

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)

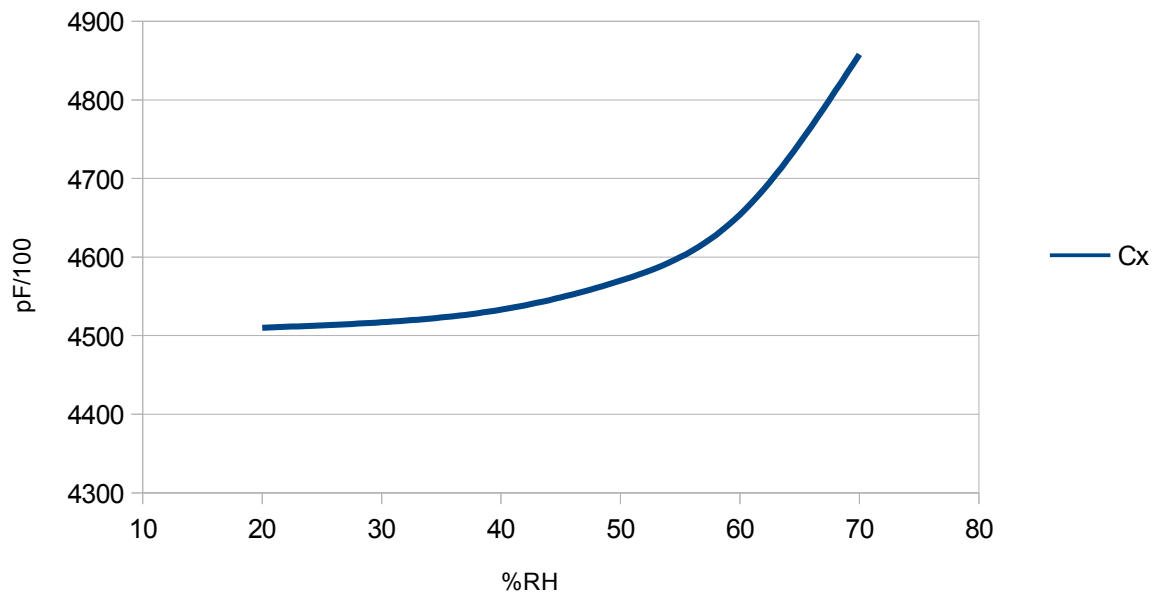
Response Time =

<10 sec typical without filter (for 90% of the step change)

<30 sec with filter

Power dissipation @ 1Hz = 7-14 nW

Sensitivity



%RH conversion :

$$\%RH = (\ln(C_x - C_0) - of1) / sl1$$

C_x = measured capacitance

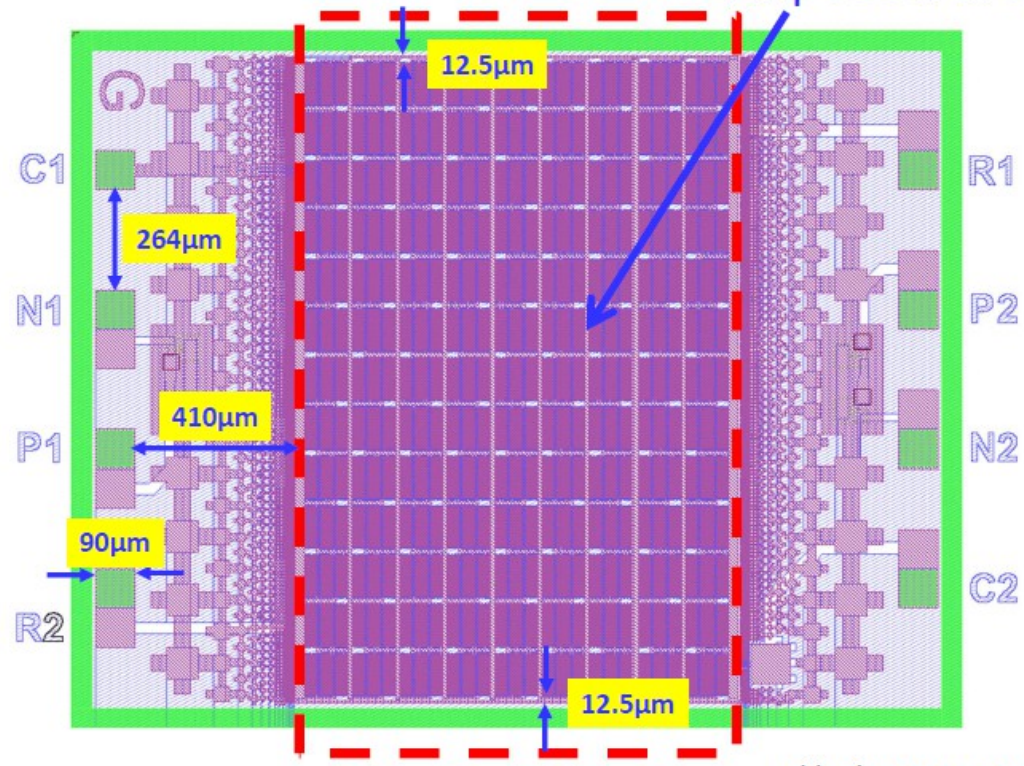
C_0 = 4505

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

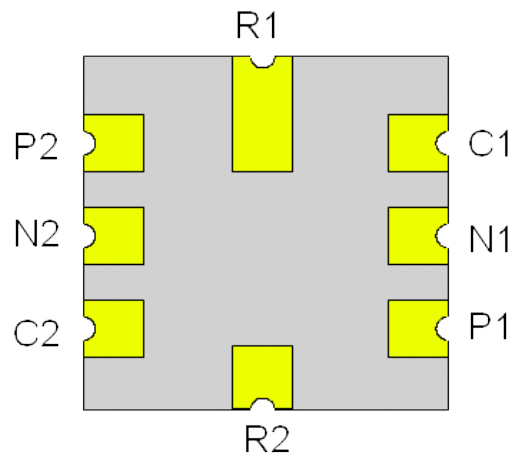
Humidity & Temp Sensor Exposed area



Chip size: 2510 x 1670 μm

Package terminals

Back side



Front side

