November 26, 2024

FCC ID: PENAD10

To whom it may concern,

We, UL Japan, Inc, hereby declare that UWB/NFC Module, model: AD10 (FCC ID: PENAD10) of AISIN CORPORATION is exempt from RF exposure SAR evaluation as its output power meets the 1-mW test exemption threshold stated in the Code of Federal Regulation title 47 section 1.1307(b)(3)(i)(A).

UWB part:
This device available maximum time-averaged power is 0.05 mW, so no other assessment is required.

Reference of average Power [EIRP]
EIRP specification value: -41.3 dBm/MHz = 0.00007413 mW/MHz
99 % occupied bandwidth = 628.699 MHz
0.00007413 [mW/MHz] x 628.699 [MHz] = **0.04660546 [mW]**

NFC part:
This device available maximum time-averaged power is 0.001 mW, so no other assessment is required.

Reference average Power [EIRP]
EIRP: **0.0014693 mW**
The EIRP was derived from a field strength measurement of the fundamental signal which was converted to an EIRP using the free space equation $P(EIRP) = (E*d)^2 / 30$
66.9 dBμV/m at 3m = 0.00221309 V/m
(0.00221309 V/m x 3m) (0.00221309 V/m x 3m)/30 = 0.0000014693 W (0.0014693 mW)

Evaluation for multiple RF sources given by the Code of Federal Regulation title 47 section 1.11307(b)(3)(ii)(A):
The device of UWB maximum time-averaged power is 0.05 mW.
The device of NFC maximum time-averaged power is 0.001 mW.
0.05 mW + 0.001 mW = 0.051 mW < 1 mW.

Thank you for your attention to this matter.

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