

# TEST REPORT

EVALUATION Test for AT1K01-A10

**APPLICANT**

SAMSUNG Electronics Co., Ltd.

**DATE OF ISSUE**

July 30, 2019

HCT Co., Ltd.

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**TEST  
REPORT**  
EVALUATION Test  
for AT1K01-A01

DATE OF ISSUE  
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FCC ID  
A3LAT1K01-A10

|                                     |                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant                           | <b>SAMSUNG Electronics Co., Ltd.</b><br>129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea                                                                                                                                                                                                                                              |
| Equipment Class(es)<br>Rule Part(s) | 5GB<br>30                                                                                                                                                                                                                                                                                                                                                       |
| Application's Statement             | The applicant takes full responsibility that the test data referenced below represents compliance for this FCC ID.                                                                                                                                                                                                                                              |
| Differences Brief Description       | The hardware and software of this device are identical to the implementation in A3LAT1K01-A00. The operational description includes detailed information about the changes between the devices. The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary table below. |
| Test Reference                      | KDB 484596 D01 Reference Test Data v01                                                                                                                                                                                                                                                                                                                          |

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

Tested by  
Kwang Il Yoon

Technical Manager  
Jong Seok Lee

(Signature)  
(Signature)

**HCT CO., LTD.**  
*Soo Chan Lee*  
SooChan Lee / CEO

The detail test data can be found in this documents, Appendix A.

| Category | Spot Check                                    | Verdict |
|----------|-----------------------------------------------|---------|
| Licensed | EIRP Density<br>Conducted output power<br>RSE | Share   |

Reference Detail Section

| Equipment Class | Reference ID  | Section      |
|-----------------|---------------|--------------|
| 5GB             | A3LAT1K01-A10 | All sections |

Appendix A. The Spot check test data

1. Summary of the spot check

| Test Item/Modulation               | Frequency Range<br>[MHz) | AT1K01-A00 Result | AT1K01-A01 Result | Deviation |
|------------------------------------|--------------------------|-------------------|-------------------|-----------|
|                                    |                          | [dBm]             | [dBm]             | [dB]      |
|                                    |                          | Average           | Average           | Average   |
| EIRP Density / 1CC / Ant B / 64QAM | 27.55                    | 48.19             | 47.79             | 0.40      |
| EIRP Density / 8CC / Ant A / 16QAM | 27.90                    | 47.01             | 46.58             | 0.43      |
| Conducted / 1CC / Ant B / 16QAM    | 27.55                    | 20.88             | 20.69             | 0.19      |
| Conducted / 8CC / Ant B / 64QAM    | 27.95                    | 25.95             | 25.82             | 0.13      |
| RSE / 1CC / QPSK                   | 33.12                    | -15.31            | -15.39            | 0.08      |
| RSE / 8CC / QPSK                   | 33.48                    | -16.10            | -16.23            | 0.13      |

## 2. List of test equipment for EMC

| Manufacturer       | Model / Equipment                              | Calibration Date | Calibration Interval | Serial No.       |
|--------------------|------------------------------------------------|------------------|----------------------|------------------|
| Agilent            | N9030B / PXA Signal Analyzer                   | 08/29/2018       | Annual               | MY55480167       |
| Schwarzbeck        | BBHA 9170 / Horn Antenna                       | 12/04/2017       | Biennial             | BBHA9170541      |
| KIKUSUI            | PWR800L / DC Power Supply                      | 07/18/2019       | Annual               | RE002047         |
| Innco system       | CO3000 / Controller(Antenna mast)              | N/A              | N/A                  | CO3000-4p        |
| Innco system       | MA4640/800-XP-EP / Antenna Position Tower      | N/A              | N/A                  | N/A              |
| Rohde&Schwarz      | FSW / Spectrum Analyzer                        | 09/27/2018       | Annual               | 101256           |
| Rohde&Schwarz      | FSP / Spectrum Analyzer                        | 09/19/2018       | Annual               | 836650/016       |
| Rohde & Schwarz    | Loop Antenna                                   | 01/18/2019       | Biennial             | 1513-175         |
| Emco               | 2090 / Controller                              | N/A              | N/A                  | 060520           |
| Ets                | Turn Table                                     | N/A              | N/A                  | N/A              |
| Schwarzbeck        | VULB 9168 / Hybrid Antenna                     | 08/31/2018       | Biennial             | 00895            |
| Schwarzbeck        | BBHA 9120D / Horn Antenna                      | 06/28/2019       | Biennial             | 9120D-1300       |
| OML INC.           | WR-19 Horn Antenna / Horn Antenna              | 04/23/2018       | Biennial             | 18042301         |
| OML INC.           | WR-19 Horn Antenna / Horn Antenna              | 04/23/2018       | Biennial             | 18042302         |
| OML INC.           | WR-12 Horn Antenna / Horn Antenna              | 04/23/2018       | Biennial             | 18042301         |
| OML INC.           | WR-12 Horn Antenna / Horn Antenna              | 04/23/2018       | Biennial             | 18042302         |
| OML INC.           | WR-08 Horn Antenna / Horn Antenna              | 05/01/2018       | Biennial             | 18050101         |
| OML INC.           | WR-08 Horn Antenna / Horn Antenna              | 05/01/2018       | Biennial             | 18050102         |
| OML INC.           | OML WR19 / Harmonic Mixer                      | 09/27/2018       | Annual               | W19HWD           |
| OML INC.           | OML WR12 / Harmonic Mixer                      | 09/27/2018       | Annual               | W12HWD           |
| OML INC.           | OML WR08 / Harmonic Mixer                      | 09/27/2018       | Annual               | W08HWD           |
| OML INC.           | WR-19 / Source Module                          | 09/27/2018       | Annual               | S19MS-A-160516-1 |
| OML INC.           | WR-12 / Source Module                          | 09/27/2018       | Annual               | S12MS-A-160419-1 |
| OML INC.           | WR-08 / Source Module                          | 09/27/2018       | Annual               | S08MS-A-160419-1 |
| NANGYEUL CO., LTD. | NY-THR18750 / Temperature and Humidity Chamber | 10/30/2018       | Annual               | NY-2009012201A   |
| Rohde & Schwarz    | SMV100A / Signal Generator                     | 07/15/2019       | Annual               | 177633           |

### **Note:**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.