN(4)	118	PCI-E_0_TXN_5
PCI-E_0_RXP_12	66	HSOP(12)	HSIN(3)	112	PCI-E_0_TXN_3
PCI-E_0_RXP_13	70	HSOP(13)	HSIN(2)	108	PCI-E_0_TXN_2
PCI-E_0_RXP_14	74	HSOP(14)	HSIN(1)	104	PCI-E_0_TXN_1
PCI-E_0_RXP_15	78	HSOP(15)	HSIN(0)	99	PCI-E_0_TXN_0

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J?C

9	JTAG1	RSVD#2	82
87	JTAG2	RSVD _12	12
88	JTAG3	RSVD _132	132
89	JTAG4	RSVD _115	115
90	JTAG5	RSVD _114	114
		RSVD _101	101
96	REFCLK-	RSVD _30	30
95	REFCLK+	RSVD _3	3
5	SMCLK	PRSNT#2 _81	81
6	SMDAT	PRSNT#2 _48	48
		PRSNT#2 _31	31
11	WAKE#	PRSNT#2 _17	17
93	PWRGD	PRSNT#1	83

PCI Express x16 Socket

VCC_12v **J?A** VCC_3v3

1	+12V _1	3.3VAUX	10
2	+12V _2	+3.3V _92	92
84	+12V _84	+3.3V _91	91
85	+12V _85	+3.3V _8	8

PCI Express x16 Socket

J?B

4	GND _4	GND _161	161
7	GND _7	GND _157	157
13	GND _13	GND _153	153
16	GND _16	GND _149	149
18	GND _18	GND _145	145
21	GND _21	GND _141	141
22	GND _22	GND _137	137
25	GND _25	GND _133	133
26	GND _26	GND _128	128
29	GND _29	GND _124	124
32	GND _32	GND _120	120
35	GND _35	GND _116	116
36	GND _36	GND _110	110
39	GND _39	GND _106	106
40	GND _40	GND _102	102
43	GND _43	GND _97	97
44	GND _44	GND _94	94
47	GND _47	GND _164	164
49	GND _49	GND _160	160
52	GND _52	GND _156	156
53	GND _53	GND _152	152
56	GND _56	GND _148	148
57	GND _57	GND _144	144
60	GND _60	GND _140	140
61	GND _61	GND _136	136
64	GND _64	GND _131	131
65	GND _65	GND _127	127
68	GND _68	GND _123	123
69	GND _69	GND _119	119
72	GND _72	GND _113	113
73	GND _73	GND _109	109
76	GND _76	GND _105	105
77	GND _77	GND _100	100
80	GND _80	GND _86	86

PCI Express x16 Socket

[7] PCI-E_1_RXN_[0:15]   **J?D**   PCI-E_1_TXP_[0:15] [7]

[7] PCI-E_1_RXP_[0:15]

