AT8001

ATCA SHB, single Intel Xeon, Dual AMC
with Front Panel Gigabit Ethernet

kontron

Board Rev. 2

QUICK REFERENCE

Document version 1.3

CONNECTORS

J1	Gigabit Ethernet LAN B	J13	POST Code Connector
J2	Gigabit Ethernet LAN A	J18	AMC B1
J3	Ethernet Management	J19	AMC B2
J4	USB 0	J20	ATCA Telco Clock
J5	Serial Port 0 (COM1) (RJ-45)	J21	CompactFlash
J6	VGA	J23	ATCA Base & Fabric Interface
J10	Memory Socket DDRII-400	J30	ATCA RTM Connector
J12	Memory Socket DDRII-400	P10	ATCA Power

JUMPER SETTINGS (● Default Setting)

JP1 - Spare Jumper	
● Spare Jumper	in

JP2 - Clear CMOS	
Clear CMOS	in
● Normal	out

JP3 - VT100 Mode	
Enabled	in
● Disabled	out

JP4 - Video	
Disable Video	in
● Normal	out

JP5 - Video Position	
● Front	in
Rear	out

JP6 - Overide Function	
ShMC Activation Override	1-2
AMC Activation Override	3-4

JP7(1-2) - Postcode	
Postcode to IPMC	in
● Postcode to BIOS	out

JP7(3-4) - IPMI Override	
Always On	in
● Normal Mode	out

JP8 - FPGA Config	
● User PROM	1-2
Factory PROM	3-4

JP9 - Reserved	
● Reserved	out

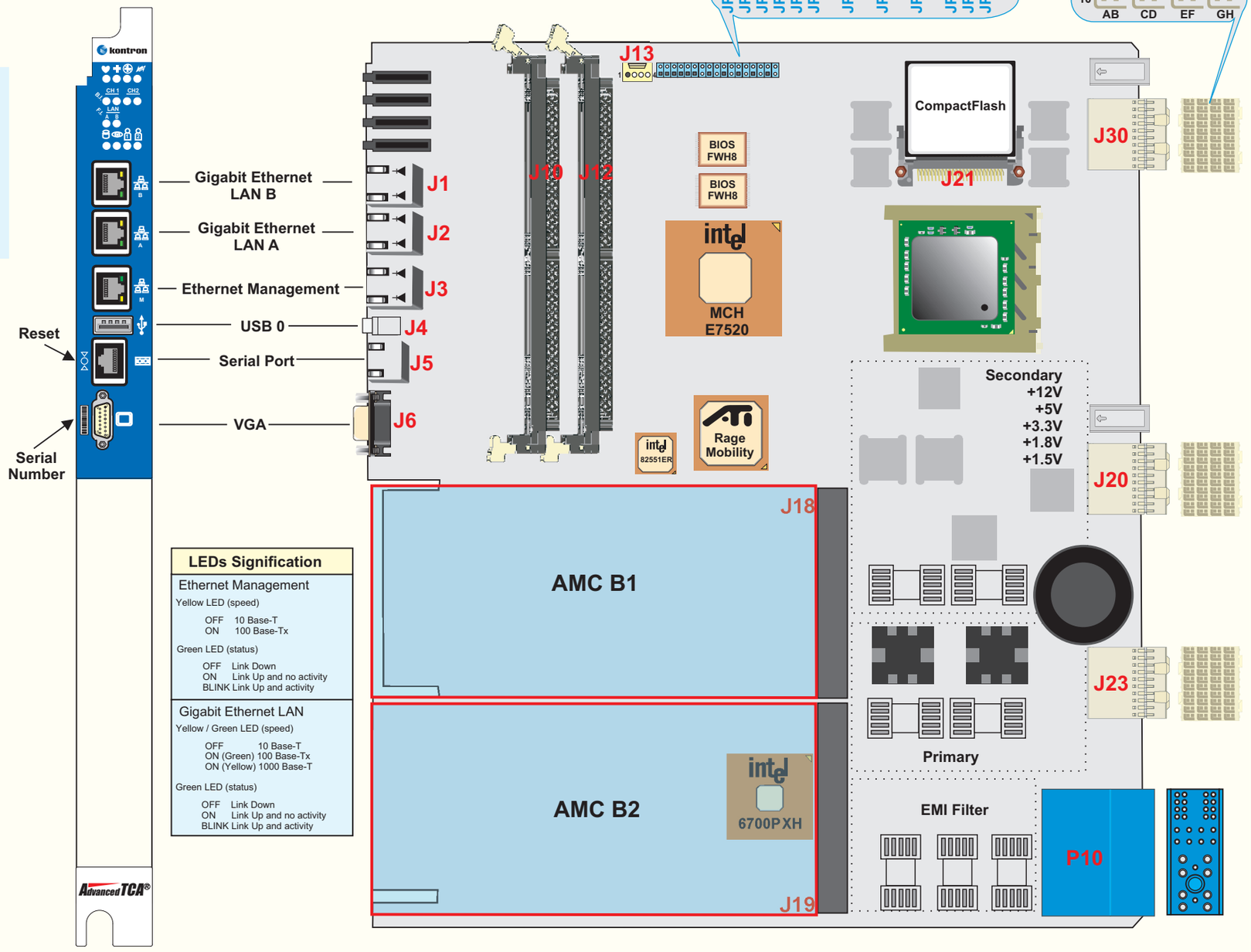
JP10 - Test Mode	
Test Mode	in
● Normal Mode	out

