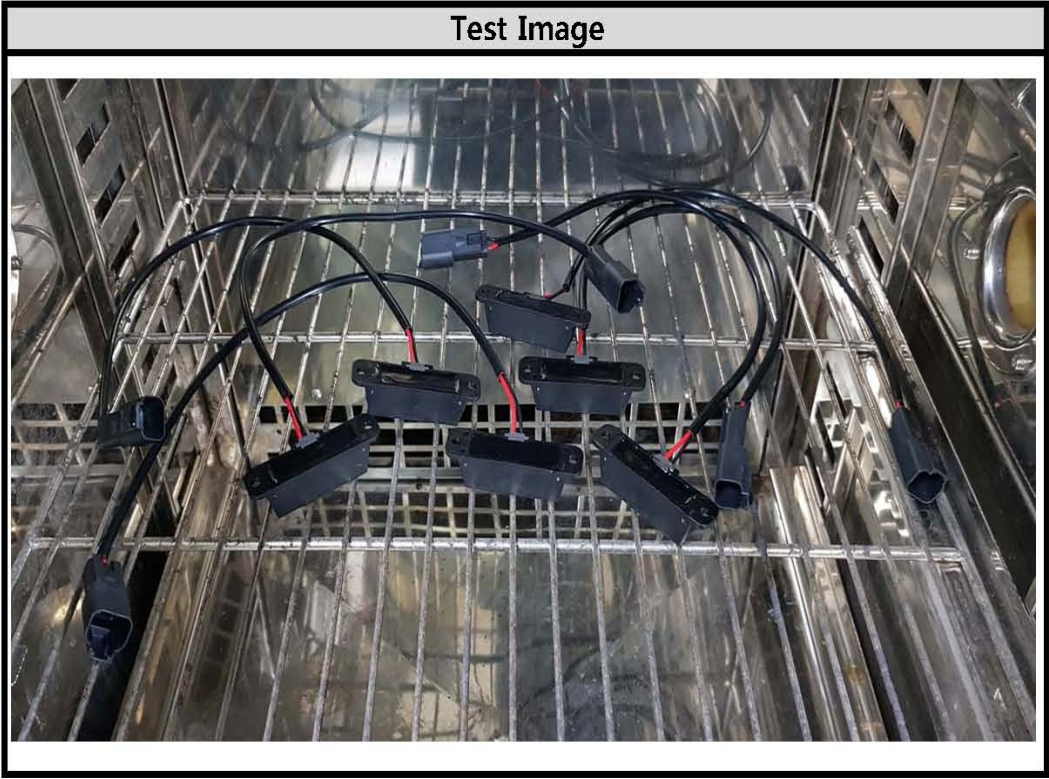


# Low Temperature Test

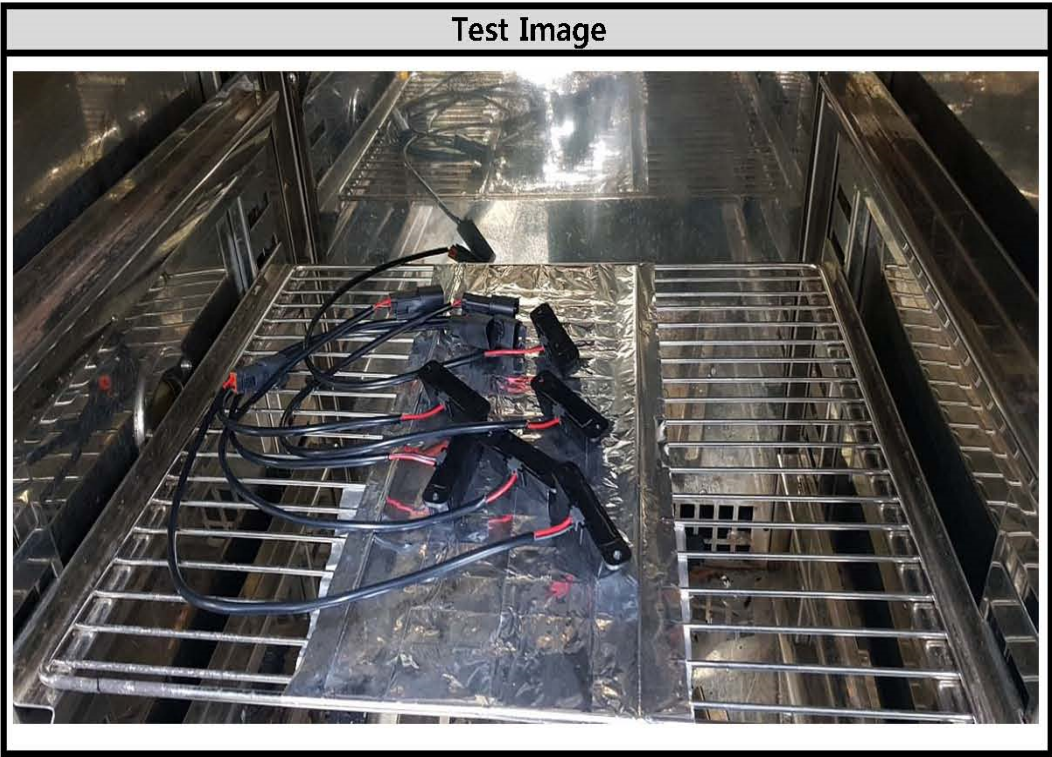
| Outdoor<br>LF Antenna |      | 3 : 1 or less @ 133KHz |            |                |
|-----------------------|------|------------------------|------------|----------------|
|                       |      | Before Test            | After Test | Rate of Change |
|                       | #1   | 1.44                   | 1.50       | 4.17%          |
|                       | #2   | 1.46                   | 1.55       | 6.16%          |
|                       | #3   | 1.39                   | 1.39       | 0.00%          |
|                       | #4   | 1.57                   | 1.61       | 2.55%          |
|                       | #5   | 1.36                   | 1.44       | 5.88%          |
|                       | #6   | 1.36                   | 1.36       | 0.00%          |
|                       | VSWR | OK                     |            |                |



|                                                                                                                                                         |                                                                                              |                     |                  |                        |       |       |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------|------------------|------------------------|-------|-------|----------|
| <h1>High Temperature Test</h1>                                                                                                                          |                                                                                              |                     | S<br>i<br>g<br>n | Design                 | Check | Check | Approval |
|                                                                                                                                                         |                                                                                              |                     |                  | J.H. Ko                |       |       | W.K. Kim |
| Report No.                                                                                                                                              | RFC-0104-002                                                                                 | Date                |                  | 2019.01.04             |       |       |          |
| Test Date                                                                                                                                               | 2018.12.27~2018.12.31                                                                        | Organization/Tester |                  | R&D Team / J.H. Ko     |       |       |          |
| 1. General Status                                                                                                                                       |                                                                                              |                     |                  |                        |       |       |          |
| Request Team                                                                                                                                            | RFC Co. Ltd R&D Team                                                                         | Purpose             |                  | Reliability Test       |       |       |          |
| Requester                                                                                                                                               | J.H. Ko                                                                                      | Test Item           |                  | High Temperature Test  |       |       |          |
