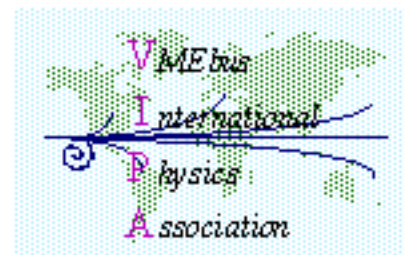

VME64 Extensions (VME64x)

9U x 400 mm Form Factor

(VITA 1.3 - 199x)

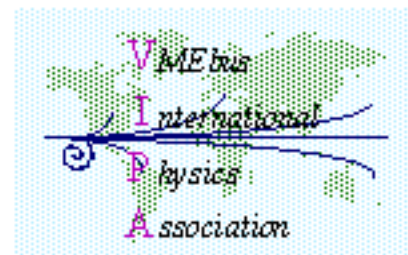
Robert Downing

9U Features

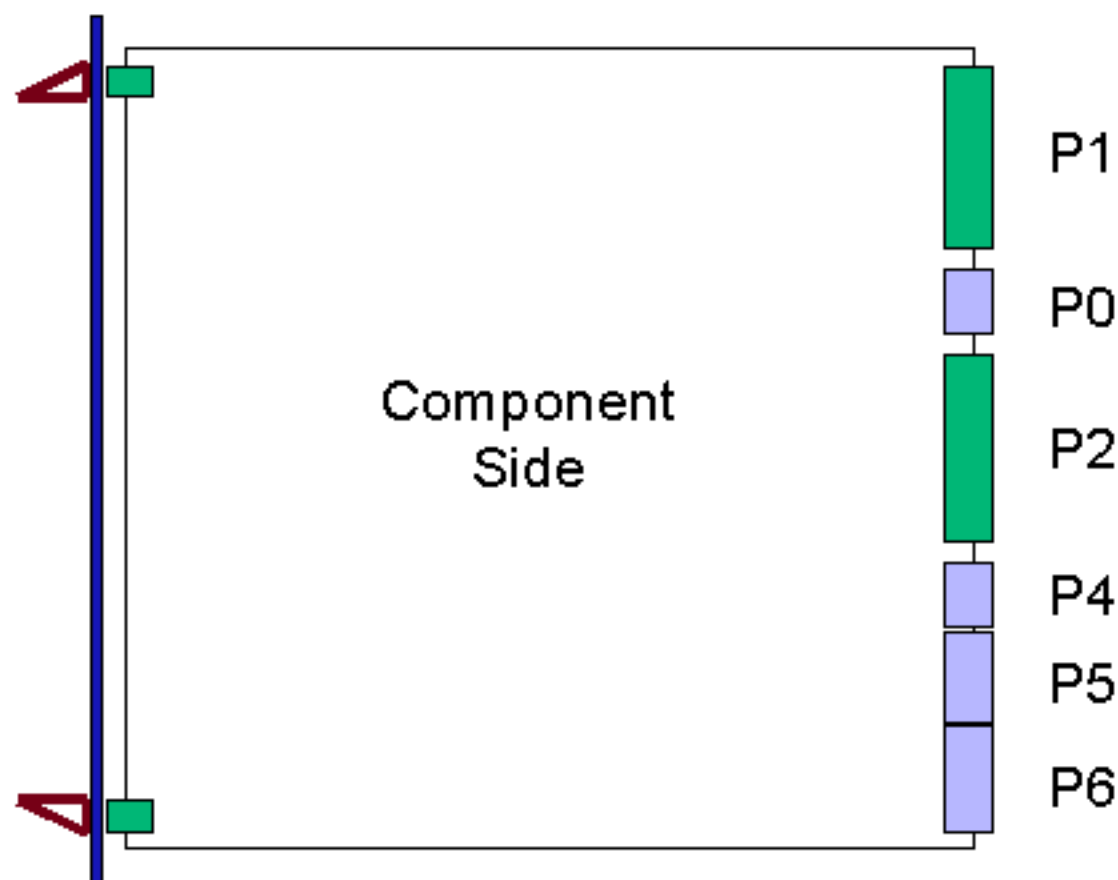


- Almost 4 times area of 6U VME
- Added two connector areas
 - P4 is the equivalent of P0
 - P3 is not the preferred configuration
 - Same as P1 & P2, 0.1 inch grid
 - P5 & P6 replace the old P3 connector
 - 110 + 125 pin Hard Metric 2 mm grid (preferred)
 - Compatible with CompactPCI
 - Shields on 2 mm connectors recommended as in VME64x

