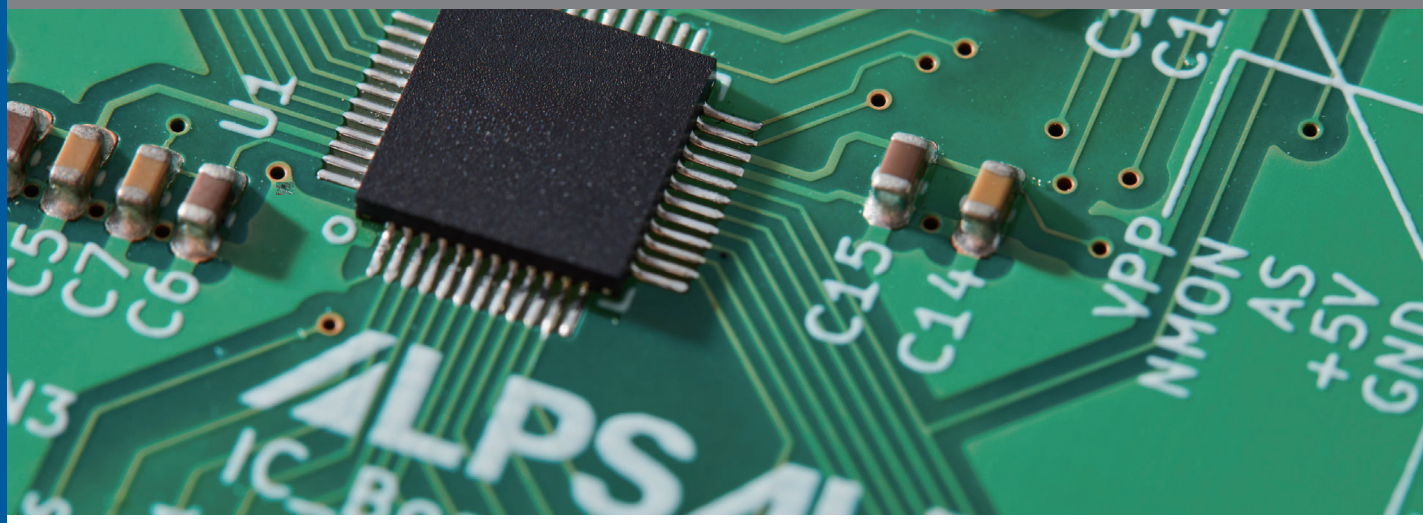
Capacitive Sensor IC

HSLCMB series



Crafting the future: Capacitive development redefined

Capacitive Sensing with High Sensitivity and High Noise Immunity

Alps Alpine's IC achieves a long detection range and a low likelihood of interference from surrounding noise.

High Sensitivity

Compared with Alps Alpine's existing products, the new one has a higher signal-to-noise ratio, enabling detection of objects further away from the sensor. It also means smaller electrodes can be used on sensors at currently required distances.

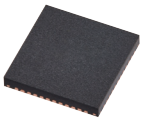
High Noise Immunity

Alps Alpine's new product maintains a higher signal-to-noise ratio than existing products, indicating high resilience to noise from various devices that might be in the vicinity. Inside a vehicle, for example, this means the product can satisfy automotive specifications even as road noise, engine noise and signals like radio waves swirl around the cabin.

Absolute Self-capacitance Detection

Alps Alpine's new product makes it possible to detect only the capacitance of the target object by suitably controlling the guard electrodes to shield parasitic capacitance

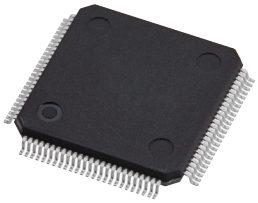
Variety



HSLCMB001A

Features

No. of sensing electrodes: 16 max.
Built-in 32bit RISC CPU
ASIL-B compliant
AEC-Q100 Grade2
QFN48



HSLCMB****

(Number to be issued soon)

Features

No. of sensing electrodes: 64 max.
No built-in CPU

AEC-Q100 Grade2
QFP100

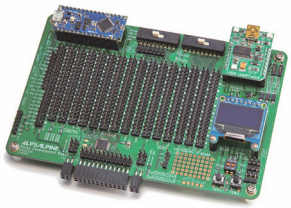
HSLCMB001A is an automotive IC with a built-in capacitive sensing circuit and 32 bit CPU.

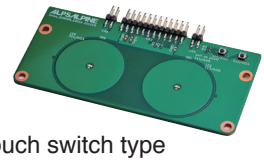
Evaluation tools

A variety of evaluation tools and their combinations are available on request.

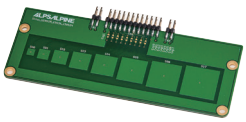
Touch switch evaluation kit

MCU firmware development kit

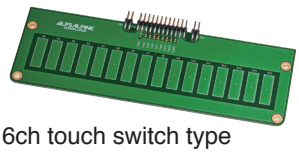




2ch touch switch type
for standard performance evaluation



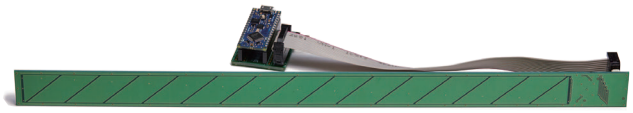
8ch touch switch type
for sensor size evaluation



16ch touch switch type
for gesture demo

Liquid level sensor evaluation kit

190mm short type



355mm long type

More Information

Product/technology information (Alps Alpine website):
https://tech.alpsalpine.com/e/products/detail/HSLCMB001A/

Customers can access capacitive sensor IC white paper after member registration

Email inquiries:
https://tech.alpsalpine.com/e/inquiry/catalog/?product=SC&partnumber=HSLCMB001A

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