FCC RADIO TEST REPORT

FCC ID	:	**O57FLEX5G14X05**
Equipment	:	**Notebook Computer**
Brand Name	:	**Lenovo**
Model Name	:	**Lenovo Flex 5G 14Q8CX05********, 82AK********, Yoga 5G 14Q8CX05********, 81XE******** (* = 0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)**
Applicant	:	**Lenovo (Shanghai) Electronics Technology Co., Ltd. Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone, Shanghai**
Manufacturer	:	**Lenovo PC HK Limited 23/F, Lincoln House, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong**
Standard	:	**FCC 47 CFR Part 2, 22(H), 24(E), 27**

Equipment: Murata LBDD5WV1US-575 and HON LIN T99W175 tested inside of Lenovo Notebook Computer.

The product was received on Sep. 23, 2020 and testing was started from Sep. 28, 2020 and completed on Oct. 02, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

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History of this test report

Report No.	Version	Description	Issued Date
FG9N2705-01G	01	Initial issue of report	Oct. 14, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	§2.1046	Conducted Output Power	-	See Note
	§22.913 (a)(2)	Effective Radiated Power (n5)	-	
	§27.50 (c)(10)	Effective Radiated Power (n12) (n71)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (n2) (n7) (n41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (n66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (n2) (n5) (n12) (n66) (n71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (n7) (n41)		
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (n2) (n5) (n12) (n66) (n71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (n7) (n41)		
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Radiated Spurious Emission (n2) (n5) (n12) (n66) (n71)	Pass	Under limit 15.40 dB at 5624.000 MHz
	§2.1051 §27.53 (m)(4)	Radiated Spurious Emission (n7) (n41)		
Note: The module (Model: T99W175) makes no difference after verifying output power, this report reuses test data from the module report.				

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Model Name	Lenovo Flex 5G 14Q8CX05********, 82AK********, Yoga 5G 14Q8CX05********, 81XE******** (* = 0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)
FCC ID	O57FLEX5G14X05
EUT supports Radios application	WCDMA/HSPA/LTE/5G NR/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer.
2. Equipment: Murata LBDD5WV1US-575 and HON LIN T99W175 tested inside of Lenovo Notebook Computer.

Antenna Information			
WWAN	**3G&LTE (dBi)**		
Notebook Mode	**Antenna Type**	Main: PIFA Antenna	Aux: PIFA Antenna
	Part number	AUF6Y-100015 (DC33002DB00)	AUF6Y-100017 (DC33002DB30)
	Peak gain (dbi)	Main Antenna :	Aux. Antenna :
		2.95	2.85
Tablet Mode	**Antenna Type**	Main: PIFA Antenna	Aux: PIFA Antenna
	Part number	AUF6Y-100015 (DC33002DB00)	AUF6Y-100017 (DC33002DB30)
	Peak gain (dbi)	Main Antenna :	Aux. Antenna :
		2.02	0.92

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n2: 1852.5 MHz ~ 1907.5 MHz 5G NR n5: 826.5 MHz ~ 846.5 MHz 5G NR n7: 2502.5 MHz ~ 2567.5 MHz 5G NR n12: 701.5 MHz ~ 713.5 MHz 5G NR n41: 2506.02 MHz ~ 2679.99 MHz 5G NR n66: 1712.5 MHz ~ 1777.5 MHz 5G NR n71: 668.0 MHz ~ 693.0 MHz
Rx Frequency	5G NR n2: 1932.5 MHz ~ 1987.5 MHz 5G NR n5: 871.5 MHz ~ 891.5 MHz 5G NR n7: 2502.5 MHz ~ 2567.5 MHz 5G NR n12: 731.5 MHz ~ 743.5 MHz 5G NR n41: 2506.02 MHz ~ 2679.99 MHz 5G NR n66: 2112.5 MHz ~ 2197.5 MHz 5G NR n71: 668.0 MHz ~ 693.0 MHz
Bandwidth	5G NR n2: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n5: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n7: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n12: 5MHz / 10MHz / 15MHz 5G NR n41: 20MHz / 40MHz / 50MHz / 60MHz / 80MHz / 90MHz / 100MHz 5G NR n66: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n71: 5MHz / 10MHz / 15MHz / 20MHz
Type of Modulation	PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58 , Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan
Test Site No.	**Sporton Site No.**
	03CH13-HY
Test Engineer	Daniel Lee, Jacky Hong and Wilson Wu
Temperature	21.5~25.5℃
Relative Humidity	49.5~55.5%

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW0007

1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26-2015
- ANSI / TIA-603-E
- FCC 47 CFR Part 2, 22(H), 24(E), 27
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 414788 D01 Radiated Test Site v01r01.

