## 12R2 5U, Front Loaded



## FEATURES

- VME, VME64x, VXS, VPX, cPCI or MicroTCA compatible
- 19" rackmount per IEC60297 (slide mounting optional), horizontal
- 5 U H x standard depths: 22 " and 25 "
- 2-8 slots, IEEE 1101.10/.11 compliant card cages
- Option for 80 mm rear I/O breakout cards (Rear Transition Modules)
- Optional shock isolated card cage and device mounting
- Front to rear evacuative cooling (350 LFM @ .1" H20)
- Solid construction using MIL grade components
- Front mounted LEDs for voltage monitoring, fan fail and over temp
- 250 to 500 watt fixed or plug-in power supply options
- Input options: 90-230VAC Fixed PSU, $47-500 \mathrm{~Hz}, 28 / 48 \mathrm{VDC}$


## PRODUCT INFORMATION

The $5 \mathrm{U}, 12 \mathrm{R} 2$ is designed to meet the harsh environments of shipboard, airborne, and ground mobile applications per MIL-STDs. The low profile makes it ideal when space is a premium. Highly configurable, the unit can be ordered with choice of VME, VME64x, VXS, VPX, CPCI or MicroTCA, fixed or shock isolated card cage, device mounting, 250 to 500 watt PSU, AC or DC input and custom I/O patch panel. Available in both $22^{\prime \prime}$ and $25^{\prime \prime}$ depths the unit holds up to 8 , horizontally loaded cards (fixed). Airflow is front to rear utilizing high volume fans. Shock isolated versions are designed to attenuate 25 G shock inputs to the chassis to less than 10 Gs at the card cage. All components, materials and design concepts are chosen to meet the applicable MIL-STD environments. The units come completely assembled and wired.

## ORDERING INFORMATION



| Description | Order Number |
| :---: | :---: |
| - 5 U high $\times 22$ " deep <br> - Holds 6, 6U x 160 mm cards, horizontal, fixed mount <br> - 6 slots rear card cage for $6 \mathrm{U} \times 80 \mathrm{~mm}$ rear I/O transition cards <br> - 6 -slot VME64x backplane w/PO <br> - Provision for two 2.5 " peripheral devices <br> - Dual plug-in 90-230VAC plug-in power supplies, 250W each <br> - $1 \times 235 \mathrm{cfm}, \mathrm{HV}$ fan | 12R206OPBF58HGB4 |


|  | Description | Order Number |
| :---: | :---: | :---: |
|  | - 5 U high x 22 " deep <br> - Holds $8,6 \mathrm{U} \times 160 \mathrm{~mm}$ cards, horizontal, shock isolated <br> - 8 -slot VME64X with P0 backplane <br> - 350 watt, $90-264 \mathrm{VAC}$ fixed rear PSU, $47-500 \mathrm{~Hz}$ <br> - $1 \times 500 \mathrm{cfm}$, HV fan <br> - Shielded to meet MIL-STD 461 | 12R208OPXX5815HCC4 |



Front View
(door closed)

Right Side View (with side plate removed)

Rear View

## CUSTOM CONFIGURATIONS

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- NUMBBER OF SLOTS BP

00-20: Single BP AY-YA: Split
Example: 7 slot $=07$
Example: $12+9=\mathrm{LI}$
-BP BARE BOARD
$\mathrm{A}=\mathrm{CPCl}(\mathrm{RSS}), 6 \mathrm{U}$
K = VITA 31.1
$\mathrm{L}=\mathrm{VXS}$ (DS)
M = V64, J12 mono, 3 row
N = VME64X, 6U
$0=V M E 64 X, 7 U$
P = VPX, 6U (VITA 46)
W = VPX, 3 U (VITA 46)
$\mathrm{S}=\mathrm{VXS}$ (SS)
T = VXS (Mesh)
$\mathrm{U}=\mathrm{CPCI}$ Express, 3 U
$X=$ No BP installed
$Z=$ Custom
BP CONNECTOR CONFIG. J1/J2/P0
L = 5 row, w/o P0, w/ RT-2
M = 3 row, J1 flush, J2 13 mm
$\mathrm{N}=3$ row, J1/J2, 17 mm
$\mathrm{O}=5 \mathrm{row}$, w/o PO
$\mathrm{P}=5 \mathrm{row}, \mathrm{w} / \mathrm{PO}$
$\mathrm{Q}=3$ row, 13 mm
$\mathrm{R}=3$ row, 17 mm
$\mathrm{S}=\mathrm{RT}-2$ (J0-J6) 6 U
$U=R T-2(J 0-J 2) 3 U$
$D=C P C I(P 1 \& P 2 S ; P 3, P 4, P 5 L)$
X = No connectors
Z = Custom
$\square$ DRIVES
$1=1 \times 3.5^{\prime \prime}$
$2=2 \times 3.5 "$
$3=1 \times 5.25^{\prime \prime} \mathrm{HH}$
$4=2 \times 5.25^{\prime \prime} \mathrm{HH}$
$6=2 \times 3.5 ", 1 \times 5.25 " \mathrm{HH}$
$7=1 \times 3.5^{\prime \prime}, 2 \times 5.25^{\prime \prime} \mathrm{HH}$
$9=1 \times 3.5^{\prime \prime}, 1 \times 5.25 \mathrm{HH}$
$\mathrm{A}=1 \times 2.5^{\prime \prime}, 1 \times \mathrm{DVD} / C D(\mathrm{SL})$
$B=2 \times 2.5^{\prime \prime}$
D $=1 \times$ slim line DVD/CD
X $=$ Not installed
-DEVICE MOUNTING
$\mathrm{F}=$ Fixed mount devices
I = Shock isolated devices
$\mathrm{X}=\mathrm{N} / \mathrm{A}$

