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(54) Title: EFFICIENT HEAT TRANSFER FROM CONDUCTION-COOLED CIRCUIT CARDS

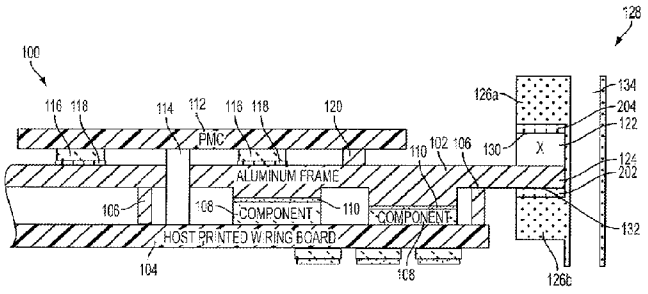

FIG. 2

(57) Abstract: A conduction-cooled card assembly (100) is disclosed that includes a conduction-cooling frame (102), a printed wiring board (104) mounted on the frame, and a wedgelock fastener (122). The conduction- cooling frame has a thermal management interface (124) adapted to transfer heat from the frame to a chassis (128), and the wedgelock fastener is adapted to press the thermal management interface of the conduction-cooling frame against a rail of the chassis.. The assembly also has one or more of the following characteristics: (a) the thermal management interface of the conduction-cooling frame is made primarily of a first material and a portion of the thermal management interface that is adapted to engage the wedgelock fastener or the rail of the chassis is made of a second material that is softer than the first material, and (b) the wedgelock fastener is made primarily of a first material and a portion of the wedgelock fastener that is adapted to engage the thermal management interface or another rail of the chassis is made of a second material that is softer than the first material. A chassis for conduction-cooled card assemblies is also disclosed which comprises a housing and at least first and second rails within the housing that are adapted to receive a conduction-cooled card assembly therebetween. At least one of the first and second rails is made primarily of a first material and has a surface portion made of a second material that is softer than the first material.

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