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

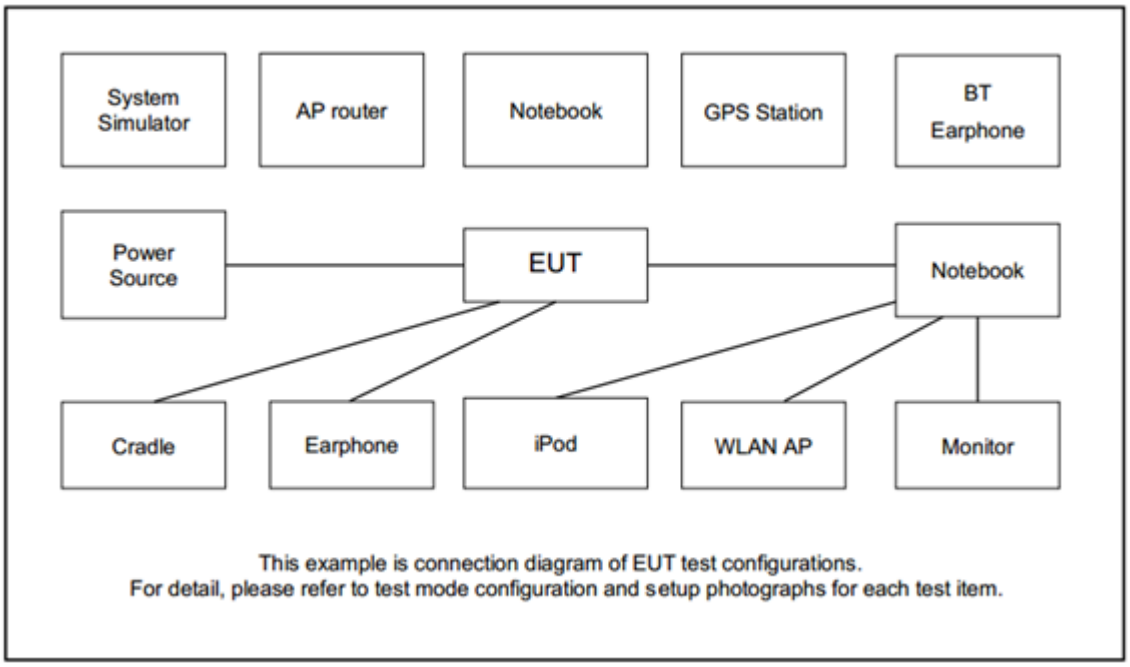
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in Tablet type (three orthogonal panels, X, Y, Z) and Notebook type. The worst cases (X Plane with Accessory for n66A, n41A and Notebook type with Accessory for n5A, n2A, n12A) were recorded in this report.

Test Items	NR Band	Bandwidth (MHz)						Modulation					RB #			Test Channel		
		5	10	15	20	40	50	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	n2			v		-	-	v					v			v	v	v
	n5			v		-	-	v					v			v	v	v
	n12		v		-	-	-	v					v			v	v	v
	n66			v		-	-	v					v			v	v	v
Remark	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Test combination is EN-DC 12A-n66A, EN-DC 2A-n12A, EN-DC 5A-n2A, EN-DC 66A-n5A. 5. For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report.																	

Test Items	NR Band	Bandwidth (MHz)									Modulation					RB #			Test Channel		
		10	15	20	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	n41			v							v					v			v	v	v
Remark	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Test combination is EN-DC 25A-n41A. ~~5.~~ For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report.																				

