**2K Pixel, Uncooled Thermopile IR Sensor Design**

**IR Image Sensors**

**ML8540 / ML8540WD**

### Features

- 2K pixel resolution thermopile image sensors
- Uncooled design results in a smaller form factor with less power consumption
- Co-developed with Nissan Motor Corp., utilizing CMOS and MEMS technologies

### Applications

- Energy-saving in BEMS/HEMS
- Security and health & fitness monitoring
- Gaming equipment, motion sensing

### Packages

- Wafer (ML8540WD)
- ML8540: 8.5x8.5x1.8mm (C-QFN24)

### Block Diagram

- Compact, low-power design achieved by combining MEMS and CMOS technologies

### Specifications

- Power supply voltage: 5V
- Operating temperature range: -30°C ~ 85°C
- IR sensor: 48x47 (2256) pixels
- Measurement range: -30°C ~ 300°C (variable)
- Temperature resolution: 0.5°C@8fps, Without lens

- Operating current (typ.): <5mA