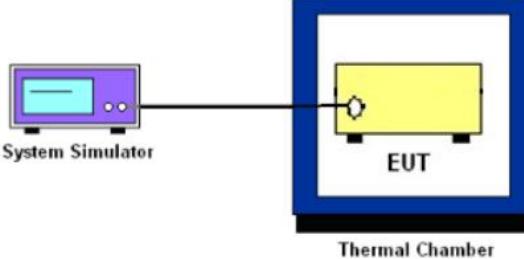


6.7. Frequency Stability Measurement

6.7.1. Test Specification

Test Requirement:	FCC Part 2.1055 ; FCC Part 22.355 ; FCC Part 24.235
Test Method:	FCC KDB 971168 D01v03r01
Operation mode:	Refer to item 3.1
Limit:	FCC Part 22.355 : ± 2.5 ppm FCC Part 24.235 : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.
Test Setup:	
Test Procedure:	<p>Test Procedures for Temperature Variation</p> <ol style="list-style-type: none"> 1. The testing follows FCC KDB 971168 D01v03r01 Section 9.0. 2. The EUT was set up in the thermal chamber and connected with the system simulator. 3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute. 4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute. <p>Test Procedures for Voltage Variation</p> <ol style="list-style-type: none"> 1. The testing follows FCC KDB 971168 D01v03r01 Section 9.0. 2. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected with the system simulator. 3. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT. 4. The variation in frequency was measured for the worst case.
Test Result:	PASS
Remark:	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.

6.7.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
Universal Radio Communication Tester	R&S	CMU200	110188	Jun. 26, 2025	Jun. 25, 2026
Programable tempratuce and humidity chamber	JQ	JQ-2000	510101234	Jun. 26, 2025	Jun. 25, 2026
DC power supply	Kingrang	KR3005K	/	Jun. 26, 2025	Jun. 25, 2026
Combiner Box	AT890-RFB	Ascentest	/	/	/

6.7.3. Test Data

Test Result of Temperature Variation

Band:	GSM 850	Channel:	190	
Limit (ppm):	2.5	Frequency:	836.4MHz	
Temperature (°C)	Deviation (ppm)		Result	
50	0.021		PASS	
40	0.016			
30	0.018			
20	0.013			
10	0.011			
0	0.015			
-10	0.017			
-20	0.018			
-30	0.022			

Band:	GSM 1900	Channel:	661	
Limit (ppm):	Note	Frequency:	1880MHz	
Temperature (°C)	Deviation (ppm)		Result	
50	0.021		PASS	
40	0.013			
30	0.017			
20	0.016			
10	0.018			
0	0.011			
-10	0.013			
-20	0.014			
-30	0.019			

Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Band:	WCDMA Band V	Channel:	4182	
Limit (ppm):	2.5	Frequency:	836.4MHz	
Temperature (°C)	RMC 12.2Kbps Deviation (ppm)		Result	
50	0.021		PASS	
40	0.012			
30	0.013			
20	0.015			
10	0.018			
0	0.016			
-10	0.017			
-20	0.021			
-30	0.020			

Band:	WCDMA Band II	Channel:	9400	
Limit (ppm):	Note	Frequency:	1880MHz	
Temperature (°C)	RMC 12.2Kbps Deviation (ppm)		Result	
50	0.019		PASS	
40	0.017			
30	0.016			
20	0.013			
10	0.015			
0	0.016			
-10	0.017			
-20	0.018			
-30	0.022			

Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Result of Voltage Variation

Band & Channel	Mode	Voltage (Volt)	Deviation (ppm)	Limit (ppm)	Result
GSM 850 CH190	GSM	16	+0.017	2.5	PASS
		12	+0.018		
		9	+0.016		
GSM 1900 CH661	GSM	16	+0.013	(Note 3.)	PASS
		12	+0.021		
		9	+0.019		
WCDMA Band V CH4182	RMC 12.2Kbps	16	-0.012	2.5	PASS
		12	-0.015		
		9	-0.020		
WCDMA Band II CH9400	RMC 12.2Kbps	16	-0.018	(Note 3.)	PASS
		12	-0.017		
		9	-0.015		

Note:

1. Normal Voltage = 3.7V.
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Appendix B: Photographs of Test Setup

Please refer to document Appendix No.: TCT250807E012-A

Appendix C: Photographs of EUT

Please refer to document Appendix No.: TCT250807E012-B & TCT250807E012-C

*******END OF REPORT*******