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
2.	Earphone	SONY	MH750	N/A	Unshielded, 1.2m	N/A

2.4 Frequency List of Low/Middle/High Channels

5G NR Band n2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	371500	376000	380500
	Frequency	1857.5	1880	1902.5

5G NR Band n5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5

5G NR Band n12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	140800	141500	142200
	Frequency	704	707.5	711

5G NR Band n41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99

5G NR Band n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5

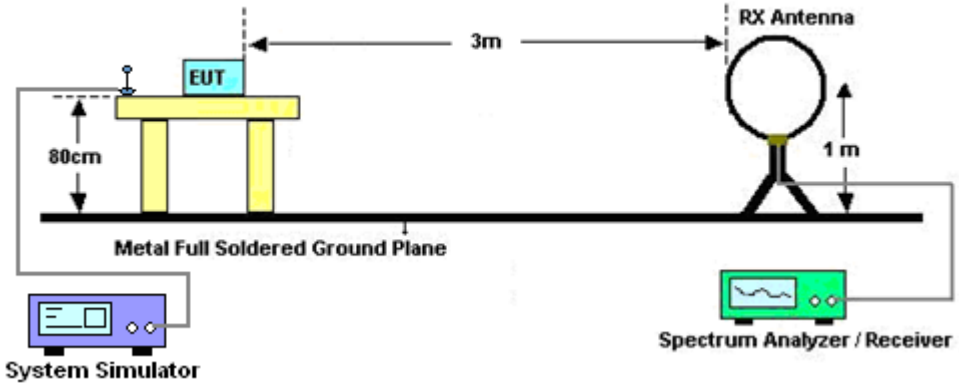
3 Radiated Test Items

3.1 Measuring Instruments

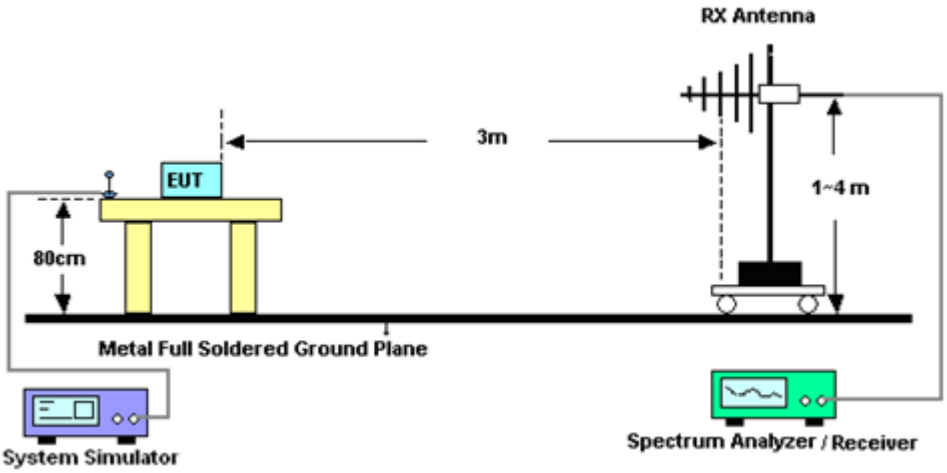
See list of measuring instruments of this test report.

3.1.1 Test Setup

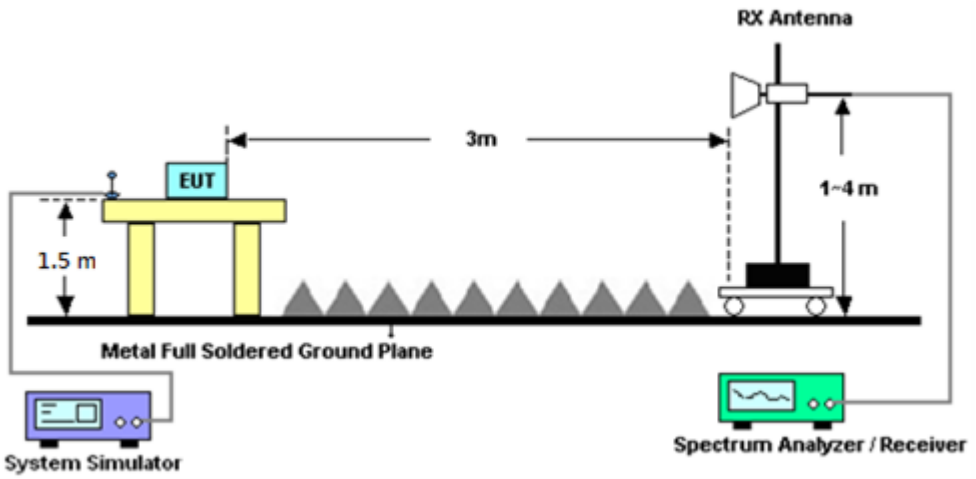
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



3.1.2 Test Result of Radiated Test

Please refer to Appendix A.

Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.2 Radiated Spurious Emission Measurement

3.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For 5G NR n41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)

    For 5G NR n41

    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

    EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

    ERP (dBm) = EIRP - 2.15

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Sep. 28, 2020~ Oct. 02, 2020	Jul. 13, 2021	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 17, 2019	Sep. 28, 2020~ Oct. 02, 2020	Dec. 16, 2020	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&07	30MHz to 1GHz	Apr. 29, 2020	Sep. 28, 2020~ Oct. 02, 2020	Apr. 28, 2021	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	41912 & 07	30MHz to 1GHz	Apr. 29, 2020	Sep. 28, 2020~ Oct. 02, 2020	Apr. 28, 2021	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz ~ 18GHz	May 20, 2020	Sep. 28, 2020~ Oct. 02, 2020	May 19, 2021	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 15, 2020	Sep. 28, 2020~ Oct. 02, 2020	Jul. 14, 2021	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 19, 2020	Sep. 28, 2020~ Oct. 02, 2020	May 18, 2021	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 28, 2019	Sep. 28, 2020~ Oct. 02, 2020	Oct. 27, 2020	Radiation (03CH13-HY)
Signal Generator	Anritsu	MG3694C	163401	0.1Hz~40GHz	Feb. 15, 2020	Sep. 28, 2020~ Oct. 02, 2020	Feb. 14, 2021	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 20, 2020	Sep. 28, 2020~ Oct. 02, 2020	Mar. 19, 2021	Radiation (03CH13-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 28, 2020~ Oct. 02, 2020	N/A	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 28, 2020~ Oct. 02, 2020	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 28, 2020~ Oct. 02, 2020	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Sep. 28, 2020~ Oct. 02, 2020	N/A	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 13, 2019	Sep. 28, 2020~ Oct. 02, 2020	Dec. 12, 2020	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 10, 2019	Sep. 28, 2020~ Oct. 02, 2020	Dec. 09, 2020	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170980	18GHz~40GHz	Jan. 10, 2020	Sep. 28, 2020~ Oct. 02, 2020	Jan. 09, 2021	Radiation (03CH13-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 12, 2020	Sep. 28, 2020~ Oct. 02, 2020	Feb. 21, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 12, 2020	Sep. 28, 2020~ Oct. 02, 2020	Feb. 21, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 25, 2020	Sep. 28, 2020~ Oct. 02, 2020	Feb. 24, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30M~40GHz	Mar. 12, 2020	Sep. 28, 2020~ Oct. 02, 2020	Mar. 11, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 12, 2020	Sep. 28, 2020~ Oct. 02, 2020	Feb. 11, 2021	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 12, 2020	Sep. 28, 2020~ Oct. 02, 2020	Mar. 11, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0SS	SN2	3GHz High Pass Filter	Jul. 13, 2020	Sep. 28, 2020~ Oct. 02, 2020	Jul. 12, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-1080 -1200-15000-6 0SS	SN3	1.2GHz High Pass Filter	Jul. 02, 2020	Sep. 28, 2020~ Oct. 02, 2020	Jul. 01, 2021	Radiation (03CH13-HY)
Hygrometer	TECPEL	DTM-303A	TP190075	N/A	Apr. 23, 2020	Sep. 28, 2020~ Oct. 02, 2020	Apr. 22, 2021	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.10**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.12**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.77**

Appendix A. Test Results of Radiated Test

EN-DC 12A_n66A

EN-DC_12A_n66A / 15MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3422	-57.21	-13	-44.21	-76.2	-67.57	1.81	12.17	H
	5132	-53.11	-13	-40.11	-76.6	-62.93	2.31	12.13	H
	6843	-50.14	-13	-37.14	-76.43	-58.83	2.37	11.06	H
									H
									H
									H
	3422	-56.72	-13	-43.72	-76.34	-67.08	1.81	12.17	V
	5132	-52.45	-13	-39.45	-76.51	-62.27	2.31	12.13	V
	6843	-49.72	-13	-36.72	-76.56	-58.41	2.37	11.06	V
									V
									V
									V
Middle	3476	-57.01	-13	-44.01	-76.52	-67.49	1.85	12.33	H
	5215	-53.77	-13	-40.77	-77.34	-63.64	2.27	12.14	H
	6953	-49.74	-13	-36.74	-76.32	-58.28	2.40	10.95	H
									H
									H
									H
	3476	-56.07	-13	-43.07	-76.08	-66.55	1.85	12.33	V
	5215	-53.18	-13	-40.18	-77.29	-63.05	2.27	12.14	V
	6953	-49.08	-13	-36.08	-76.26	-57.62	2.40	10.95	V
									V
									V
									V
									V

