AM4220

Cavium Advanced Mezzanine Card

Board Rev. 1

kontron

QUICK REFERENCE

Document version 1.3

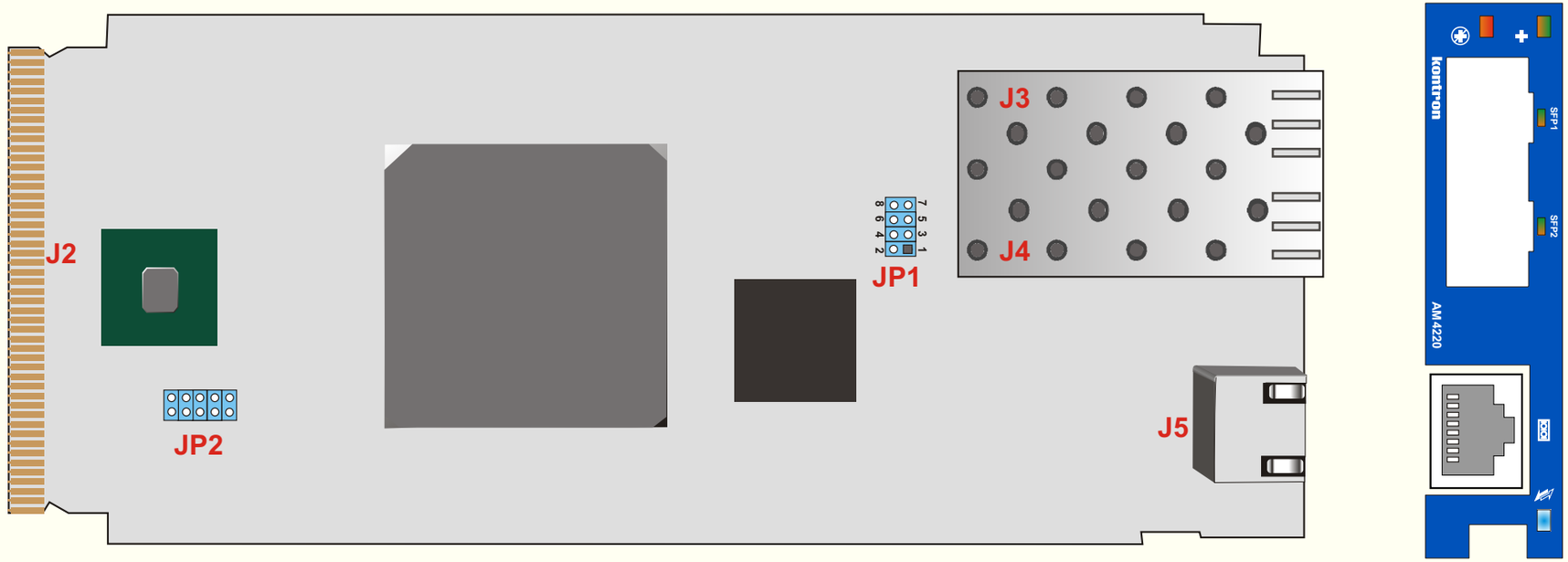
CONNECTORS

J2	AMC Connector
J3	SFP+ 1 Connector
J4	SFP+ 2 Connector
J5	RJ-45 Serial Port Connector
JP2	USB Flash Module

JUMPER SETTINGS

(● Default Setting)

JP1 (1-2) Reserved	
● Reserved	out
JP1 (3-4) Reserved	
● Reserved	out
JP1 (5-6) Reserved	
● Reserved	out
JP1 (7-8) Flash Write Enable	
Flash Write Enable & Watchdog Reset Disable	in
● Flash Write Protect & Watchdog Reset Enable	out



Symbols Chart

- Hot Swap
- Out Of Service
- Healthy

LEDs Signification available on back.

Connector Pinouts

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J3, J4 - SFP+ Connectors

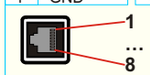
1	VeeT	11	VeeR
2	TX_Fault	12	RD-
3	TX_Disable	13	RD+
4	SDA	14	VeeR
5	SCL	15	VccR
6	MOD-ABS	16	VccT
7	Rate Select 0	17	VeeT
8	RX_LOS	18	TD+
9	Rate Select 1	19	TD-
10	VeeR	20	VeeT

JP2 - USB Flash Drive

1	VCC	6	N.C.
2	N.C.	7	GND
3	USB_DATA-	8	N.C.
4	N.C.	9	N.C. (KEY)
5	USB_DATA+	10	N.C.

J5 - RS-232

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



AMC Port Assignment

Port	Region	Connection
0	GbE	GbE eth0
1	GbE	GbE eth1
2	Storage	-
3	Storage	-
4	Fabric	PCIe Port 0 (Lane 0)
5	Fabric	PCIe Port 0 (Lane 1)
6	Fabric	PCIe Port 0 (Lane 2)
7	Fabric	PCIe Port 0 (Lane 3)
8	Fabric	-
9	Fabric	-
10	Fabric	-
11	Fabric	-
12	Extended	-
13	Extended	-
14	Extended	-
15	Extended	RS232
17	Extended	-
18	Extended	-
19	Extended	-
20	Extended	-
TCLKA	Clock	From Backplane
TCLKB	Clock	-
TCLKC	Clock	-
TCLKD	Clock	-
FCLKA	Clock	PCIe Reference Clock

Front Port Assignment

SFP+	Connection
1	10 GbE xaui0
2	10 GbE xaui1

J2 - AMC Connector

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

LEDs Signification

Hot Swap (Blue)

Solid On (100 % on): FRU Inactive
Long Blink (90 % on): FRU Activation Request
Solid Off (0 % on): FRU Activation In Progress / FRU Active
Short Blink (10 % on): FRU Deactivation Request / FRU Deactivation In Progress

Out of service (Red/Amber) [default : Red]

Solid On : MMC in reset
Fast Blink (~50 % on): MMC upgrade/rollback in progress
Application Defined : May be controlled by application using PICMG API

Health Led Activity (Amber/Green) [default : Green]

Off : Payload power down
Green : Health Ok
Amber : Health Error (Critical)
Application Defined : May be controlled by application using PICMG API

SFP+ Led (Amber/Green)

Green On : Link 10Gbit
Green Blink : Activity 10Gbit
Amber On : Link 1Gbit
Amber Blink : Activity 1Gbit

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The Quick Reference Sheet can be downloaded from the Kontron web site at:
http://www.kontron.com
or from Kontron FTP site at:
ftp://ftp.kontron.ca/Support/

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