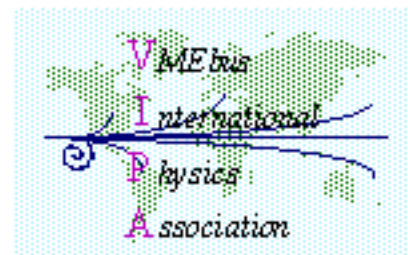
9U VME Board Layout



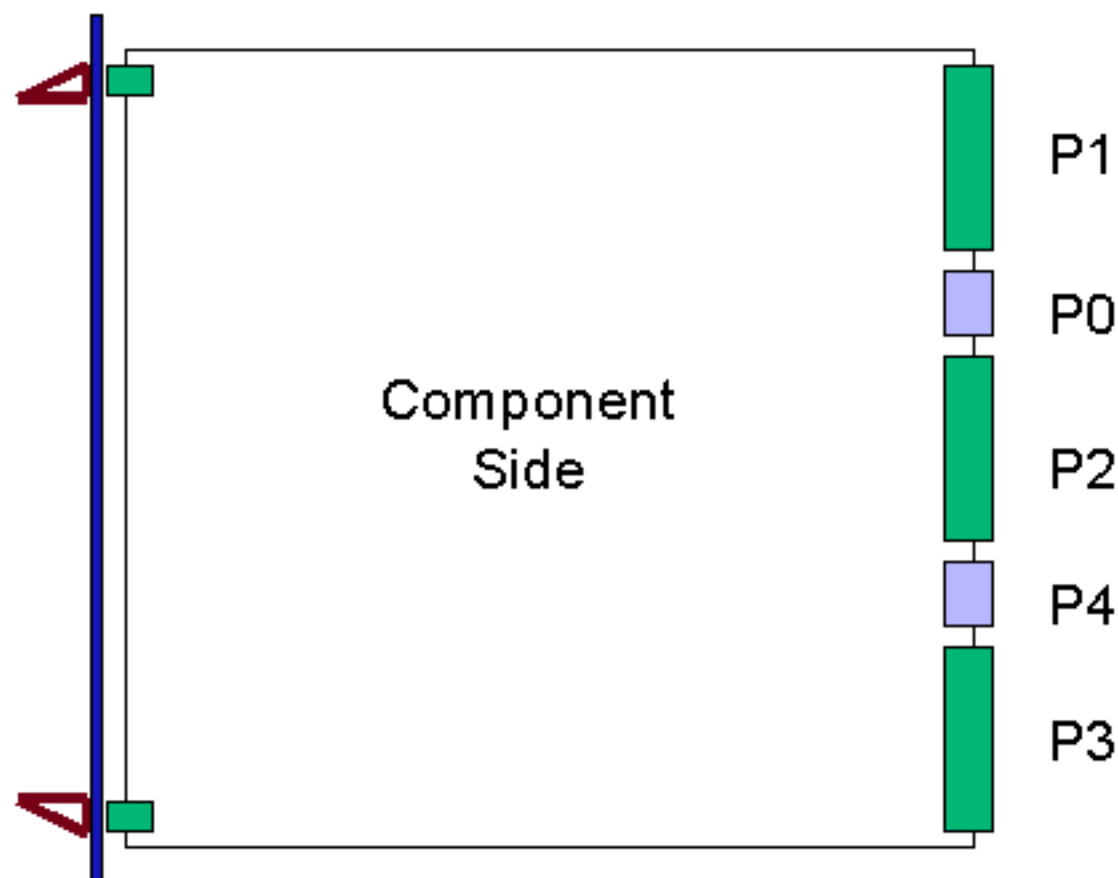
- Hard Metric User Area



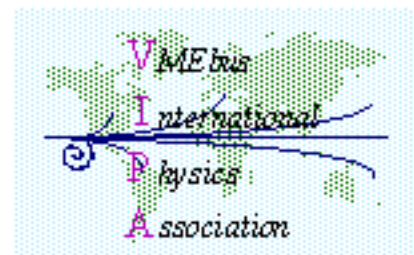
9U VME Board Layout



- DIN User Area

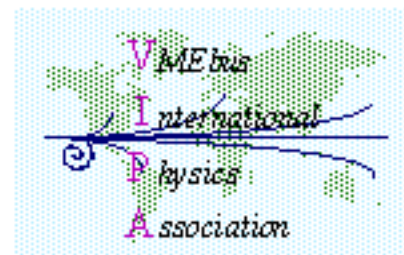


9U Annexes



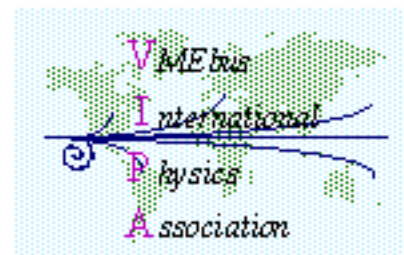
- Transition Module design guide
 - Rear configurations
 - Cooling
 - System issues
- Adapters for 3U and 6U
- Connector Layout
 - IEC 60603-2 connectors per IEEE 1101.10 & IEEE P1101.11
 - IEC 61076-4-101 per VME64x

9U and VME64x



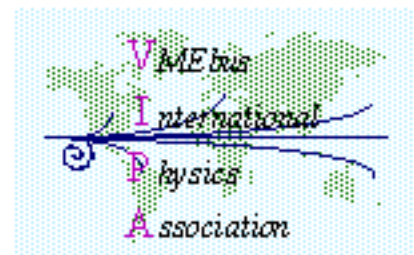
- P1 and P2 specified as in VME64x
- P0 same as VME64x
 - 95 Pin Hard Metric 2 mm grid with shields
- Protocols per VME64x
- IEEE 1101.10 & P1101.11 hardware
 - Front Panels
 - EMI/RFI
 - Injectors/Ejectors/Locking Handles
 - Solder Side Covers

Hard Metric Connectors



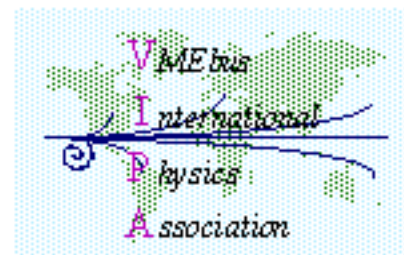
- IEC 61076-4-101 Standard
 - Modular construction
 - Same datum as IEC 60603-2
- Shields
 - Top and bottom independent
 - Inner row shields available

Hard Metric Connectors



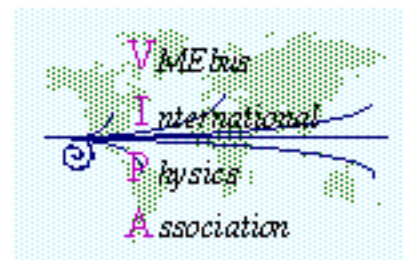
- 4.8 mm cavities
 - Fiber Optic
 - Coax
 - High current pins (40 A)
- Rear Attachment
 - Shrouds
 - Transition Modules
 - Direct cable attach with latches

