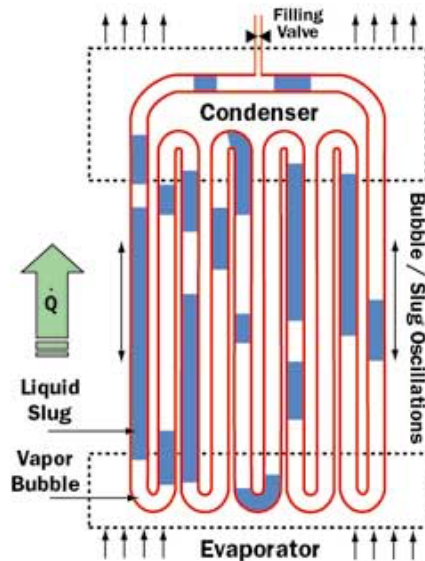
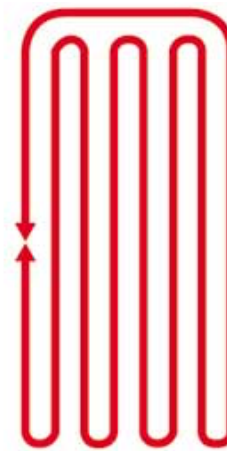


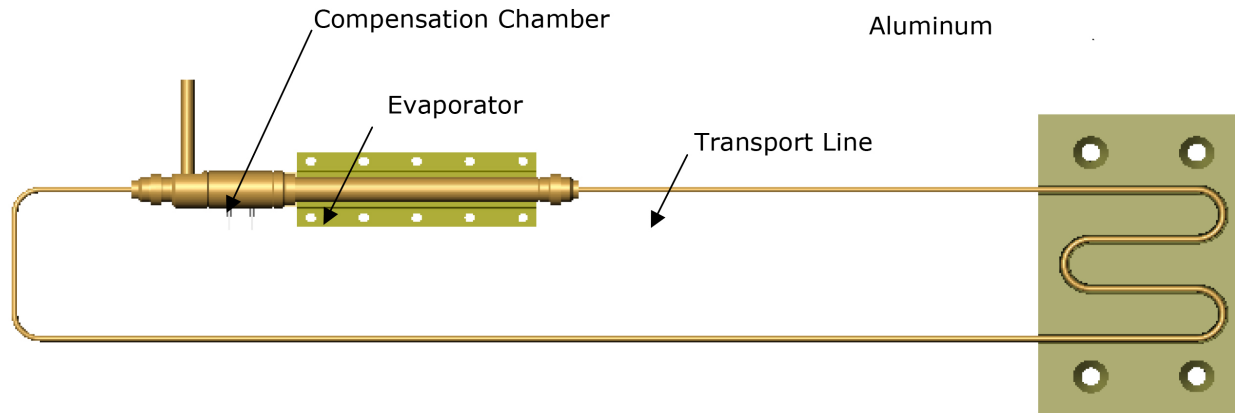
