

MICROCIRCUIT COOLING FOR A TURBINE BLADE TIP

Abstract

[045] An improved cooling design and method for cooling airfoils within a gas turbine engine is provided which includes an embedded microcircuit that traverses a tip between a suction sidewall and a pressure sidewall of the airfoil. The microcircuit includes at least one inlet disposed proximate to the tip and one of the sidewalls for receiving cooling air from an internal cooling cavity of the airfoil and at least one outlet disposed proximate to the tip through which the cooling air ejects into a region outside the airfoil.