Board Size and Connectors

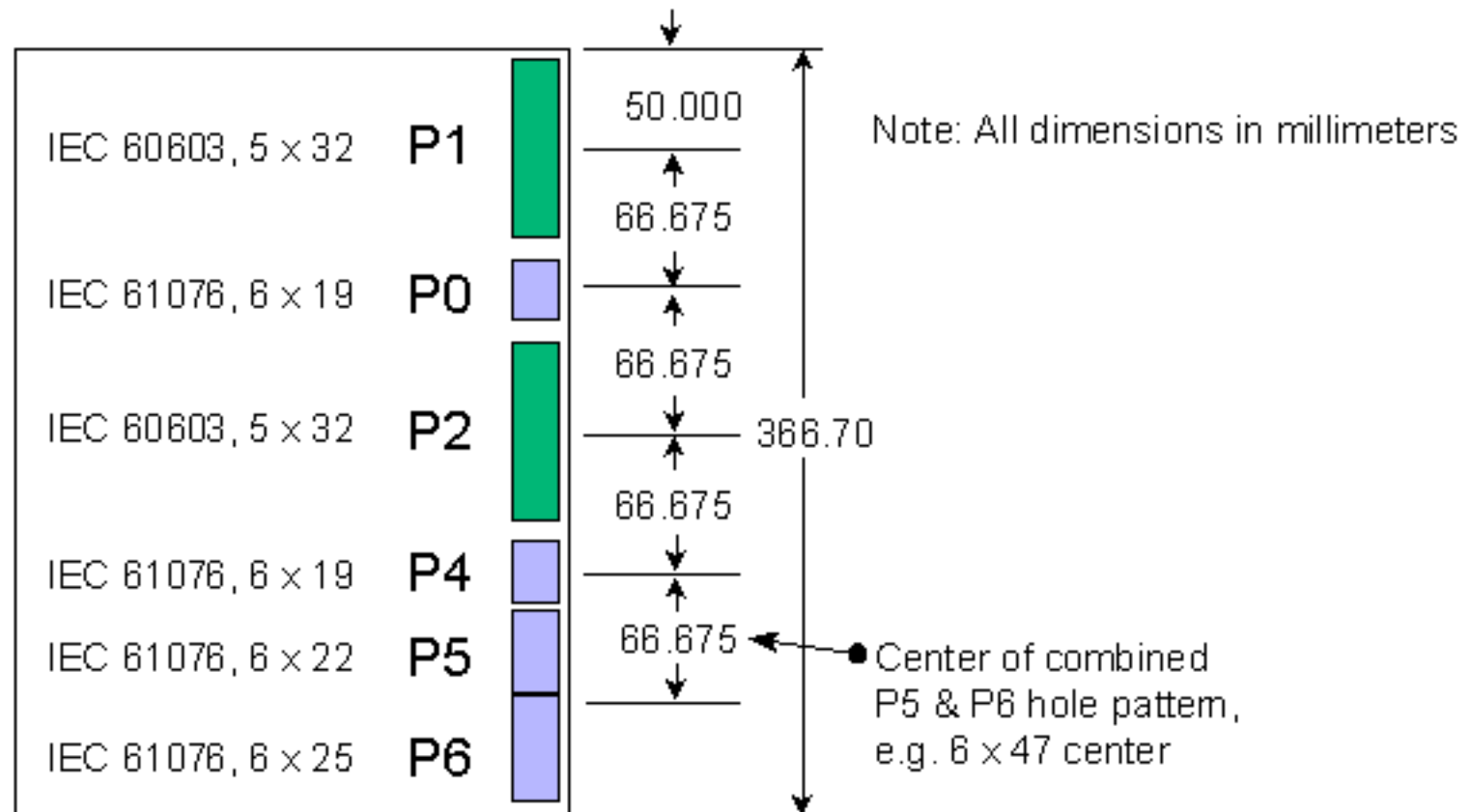


- Transition Module per (IEEE) P1101.11
 - Board size
 - IEC 60603-2 connector placement
- VME Board per IEEE 1101.10
 - Board size
 - IEC 60603-2 connector placement
- IEC 61076-4-101 connectors per VME64x and this document

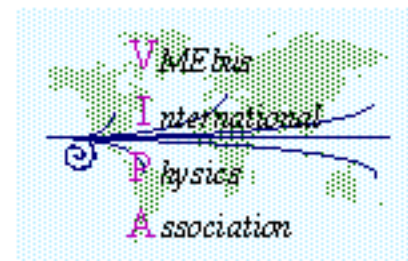
Connector Placement



- Dimensions for both front and rear
 - P1 omitted on Transition Module

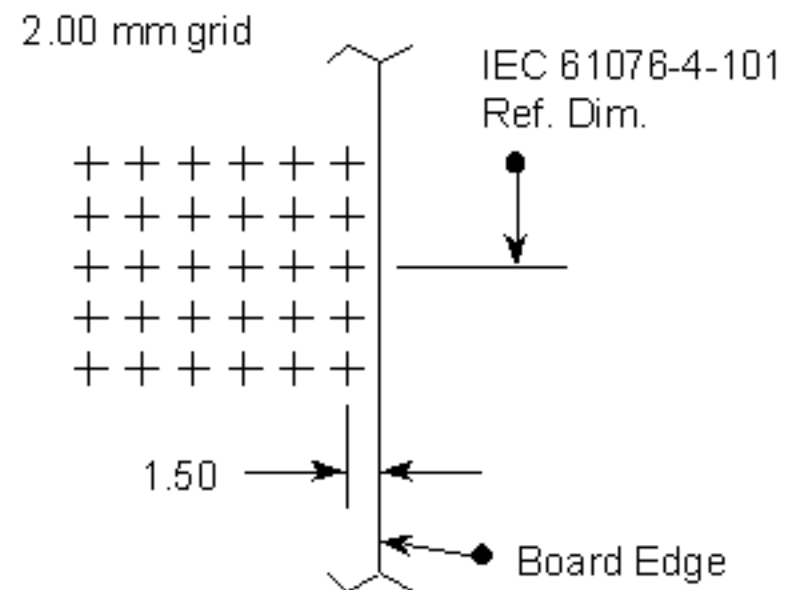
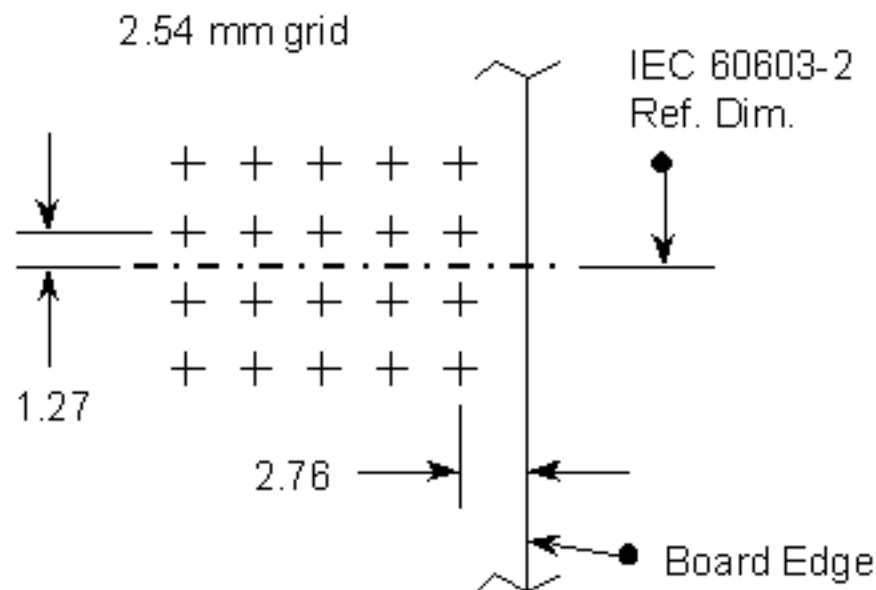


