PMC Description

PMC: PCI Mezzanine Card IEEE 1386.1; the electrical standard for a CMC module. Uses the PCI bus spec in a new form factor. Uses either 3.3v or 5v signals over the PCI bus. Maximum power dissipation is also defined. The PMC bus will support both 32 bit PCI at 33MHz and 64 bit PCI at 64MHz. The single width card size is 74mm x 149mm x 8.2mm, allowing two PMC modules to exist on a 6U Euro-Card format ~ VME or cPCI card. A double width card measures 149mm x 149mm x 8.2mm, but allows only one mezzanine card to reside on the mother board. The component height off the board is 4.7mm, the reverse side allows for 3.5mm off the card. Provided the PMC card resides 10mm above the mother board (rising above the P2 connectors) the card length may be increased to 155mm.

Five connectors are defined: (2 rows x 32 pins @ 1mm)
Pn1/Jn1 -Pn2/Jn2 connector: Provides 32 bit PCI
Pn3/Jn3 connector: Allows 64 bit PCI
Pn4/Jn4 connector: Provides 64 bit backplane I/O (Optional). When 2 PMCs are mounted on a Mother Board. Either half of each PMC is mapped or all one PMC is mapped ~ but not all of both.
Pn5/Jn5 connector: Provides user defined signals (Optional)

VITA 20-199x - Conduction Cooled PCI Mezzanine Card (CCPMC)
VITA 32-199x - Processor PMC Standard For Processor PCI Mezzanine Cards [PPMC]
VITA 35-199x - PMC-P4 Pin Out Mapping To VME-P0 and MVE64x-P2
VITA 36-199x - PIM (PMC Interface Module) PMC I/O Module Standard (Rear I/O PMC)
PICMG 2.3 R1.0 - PMC I/O Pin Assignments on CompactPCI; defines user I/O pin mappings from IEEE 1386 PMC sites to J3/P3, J4/P4, and J5/P5 on a CompactPCI.

PMC modules support Mother Board front panel connections via a bezel ~ with the Mother board providing an opening in their front panel (71.8mm x 13.2mm). Other types of PMC mezzanine; **PIM** PMC Interface Module, uses rear I/O and does not utilize a front bezel; **PTMC** PCI Telcom Mezzanine Card, **PMCx** PCI-X on PMC, and **PPMC** Processor PMC uses the same pin out as the PMC module but increases the maximum component height.
PTMC is based on the four connector standard PCI Mezzanine Card (PMC). The PTMC provides all of the traditional PMC 32-bit PCI signals on the Pn1 and Pn2 connectors, and supports specialized telecom interfaces on Pn3 and Pn4. PTMC coexists with PMC and supports three popular industry standard telecom bus interfaces and Ethernet. The PCI Telecom Mezzanine Card Specification defines pin locations on Pn3/Jn3 and Pn4/Jn4 for signals of the RMII, Ethernet PHY Management Interface, UTOPIA Level 1, UTOPIA Level 2, POS-PHY Level 2, and ECTF H.110 interfaces.

PMC Pinout

PMC/PPMC 32 Bit Connector Pin Outs and Signal Names

PN1 Connector				PN2 Connector			
Pin #	**Signal Name**	**Pin #**	**Signal Name**	**Pin #**	**Signal Name**	**Pin #**	**Signal Name**
1	**TCK**	**2**	**-12v**	**1**	**+12v**	**2**	**TRST#**
3	**Ground**	**4**	**INTA#**	**3**	**TMS**	**4**	**TDO**
5	**INTB#**	**6**	**INTC#**	**5**	**TDI**	**6**	**Ground**
7	**PRESENT#**	**8**	**+5v**	**7**	**Ground**	**8**	**PCI-A9**
9	**INTD#**	**10**	**PCI-B14**	**9**	**PCI-B10**	**10**	**PCI-A11**
11	**Ground**	**12**	**3.3Vaux**	**11**	**PUP**	**12**	**+3.3v**
13	**PCICLK**	**14**	**Ground**	**13**	**RST#**	**14**	**PDN**
15	**Ground**	**16**	**GNT#**	**15**	**+3.3v**	**16**	**PDN**
17	**REQ#**	**18**	**+5v**	**17**	**PME#**	**18**	**Ground**
19	**V{I/O}**	**20**	**AD[31]**	**19**	**AD[30]**	**20**	**AD[29]**
21	**AD[28]**	**22**	**AD[27]**	**21**	**Ground**	**22**	**AD[26]**
23	**AD[25]**	**24**	**Ground**	**23**	**AD[24]**	**24**	**+3.3v**
25	**Ground**	**26**	**C/BE[3]#**	**25**	**IDSEL**	**26**	**AD[23]**
27	**AD[22]**	**28**	**AD[21]**	**27**	**+3.3v**	**28**	**AD[20]**
29	**AD[19]**	**30**	**+5v**	**29**	**AD[18]**	**30**	**Ground**
31	**V[I/O]**	**32**	**AD[17]**	**31**	**AD[16]**	**32**	**C/BE[2]#**
33	**FRAME#**	**34**	**Ground**	**33**	**Ground**	**34**	**IDSELB**
35	**Ground**	**36**	**IRDY#**	**35**	**TRDY#**	**36**	**+3.3v**
37	**DEVSEL#**	**38**	**+5v**	**37**	**Ground**	**38**	**STOP#**
39	**Ground**	**40**	**LOCK#**	**39**	**PERR#**	**40**	**Ground**
41	**PCI-A40**	**42**	**PCI-A41**	**41**	**+3.3v**	**42**	**SERR#**
43	**PAR**	**44**	**Ground**	**43**	**C/BE[1]#**	**44**	**Ground**
45	**V[I/O]**	**46**	**AD[15]**	**45**	**AD[14]**	**46**	**AD[13]**
47	**AD[12]**	**48**	**AD[11]**	**47**	**M66EN**	**48**	**AD[10]**
49	**AD[09]**	**50**	**+5v**	**49**	**AD[08]**	**50**	**+3.3v**
51	**Ground**	**52**	**C/BE[0]#**	**51**	**AD[07]**	**52**	**REQB#**
53	**AD[06]**	**54**	**AD[05]**	**53**	**+3.3v**	**54**	**GNTB#**
55	**AD[04]**	**56**	**Ground**	**55**	**PMC-RSVD**	**56**	**Ground**
57	**V[I/O]**	**58**	**AD[03]**	**57**	**PMC-RSVD**	**58**	**EREADY**
59	**AD[02]**	**60**	**AD[01]**	**59**	**Ground**	**60**	**RESETOUT#**
61	**AD[00]**	**62**	**+5v**	**61**	**ACK64#**	**62**	**+3.3v**
63	**Ground**	**64**	**REQ64#**	**63**	**Ground**	**64**	**MONARCH#**