19” Rackmount Rugged Chassis Platforms—Air Cooled

RR19XUFAC3—3U Boards

KEY FEATURES

- 2U-6U height rugged chassis platforms for 3U OpenVPX boards
- Designed for use in MIL-810 and MIL-901D systems for shock/vibration
- Designed to meet MIL-461 for EMI
- Humidity levels of 0% and 95% non-condensing, conformal coating options
- Ruggedized PSUs to MIL specs with VITA 62 options
- Versions with RTM access are optional
- Options with up to 50 ms hold-up time
- 3U OpenVPX or other/custom backplanes
- MIL-grade fans and cabling
- Front-to-rear cooling standard with other cooling options available
- Temperature ranges of −20°C to +70°C (industrial rugged) up to −40°C to +85°C (MIL rugged)

The RR19XUFAC3 is a rugged rackmount chassis platform for use in Mil/Aero or other harsh environments. It is designed to meet shock/vibration to MIL-810 and 901D and MIL-461 for EMI. The chassis features air and power filtering with optional power redundancy and hold-up time. 3U OpenVPX backplanes are typical, but other options are available.

Various PSU input and output options are available. For rugged designs typically VITA 62 or comparable PSUs are used.

Pixus specializes is customized configurations, contact us to discuss your specific requirements.
POWER

The RR19XUFAC can employ various grades of PSUs. Typically VITA 62 PSUs are utilized, up to 600W each. However, other PSU options are available. VITA 62 power supplies are designed for avionics and other MIL rugged applications and conform to MIL-STD-704, 461, and 810. There are also various options for AC or DC power feeds (typically 24-48VDC, or 90-264 VAC). Consult Pixus to discuss your application’s power requirements.

INTERNAL EXAMPLE—Horizontal Mount Version
INTERNAL EXAMPLE—Vertical Mount Version

This example is a 4U OpenVPX 18-slot without RTMs. Versions with RTMs are available in other configurations.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Physical Dimensions</th>
<th>Height: 2U-6U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch</td>
<td>1.0” slot pitch standard, 0.80” optional</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>19”</td>
<td></td>
</tr>
<tr>
<td>Depth</td>
<td>12.5” - 23”*</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>*consult Pixus for other size options</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards</th>
<th>DO-168 Type</th>
<th>DO-168 options</th>
</tr>
</thead>
<tbody>
<tr>
<td>VITA/ANSI</td>
<td>Backplane, Chassis</td>
<td>VITA 65 for OpenVPX (optional), IEEE 1101.10/.11</td>
</tr>
<tr>
<td>MIL-STD</td>
<td>Type</td>
<td>810F (shock, vibration to 20G, environmental), 461F (EMI)</td>
</tr>
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<table>
<thead>
<tr>
<th>Configuration</th>
<th>Power Type</th>
<th>24-28VDC, 48VDC, 90-264VAC input @ 47-880Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Various output options (3.3V, 5.5V, +/- 12V)</td>
</tr>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>Operating temperature: -40° to +85°C</td>
</tr>
<tr>
<td></td>
<td>Storage temperature: -55° to +90°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altitude</td>
<td>Up to 30,000ft operating, other options available</td>
</tr>
</tbody>
</table>

| Conformal Coating | Upon request (See page 4 selection “J” for available options) |
|                  | 0 and 95% humidity, non condensing |

<table>
<thead>
<tr>
<th>Other</th>
<th>MTBF</th>
<th>Varies, consult factory for specifics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
</tr>
<tr>
<td></td>
<td>Standards</td>
<td>ISO9001:2010</td>
</tr>
<tr>
<td></td>
<td>Compliance</td>
<td>MIL-STD-810, MIL-STD-461</td>
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<tr>
<td></td>
<td>Warranty</td>
<td>Two years</td>
</tr>
<tr>
<td></td>
<td>Trademarks and logos</td>
<td>The Pixus Logo is a registered trademark of Pixus Technologies Inc. other registered trademarks are the property of their respective owners. Specs. subject to change without notice.</td>
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</tbody>
</table>
ORDERING OPTIONS

RR19XUFAC3-HABCCD-EFGI-J

H = Height
1 = 2U
2 = 3U
3 = 5U
4 = Other

A = Backplane
1 = 3U OpenVPX (standard)
2 = Other

B = Backplane Speed
1 = 6.25 GB/s
2 = 8 GB/s (for PCIe Gen3)
3 = 10 GB/s (for 40GbE)
4 = Other

CC = Payload Slots
Example 0n = n slots
01 = 1 slot
02 = 2 slots
03 = 3 slots

D = PSU Slots
1 = 1 VITA 62 slot (standard)
2 = 2 VITA 62 slots
3 = Other

E = PSU Input
1 = 12-36V DC
2 = 90-230V AC
3 = 48V DC
4 = Other

F = PSU Output
1 = Up to 600W
2 = Reserved
3 = Up to 1200W
4 = Reserved
5 = Other

G = Hold-up Time
0 = n/a
1 = 50 ms
2 = Other

I = Cooling
1 = Front-to-rear
2 = Other

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic