Humidity Sensor

Performance

**Measurement Range** = 10-100% RH
**Operation Range** = -40 to +80°C
**Accuracy at 23°C** =
<±10% RH (10–50% RH)
<±5% RH (50–100% RH)

**Response Time** =
<10 sec typical without filter (for 90% of the step change)
<30 sec with filter

**Power dissipation @ 1Hz** = 7-14 nW

%RH conversion:

\[
\%RH = \frac{\ln(C_x - C_0) - of1}{sl1}
\]

- \(C_x\) = measured capacitance
- \(C_0\) = 4505
- of1 = constant from linear plot (-0.071)
- sl1 = slope from linear plot (0.085)
Note: Temperature sensor is not available for these samples.

Chip dimension

Chip size: 2510 x 1670 µm
Package terminals

Back side

Front side