## Environmental Specifications

### Air Cooled

<table>
<thead>
<tr>
<th>Part number suffix</th>
<th>AC0 (or blank)</th>
<th>AC1</th>
<th>AC1A</th>
<th>AC1P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSI/VITA 47 Class</td>
<td>EAC4</td>
<td>EFC3</td>
<td>EFC3</td>
<td>EFC3</td>
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<tr>
<td>Operating Temperature (degC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial:</td>
<td>0 to 55</td>
<td>Industrial:</td>
<td>-40 to 70</td>
<td>Industrial:</td>
</tr>
<tr>
<td>Storage Temperature (degC)</td>
<td>-40 to 85</td>
<td>-55 to 125</td>
<td>-55 to 125</td>
<td>-55 to 125</td>
</tr>
<tr>
<td>Conformal Coating</td>
<td>No</td>
<td>No</td>
<td>Acrylic (Humiseal 1B31)</td>
<td>Polyurethane (Arathane 5750)</td>
</tr>
</tbody>
</table>

- **Heatsink**: None
- **Size**: 74mm x 149mm
- **Vibration (1 hour per axis)**: 0.04 g²/Hz
  - 5 Hz to 100 Hz: PSD increasing at 3 dB/octave
  - 100 Hz to 1000 Hz: PSD = 0.1 g²/Hz
  - 1000 Hz to 2000 Hz: PSD decreasing at 6 dB/octave
- **Shock (pulses in all three axes)**: 20g
  - 40g, 11 millisecond, shock half-sine or 40g, 11 millisecond, terminal sawtooth shock
- **Humidity**: Upto 95% (non-condensing)
- **Altitude**: 1,500 feet (460 meters) below sea level to 60,000 feet (18,300 meters)

*AC0 is default configuration if no suffix is selected.

Note - not all FPGA devices and speed grades are available for each level - contact sales for details.

### Conduction Cooled

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<th>CC1A</th>
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<tr>
<td>ANSI/VITA 47 Class</td>
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<td>EFC3</td>
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- **Heatsink**: Finned low profile Black anodized aluminum
- **Size**: 74mm x 143.75mm
- **Vibration (1 hour per axis)**: 5 Hz to 100 Hz
  - 5 Hz to 100 Hz: PSD increasing at 3 dB/octave
  - 100 Hz to 1000 Hz: PSD = 0.1 g²/Hz
  - 1000 Hz to 2000 Hz: PSD decreasing at 6 dB/octave
- **Shock (pulses in all three axes)**: 40g, 11 millisecond, shock half-sine or 40g, 11 millisecond, terminal sawtooth shock
- **Humidity**: Upto 95% (non-condensing)
- **Altitude**: 1,500 feet (460 meters) below sea level to 60,000 feet (18,300 meters)

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- **Conformal Coating**: No
- **Heatsink**: Finned low profile Black anodized aluminum
  - **Size**: 74mm x 149mm
- **Vibration (1 hour per axis)**
  - 5 Hz to 100 Hz: PSD increasing at 3 dB/octave
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  - 1000 Hz to 2000 Hz: PSD decreasing at 6 dB/octave
- **Shock (pulses in all three axes)**
  - 40g, 11 millisecond, shock half-sine or
  - 40g, 11 millisecond, terminal sawtooth shock
- **Humidity**: up to 95% (non-condensing)
- **Altitude**: 1,500 feet (460 meters) below sea level to 60,000 feet (18,300 meters) above sea level

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**Note** - not all FPGA devices and speed grades are available for each level - contact sales for details

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<th>CCE</th>
<th>CC1A</th>
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- **Conformal Coating**: No
- **Heatsink**: Flat face - 4 piece kit w/ Thermal pads to mate with most configurations of host metal work - (with or without: secondary ribs, standoff mountings)
  - Black anodized aluminum
  - **Size**: 74mm x 143.75mm
- **Vibration (1 hour per axis)**
  - 5 Hz to 100 Hz: PSD increasing at 3 dB/octave
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**Note** - not all FPGA devices and speed grades are available for each level - contact sales for details

1. With high efficiency system cooling - contact Alpha Data for more details

### Contact Information

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