JP11 - Reserved	
Reserved	in
● Reserved	out

JP12 - Reserved	
● Reserved	out

Symbols Chart

- Out Of Service
- Hot Swap
- Hard Disk Activity
- Management Led (IPMC)
- VGA
- Serial Port
- Healthy
- Heart Beat
- User Led
- USB
- Ethernet



LEDs Signification

Ethernet Management

Yellow LED (speed)

OFF 10 Base-T
ON 100 Base-Tx

Green LED (status)

OFF Link Down
ON Link Up and no activity
BLINK Link Up and activity

Gigabit Ethernet LAN

Yellow / Green LED (speed)

OFF 10 Base-T
ON (Green) 100 Base-Tx
ON (Yellow) 1000 Base-T

Green LED (status)

OFF Link Down
ON Link Up and no activity
BLINK Link Up and activity

Connector Pinouts

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J1, J2 - Ethernet
10/100/1000 LAN B, LAN A

1	DA+	5	DC-
2	DA-	6	DB-
3	DB+	7	DD+
4	DC+	8	DD-

J3 - Ethernet
10/100 Management LAN M

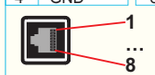
1	TX+	5	N.C.
2	TX-	6	RX-
3	RX+	7	N.C.
4	N.C.	8	N.C.

J4 - USB PORT

1	VCC
2	DATA -
3	DATA+
4	GND

J5 - RS-232

1	RTS	5	GND
2	DTR	6	RXD
3	TXD	7	DSR
4	GND	8	CTS



J13 - POST CODE

1	VCC3
2	DATA
3	CLOCK
4	GND

J6 - Video (SVGA)

Row 1 (1-8)		Row 2 (9-15)	
1	RED	9	N.C.
2	GREEN	10	GND
3	BLUE	11	N.C.
4	N.C.	12	SDATA
5-8	GND	13	HSYNC
		14	VSYNC
		15	SCLK

P10 - Power

1	N.P.	2	N.P.
3	N.P.	4	N.P.
5	HA0	6	HA1
7	HA2	8	HA3
9	HA4	10	HA5
11	HA6	12	HA7/P
13	SCL_A	14	SDA_A
15	SCL_B	16	SDA_B
17	MT1_TIP(N.C.)	18	MT2_TIP(N.C.)
19	RING_A(N.C.)	20	RING_B(N.C.)
21	MT1_RING(N.C.)	22	MT2_RING(N.C.)
23	RRTN_A(N.C.)	24	RRTN_B(N.C.)
25	**SHELF_GND**	26	**LOGIC_GND**
27	ENABLE_B	28	VRTN_A
29	VRTN_B	30	EARLY_A
31	EARLY_B	32	ENABLE_A
33	-48V_A	34	-48V_B

J21 - COMPACT FLASH

1	GND	2	DD3
3	DD4	4	DD5
5	DD6	6	DD7
7	CS0#	8	GND
9	ATA_SEL#(GND)	10	GND
11	GND	12	GND
13	VCC3	14	GND
15	GND	16	GND
17	GND	18	DA2
19	DA1	20	DA0
21	DD0	22	DD1
23	DD2	24	IOCS16#(N.C.)
25	CD2#(N.C.)	26	CD1#(N.C.)
27	DD11	28	DD12
29	DD13	30	DD14
31	DD15	32	CS1#
33	VS1#(N.C.)	34	DIOR#
35	DIOW#	36	WE# (VCC3)
37	INTRQ	38	VCC3
39	CSEL#(GND)	40	VS2#(N.C.)
41	RESET#	42	IORDY
43	DMARQ	44	DMACK#
45	DASP#	46	PDIAG#
47	DD8	48	DD9
49	DD10	50	GND

J30 - ATCA I/O

	ROW A	AB	ROW B	ROW C	CD	ROW D	ROW E	EF	ROW F	ROW G	GH	ROW H
1	USB1_VCC(N.C.)	GND	USB0_VCC	PS2_CLK	GND	PS2_DAT	LAN_DA-	GND	LAN_DA+	SATA0_RX-(N.C.)	GND	SATA0_RX+(N.C.)
2	BRD_RESET#	GND	TEST_SPKR#	KBD_CLK	GND	KBD_DAT	LAN_DB-	GND	LAN_DB+	SATA0_TX-(N.C.)	GND	SATA0_TX+(N.C.)
3	+5V	GND	3.3V_SUS	SMB_SCL	GND	SMB_SDA	LAN_DC- (N.C.)	GND	LAN_DC+ (N.C.)	SATA1_RX-(N.C.)	GND	SATA1_RX+(N.C.)
4	JTAG_CFG(N.C.)	GND	TEST_ON#	POST_CLK	GND	POST_DAT	LAN_DD- (N.C.)	GND	LAN_DC- (N.C.)	SATA1_TX-(N.C.)	GND	SATA1_TX+(N.C.)
5	JTAG_TDO	GND	TEST_JIG#	LPC_CLK	GND	LPC_HINIT#	LAN_SPD	GND	LAN_ACT/L#	SATA2_RX-(N.C.)	GND	SATA2_RX+(N.C.)
6	JTAG_TDI	GND	3.3V	LPC_FRAME#	GND	LPC_RESET#	LAN_CT (GND)	GND	+12V	SATA2_TX-(N.C.)	GND	SATA2_TX+(N.C.)
7	JTAG_TCK	GND	TEST_FWH	LPC_AD2	GND	LCP_AD3	VGA_SCL	GND	VGA_SDA	SATA3_RX-(N.C.)	GND	SATA3_RX+(N.C.)
8	JTAG_TMS	GND	JTAG_TRST#(N.C.)	LPC_AD0	GND	LPC_AD1	VGA_BLUE	GND	SMB_ALERT#	SATA3_TX-(N.C.)	GND	SATA3_TX+(N.C.)
9	SP0_RI	GND	SP0_DTR	SP0_CTS	GND	SP0_TX#	VGA_GREEN	GND	VGA_VSYNC	USB0_D-	GND	USB0_D+
10	SP0_RTS	GND	SP0_RX#	SP0_DSR	GND	SP0_DCD	VGA_RED	GND	VGA_HSYNC	USB1_D-(N.C.)	GND	USB1_D+(N.C.)

J20 - Telco Clock

	ROW A	AB	ROW B	ROW C	CD	ROW D	ROW E	EF	ROW F	ROW G	GH	ROW H
1	CLK1A+	GND	CLK1A-	CLK1B+	GND	CLK1B-	CLK2A+	GND	CLK2A-	CLK2B+	GND	CLK2B-
2	Tx4(UP)+(N.C.)	GND	Tx4(UP)-(N.C.)	Rx4(UP)+(N.C.)	GND	Rx4(UP)-(N.C.)	CLK3A+	GND	CLK3A-	CLK3B+	GND	CLK3B-
3	Tx2(UP)+(N.C.)	GND	Tx2(UP)-(N.C.)	Rx2(UP)+(N.C.)	GND	Rx2(UP)-(N.C.)	Tx3(UP)+(N.C.)	GND	Tx3(UP)-(N.C.)	Rx3(UP)+(N.C.)	GND	Rx3(UP)-(N.C.)
4	Tx0(UP)+(N.C.)	GND	Tx0(UP)-(N.C.)	Rx0(UP)+(N.C.)	GND	Rx0(UP)-(N.C.)	Tx1(UP)+(N.C.)	GND	Tx1(UP)-(N.C.)	Rx3(UP)+(N.C.)	GND	Rx3(UP)-(N.C.)
5	Tx2[15]+(N.C.)	GND	Tx2[15]-(N.C.)	Rx2[15]+(N.C.)	GND	Rx2[15]-(N.C.)	Tx3[15]+(N.C.)	GND	Tx3[15]-(N.C.)	Rx3[15]+(N.C.)	GND	Rx3[15]-(N.C.)
6	Tx0[15]+(N.C.)	GND	Tx0[15]-(N.C.)	Rx0[15]+(N.C.)	GND	Rx0[15]-(N.C.)	Tx1[15]+(N.C.)	GND	Tx1[15]-(N.C.)	Rx1[15]+(N.C.)	GND	Rx1[15]-(N.C.)
7	Tx2[14]+(N.C.)	GND	Tx2[14]-(N.C.)	Rx2[14]+(N.C.)	GND	Rx2[14]-(N.C.)	Tx3[14]+(N.C.)	GND	Tx3[14]-(N.C.)	Rx3[14]+(N.C.)	GND	Rx3[14]-(N.C.)
8	Tx0[14]+(N.C.)	GND	Tx0[14]-(N.C.)	Rx0[14]+(N.C.)	GND	Rx0[14]-(N.C.)	Tx1[14]+(N.C.)	GND	Tx1[14]-(N.C.)	Rx1[14]+(N.C.)	GND	Rx1[14]-(N.C.)
9	Tx2[13]+(N.C.)	GND	Tx2[13]-(N.C.)	Rx2[13]+(N.C.)	GND	Rx2[13]-(N.C.)	Tx3[13]+(N.C.)	GND	Tx3[13]-(N.C.)	Rx3[13]+(N.C.)	GND	Rx3[13]-(N.C.)
10	Tx0[13]+(N.C.)	GND	Tx0[13]-(N.C.)	Rx0[13]+(N.C.)	GND	Rx0[13]-(N.C.)	Tx1[13]+(N.C.)	GND	Tx1[13]-(N.C.)	Rx1[13]+(N.C.)	GND	Rx1[13]-(N.C.)

J23 - ATCA I/O ATCA 3.1

	ROW A	AB	ROW B	ROW C	CD	ROW D	ROW E	EF	ROW F	ROW G	GH	ROW H
1	Tx2[2]+(N.C.)	GND	Tx2[2]-(N.C.)	Rx2[2]+(N.U.)	GND	Rx2[2]-(N.U.)	Tx3[2]-	GND	Tx3[2]-	Rx3[2]+	GND	Rx3[2]-
2	Tx0[2]+	GND	Tx0[2]-	Rx0[2]+	GND	Rx0[2]-	Tx1[2]+	GND	Tx1[2]-	Rx1[2]+	GND	Rx1[2]-
3	Tx2[1]+(N.C.)	GND	Tx2[1]-(N.C.)	Rx2[1]+(N.U.)	GND	Rx2[1]-(N.U.)	Tx3[1]+	GND	Tx3[1]-	Rx3[1]+	GND	Rx3[1]-
4	Tx0[1]+	GND	Tx0[1]-	Rx0[1]+	GND	Rx0[1]-	Tx1[1]+	GND	Tx1[1]-	Rx1[1]+	GND	Rx1[1]-
5	BI_DA1+	GND	BI_DA1-	BI_DB1+	GND	BI_DB1-	BI_DC1+	GND	BI_DC1-	BI_DD1+	GND	BI_DD1-
6	BI_DA2+	GND	BI_DA2-	BI_DB2+	GND	BI_DB2-	BI_DC2+	GND	BI_DC2-	BI_DD2+	GND	BI_DD2-
7	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV
8	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV
9	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV
10	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV	RSV	GND	RSV

