ECR #: 37
Title: A.G.P.-Enabled Add-In Card Thermal Specification
Release Date: Jun. 20, 1997
Impact: Addition
Spec Version: A.G.P. 1.0
Status: Change

Summary: This addition defines a thermal specification for A.G.P.-enabled add-in cards used in uncontrolled thermal environments or environments where thermal conditions are undefined.

Background: The thermal environment for the A.G.P.-enabled add-in card is not controlled for certain market segments, for example the retail market segment. A specification is needed to define the thermal environment for A.G.P.-enabled add-in cards and set design parameters for add-in card thermal management. The specifications defined in this ECR are based upon measurements taken on representative ATX and NLX systems.

The specification will not apply to add-in cards used in controlled thermal environments, for example OEM systems. For this case, the thermal management of add-in cards and thermal conditions will be defined by alternate specifications between the OEM and add-in card designer.

Change Current Specification as shown on following page:

5.4 Thermal Specification

A.G.P. add-in card designers are responsible for supplying a thermal solution for their add-in card that meets the requirements listed in Table 1. An add-in card targeted for an OEM market segment (and not as a generic add-in card) is exempt from meeting the requirements in Table 1. This exemption is granted because the OEM will define its own thermal requirements for the add-in card that are maybe more or less restrictive depending on the capabilities and features supported by the OEM.

For example, the designer of an add-in card must ensure that the card, which is targeted for a **retail market segment,** will operate under the thermal conditions shown in Table 1. The OEM that allows a generic add-in card to be inserted into its system must ensure that the specified thermal environment is maintained. Another example is where the included add-in card does not meet Table 1 but the OEM can accommodate the additional thermal load. However, an generic add-in card can not rely on the OEM to manage a thermal load greater than what is specified in Table 1.

Please refer to the A.G.P. Design Guide for further details on thermal design for A.G.P.-enabled add-in cards.

Table 1: Thermal Specification for Add-In Cards

Symbol	Parameter	Condition	Min	Max	Units	Notes
Ta	Ambient Temperature	Within 0.5” of card PCB	0	55	C	
Af	Air flow			0	m/s	1

NOTES:

1. Natural convection airflow only with any card orientation (vertical, horizontal-components up, horizontal-components down) and air flow constrained by adjacent cards and system modules.