

## PCN – Process Change Notification

|         |                   |
|---------|-------------------|
| Change: | AGGP.25F.07.0060A |
| Date:   | 2017/3/17         |
| Author  | Haley Tsai        |

### Affected Products

| Model#  | Part Number       | Changes   |
|---|-------------------|---|
| AGGP.25F<br>GPS/GLONASS 2 Stage<br>Active Patch 25mm,<br>60mm Ø1.13 | AGGP.25F.07.0060A | To change soldering process from manual to auto soldering machine |

### Type of Change

- Hardware Modification  
 Production Process Advance  
 Others –
- 

### Description of Change

Customer reply to have cable breaking issue, therefore we change the following production procedure to avoid cable breaking.

1. Taoglas has changed soldering process to auto soldering machine, which prevent insulation of Ø1.13 cable melted.
2. Change the soldering order from path antenna pin, core wire, and braid shield to braid shield, core wire, and path antenna pin

### Schedule

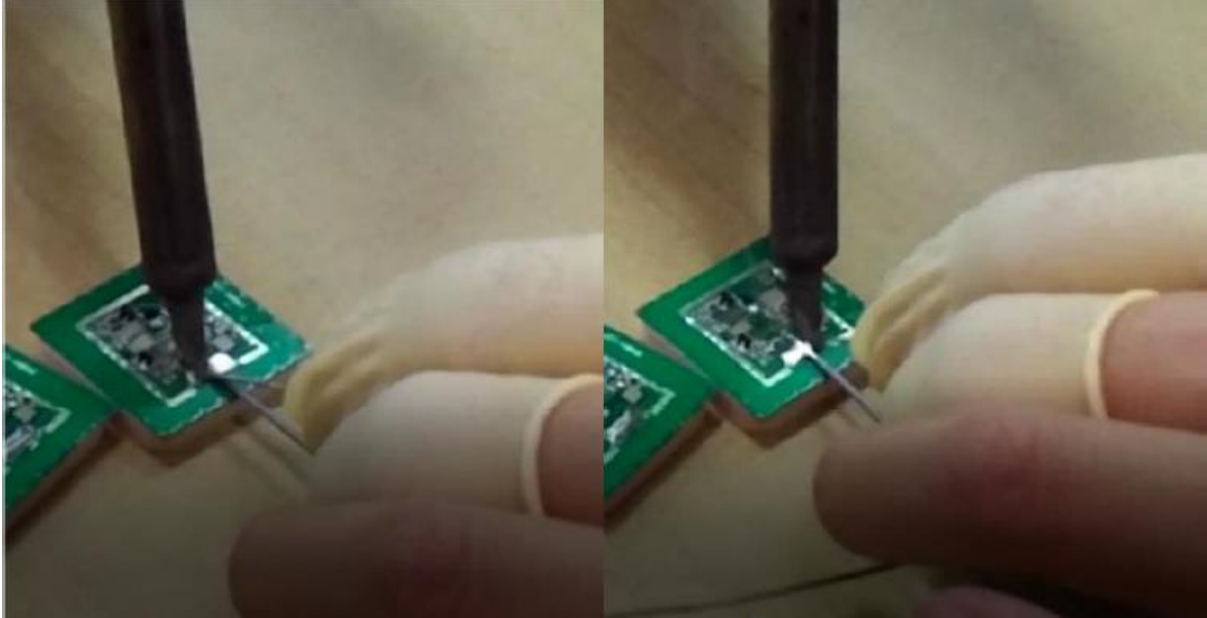
In April, 2017, Taoglas will input AGGP.25F.07.0060A with new soldering process.