Board Hole Pattern

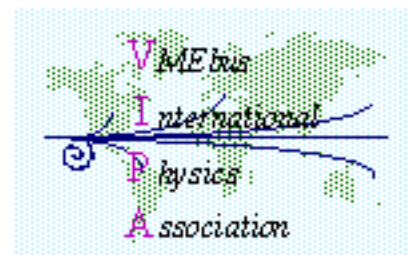


- Dimensions for both front and rear boards

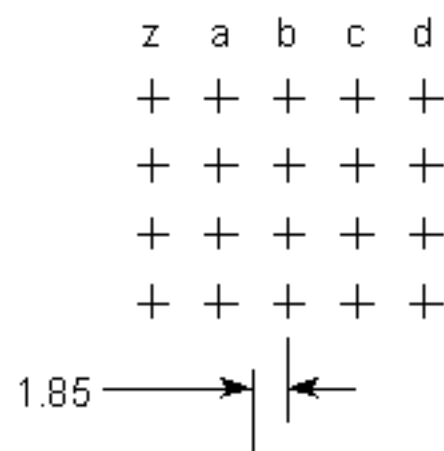
Note: All dimensions in millimeters



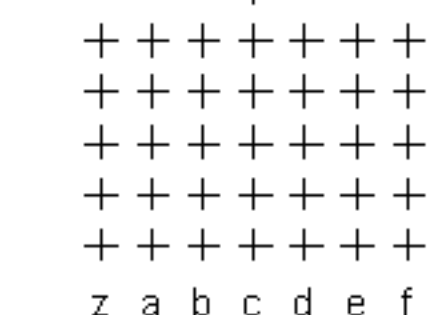
Backplane Hole Pattern



- Horizontal placement of IEC 60603-2 and 61076 connectors



