



# Specifications

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## Environmental Specifications

*Table 1: Environmental Specifications*

Specification	Value
Operating Temperature	-40° C to 65° C  <b>Note</b> The temperature range will vary for supported SFP/SFP+ installed on the router. See the corresponding SFP/SFP+ documentation for more details.
Nonoperational temperature	40 to 158°F (-40 to 70°C)
Non-operational temperature (Transportation or Storage, or both)	-40°F (-40°C) for 72 hrs 158°F (70°C) for 72 hrs Section 4.1.1.1 of GR-63 or Section 9.1 of ATIS-0600010.2007 104°F (40°C) and 95% RH for 96 hrs Section 4.1.1.3 of GR-63 or Section 9.3 of ATIS-0600010.2007
Operational humidity	5% to 95%, RH condensing (GR-3108, Class 3)
Non-operational humidity	5% to 95% RH
Non-operational altitude	15000 ft
Operational mechanical shock	Acceleration half sine 50 m/s <sup>2</sup> , for 11msec. 100 shocks/surface (EN 300 019-2-4 V2.3.1)
Non-operational mechanical shock	Acceleration half sine 180 m/s <sup>2</sup> , for 6msec. 100 shocks/surface. (EN 300 019-2-2 V2.3.1)

Specification	Value
Operational vibration	2.5-200 Hz with spectral break point of 0.1 [(m/s <sup>2</sup> ) <sup>2</sup> ]/Hz (0.001 g <sup>2</sup> /Hz) at 2.5 - 5 Hz 6 db/octave and 100-200 Hz at -24 db/octave. (EN 300 019-2-4 V2.3.1)
Non-operational vibration	5-200 Hz with spectral break point of 1.0 [(m/s <sup>2</sup> ) <sup>2</sup> ]/Hz (0.01 g <sup>2</sup> /Hz) at 5 - 100 Hz -6 db/octave and 20-200 Hz at -24 db/octave. (EN 300 019-2-2 V2.3.1)
Cold start	-40°F (-40°C)
Hot start	149°F (65° C)
Non-operational Free-Fall Drop	Drop the unpackaged sample 3.9" onto a rigid surface. Drop 1 face, 2 edges, and 2 corners. (ENG-339611.Rev2 [Test Method: IEC-68-2-32])
Earthquake, Zone 4	Equipment complies with earthquake tests per sections 4.4.1 and 5.4.1 of GR-63 or ANSI TI-329 (GR-3108 Class 3)