### Forecast Estimated Transition Date

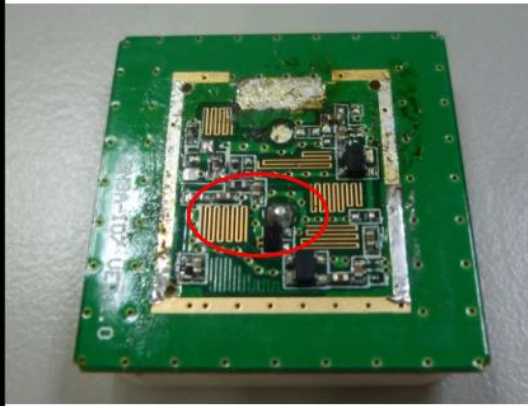
**Apr/2017**

## Old Soldering Process

Manual soldering



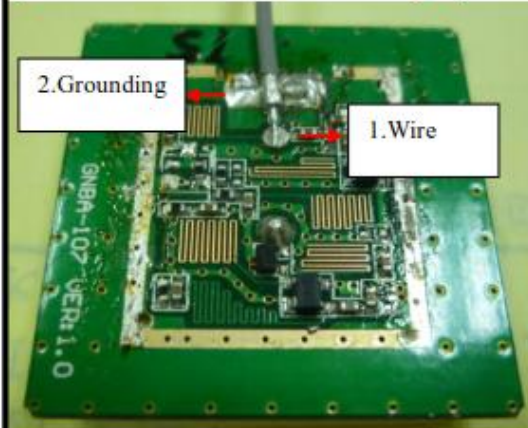
Soldering antenna pin



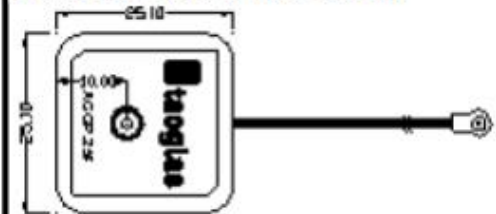
|                        |  |
|------------------------|--|
| <b>Soldering temp.</b> | Antenna pin<br>Continuous heating time |
| 380±20°C               | ≤ 3 sec                                |

Soldering Cable

1.Place PCBA, soldering step are wire first and then grounding.  
(Insulation cannot be damaged)



Beware of the direction of the connector

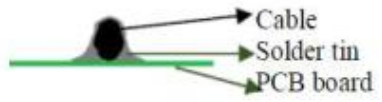


注意事項：

|                        |                                 |
|------------------------|---------------------------------|
| <b>Soldering temp.</b> | Wire<br>Continuous heating time |
| 380±20°C               | ≤ 2 sec                         |

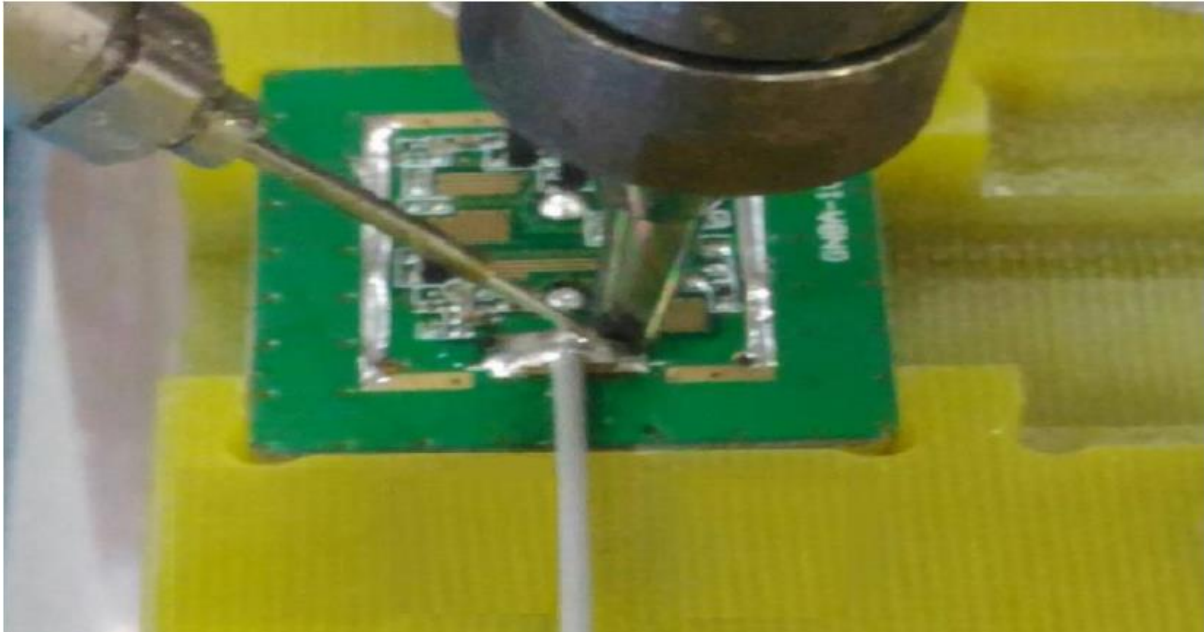
|                        |                                      |
|------------------------|--------------------------------------|
| <b>Soldering temp.</b> | Grounding<br>Continuous heating time |
| 380±20°C               | 2 side total<br>≤ 25 sec             |

