

Date: 2018-04-11

FCC ID: 2AEIFUMPZ2-M01

DECLARATION FOR KDB996369 Q&A

To whom it may concern:

Question1. Layout of trace design, parts, antenna, connectors, and isolation requirements

Answer1:

UMPZ2 module is mounted on the daughter board for the transmitter operation and RF evaluation. The daughter board has two RF connectors and enable to connect individual antenna with RF coaxial cables.

Reference: 2AEIFUMPZ2-M01_UMPZ2_Antenna.pdf

Question2. Boundary limits of size, thickness, length, width, shape(s), dielectric constant, and impedance must be clearly described for each type of antenna

Answer2:

Antenna provided at the time of certification is as follows:

Reference: 2AEIFUMPZ2-M01_Antenna.pdf

Question3. Different antenna length and shapes affect radiated emissions, and each design shall be considered a different type; e.g., antenna length in multiple(s) of frequency wavelength and antenna shape (traces in phase) can affect antenna gain and must be considered.

Answer3:

This antenna is designed for 5.850 - 5.925GHz frequency range for V2X usage only. Antenna length and shape is difficult to be easily changed.

Reference: 2AEIFUMPZ2-M01_Antenna.pdf

Question 4. The above data is to be provided by a Gerber file (or equivalent) for PC layout.

Answer4.

ALPS provide PCB layout of Antenna and Daughter Board for the reference.

*Reference: 2AEIFUMPZ2-M01_Antenna_PCB_Layout.pdf
2AEIFUMPZ2-M01_Daughter Board_Layout.pdf*

Question 5. Appropriate parts by manufacturer and specifications.

Answer5.

Refer to the following materials.

*Reference: Obsidian TypeB Antenna Specification Rev0.2_10th.Mar.16.pdf
Obsidian_B_Schematics.pdf
Obsidian_BOM_2017.pdf
Daughter Board_Schematics.pdf
Daughter_Board_BOM.pdf*

Question6. Test procedures for design verification.

Answer6.

When design verification, we ALPS checked and confirmed that UMPZ2 module is completely satisfied required process capability according to the product specification.

Reference: ALPS_Datasheet_UMPZ2_Rev0.94_180305.pdf

Question 7. Production test procedures for ensuring compliance.

Answer 7.

In the production following test item is executed as a total inspection.

- Sensitivity
- Maximum Input Level
- Out of band spurious emission
- Transmission power
- Center frequency tolerance
- Occupied band width
- Carrier suppression ratio
- Out of band spurious emission
- Error vector magnitude
- Spectral flatness
- Spectrum mask

Reference: ALPS_Datasheet_UMPZ2_Rev0.94_180305.pdf

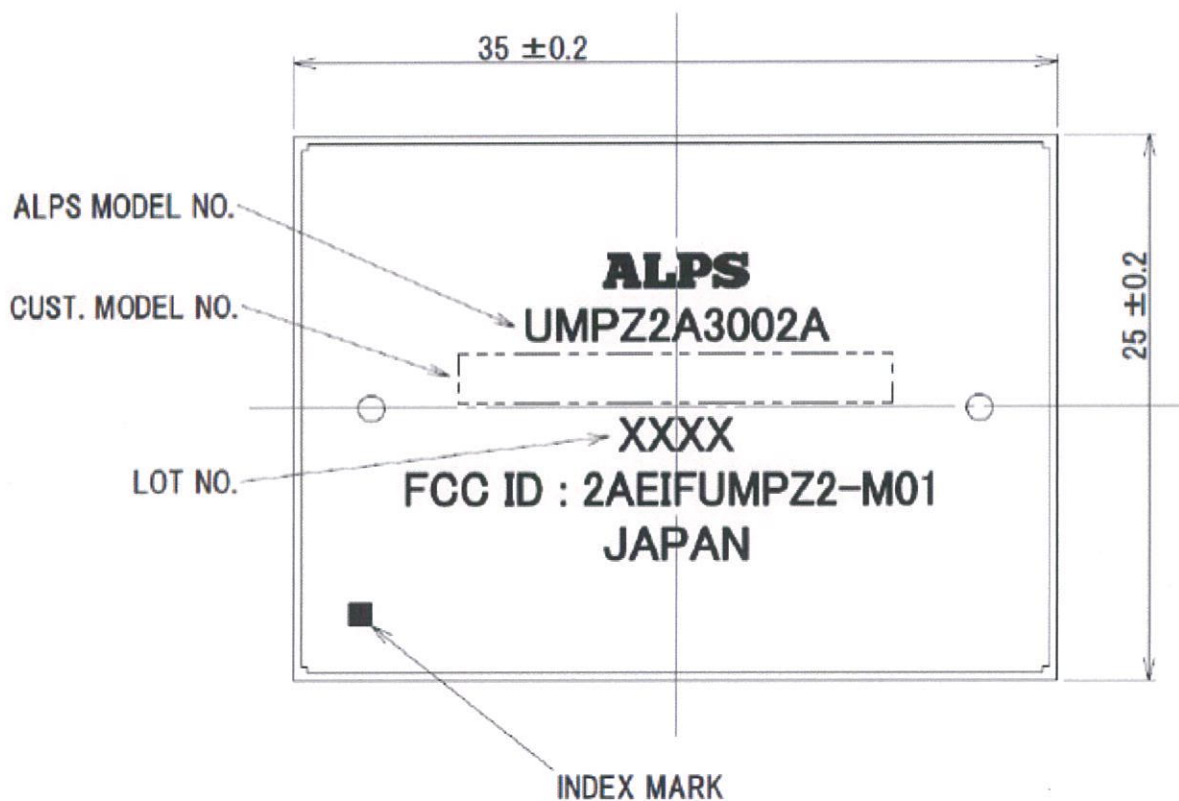
If you have any questions regarding the authorization, please don't hesitate to contact us.

Sincerely yours,

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Label sample



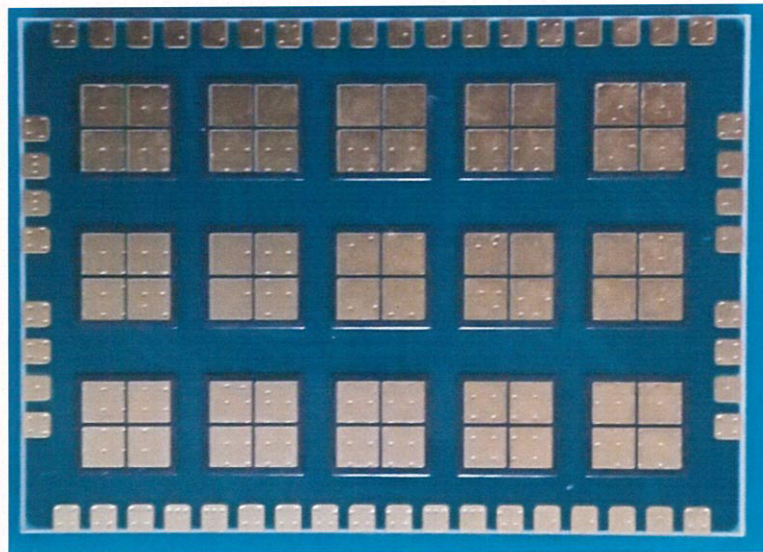
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TOP View

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Bottom View