

```
float var2 = 0;
float calc_temp = 0;

/* calculate var1 data */
var1 = (((float)temp_adc / 16384.0f) - ((float)dev->calib.par_t1 / 1024.0f))
      * ((float)dev->calib.par_t2));

/* calculate var2 data */
var2 = (((((float)temp_adc / 131072.0f) - ((float)dev->calib.par_t1 / 8192.0f)) *
          (((float)temp_adc / 131072.0f) - ((float)dev->calib.par_t1 / 8192.0f))) *
          ((float)dev->calib.par_t3 * 16.0f));

/* t_fine value*/
dev->calib.t_fine = (var1 + var2);

/* compensated temperature data*/
calc_temp = ((dev->calib.t_fine) / 5120.0f);

return calc_temp;
}

/*!
 * @brief This internal API is used to calculate the
 * pressure value in float format
 */
static float calc_pressure(uint32_t pres_adc, const struct bme680_dev *dev)
{
    float var1 = 0;
    float var2 = 0;
    float var3 = 0;
    float calc_pres = 0;

    var1 = (((float)dev->calib.t_fine / 2.0f) - 64000.0f);
    var2 = var1 * var1 * (((float)dev->calib.par_p6) / (131072.0f));
    var2 = var2 + (var1 * ((float)dev->calib.par_p5) * 2.0f);
    var2 = (var2 / 4.0f) + (((float)dev->calib.par_p4) * 65536.0f);
    var1 = (((((float)dev->calib.par_p3 * var1 * var1) / 16384.0f)
```