

ABSTRACT

DC-DC CONVERTER ASSEMBLY WITH AN OUTPUT INDUCTOR ACCOMMODATING A POWER STAGE ATTACHED TO A CIRCUIT BOARD

A DC-DC converter assembly includes a board having a first side and a second side opposite the first side, a power stage die of a DC-DC converter attached to the first side of the board, and an output inductor electrically connected to an output of the power stage die and disposed over the power stage die on the first side of the board. The output inductor includes a magnetic core and an electrical conductor having first and second terminals attached to the first side of the board. The output inductor accommodates the power stage die under the magnetic core so that the power stage die is interposed between the magnetic core and the board. A corresponding method of manufacturing the DC-DC converter assembly and method of manufacturing the output inductor are also disclosed.

FIG. 1A