Wettable Flank Package
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Background

- To improve the safety and reliability of vehicles, automakers require 100% automatic visual inspection (AVI) after assembly.

- With the QFN package, it is difficult to determine if the package is properly soldered to the printed circuit board (PCB) because there are no easily visible solderable pins / terminals or exposed pins / terminals.

- The problem with the QFN package is that there are exposed copper foils that correspond to the terminals, but these are prone to oxidation and reduce the side solder wetting properties.

⇒ Solution : Wettable Flank

Structural Comparison (Standard vs Wettable Flank)

Standard QFN  Wettable Flank QFN

Exposed Cu  Plating

Cu Lead  Solder (fine side fillet)

PCB PAD
Wettable Flank Package

Representative Structure

- **Step Lead Type**

- **Dimple Type**
  - Under planning

- **Pre-Mold Frame**
  - Under development

Solder side fillet

0.14mm

QFN assembly with Pre-Mold frame process

- Pre-Mold (1st resin mold) @supplier process
- Die attach
- Wire bond
- 2nd resin mold
- Dicing
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