| 2. Test Target                                                                                                                                          |                                                                                              |                     |                  |                        |       |       |          |
| Car                                                                                                                                                     | Wheel Loader/ Excavator                                                                      | Part No.            |                  | SMK-DWS-0300           |       |       |          |
| Model                                                                                                                                                   | SMK-DWS LF Ant                                                                               | LOT NO.             |                  | #7 ~ #12               |       |       |          |
| 3. Test Status                                                                                                                                          |                                                                                              |                     |                  |                        |       |       |          |
| Management No.                                                                                                                                          | RFC-0104-002                                                                                 | Test Equipment      |                  | Constant Temp. Chamber |       |       |          |
| Test Site                                                                                                                                               | RF Controls Co. Ltd                                                                          | Number of Samples   |                  | 6 EA                   |       |       |          |
| 4. Test Methods and Criteria                                                                                                                            |                                                                                              |                     |                  |                        |       |       |          |
| Test Method                                                                                                                                             | Proceed at +85±2°C for 100 hours and leave at room temperature for 2hours                    |                     |                  |                        |       |       |          |
| Criteria                                                                                                                                                | ► After completion of the test, the change in the performance value of the DUT is within 10% |                     |                  |                        |       |       |          |
| 5. Test Results : " PASS " (Refer: Attached DATA)                                                                                                       |                                                                                              |                     |                  |                        |       |       |          |
| 6. Remarks<br>- Reliability Test                                                                                                                        |                                                                                              |                     |                  |                        |       |       |          |
| ※ This is a test report only for samples submitted by the above request team and cannot be used for propaganda, litigation, or other legal requirements |                                                                                              |                     |                  |                        |       |       |          |

