

```
MS5534_UT1 := 8 * MS5534_C5;
MS5534_UT1 := MS5534_UT1 + 20224;
// Datenblatt Beispiel -> C5 = 148 * 8 = 1184, 1184 + 20224 =
21408
```

```
MS5534_dT := MS5534_D2 - MS5534_UT1;
// Datenblatt Beispiel -> 22500 - 21408 = 1092
```

```
MS5534_TEMP := MS5534_C6 + 50;
MS5534_TEMP := MS5534_TEMP * MS5534_dT;
MS5534_TEMP := MS5534_TEMP / 1024;
MS5534_TEMP := MS5534_TEMP + 200;
// Datenblatt Beispiel -> 287 = 28,7 Grad Celsius
```

```
MS5534_OFF := MS5534_C4 - 512;
MS5534_OFF := MS5534_OFF * MS5534_dT;
MS5534_OFF := MS5534_OFF / 4096;
MS5534_OFFw := MS5534_C2 * 4;
MS5534_OFF := MS5534_OFF + MS5534_OFFw;
// Datenblatt Beispiel -> 7695
```

```
MS5534_SENS := MS5534_C3 * MS5534_dT;
MS5534_SENS := MS5534_SENS / 1024;
MS5534_SENS := MS5534_SENS + MS5534_C1;
MS5534_SENS := MS5534_SENS + 24576;
// Datenblatt Beispiel -> 50705
```

```
MS5534_X := MS5534_D1 - 7168;
MS5534_X := MS5534_X * MS5534_SENS;
MS5534_X := MS5534_X / 16384;
MS5534_X := MS5534_X - MS5534_OFF;
// Datenblatt Beispiel -> 22732
```

```
MS5534_P := MS5534_X * 10;
MS5534_P := MS5534_P / 32;
MS5534_P := MS5534_P + 2500;
// Datenblatt Beispiel -> 9603 -> 960,3 mbar
```

```

// Second order Temperature Compensation

MS5534_T2 := 0;
MS5534_P2 := 0;

if MS5534_TEMP < 200 then
  begin
    MS5534_T2A := 200 - MS5534_TEMP;
    MS5534_T2A := MS5534_T2A * MS5534_T2A;
    MS5534_T2B := MS5534_C6 + 24;
    MS5534_T2 := 11 * MS5534_T2B;
    MS5534_T2 := MS5534_T2 * MS5534_T2A;
// 2^20 = 2 X 2^10
    MS5534_T2 := MS5534_T2 / 1024;
    MS5534_T2 := MS5534_T2 / 1024;

    MS5534_P2 := MS5534_P - 3500;
    MS5534_P2 := MS5534_P2 * 3;
    MS5534_P2 := MS5534_P2 * MS5534_T2;
    MS5534_P2 := MS5534_P2 / 16384;
  end;

if MS5534_TEMP > 450 then
  begin
    MS5534_T2A := 450 - MS5534_TEMP;
    MS5534_T2A := MS5534_T2A * MS5534_T2A;
    MS5534_T2B := MS5534_C6 + 24;
    MS5534_T2 := 3 * MS5534_T2B;
    MS5534_T2 := MS5534_T2 * MS5534_T2A;
// 2^20 = 2 X 2^10
    MS5534_T2 := MS5534_T2 / 1024;
    MS5534_T2 := MS5534_T2 / 1024;

    MS5534_P2 := MS5534_P - 10000;
    MS5534_P2 := MS5534_P2 * MS5534_T2;
    MS5534_P2 := MS5534_P2 / 8192;
  end;

MS5534_TEMP := MS5534_TEMP - MS5534_T2;
MS5534_P := MS5534_P - MS5534_P2;

```