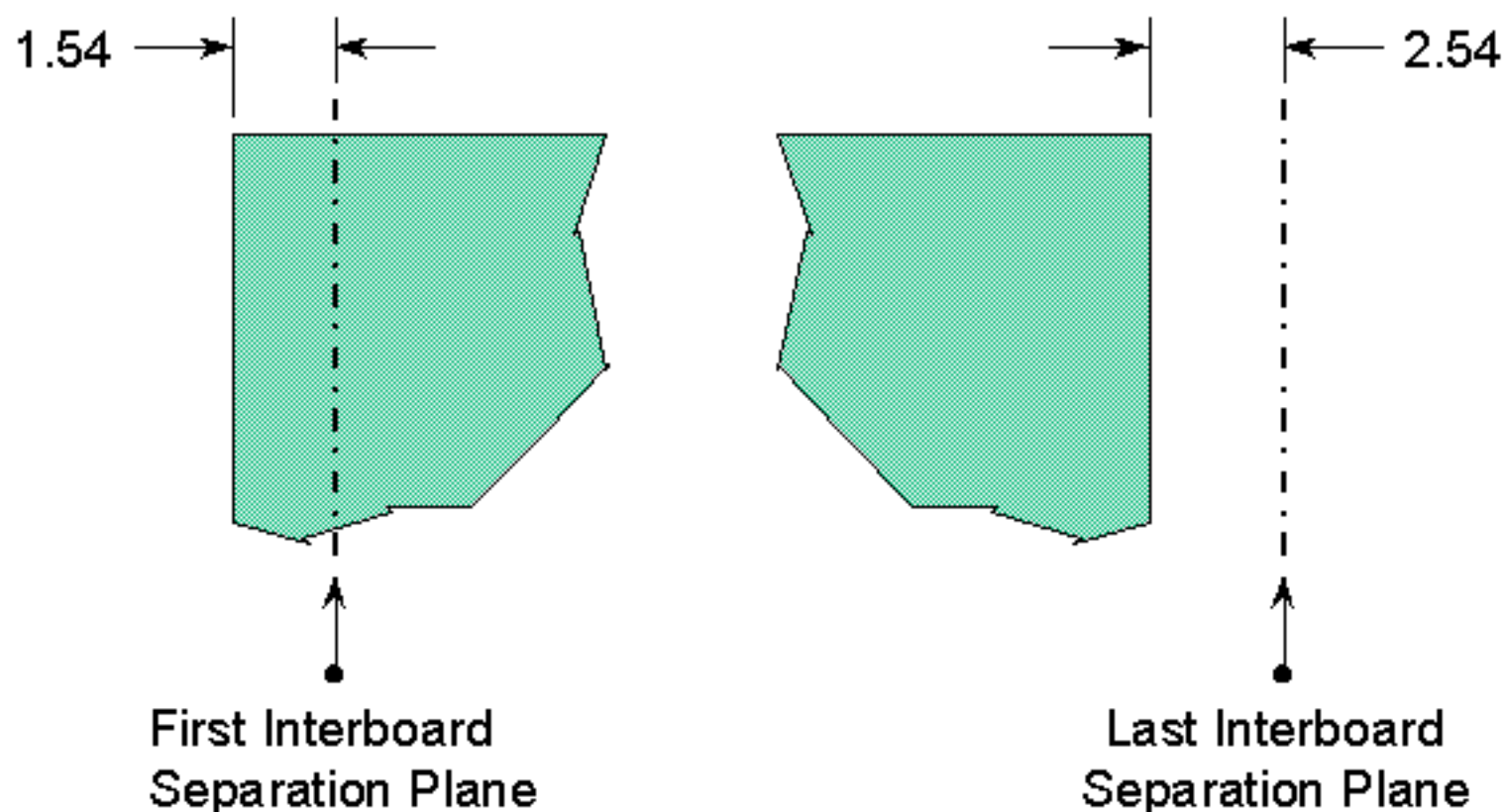
IEC 60603-2 Connector



IEC 61076 Connector

Backplane End Dimensions

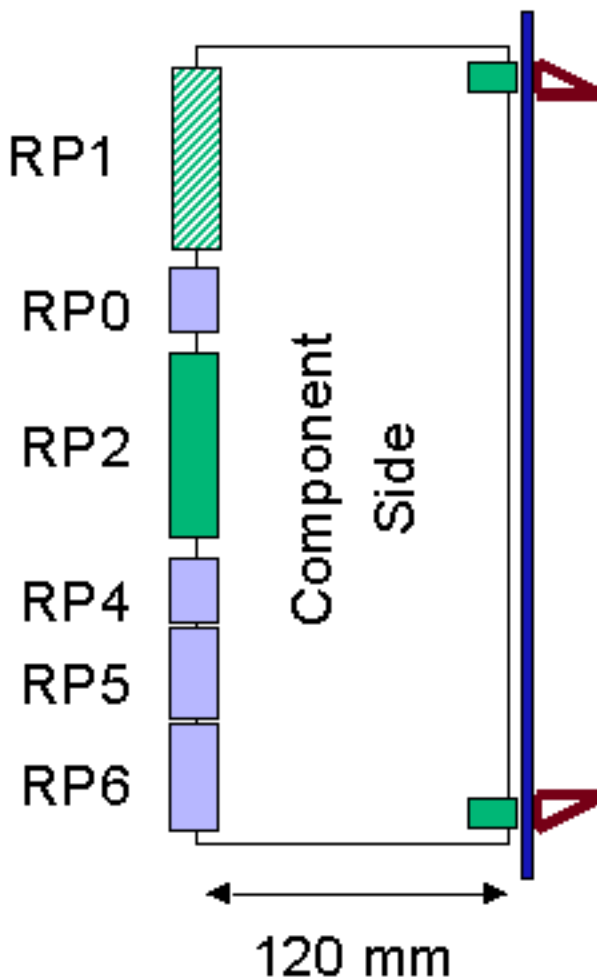
- Dimensions as viewed from front



9U Transition Module Layout

No signal attachment on RP1

