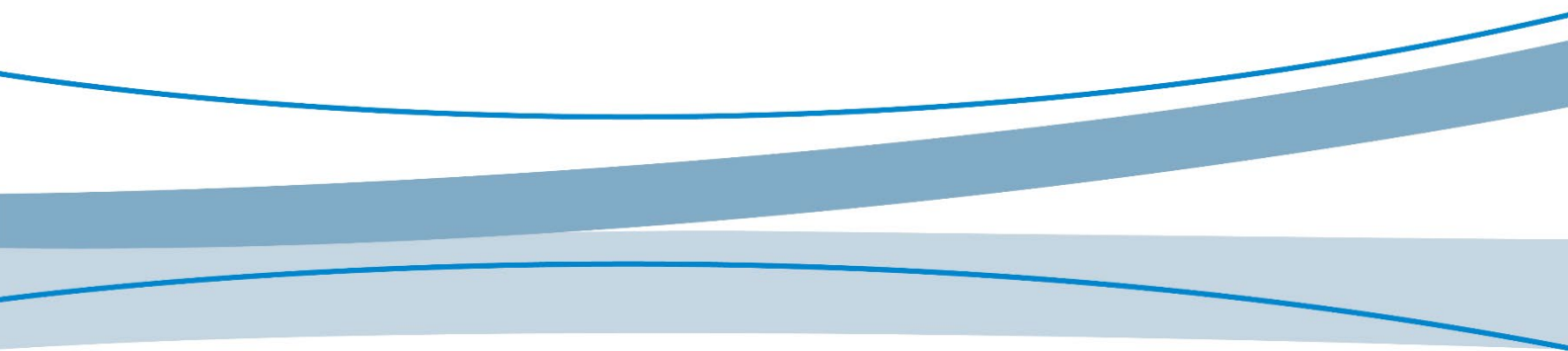




# FG132-NA Reliability Test Report

V1.0



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# Change History

V1.0 (2024-03-27)      Initial version

# 1 Introduction

This report is to document the Industrial reliability testing results for FG132-NA-00 product.

## 2 Test Equipment

| Index | Manufacturer | Description                           | Model          |
|-------|--------------|---------------------------------------|----------------|
| 1     | R&S          | Wideband radio communication tester   | CMW100         |
| 2     | Agilent      | Power supply                          | 66311B         |
| 3     | OTS          | Temperature humidity test chamber     | XB-OTS-80B-B   |
| 4     | TMJ          | Shock chamber                         | 9790B415       |
| 5     | THERMOTRON   | Rapid temperature change test Chamber | 47830          |
| 6     | Labtone      | Mechanical vibrator                   | EV206H0606     |
| 7     | KOMEG        | Salt spray test chamber               | KM-F-90C       |
| 8     | OTS          | Dorp tester                           | XB-OTS-220A-A  |
| 9     | OTS          | Temperature humidity test chamber     | XB-OTS-1000H-C |

# 3 Test Details

|                      |  |
|----------------------|--|
| Internal Model       | FG132-NA-00  |
| Material Description | 5G module  |
| Software Version     | 19003.1000.40.02.01.01_80000.00_01001_000000000      |
| Batch                | S000009839   |
| Date Test Coverage   | 2024/1/30~2024/3/25                                  |
| Reference Document   | Fibocom-Industrial reliability test specification-A1 |

## 4 Test Summary

| Test Name | Test Description                     | Standard                      | Test conditions  | Samples | Status |
|-----------|--------------------------------------|-------------------------------|--|---------|--------|
| HTOL      | High Temperature Operating Life Test | IEC 60068-2-2                 | 85°C,1000H<br>Keep working mode.   | 10      | Passed |
| HT/HH     | High Temp/ High Humidity Test        | IEC 60068-2-3<br>JESD22-A101D | 85°C,85%RH,1000H<br>Power on, Max Operating Voltage  | 5       | Passed |
| CT        | Corner Test                          | IEC 60068-2-30                | HT/HH/HV->HT/LH/HV->LT/HV->HT/HH/LV->HT/LH/LV->LT/LV,24 hours per state, Keep working mode.  | 5       | Passed |
| TST       | Thermal Shock Test                   | IEC 60068-2-14                | -45 / 90°C<br>25 minutes dwell<br>200 cycles   | 5       | Passed |
| RVT       | Random Vibration Test                | IEC 60068-2-64                | 200-2000Hz, PSD = 0.04g <sup>2</sup> /Hz,<br>3 axes (X, Y and Z), 1H per axis<br>Keep working mode   | 3       | Passed |
| DT        | Dorp Test                            | IEC 60068-2-32                | 1m,2 drop per direction (±X, ±Y, ±Z),<br>6 directions  | 3       | Passed |
| BT        | Bump Test                            | IEC 60068-2-32                | Pulse shape: Half-Sine wave<br><br>Peak acceleration: Non-operation 18G Duration: 6 ± 2ms<br><br>Test direction: Normal position<br><br>Number of shocks: 1000 Times | 2       | Passed |
| HTHHS     | High Temp.High Humidity Start        | IEC 60068-2-2                 | 85°C,85%RH, 30 minutes Off/ 5 minutes Idle;3 days.   | 3       | Passed |



|      |                     |                |  |   |        |
|------|---------------------|----------------|--|---|--------|
| LTS  | Low Temp.Start      | IEC 60068-2-1  | -40°C, 30 minutes Off/ 5 minutes Idle;3 days.  | 3 | Passed |
| COND | Condensation Test   | IEC 60068-2-30 | 3 days (3 cycles):<br>• First and second cycle with cold cycle<br>• Third cycle without cold cycle | 3 | Passed |
| TCT  | Temp.Cycle Test     | IEC 60068-2-14 | +85°C/-40°C<br>10°C/min<br>10 minutes dwell<br>240Cycles<br>Keep working mode.                     | 3 | Passed |
| SVT  | Sine Vibration Test | IEC 60068-2-6  | 5-500Hz,3G peck to peck,<br>0.5 Octave/min,linear;<br>120 minutes for each X/Y/Z axis,             | 3 | Passed |
| SST  | Salt Spray Test     | IEC 60068-2-11 | Neutral Salt Spray Test, 48H.  | 3 | Passed |
| PLT  | Plug Life Test      | IEC 60512-1    | M.2 module:100cycles   | 2 | Passed |

## 5 Conclusions

After having undergone the aforementioned stress tests, all FG132-NA-00 units: passed visual inspection and passed performance analysis tests.

In conclusion, Fibocom Wireless Inc. hereby declares that the FG132-NA-00 meets the quality and reliability standards defined for a product in the Industry category.