

# Amphenol-BSI VME Datasheet

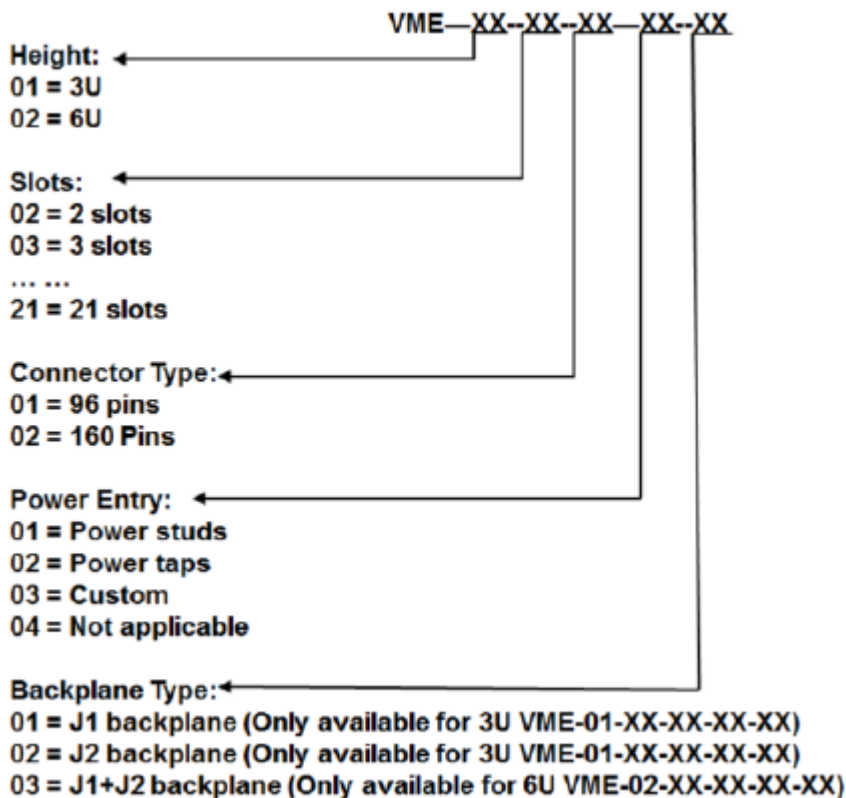


## Amphenol-BSI VME64 Backplanes

Amphenol-BSI's VME64 high performance backplanes are available in both 3U & 6U form factors. All VME backplanes are compliant to VITA VME specifications. ABSI can customize the VME64 backplane against our customer's specific requirements.

### Amphenol-BSI VME64 backplane order configuration part number table.

The following configuration table provides the part numbering structure applicable to the full range of VME64 backplanes on offer from Amphenol-BSI. We can engage with you on any VME backplane requirement that you may have. Please contact us for further details.



### Configuration part number example

VME-01-06-01-03-02 specifies a 3U x 6 slot VME J2 backplane, configured with 96 pin connectors and customer specific custom power entry requirements

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## VME Backplanes

Amphenol-BSI's VME high performance backplanes are available in both 3U & 6U form factors. All VME backplanes are compliant to VITA VME specifications. ABSI have capability to customize VME backplane per customer requirement.

## Description

VME backplane support for 19" rack applications. Maximum is 21 slots backplane. In VME system slot1 is at the left side of chassis, all other buses extend to right slots. Application connect to backplane by pin (optional to use 160 pin) DIN41612 connectors. Amphenol ABSI VME backplane provide 3 different applications.

### J1 backplane:

3U height (Eurocard form factor). The J1 backplane has all the address, data and control bus. It provides all signal paths needed for basic operation. J1 backplane can be used independently in VME applications.

### J2 backplane:

VMEbus systems also have an optional second PCB, called a J2 backplane. It provides additional DIN41612 connectors and signal paths needed for wider data and address. J2 backplane is also 3U height. In the 19" rack system, J2 is installed below the J1 backplane in the lower portion of the sub rack. In addition, it provides 64 user define IOs for customer to create end to end connections. J2 backplane is an extension of J1 backplane, it can be used independently in a system.