Always use RP2 for
alignment, may be
shell only

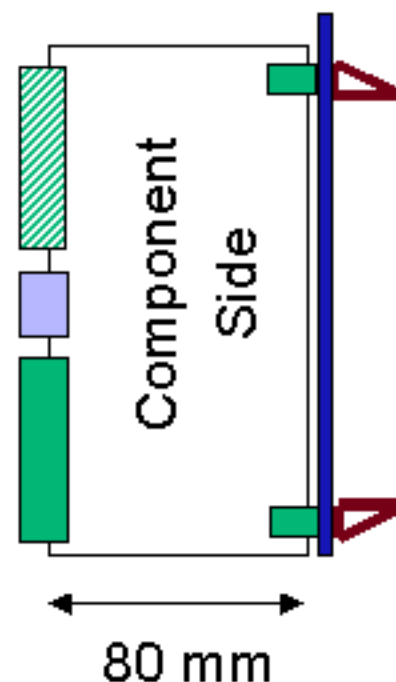


6U Transition Module Layout

No signal attachment on RP1

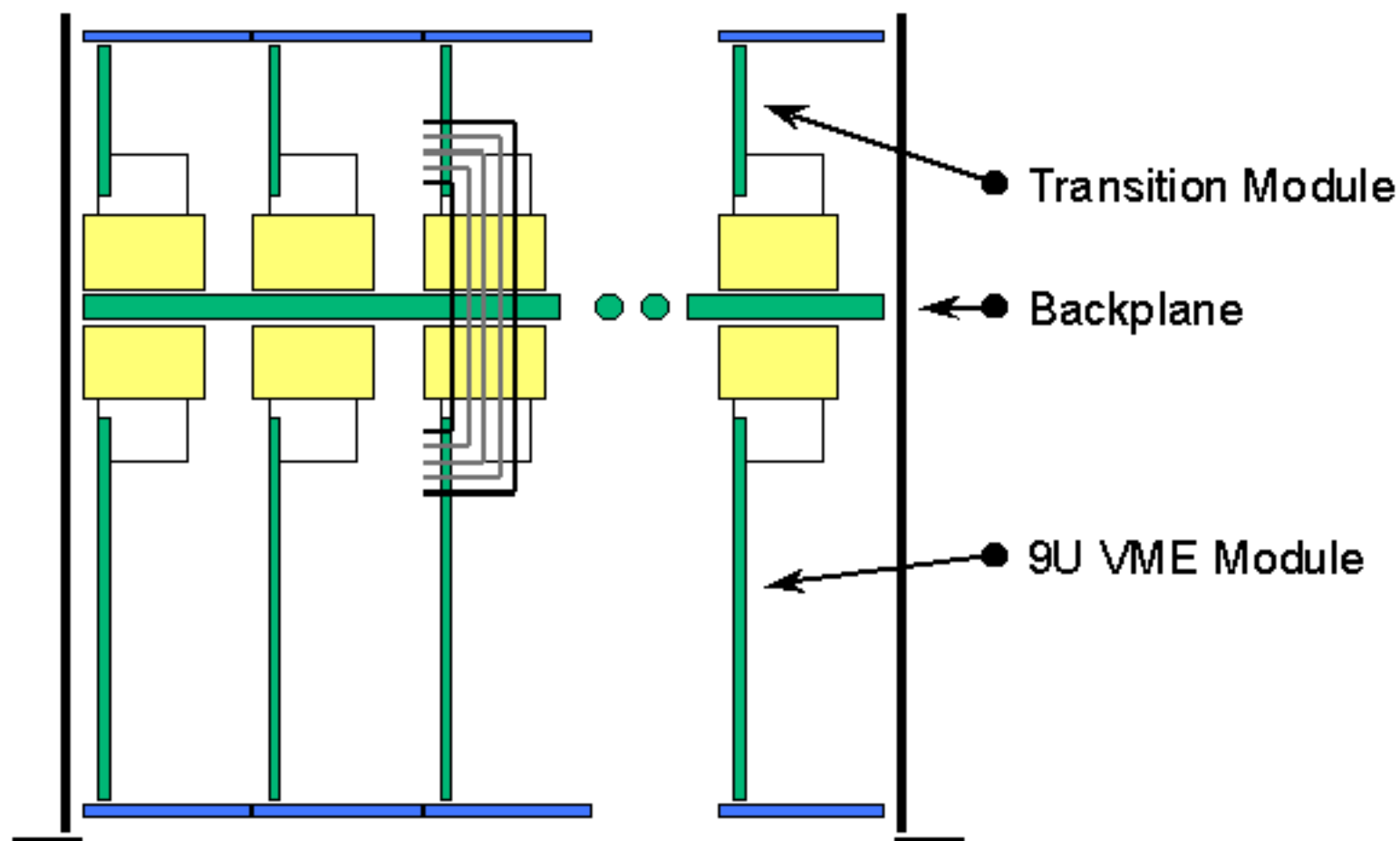
RP0

RP2



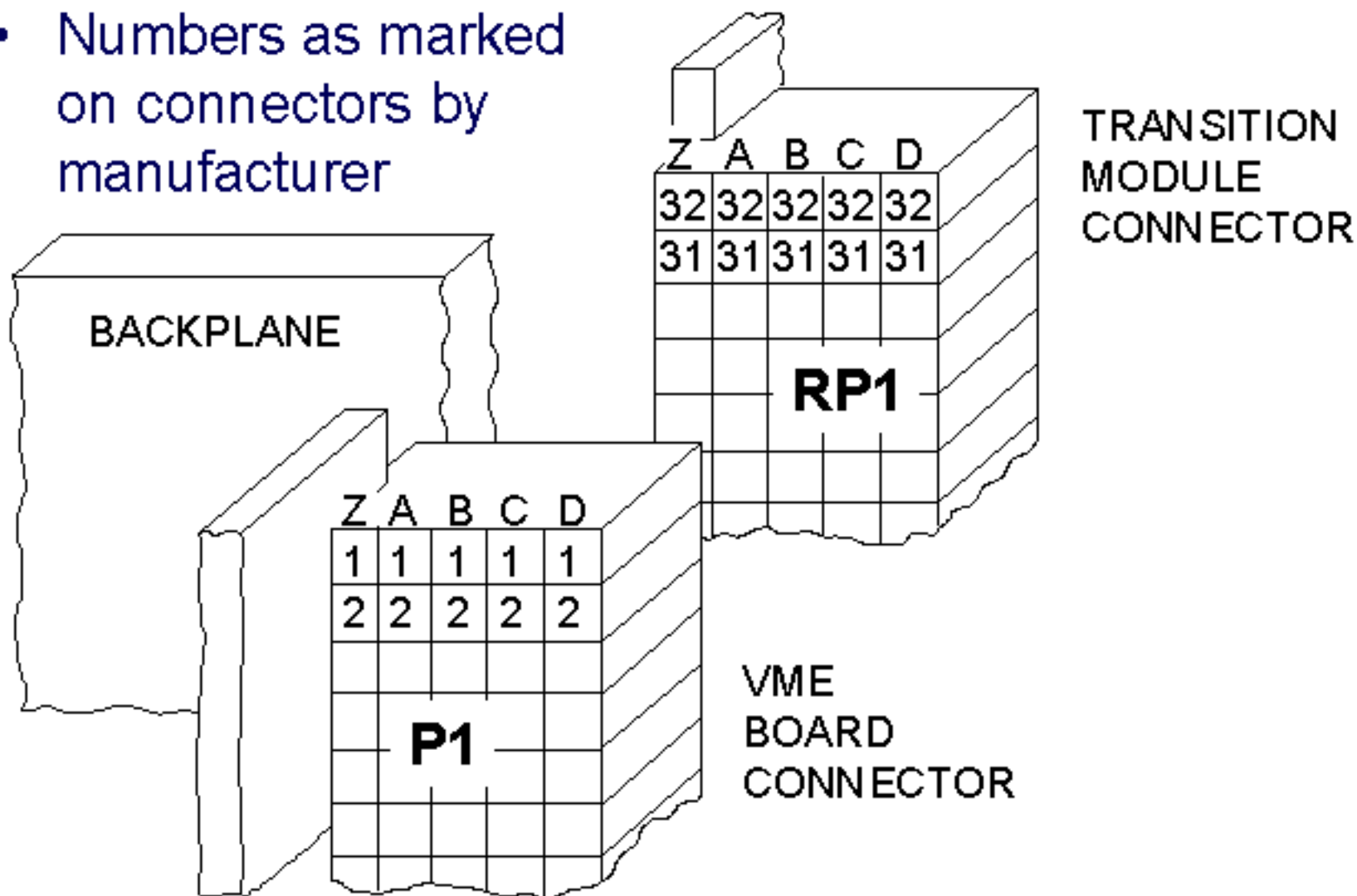
Always use RP2 for alignment, may be shell only

