

Require for Automotive Optical Components

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1.3.4 Definition of Part Operating Temperature Grade

The part operating temperature grades are defined in Table 1 below:

Table 1: Part Operating Temperature Grades

<u>Grade</u>	<u>Ambient Operating Temperature Range</u>
<u>0</u>	<u>-40°C to +150°C</u>
<u>1</u>	<u>-40°C to +125°C</u>
<u>2</u>	<u>-40°C to +105°C</u>
<u>3</u>	<u>-40°C to +85°C</u>

REFERENCES: “AEC - Q100 Rev – H”: Failure Mechanism Based Stress Test Qualification For Integrated Circuits (base document)”

http://www.aecouncil.com/Documents/AEC_Q100_Rev_H_Base_Document.pdf

- Typically...
 - So far, the currently for Telecom and Datacenter optical components operating temperature is -40 to +85degC. (e.g. 10GBASE-SR)
- Especially...
 - The dominant element is optical semiconductor.
 - Also, optical fiber, optical connecter, so on.
- Already...
 - 1000BASE-RH (IEEE802.3bv / GEPOF) is standardized and achieved the Grade 2 Ambient Operating Temperature Range -40 to +105degC.
- I hope contribute and discuss evaluated data with automotive operating temperature range and condition at next meeting.

Thank you!