# High Temperature Test

| Outdoor<br>LF Antenna |      | 3 : 1 or less @ 133KHz |            |                |
|-----------------------|------|------------------------|------------|----------------|
|                       |      | Before Test            | After Test | Rate of Change |
|                       | #7   | 1.52                   | 1.61       | 5.92%          |
|                       | #8   | 1.39                   | 1.43       | 2.88%          |
|                       | #9   | 1.39                   | 1.47       | 5.76%          |
|                       | #10  | 1.31                   | 1.38       | 5.34%          |
|                       | #11  | 1.59                   | 1.62       | 1.89%          |
|                       | #12  | 1.33                   | 1.41       | 6.02%          |
|                       | VSWR | OK                     |            |                |



|                                                                                                                                                         |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------------|-------|-------|----------|
| Salt Water Spray Test                                                                                                                                   |                                                                                                                                                                                                                    |                     | S<br>i<br>g<br>n | Design                                | Check | Check | Approval |
|                                                                                                                                                         |                                                                                                                                                                                                                    |                     |                  | J.H. Ko                               |       |       | W.K. Kim |
| Report No.                                                                                                                                              | RFC-0114-001                                                                                                                                                                                                       | Date                |                  | 2019.01.04                            |       |       |          |
| Test Date                                                                                                                                               | 2019.01.08~2018.01.11                                                                                                                                                                                              | Organization/Tester |                  | R&D Team / J.H. Ko                    |       |       |          |
| 1. General Status                                                                                                                                       |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| Request Team                                                                                                                                            | RFC Co. Ltd R&D Team                                                                                                                                                                                               | Purpose             |                  | Reliability Test                      |       |       |          |
| Requester                                                                                                                                               | J.H. Ko                                                                                                                                                                                                            | Test Item           |                  | High Temperature Test                 |       |       |          |
| 2. Test Target                                                                                                                                          |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| Car                                                                                                                                                     | Wheel Loader/ Excavator                                                                                                                                                                                            | Part No.            |                  | SMK-DWS-0300                          |       |       |          |
| Model                                                                                                                                                   | SMK-DWS LF Ant                                                                                                                                                                                                     | LOT NO.             |                  | #13 ~ #18                             |       |       |          |
| 3. Test Status                                                                                                                                          |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| Management No.                                                                                                                                          | RFC-0114-001                                                                                                                                                                                                       | Test Equipment      |                  | Constant Temp. Chamber/Salt Water(5%) |       |       |          |
| Test Site                                                                                                                                               | RF Controls Co. Ltd                                                                                                                                                                                                | Number of Samples   |                  | 6 EA                                  |       |       |          |
| 4. Test Methods and Criteria                                                                                                                            |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| Test Method                                                                                                                                             | Leave at 85°C and 95% humidity chamber for 1 hour and soak in 5% salt water for 5 seconds. Move to the -40°C chamber, leave it for 1 hour, and soak it in 5% salt water for 5 seconds. (1Cycle) 16 cycles in total |                     |                  |                                       |       |       |          |
| Criteria                                                                                                                                                | ▶ After completion of the test, the change in the performance value of the DUT is within 10%                                                                                                                       |                     |                  |                                       |       |       |          |
| 5. Test Results : " PASS " (Refer: Attached DATA)                                                                                                       |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| 6. Remarks<br>- Reliability Test                                                                                                                        |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |
| ※ This is a test report only for samples submitted by the above request team and cannot be used for propaganda, litigation, or other legal requirements |                                                                                                                                                                                                                    |                     |                  |                                       |       |       |          |