






| Air Cooled                          |   |   |  |                                 |
|-------------------------------------|---|---|--|---------------------------------|
| Part number suffix                  | AC0<br>(or blank)   | AC1   | AC1A   | AC1P                            |
| ANSI/VITA 47 Class                  | EAC4  | EFC3  | EFC3   | EFC3                            |
| Operating Temperature (degC)        | Commercial:<br>0 to 55  | Industrial:<br>-40 to 70  | Industrial:<br>-40 to 70   | Industrial:<br>-40 to 70        |
| Storage Temperature (degC)          | -40 to 85   | -55 to 125  | -55 to 125   | -55 to 125                      |
| Conformal Coating                   | No  | No  | Acrylic<br>(Humiseal 1B31)   | Polyurethane<br>(Arathane 5750) |
| Heatsink                            | <br>None | <br>None | <br><i>(Optional)</i><br>Finned low profile<br>Black anodized aluminum |                                 |
| Size                                | 74mm x 149mm  |   |  |                                 |
| Vibration<br>(1 hour per axis)      | 0.04 g <sup>2</sup> /Hz   | 5 Hz to 100 Hz<br>100 Hz to 1000 Hz<br>1000 Hz to 2000 Hz                                 | PSD increasing at 3 dB/octave<br>PSD = 0.1 g <sup>2</sup> /Hz<br>PSD decreasing at 6 dB/octave   |                                 |
| Shock<br>(pulses in all three axes) | 20g   | 40g, 11 millisecond, shock half-sine or<br>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                   |  |   |  |                                 |
|-------------------------------------|--|---|--|---------------------------------|
| Part number suffix                  | CC0  | CC1   | CC1A   | CC1P                            |
| ANSI/VITA 47 Class                  | ECC1   | EFC3  | EFC3   | EFC3                            |
| Operating Temperature (degC)        | Commercial:<br>0 to 55   | Industrial:<br>-40 to 70  | Industrial:<br>-40 to 70   | Industrial:<br>-40 to 70        |
| Storage Temperature (degC)          | -40 to 85  | -55 to 125  | -55 to 125   | -55 to 125                      |
| Conformal Coating                   | No   | No  | Acrylic<br>(Humiseal 1B31)   | Polyurethane<br>(Arathane 5750) |
| Heatsink                            | <br>Finned low profile Black anodized aluminum |   |  |                                 |
| Size                                | 74mm x 143.75mm  |   |  |                                 |
| Vibration<br>(1 hour per axis)      |  | 5 Hz to 100 Hz<br>100 Hz to 1000 Hz<br>1000 Hz to 2000 Hz                               | PSD increasing at 3 dB/octave<br>PSD = 0.1 g <sup>2</sup> /Hz<br>PSD decreasing at 6 dB/octave |                                 |
| Shock<br>(pulses in all three axes) |  | 40g, 11 millisecond, shock half-sine or<br>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)   |   |  |                                 |

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

| Air Cooled                       |   |                       |                   |                               |                   |                                 |                   |
|----------------------------------|---|-----------------------|-------------------|-------------------------------|-------------------|---------------------------------|-------------------|
| Part number suffix               | ACO<br>(or blank)   | AC1                   | ACE               | AC1A                          | ACEA              | AC1P                            | ACEP              |
| ANSI/VITA 47 Class               | EFC1  | EFC3                  |                   | EFC3                          |                   | EFC3                            |                   |
| Operating Temperature (degC)     | Commercial: 0 to 55   | Industrial: -40 to 70 | Extended: 0 to 70 | Industrial: -40 to 70         | Extended: 0 to 70 | Industrial: -40 to 70           | Extended: 0 to 70 |
| Storage Temperature (degC)       | -40 to 85   | -55 to 125            | -55 to 125        | -55 to 125                    | -55 to 125        | -55 to 125                      | -55 to 125        |
| Conformal Coating                | No  | No                    |                   | Acrylic<br>(Humiseal 1B31)    |                   | Polyurethane<br>(Arathane 5750) |                   |
| Heatsink                         |  <p>Finned low profile Black anodized aluminum</p> |                       |                   |                               |                   |                                 |                   |
| Size                             | 74mm x 149mm  |                       |                   |                               |                   |                                 |                   |
| Vibration (1 hour per axis)      | 5 Hz to 100 Hz  |                       |                   | PSD increasing at 3 dB/octave |                   |                                 |                   |
|                                  | 100 Hz to 1000 Hz   |                       |                   | PSD = 0.1 g <sup>2</sup> /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<br>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  |                       |                   |                               |                   |                                 |                   |

\* ACO 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                |  |   |                                     |   |                                     |   |                                     |
|----------------------------------|--|---|-------------------------------------|---|-------------------------------------|---|-------------------------------------|
| Part number suffix               | CC0  | CC1                                     | CCE                                 | CC1A                                    | CCEA                                | CC1P                                    | CCEP                                |
| ANSI/VITA 47 Class               | ECC1   | ECC3 (ECC4 <sup>1</sup> )               |                                     | ECC3 (ECC4 <sup>1</sup> )               |                                     | ECC3 (ECC4 <sup>1</sup> )               |                                     |
| Operating Temperature (degC)     | Commercial: 0 to 55  | Industrial: -40 to 70 (85) <sup>1</sup> | Extended: 0 to 70 (85) <sup>1</sup> | Industrial: -40 to 70 (85) <sup>1</sup> | Extended: 0 to 70 (85) <sup>1</sup> | Industrial: -40 to 70 (85) <sup>1</sup> | Extended: 0 to 70 (85) <sup>1</sup> |
| Storage Temperature (degC)       | -40 to 85  | -55 to 125                              | -55 to 125                          | -55 to 125                              | -55 to 125                          | -55 to 125                              | -55 to 125                          |
| Conformal Coating                | No   | No                                      |                                     | Acrylic<br>(Humiseal 1B31)              |                                     | Polyurethane<br>(Arathane 5750)         |                                     |
| Heatsink                         |  <p>Flat face - 4 piece kit w/ Thermal pads to mate with most configurations of host metal work -<br/>(with or without: secondary ribs, standoff mountings)<br/>Black anodized aluminum</p> |   |                                     |   |                                     |   |                                     |
| Size                             | 74mm x 143.75mm  |   |                                     |   |                                     |   |                                     |
| Vibration (1 hour per axis)      | 5 Hz to 100 Hz   |   |                                     | PSD increasing at 3 dB/octave           |                                     |   |                                     |
|                                  | 100 Hz to 1000 Hz  |   |                                     | PSD = 0.1 g <sup>2</sup> /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<br>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   |   |                                     |   |                                     |   |                                     |

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

<sup>1</sup> With high efficiency system cooling - contact Alpha Data for more details