J18, J19 - AMC B1 & AMC B2

B1	GND	B43	GND	B86	GND	B129	TxD15-(N.C.)
B2	12V	B44	RxD4+	B87	TxD8-	B130	TxD15+(N.C.)
B3	PS1#	B45	RxD4-	B88	TxD8+	B131	GND
B4	MP_3V3	B46	GND	B89	GND	B132	RxD15-(N.C.)
B5	GA0	B47	TxD4+	B90	RxD8-	B133	RxD15+(N.C.)
B6	RSV	B48	TxD4-	B91	RxD8+	B134	GND
B7	GND	B49	GND	B92	GND	B135	TxD16-(N.C.)
B8	RSV	B50	RxD5+	B93	TxD9-	B136	TxD16+(N.C.)
B9	12V	B51	RxD5-	B94	TxD9+	B137	GND
B10	GND	B52	GND	B95	GND	B138	RxD16-(N.C.)
B11	RxD0+	B53	TxD5+	B96	RxD9-	B139	RxD16+(N.C.)
B12	RxD0-	B54	TxD5-	B97	RxD9+	B140	GND
B13	GND	B55	GND	B98	GND	B141	TxD17-(N.C.)
B14	TxD0+	B56	IPMB-L-SCL	B99	TxD10-	B142	TxD17+(N.C.)
B15	TxD0-	B57	12V	B100	TxD10+	B143	GND
B16	GND	B58	GND	B101	GND	B144	RxD17-(N.C.)
B17	GA1	B59	RxD6+	B102	RxD10-	B145	RxD17+(N.C.)
B18	12V	B60	RxD6-	B103	RxD10+	B146	GND
B19	GND	B61	GND	B104	GND	B147	TxD18-(N.C.)
B20	RxD1+	B62	TxD6+	B105	TxD11-	B148	TxD18+(N.C.)
B21	RxD1-	B63	TxD6-	B106	TxD11+	B149	GND
B22	GND	B64	GND	B107	GND	B150	RxD18-(N.C.)
B23	TxD1+	B65	RxD7+	B108	RxD11-	B151	RxD18+(N.C.)
B24	TxD1-	B66	RxD7-	B109	RxD11+	B152	GND
B25	GND	B67	GND	B110	GND	B153	TxD19-(N.C.)
B26	GA2	B68	TxD7+	B111	TxD12-	B154	TxD19+(N.C.)
B27	12V	B69	TxD7-	B112	TxD12+	B155	GND
B28	GND	B70	GND	B113	GND	B156	RxD19-(N.C.)
B29	RxD2+	B71	IPMB_SDA	B114	RxD12-	B157	RxD19+(N.C.)
B30	RxD2-	B72	12V	B115	RxD12+	B158	GND
B31	GND	B73	GND	B116	GND	B159	TxD20-(N.C.)
B32	TxD2+	B74	CLK1+	B117	TxD13-(N.C.)	B160	TxD20+(N.C.)
B33	TxD2-	B75	CLK1-	B118	TxD13+(N.C.)	B161	GND
B34	GND	B76	GND	B119	GND	B162	RxD20-(N.C.)
B35	RxD3+(N.C.)	B77	CLK2+	B120	RxD13-(N.C.)	B163	RxD20+(N.C.)
B36	RxD3-(N.C.)	B78	CLK2-	B121	RxD13+(N.C.)	B164	GND
B37	GND	B79	GND	B122	GND	B165	TCLK(N.U.)
B38	TxD3+(N.C.)	B80	CLK3+	B123	TxD14-(N.C.)	B166	TMS(N.U.)
B39	TxD3-(N.C.)	B81	CLK3-	B124	TxD14+(N.C.)	B167	TRST#(N.U.)
B40	GND	B82	GND	B125	GND	B168	TDO(N.U.)
B41	ENABLE#	B83	PS0#(GND)	B126	RxD14-(N.C.)	B169	TDI(N.U.)
B42	12V	B84	12V	B127	RxD14+(N.C.)	B170	GND
		B85	GND	B128	GND		

N.C. = Not Connected
N.P. = Not Populated
N.U. = Not Used
RSV = Reserved
 # = Active Low

LAN LED Speed:

Off: 10Mb
Green: 100Mb
Amber: 1000Mb

For Technical Support please contact:

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2 . E-Mail : support@ca.kontron.com
3. Fax : (450) 437-8053
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The Technical Reference Manual and the Quick Reference can be downloaded from Kontron Web site at:
http://www.kontron.com
Or from Kontron FTP site at:
ftp://ftp.kontron.ca/Support/

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