Highest	3531	-56.39	-13	-43.39	-76.32	-66.89	1.89	12.38	H
	5297	-53.80	-13	-40.80	-77.41	-63.72	2.24	12.16	H
	7063	-49.14	-13	-36.14	-76.16	-57.55	2.38	10.79	H
									H
									H
									H
									H
	3531	-56.02	-13	-43.02	-76.44	-66.52	1.89	12.38	V
	5297	-53.02	-13	-40.02	-77.15	-62.94	2.24	12.16	V
	7063	-48.58	-13	-35.58	-76.18	-56.99	2.38	10.79	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_2A_n12A

EN-DC_2A_n12A / 10MHz / BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-49.22	-13.00	-36.22	-73.54	-53.66	1.15	7.74	H
	2098	-48.57	-13.00	-35.57	-75.16	-55.22	1.38	10.18	H
	2798	-47.80	-13.00	-34.80	-75.36	-54.94	1.45	10.74	H
									H
									H
									H
									H
	1400	-50.01	-13.00	-37.01	-73.76	-54.45	1.15	7.74	V
	2098	-48.39	-13.00	-35.39	-75.23	-55.04	1.38	10.18	V
	2798	-47.42	-13.00	-34.42	-75.39	-54.56	1.45	10.74	V
									V
									V
									V
									V
Middle	1406	-49.38	-13.00	-36.38	-73.67	-53.85	1.15	7.77	H
	2109	-48.58	-13.00	-35.58	-75.37	-55.24	1.38	10.19	H
	5624	-28.40	-13.00	-15.40	-61.76	-36.50	2.13	12.37	H
									H
									H
									H
									H
	1406	-50.16	-13.00	-37.16	-73.89	-54.63	1.15	7.77	V
	2109	-48.27	-13.00	-35.27	-75.34	-54.93	1.38	10.19	V
	5624	-35.64	-13.00	-22.64	-69.63	-43.74	2.13	12.37	V
									V
									V
									V
									V

Highest	1414	-49.70	-13.00	-36.70	-73.95	-54.20	1.15	7.80	H
	2120	-48.42	-13.00	-35.42	-75.40	-55.09	1.38	10.20	H
	2826	-47.97	-13.00	-34.97	-75.60	-55.13	1.45	10.76	H
									H
									H
									H
									H
	1414	-50.41	-13.00	-37.41	-74.13	-54.91	1.15	7.80	V
	2120	-48.00	-13.00	-35.00	-75.29	-54.67	1.38	10.20	V
	2826	-47.55	-13.00	-34.55	-75.60	-54.71	1.45	10.76	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_25A_n41A

EN-DC_25A_n41A / 20MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4995	-65.78	-25	-40.78	-58.74	-75.52	2.36	12.10	H
	7494	-60.77	-25	-35.77	-59.28	-68.66	2.12	10.01	H
	9986	-60.00	-25	-35.00	-62.27	-69.99	1.81	11.80	H
									H
									H
									H
									H
	4995	-65.50	-25	-40.50	-59.08	-75.24	2.36	12.10	V
	7494	-61.22	-25	-36.22	-59.59	-69.11	2.12	10.01	V
	9986	-60.89	-25	-35.89	-62.29	-70.88	1.81	11.80	V
									V
									V
									V
									V
Middle	5170	-65.03	-25	-40.03	-58.57	-74.87	2.29	12.13	H
	7752	-61.84	-25	-36.84	-60.26	-70.63	2.11	10.91	H
	10330	-59.87	-25	-34.87	-62.7	-69.48	2.32	11.93	H
									H
									H
									H
									H
	5170	-64.76	-25	-39.76	-58.86	-74.60	2.29	12.13	V
	7752	-61.54	-25	-36.54	-60.02	-70.33	2.11	10.91	V
	10330	-60.14	-25	-35.14	-62.68	-69.75	2.32	11.93	V
									V
									V
									V
									V

