# AM4204

Cavium Advanced Mezzanine Card

kontron

Board Rev. 1

## QUICK REFERENCE

Document version 1.2

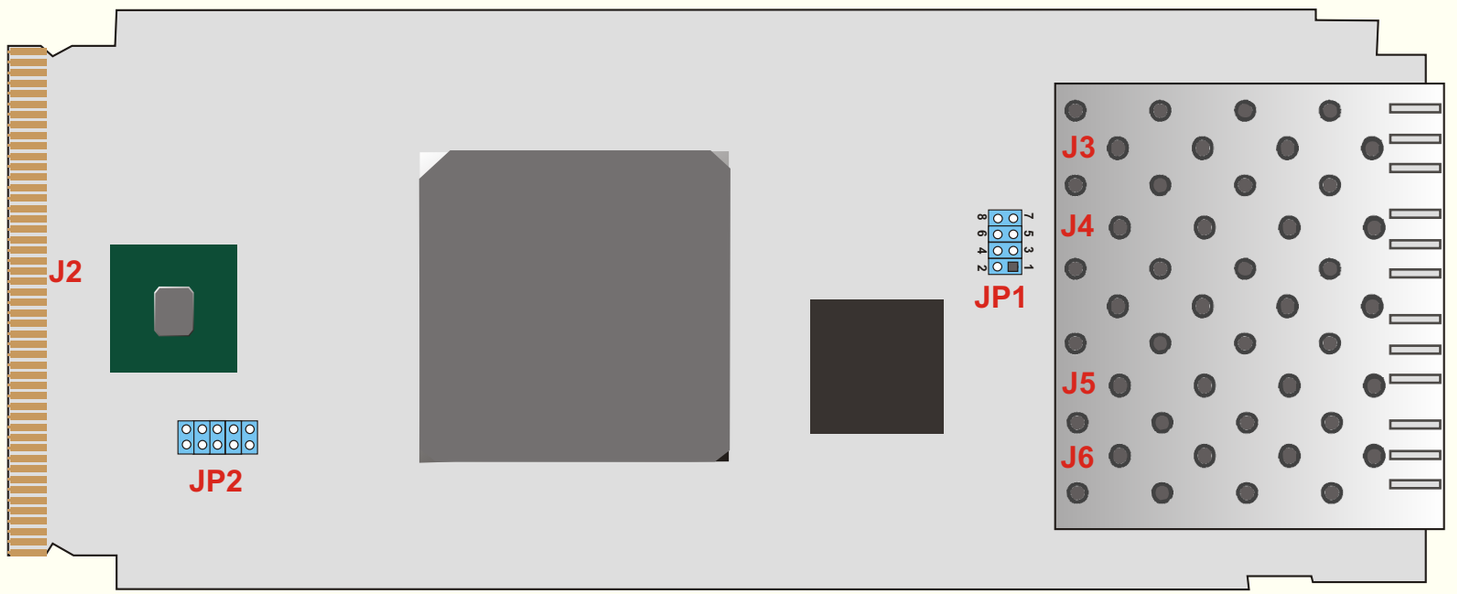
## CONNECTORS

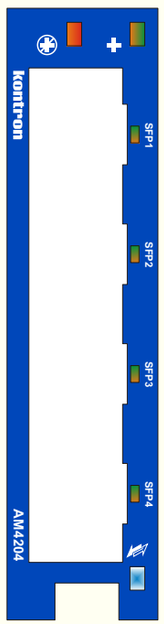
| | |
|---|---|
| J2 | AMC Connector |
| J3 | SFP 1 Connector |
| J4 | SFP 2 Connector |
| J5 | SFP 3 Connector |
| J6 | SFP 4 Connector |
| JP2 | USB Flash Connector |

## 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

## AM4204

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### J3, J4, J5, J6 - SFP Connectors

| | | | |
|---|---|---|---|
| 1 | VeeT | 11 | VeeR |
| 2 | TX_Fault | 12 | RD- |
| 3 | TX_Disable | 13 | RD+ |
| 4 | MOD-DEF(2) | 14 | VeeR |
| 5 | MOD-DEF(1) | 15 | VccR |
| 6 | MOD-DEF(0) | 16 | VccT |
| 7 | Rate Select | 17 | VeeT |
| 8 | LOS | 18 | TD+ |
| 9 | VeeR | 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. |

### 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 | XAUI Lane 0 or GbE eth2/octeth0 |
| 9 | Fabric | XAUI Lane 1 or GbE eth3/octeth1 |
| 10 | Fabric | XAUI Lane 2 or GbE eth4/octeth2 |
| 11 | Fabric | XAUI Lane 3 or GbE eth5/octeth3 |
| 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 | GbE eth6 |
| 2 | GbE eth7 |
| 3 | GbE eth8 |
| 4 | GbE eth9 |

### J2 - AMC Connector

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| B1 | GND | B43 | GND | B86 | GND | B129 | RxD15- |
| B2 | 12V | B44 | TxD4+ | B87 | RxD8- | B130 | RxD15+ |
| B3 | PS1# | B45 | TxD4- | B88 | RxD8+ | B131 | GND |
| B4 | MP_3V3 | B46 | GND | B89 | GND | B132 | TxD15- |
| B5 | GA0 | B47 | RxD4+ | B90 | TxD8- | B133 | TxD15+ |
| B6 | RSV | B48 | RxD4- | B91 | TxD8+ | B134 | GND |
| B7 | GND | B49 | GND | B92 | GND | B135 | TCLKC-(N.C.) |
| B8 | RSV | B50 | TxD5+ | B93 | RxD9- | B136 | TCLKC+(N.C.) |
| B9 | 12V | B51 | TxD5- | B94 | RxD9+ | B137 | GND |
| B10 | GND | B52 | GND | B95 | GND | B138 | TCLKD-(N.C.) |
| B11 | TxD0+ | B53 | RxD5+ | B96 | TxD9- | B139 | TCLKD+(N.C.) |
| B12 | TxD0- | B54 | RxD5- | B97 | TxD9+ | B140 | GND |
| B13 | GND | B55 | GND | B98 | GND | B141 | RxD17-(N.C.) |
| B14 | RxD0+ | B56 | IPMI_CLK | B99 | RxD10- | B142 | RxD17+(N.C.) |
| B15 | RxD0- | B57 | 12V | B100 | RxD10+ | B143 | GND |
| B16 | GND | B58 | GND | B101 | GND | B144 | TxD17-(N.C.) |
| B17 | GA1 | B59 | TxD6+ | B102 | TxD10- | B145 | TxD17+(N.C.) |
| B18 | 12V | B60 | TxD6- | B103 | TxD10+ | B146 | GND |
| B19 | GND | B61 | GND | B104 | GND | B147 | RxD18-(N.C.) |
| B20 | TxD1+ | B62 | RxD6+ | B105 | RxD11- | B148 | RxD18+(N.C.) |
| B21 | TxD1- | B63 | RxD6- | B106 | RxD11+ | B149 | GND |
| B22 | GND | B64 | GND | B107 | GND | B150 | TxD18-(N.C.) |
| B23 | RxD1+ | B65 | TxD7+ | B108 | TxD11- | B151 | TxD18+(N.C.) |
| B24 | RxD1- | B66 | TxD7- | B109 | TxD11+ | 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 (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 (Green)**

Green On : Link 1000Mbit
Green Blink : Activity 1000Mbit


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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/***

1022-4731