Applicable platform: General

Camera thermal mitigation config is not enabled by default across all platforms. In most of new platform like msm8996/8976/8953, it is not enabled. OEM can follow below steps to add your config from thermal side.

Steps:

1. Write below section into a file and name with "thermal-engine.conf", then push it into phone / system/etc/thermal-engine.conf. If here has already this file, please just merge below section into this config file.

```
[CAMERA_CAMCORDER_MONITOR]
algo_type monitor
sampling 250
sensor xo_therm
thresholds 42000 44000 48000
thresholds_clr 40000 43000 46000
actions camera+camcorder camera+camcorder camera+camcorder
action_info 1+1 2+2 3+3
```

2. Run below adb commands to restart thermal-engine.

adb shell stop thermal-engine

adb shell start thermal-engine

3. Run adb command "thermal-engine -o" to check if that section is included in the output or not. If not, you should check if any formats are not right or collect thermal debug log for further analysis.

4. Run thermal test and collect thermal debug log to confirm if the thermal actions are performed according your setting.

/ThermalEngine(7009): TM Id 'CAMERA_CAMCORDER_MONITOR' Sensor 'xo_therm' - alarm raised 1 at 42.0 degC

/ThermalEngine(7009): sensor_update_thresholds: TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm threshold_type 1, level 1

/ThermalEngine(7009): j=0 i=0 TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm: Action camera value 1

/ThermalEngine(7009): j=1 i=0 TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm: Action camcorder value 1

/ThermalEngine(7009): sensor_thresh_notify: Update recieved CAMERA_CAMCORDER_MONITOR 44000

/ThermalEngine(7009): TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm Reading 44000

/ThermalEngine(7009): handle_thresh_sig: TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm Temp 44000

/ThermalEngine(7009): TM Id 'CAMERA_CAMCORDER_MONITOR' Sensor 'xo_therm' - alarm raised 2 at 44.0 degC

/ThermalEngine(7009): sensor_update_thresholds: TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm threshold_type 1, level 2

/ThermalEngine(7009): j=0 i=1 TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm: Action camera value 2

/ThermalEngine(7009): j=1 i=1 TM Id CAMERA_CAMCORDER_MONITOR Sensor xo_therm: Action camcorder value 2

Note:

- You could know more about the configuration format and parameters definition via vendor\ qcom\proprietary\thermal-engine\readme.txt.
- You can adjust threshold value & action_info and change the monitored sensor according your condition.
- Themral-engine just send thermal level to Camera module, OEM should implement the thermal mitigation actions in camera side accrodingly.