### 6U (J1+J2) backplane:

6U backplane is an integrated backplane that include J1 and J2 backplane in one printed circuit board. 6U backplane has continuous plane power plane. The power distribute performance is better than J1 or J2 backplane. For a new system will use J2 backplane. It is strong recommend to use 6U backplane.

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## Amphenol-BSI VME Features:

- Compliant to VITA 1.1-1997 (S2011) Specification
- 2 to 21 slots configuration
- Daisy chain routing
- 4 HP slot pitch
- IEC 61076-4-113 & IEC 603-2 Style C connectors
- Support Rear IOs
- Screws/studs for power entry
- PCB material FR-4, UL recognized 94-VO
- RoHS compliant

## PCB information:

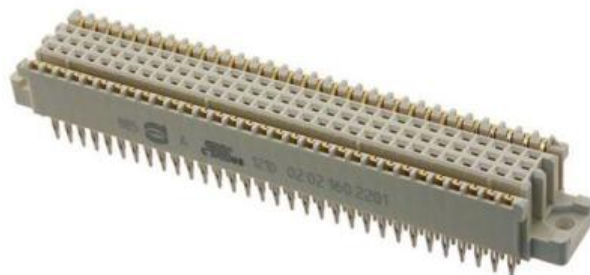
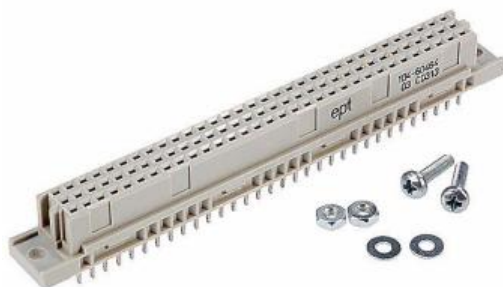
- 8 layers board
- Slot pitch 0.8"
- Independent power and ground layers for power distribution
- Signal impedance Z0 55 Ohms +/-10%
- FR4 material

## Connector Type:

Two connector types are permitted in VME backplane, one for 96 pins configurations and one for 160 pins configurations. The 160 pin connector defined in the IEC 61076-4-113 connector specification is an expanded 96 pin connector that is complementary to the IEC 603-2 Style C connector. 160 pin connectors have 5 rows of contacts. 96 pin connectors have 3 rows of contacts which is the center 3 rows of 160 pin connector. Rows a, b & c are identical in form, fit and function to the 96 pin IEC 603-2 Style C connectors, used in original VME and VME64 applications. Rows z and d adds 64 pins to the outer shell for a total of 160 pins. The 160 pin connectors are forward and backward compatible to the 96 pin connectors.

Boards with 160 pin connectors will plug into backplanes using 96 pin connectors and boards with 96 pin connectors will plug into backplanes using 160 pin connectors.

96 pin connectors are available at a number of suppliers Amphenol AICC, Harting, ept, ENRI, etc, while the 160 pin connector is only available from Harting ( 02021602201)



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## Power entry solution

Amphenol ABSI VME backplanes have a few power entry solutions for customer to configure. Customer can choose power tags, screws or studs as power input. It is also offered to customer that using industry standard power entry connectors on VME backplanes to meet power entry requirement.

### Power tags example ERNI 214787:

Press-fit power tags is an option on VME backplane. Each power tap can carry 40A current.

### Power Studs example PEM KFH-632-8-ET

Press-fit studs is an option on VME backplane. Each power tap can carry 30A current.