15	PCI-E_1_RXN_0 / HSON(0)	HSIP(15) / PCI-E_1_TXP_15	162
20	PCI-E_1_RXN_1 / HSON(1)	HSIP(14) / PCI-E_1_TXP_14	158
24	PCI-E_1_RXN_2 / HSON(2)	HSIP(13) / PCI-E_1_TXP_13	154
28	PCI-E_1_RXN_3 / HSON(3)	HSIP(12) / PCI-E_1_TXP_12	150
34	PCI-E_1_RXN_4 / HSON(4)	HSIP(11) / PCI-E_1_TXP_11	146
38	PCI-E_1_RXN_5 / HSON(5)	HSIP(10) / PCI-E_1_TXP_10	142
42	PCI-E_1_RXN_6 / HSON(6)	HSIP(9) / PCI-E_1_TXP_9	138
46	PCI-E_1_RXN_7 / HSON(7)	HSIP(8) / PCI-E_1_TXP_8	134
51	PCI-E_1_RXN_8 / HSON(8)	HSIP(7) / PCI-E_1_TXP_7	129
55	PCI-E_1_RXN_9 / HSON(9)	HSIP(6) / PCI-E_1_TXP_6	125
59	PCI-E_1_RXN_10 / HSON(10)	HSIP(5) / PCI-E_1_TXP_5	121
63	PCI-E_1_RXN_11 / HSON(11)	HSIP(4) / PCI-E_1_TXP_4	117
67	PCI-E_1_RXN_12 / HSON(12)	HSIP(3) / PCI-E_1_TXP_3	111
71	PCI-E_1_RXN_13 / HSON(13)	HSIP(2) / PCI-E_1_TXP_2	107
75	PCI-E_1_RXN_14 / HSON(14)	HSIP(1) / PCI-E_1_TXP_1	103
79	PCI-E_1_RXN_15 / HSON(15)	HSIP(0) / PCI-E_1_TXP_0	98
14	PCI-E_1_RXP_0 / HSOP(0)	HSIN(15) / PCI-E_1_TXN_15	163
19	PCI-E_1_RXP_1 / HSOP(1)	HSIN(14) / PCI-E_1_TXN_14	159
23	PCI-E_1_RXP_2 / HSOP(2)	HSIN(13) / PCI-E_1_TXN_13	155
27	PCI-E_1_RXP_3 / HSOP(3)	HSIN(12) / PCI-E_1_TXN_12	151
33	PCI-E_1_RXP_4 / HSOP(4)	HSIN(11) / PCI-E_1_TXN_11	147
37	PCI-E_1_RXP_5 / HSOP(5)	HSIN(10) / PCI-E_1_TXN_10	143
41	PCI-E_1_RXP_6 / HSOP(6)	HSIN(9) / PCI-E_1_TXN_9	139
45	PCI-E_1_RXP_7 / HSOP(7)	HSIN(8) / PCI-E_1_TXN_8	135
50	PCI-E_1_RXP_8 / HSOP(8)	HSIN(7) / PCI-E_1_TXN_7	130
54	PCI-E_1_RXP_9 / HSOP(9)	HSIN(6) / PCI-E_1_TXN_6	126
58	PCI-E_1_RXP_10 / HSOP(10)	HSIN(5) / PCI-E_1_TXN_5	122
62	PCI-E_1_RXP_11 / HSOP(11)	HSIN(4) / PCI-E_1_TXN_4	118
66	PCI-E_1_RXP_12 / HSOP(12)	HSIN(3) / PCI-E_1_TXN_3	112
70	PCI-E_1_RXP_13 / HSOP(13)	HSIN(2) / PCI-E_1_TXN_2	108
74	PCI-E_1_RXP_14 / HSOP(14)	HSIN(1) / PCI-E_1_TXN_1	104
78	PCI-E_1_RXP_15 / HSOP(15)	HSIN(0) / PCI-E_1_TXN_0	99

PCI-E_1_TXN_[0:15] [7]

PCI Express x16 Socket

Core2 X48 Intel Motherboard

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U?A

Pin	Signal
9	VDD_48
47	VDD_CPU
41	VDD_CPU_I/O
12	VDD_I/O
2	VDD_PCI
16	VDD_PLL3
20	VDD_PLL3_I/O
53	VDD_REF
31	VDD_SRC
26	VDD_SRC_I/O_1
37	VDD_SRC_I/O_2

Signal	Pin
VSS_SRC_2	34
VSS_SRC_1	23
VSS_REF	50
VSS_PLL3	19
VSS_PCI	8
VSS_I/O	15
VSS_CPU	44
VSS_48	11

Clock CK505

U?B

Pin	Signal
48	CKPWRGD/PD#
29	CPU_STOP#/SRC_5#
1	PCI_0/CLKREQ_A#
3	PCI_1/CLKREQ_B#
6	PCI_4/SRC_5_EN
30	PCI_STOP#/SRC_5
7	PCIF_5/ITP_EN
49	FS_B/TEST_MODE
10	USB/FS_A I/O
4	TME/PCI_2

Signal	Pin
SRC_7/CLKREQ_F#	36
SRC_7#/CLKREQ_E#	35
SRC_3/CLKREQ_C#	24
SRC_3#/CLKREQ_D#	25
SDA	55
SCL	56
I/O_VOUT O	40
XTAL_IN	52
REF/FS_C/TEST_SE L	54

Clock CK505

U?C

Pin	Signal
13	SRC_0/DOT_96
14	SRC_0#/DOT_96#
17	SRC_1/PROG_SE_1
18	SRC_1#/PROG_SE_2
27	SRC_4
28	SRC_4#
32	SRC_6#
33	SRC_6
38	SRC_8#/CPU_ITP#
39	SRC_8/CPU_ITP

Signal	Pin
CPU_0	46
CPU_0#	45
CPU_1_AMT	43
CPU_1_AMT#	42
CFG_0/PCI_3	5
SRC_2#/SATA#	22
SRC_2/SATA	21
XTAL_OUT	51

Clock CK505

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Clock Synthesizer

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