Claims

1. A pogo pin cooling system, which is at least used for cooling a plurality of pogo pins in a chip socket, the chip socket comprising at least one inlet and at least one outlet, the system comprising:

at least one cooling fluid supply channel, at least one cooling fluid discharge channel and a cooling fluid supply module, the at least one cooling fluid supply channel being communicated with the at least one inlet, and the at least one cooling fluid discharge channel being communicated with the at least one outlet, the cooling fluid supply module being communicated with the at least one cooling fluid supply channel,

a purge gas supply module, which is communicated with the at least one inlet,

a switch module, which includes two inlet ends and an outlet end, wherein the purge gas supply module includes a gas pressure source channel, one end of which is communicated with a gas pressure source, and the other end of which is communicated with one of the two inlet ends of the switch module; the at least one cooling fluid supply channel is communicated with the other of the two inlet ends of the switch module; the outlet end of the switch module is communicated with the at least one inlet; the switch module is configured to selectively connect the at least one inlet to either the at least one cooling fluid supply channel or the gas pressure source channel,

wherein when an electronic device is accommodated in the chip socket, the cooling fluid supply module supplies a cooling fluid into the chip socket through the at least one cooling fluid supply channel, the switch module and the at least one inlet, and the cooling fluid passes through the pogo pins and then flows into the at least one cooling fluid discharge channel through the at least one outlet, and wherein when the cooling fluid supply module stops supplying the cooling fluid, the purge gas supply module supplies a purge gas into the chip socket through the switch module and the at least one inlet to urge the cooling fluid to the at least one cooling fluid discharge channel.

2. The pogo pin cooling system of claim 1, wherein the cooling fluid supply module further includes a pump, a coolant tank, a radiator, a filter and a cooling fluid pipe line; the at least one cooling fluid supply channel and the at least one cooling fluid discharge channel are respectively disposed at two ends of the cooling fluid pipe line; the pump, the coolant tank, the radiator and the filter are provided on the cooling fluid pipe line.

3. The pogo pin cooling system of claim 1, wherein when the electronic device is accommodated in the chip socket, a cooling space into which the cooling fluid is supplied by the cooling fluid supply module is defined by a lower surface of the electronic device, a bottom surface of the chip socket and an inner peripheral wall face of the chip socket.

4. An electronic device testing apparatus comprising the pogo pin cooling system of claim 1, a pressing head, a test socket and a main controller, wherein the main controller is electrically connected to the pressing head, the test socket and the cooling fluid supply module, wherein the chip socket is formed on an upper surface of the test socket, the pressing head is arranged above the test socket and is controlled by the main controller to be selectively moved toward or away from the test socket; when the main electronic device is accommodated in the chip socket, the controller controls the pressing head to press the electronic device and controls the cooling fluid supply module to supply the cooling fluid into the chip socket.

5. A pogo pin cooling method, comprising the steps of:

(A) placing an electronic device into a chip socket, a bottom surface of the chip socket being provided with at least one pogo pin;

(B) controlling a switch module to fluidly connect at least one cooling fluid supply channel to at least one inlet of the chip socket, and supplying a cooling fluid into the chip socket through the at least one cooling fluid supply channel so that the cooling fluid passes through the at least one pogo pin and is discharged from the chip socket through the at least one cooling fluid discharge channel;

(C) stopping supplying the cooling fluid into the chip socket; and

(D) controlling the switch module to fluidly connect a gas pressure source channel of a purge gas supply module to the at least one inlet, and supplying a purge gas into the chip socket through the gas pressure source channel, the switch module, and the at least one inlet to urge the cooling fluid to the at least one cooling fluid discharge channel.

6. The pogo pin cooling method of claim 5, wherein in the step (A), a cooling space is defined by a lower surface of the electronic device, the bottom surface of the chip socket and an inner peripheral wall face of the chip socket; in the step (B), a cooling fluid supply module supplies the cooling fluid into the cooling space through the at least one cooling fluid supply channel.