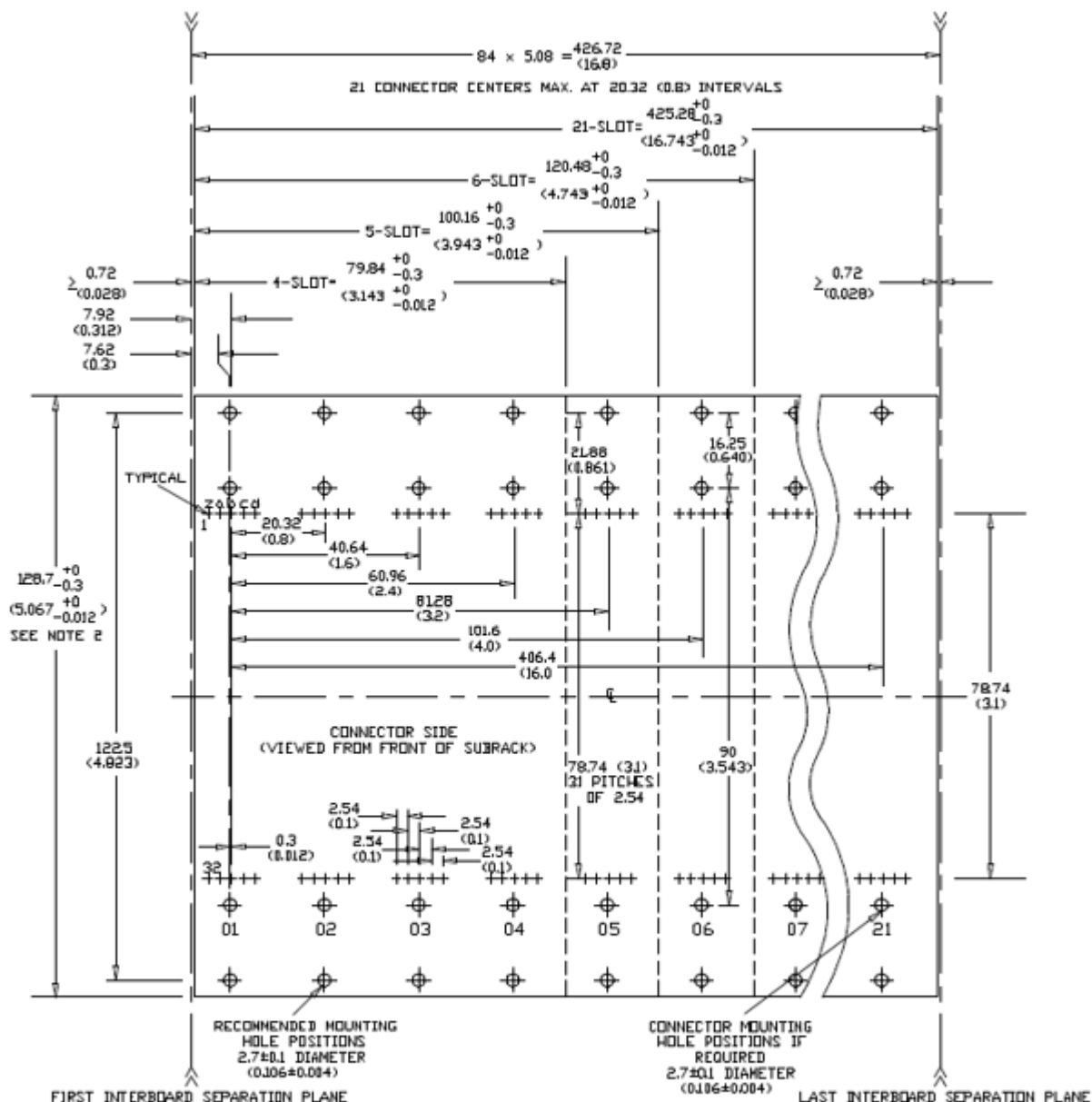
## Custom

Custom can decide the power entry base on the power module they will use in the chassis.



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3U backplane size:



## NOTE:

1. All dimensions are shown in millimeters. Inch dimensions are shown in parentheses.
2. The overall height of a J1 or a J2 backplane may be  $130.0 \pm 0.3$  (5.118  $\pm$  0.012)

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[illegible]

1. All dimensions are shown in millimeters. Inch dimensions are shown in parentheses.
2. The overall height of a J1/J2 backplane may be 260.0 + 0.3 (10.236 + 0.012).



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## Amphenol-BSI

Amphenol-BSI is an industry leader of backplane and system solutions. Amphenol-BSI has been a leading designer and manufacture of backplanes for more than 30 years.

Amphenol-BSI deliver:

- Industry leading interconnect technology
- Advanced printed circuit capabilities and partnerships
- Innovative backplane system design and manufacturing
- Integrated design / applications engineering services
- Flexible, global support and supply chain management
- Most extensively tooled Backplane Supplier in the industry
- Industry leading Mechanical and SI test solutions
- Lowest cost solution on highest performance backplane