- HEIGHT
$5=5 \mathrm{U}$
WIDTH
$8=84 T$
$\square$ CARD CAGE
$Y=$ Fixed w/ Rear I/O
$\mathrm{N}=$ Fixed no Rear I/O
$\mathrm{F}=$ Isolated $\mathrm{w} /$ Rear I/O
I = Isolated no Rear I/O
-DEPTH
$4=400 \mathrm{~mm}-499 \mathrm{~mm}$
$5=500 \mathrm{~mm}-599 \mathrm{~mm}\left(22^{\prime \prime}\right)$
$6=600 \mathrm{~mm}-699 \mathrm{~mm}\left(255^{\prime \prime}\right)$
$7=700 \mathrm{~mm}-799 \mathrm{~mm}$
-CARD ORIENTATION
H = Horizontal
$\square$ PSU INPUT
C = 90-230VAC (Fixed)
G $=90-230$ VAC (Plug In)
$\mathrm{H}=48 \mathrm{VDC}$ (Plug In)
$\mathrm{K}=48 \mathrm{VDC}$ (Fixed)
$\mathrm{M}=48 \mathrm{VDC}(2 \times \mathrm{HS}, \mathrm{N}+1)$
$\mathrm{N}=28 \mathrm{VDC}$ (Fixed)
$\mathrm{O}=28 \mathrm{VDC}(2 \times \mathrm{HS}, \mathrm{N}+1)$
P = 90-230VAC ( $2 \times \mathrm{HS}, \mathrm{N}+1$ )
$\mathrm{Q}=$ MIL-STD-704A, 28VDC
R = MIL-STD-704A, 90-230VAC
S = Custom
X = No PSU


## -PSU OUTPUT

(Note: Not all PSU combinations available)
$1=100-199$ watts (w/o 3.3V)
$2=$ 200-299 watts (w/o 3.3V)
$3=300-399$ watts (w/o 3.3 V )
$4=400-499$ watts (w/o 3.3 V )
$5=500-599$ watt (w/o 3.3V)
$6=600-699$ watt (w/o 3.3V)
$7=700-799$ watt (w/o 3.3V)
$8=800-899$ watt (w/o 3.3V)
A $=100-199$ watt ( $w / 3.3 \mathrm{~V}$ )
$B=200-299$ watt (w/3.3V)
C $=300-399$ watt ( $\mathrm{w} / 3.3 \mathrm{~V}$ )
$\mathrm{I}=900-999$ watt $(\mathrm{w} / 3.3 \mathrm{~V})$
$\mathrm{J}=1000-1099$ watt (w/3.3V)
$\mathrm{K}=1100-1199$ watt $(\mathrm{w} / 3.3 \mathrm{~V})$
$\mathrm{L}=1200-1299$ watt ( $\mathrm{w} / 3.3 \mathrm{~V}$ )
M = 1300-1399 watt ( $\mathrm{w} / 3.3 \mathrm{~V}$ )
$\mathrm{N}=1400-1499$ watt ( $\mathrm{w} / 3.3 \mathrm{~V}$ )
$\mathrm{X}=$ Not installed

- SHIELDING LEVEL

2 = Level 2
4 = MIL-STD-461
$\mathrm{T}=$ Tempest
X $=$ Not installed