Inline Transition Module

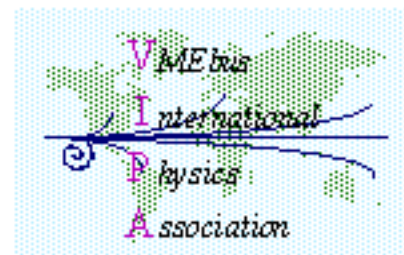


Connector Numbering - P & RP

- Numbers as marked on connectors by manufacturer

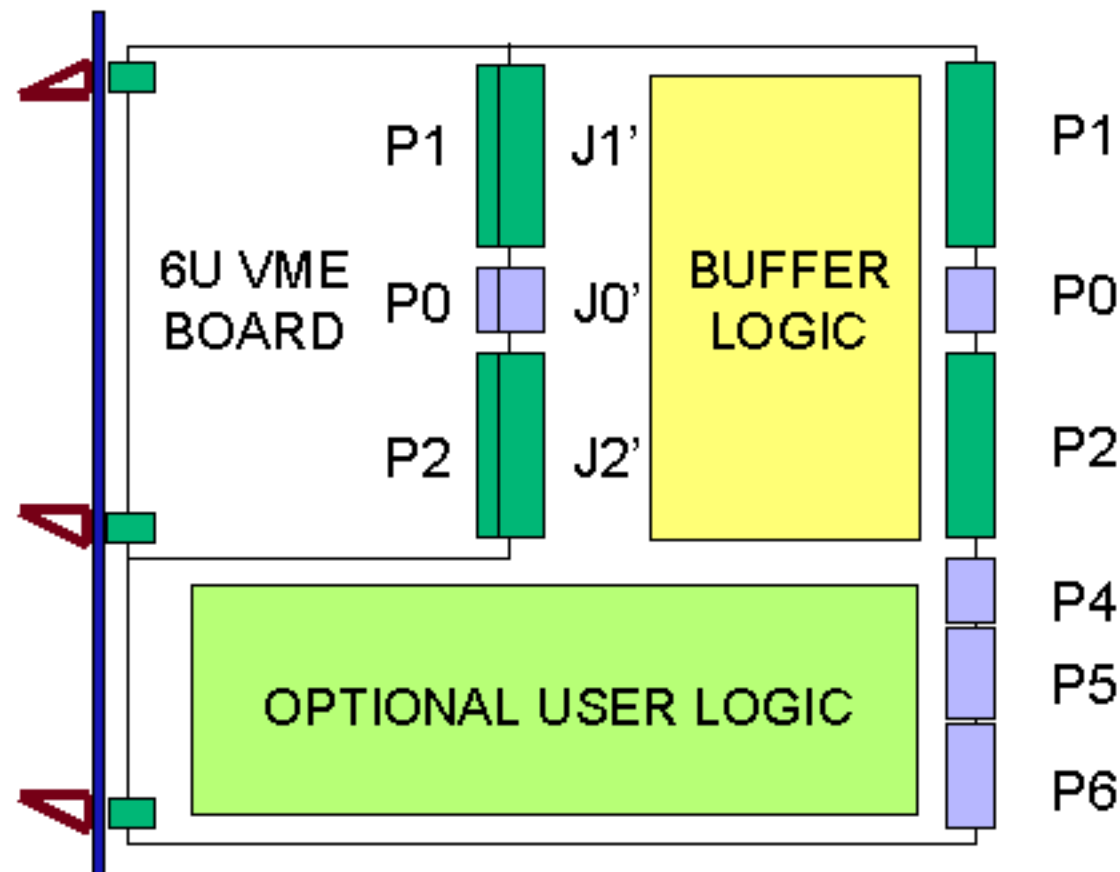
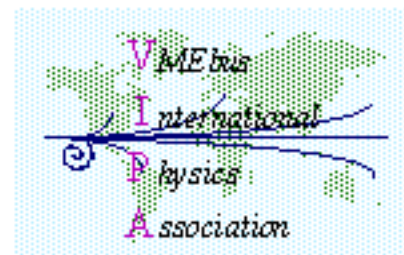


Connector Numbering

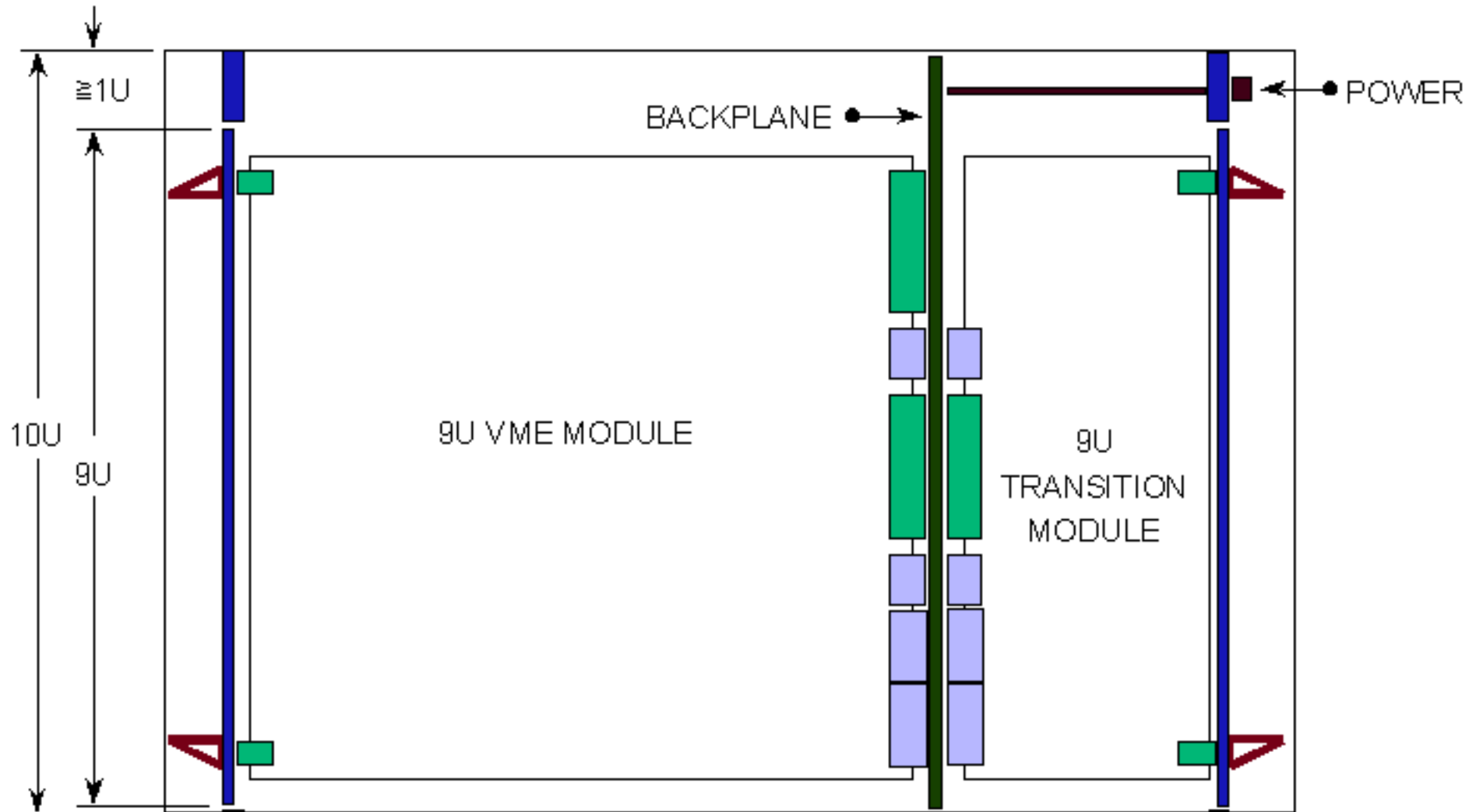
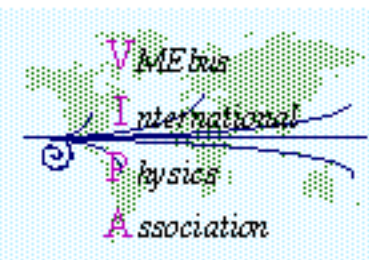


