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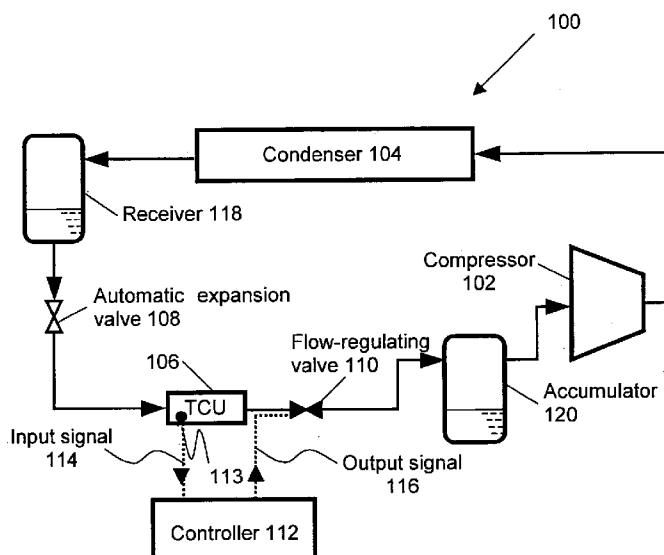


Figure 1

(57) Abstract: A heat transfer system and method for maintaining or controlling a temperature of a device under test (DUT) with heat generating capability. The heat transfer system comprises a temperature control unit (TCU) for thermal coupling to the DUT, the TCU arranged for flow of a heat transfer medium therethrough; an automatic expansion valve disposed upstream of the TCU; a flow-regulating valve disposed downstream of the TCU; and a controller coupled to the TCU for receiving an input signal representative of a temperature of the DUT; wherein the controller is further coupled to the flow-regulating valve to change a flow area of the flow-regulating valve based on the signal representative of the temperature of the DUT.

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