Highest	5345	-65.81	-25	-40.81	-59.85	-75.76	2.22	12.17	H
	8012	-60.91	-25	-35.91	-60.78	-70.62	2.11	11.82	H
	10676.5	-58.68	-25	-33.68	-62.06	-67.82	2.61	11.75	H
									H
									H
									H
									H
	5345	-65.47	-25	-40.47	-60.02	-75.42	2.22	12.17	V
	8012	-61.05	-25	-36.05	-60.66	-70.76	2.11	11.82	V
	10676.5	-58.92	-25	-33.92	-62.33	-68.06	2.61	11.75	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_5A_n2A

EN-DC_5A_n2A / 15MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3715	-45.77	-13	-32.77	-76.34	-56.06	1.98	12.27	H
	5572	-43.47	-13	-30.47	-76.97	-53.63	2.14	12.30	H
	7430	-37.45	-13	-24.45	-75.62	-45.42	2.16	10.13	H
									H
									H
									H
									H
	3715	-45.58	-13	-32.58	-76.67	-55.87	1.98	12.27	V
	5572	-42.90	-13	-29.90	-77.04	-53.06	2.14	12.30	V
	7430	-38.20	-13	-25.20	-76.31	-46.17	2.16	10.13	V
									V
									V
									V
									V
Middle	3749	-45.51	-13	-32.51	-76.16	-55.76	2.00	12.25	H
	5618	-43.13	-13	-30.13	-76.65	-53.37	2.13	12.37	H
	7494	-38.03	-13	-25.03	-76.05	-45.92	2.12	10.01	H
									H
									H
									H
									H
	3749	-44.99	-13	-31.99	-76.15	-55.24	2.00	12.25	V
	5618	-40.71	-13	-27.71	-74.87	-50.95	2.13	12.37	V
	7494	-38.00	-13	-25.00	-75.88	-45.89	2.12	10.01	V
									V
									V
									V
									V

Highest	3805	-45.35	-13	-32.35	-76.15	-55.54	2.03	12.22	H
	5707	-43.19	-13	-30.19	-77.16	-53.57	2.11	12.49	H
	7610	-38.93	-13	-25.93	-76.21	-47.21	2.11	10.40	H
									H
									H
									H
									H
	3805	-44.65	-13	-31.65	-75.92	-54.84	2.03	12.22	V
	5707	-42.49	-13	-29.49	-77.03	-52.87	2.11	12.49	V
	7610	-38.77	-13	-25.77	-76.09	-47.05	2.11	10.40	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_66A_n5A

EN-DC_66A_n5A / 15MHz / BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-52.12	-13	-39.12	-74.95	-57.51	1.23	8.76	H
	2474	-48.54	-13	-35.54	-75.17	-55.43	1.44	10.48	H
	3299	-47.39	-13	-34.39	-75.83	-55.33	1.71	11.80	H
									H
									H
									H
									H
	1648	-51.84	-13	-38.84	-74.55	-57.23	1.23	8.76	V
	2474	-48.49	-13	-35.49	-75.4	-55.38	1.44	10.48	V
	3299	-46.91	-13	-33.91	-75.75	-54.85	1.71	11.80	V
									V
									V
									V
									V
Middle	1659	-51.80	-13	-38.80	-74.67	-57.22	1.23	8.80	H
	2489	-48.66	-13	-35.66	-75.25	-55.56	1.44	10.49	H
	3318	-47.41	-13	-34.41	-75.73	-55.39	1.72	11.85	H
									H
									H
									H
									H
	1659	-52.24	-13	-39.24	-74.99	-57.66	1.23	8.80	V
	2489	-47.90	-13	-34.90	-74.72	-54.80	1.44	10.49	V
	3318	-46.81	-13	-33.81	-75.58	-54.79	1.72	11.85	V
									V
									V
									V
									V

Highest	1670	-51.63	-13	-38.63	-74.53	-57.09	1.23	8.85	H
	2504	-48.68	-13	-35.68	-75.25	-55.59	1.44	10.50	H
	3339	-47.00	-13	-34.00	-75.18	-55.03	1.74	11.92	H
									H
									H
									H
									H
	1670	-51.95	-13	-38.95	-74.74	-57.41	1.23	8.85	V
	2504	-47.95	-13	-34.95	-74.71	-54.86	1.44	10.50	V
	3339	-46.60	-13	-33.60	-75.3	-54.63	1.74	11.92	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.