- Signals are labeled in the documents as follows:
 - P1, A1 mates with RP1, A1
 - P2, D17 mates with RP2, D17
 - etc.
- Manufactures numbers are not used when labeling Transition Module signals
- CAE systems should beware of this transposition

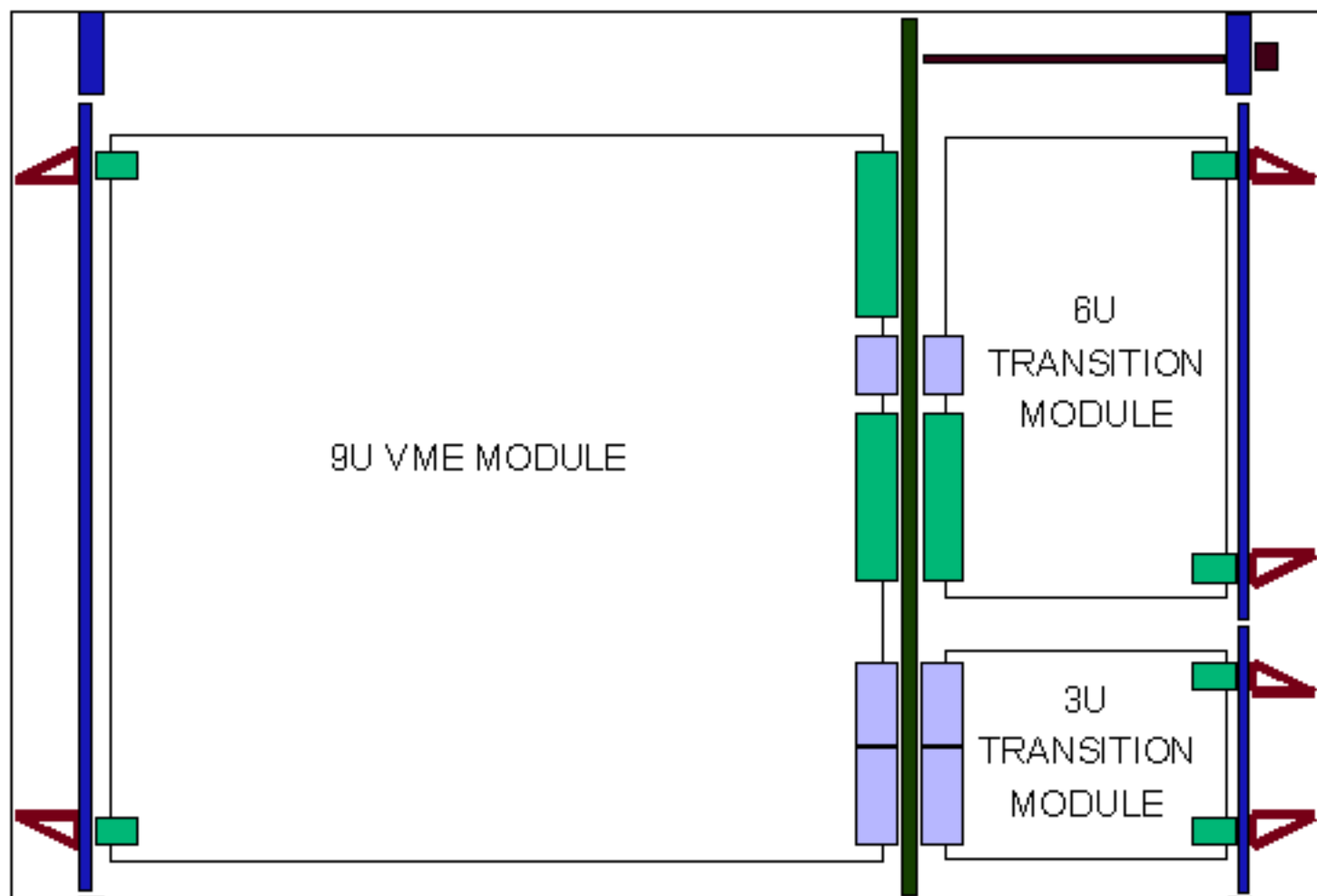
9U to 6U Adapter Module



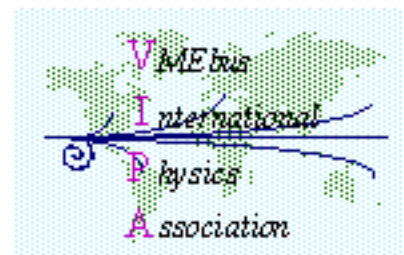
9U Subrack



Other Transition Module Configurations

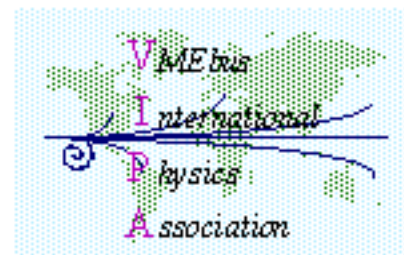


CompactPCI Information



- CompactPCI (cPCI) is a specification of the *PCI Industrial Computer Manufacturers Group - PICMG*
 - CompacPCI Specification, Draft Revision D1.1
- The *VITA Standards Organization* has a proposed mapping of IP I/O to the J0 connector
 - VITA 4.1 - 199x, Draft 0.8a, 17 November 1997
"IP I/O Mapping to VME64x"

Use of cPCI on 9U VME



- cPCI can fit in lower 3U of 9U x 400 VME
- Connector and Row numbers are in reverse order between cPCI and VME