Loop Heat Pipes For Electronics Cooling



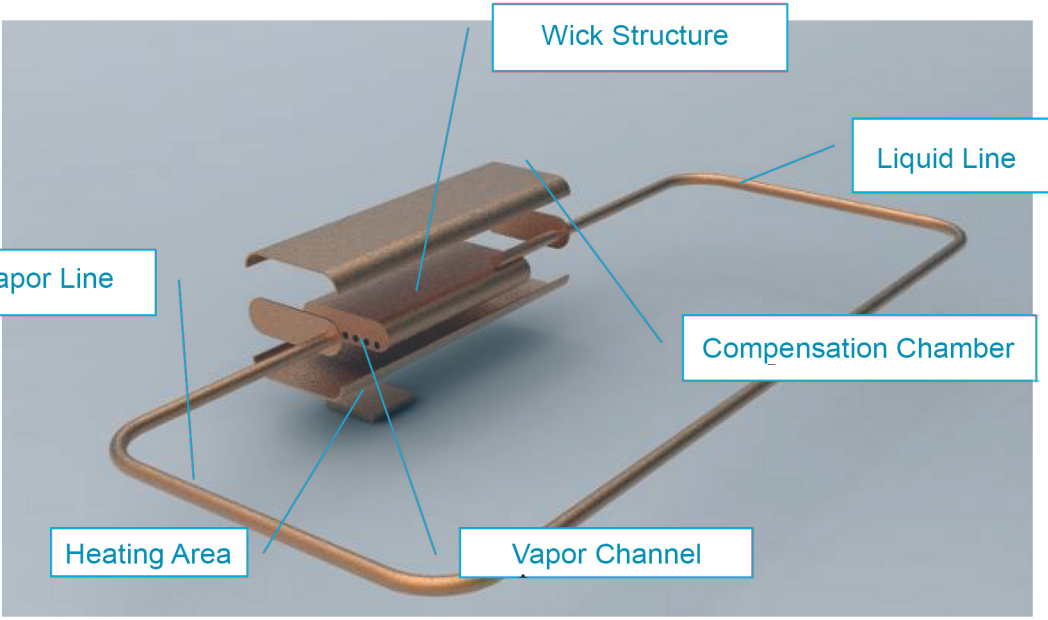
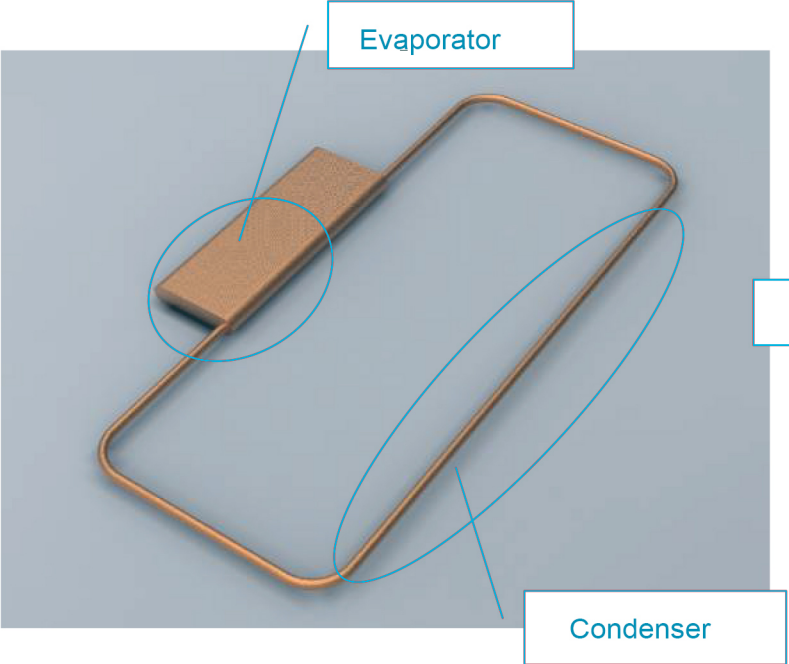
(i) Open loop without flow check valve