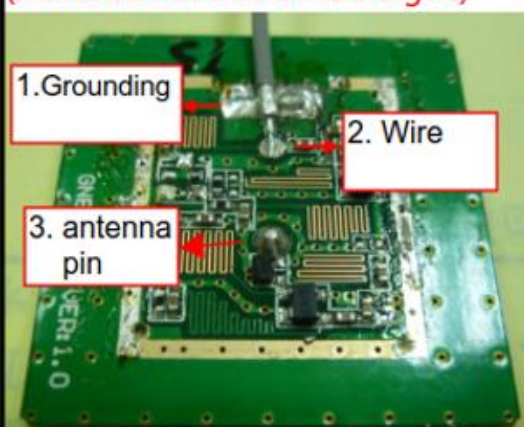
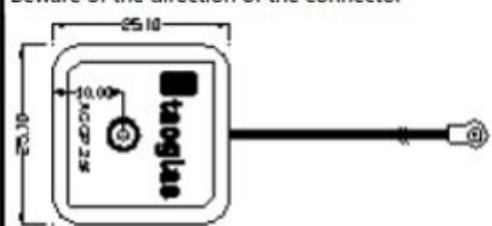
1. Don't damage the insulation layer
2. Soldering Grounding need follow IPC rule



## New Soldering Process

Auto soldering machine

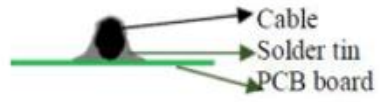


|   |   |   |  |                                      |          |                           |
|---|---|---|--|--------------------------------------|----------|---------------------------|
| <p>Soldering Cable and antenna pin</p>  | <p>Place PCBA, soldering step are grounding, wire and antenna pin.</p> <p><b>(Insulation cannot be damaged)</b></p>   | <table border="1"> <tr> <td><b>Soldering temp.</b></td> <td>Grounding<br/>Continuous heating time</td> </tr> <tr> <td>380±20°C</td> <td>5sec +/- 2sec / each side</td> </tr> </table> | <b>Soldering temp.</b>                 | Grounding<br>Continuous heating time | 380±20°C | 5sec +/- 2sec / each side |
|   | <b>Soldering temp.</b>  | Grounding<br>Continuous heating time  |  |                                      |          |                           |
|   | 380±20°C  | 5sec +/- 2sec / each side   |  |                                      |          |                           |
|    | <table border="1"> <tr> <td><b>Soldering temp.</b></td> <td>Wire<br/>Continuous heating time</td> </tr> <tr> <td>380±20°C</td> <td>0.5 sec</td> </tr> </table>        | <b>Soldering temp.</b>  | Wire<br>Continuous heating time        | 380±20°C                             | 0.5 sec  |                           |
| <b>Soldering temp.</b>  | Wire<br>Continuous heating time   |   |  |                                      |          |                           |
| 380±20°C  | 0.5 sec   |   |  |                                      |          |                           |
| <p>Beware of the direction of the connector</p>  | <table border="1"> <tr> <td><b>Soldering temp.</b></td> <td>Antenna pin<br/>Continuous heating time</td> </tr> <tr> <td>380±20°C</td> <td>0.5 sec</td> </tr> </table> | <b>Soldering temp.</b>  | Antenna pin<br>Continuous heating time | 380±20°C                             | 0.5 sec  |                           |
| <b>Soldering temp.</b>  | Antenna pin<br>Continuous heating time  |   |  |                                      |          |                           |
| 380±20°C  | 0.5 sec   |   |  |                                      |          |                           |









1. Don't damage the insulation layer





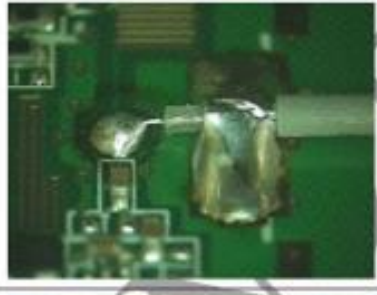



2. Soldering Grounding need follow IPC rule













### Auto Soldering Machine Destructive Test Report

※Number of Sample : # 1~#13

| Number | Shielding case remove   | Appearance(insulation under the braid shield )                                       | judgment |
|--------|---|--|----------|
| 01     |    |    | OK       |
| 02     |    |    | OK       |
| 03     |   |   | OK       |
| 04     |  |  | OK       |

|    |   |  |    |
|----|---|--|----|
| 05 |    |    | OK |
| 06 |    |    | OK |
| 07 |   |   | OK |
| 08 |  |  | OK |

|    |   |  |    |
|----|---|--|----|
| 09 |    |    | OK |
| 10 |    |    | OK |
| 11 |   |   | OK |
| 12 |  |  | OK |
| 13 |  |  | OK |

**Summary:**

Check the insulation under the braid shield after destructive, 13 PCS all pass have no any damage.