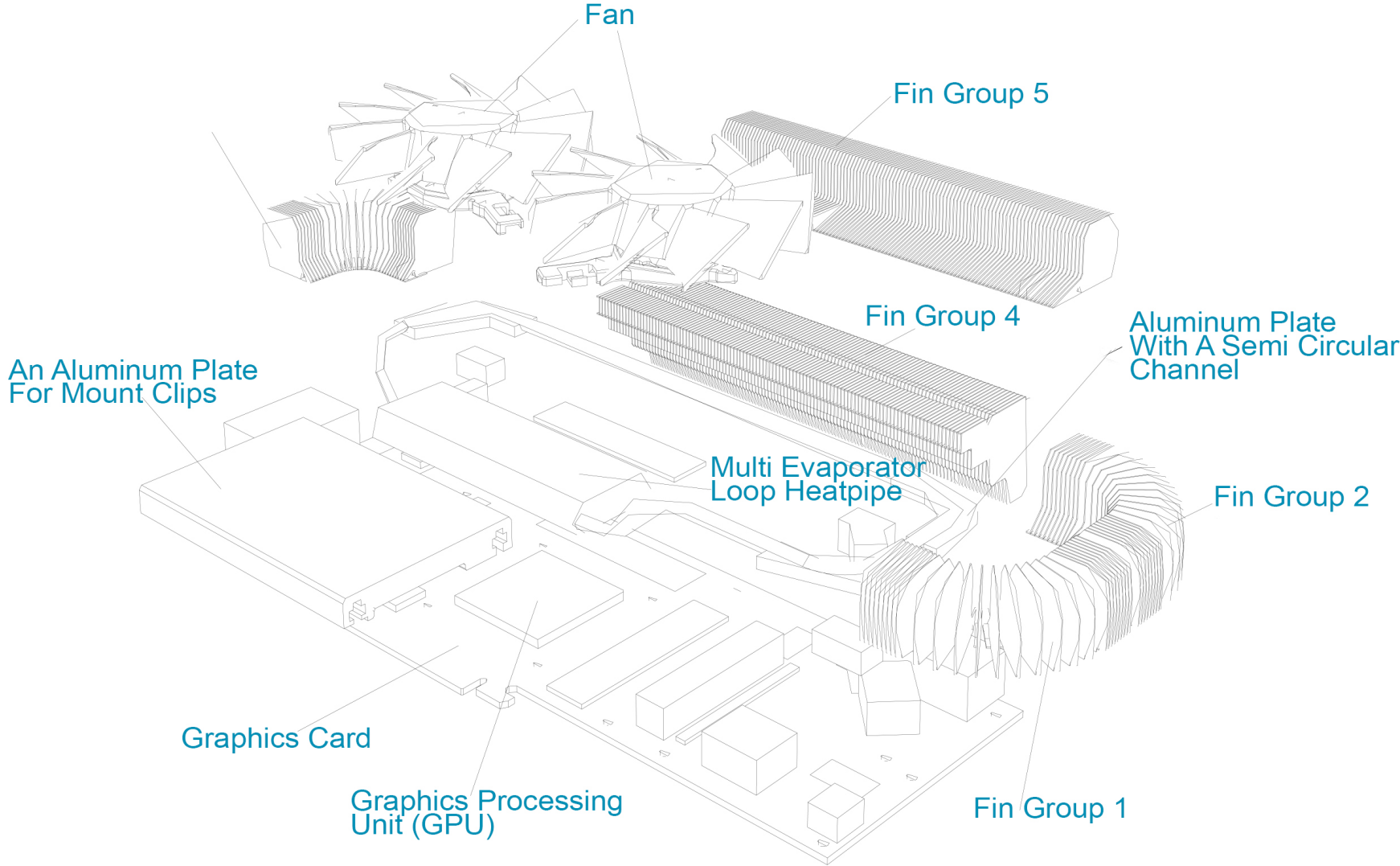
(ii) Closed loop with flow check valve

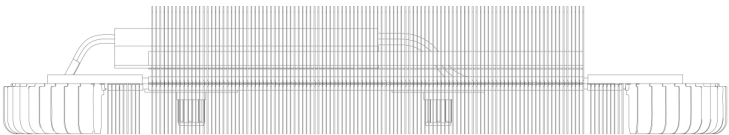


Passive
Orientation Insensitive
Flexible Lines
Potential Alternate Solution To Remote Cooling

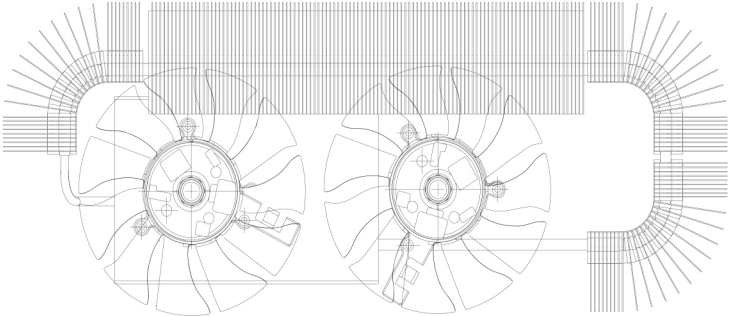


Vapor Chambers distribute inside the end of the wick structure and cover the heating area. The pressure difference in both ends of the wick structure increases with the power input, which drives the cycle flow of the vapor and the liquid. Compared to conventional heat pipes, the one way flow of working the fluid inside the loop heat pipe, improves the heat transport capability.

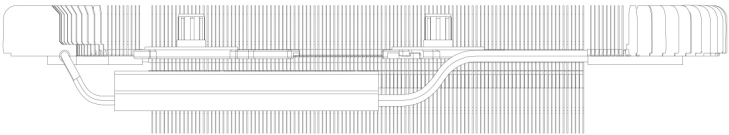




Anti- Gravity Orientation



Vertical Orientation



Horizontal Orientation

Heat	Temperature Of Heater Case (°C)	Temperature Of Evaporator Case (°C)	Test Modes
40	55.9	48.4	Horizontal Orientation
80	61.5	50.7	
150	69.8	54.6	
200	77.4	60	
40	57.1	51.5	Vertical Orientation
80	63.1	53.8	
150	73.1	61.8	
200	85.6	72.6	
40	59.1	55.6	Anti Gravity Orientation
80	65.5	56.8	
150	75.3	64.3	
200	86.8	74.5	