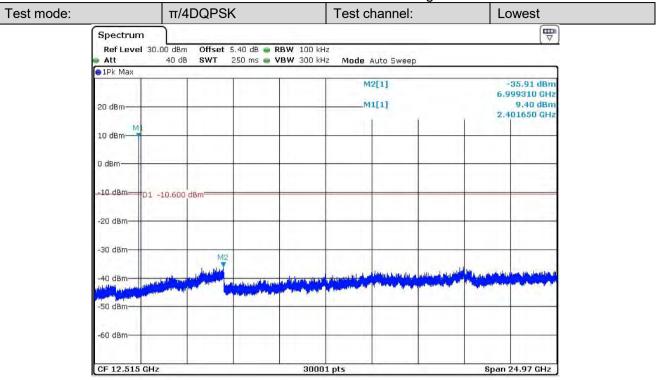
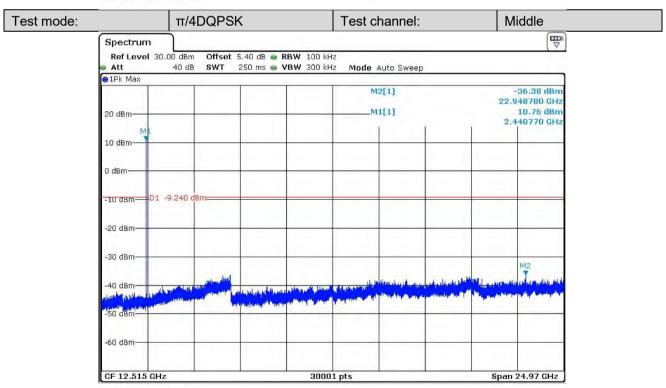


Report No.: HR/2021/1001402-01

Page: 64 of 90



Date: 31.JAN.2021 17:26:48



Date: 31.JAN.2021 17:25:40



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN.Doccheck@ags.com.

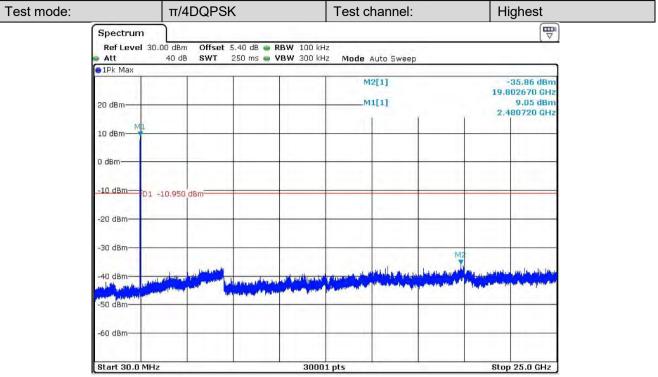
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

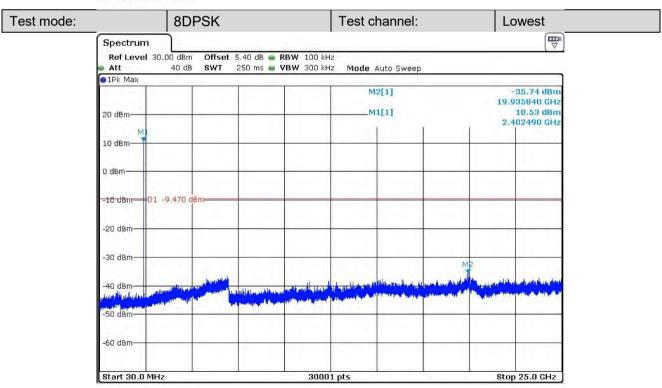


Report No.: HR/2021/1001402-01

65 of 90 Page:



Date: 31 JAN 2021 17:25:10



Date: 31.JAN.2021 17:21:55



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN.Doccheck@ags.com.

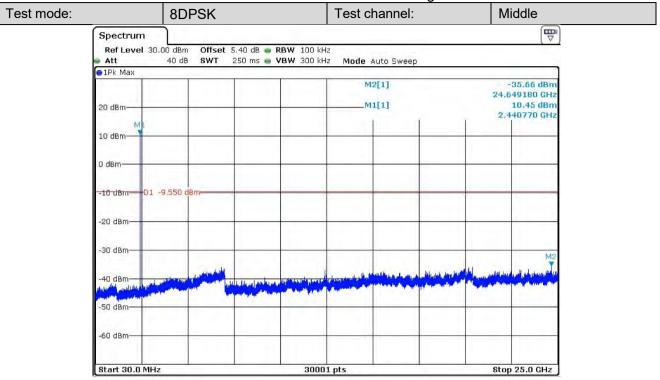
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

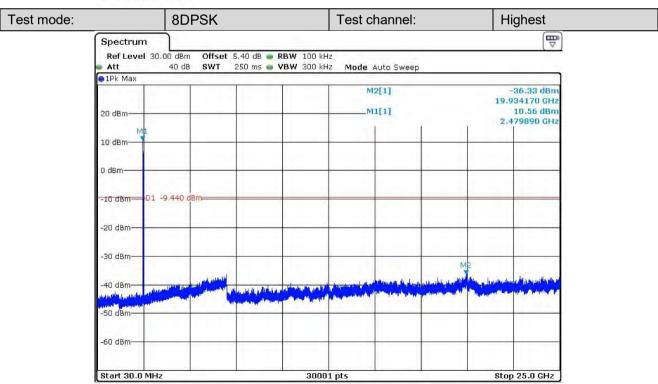


Report No.: HR/2021/1001402-01

Page: 66 of 90



Date: 31.JAN.2021 17:23:38



Date: 31.JAN.2021 17:24:27



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN.Doccheck@ags.com.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

sgs.china@sgs.com



Report No.: HR/2021/1001402-01

Page: 67 of 90

Remark:

Scan from 9kHz to 25GHz, the disturbance between 9KHz to 30MHz was very low, and the above harmonics were the highest point could be found when testing, The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.





Report No.: HR/2021/1001402-01

Page: 68 of 90

4.11 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section	n 15.209 and 15.20	05			
Test Method:	ANSI C63.10 :2013 Sect	ion 11.12				
Test Site:	Measurement Distance:	3m (Semi-Anechoi	ic Chamber)			
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark	
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak	
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average	
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak	
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average	
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	
	Above 1GHz	Peak	1MHz	3MHz	Peak	
	Above IGHZ	Peak	1MHz	10Hz	Average	
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)	
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300	
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30	
	1.705MHz-30MHz	30	-	-	30	
	30MHz-88MHz	100	40.0	Quasi-peak	3	
	88MHz-216MHz	150	43.5	Quasi-peak	3	
	216MHz-960MHz	200	46.0	Quasi-peak	3	
	960MHz-1GHz	500	54.0	Quasi-peak	3	
	Above 1GHz	500	54.0	Average	3	
Remark: 15.35(b),Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.						



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN.Doccheck@ags.com.

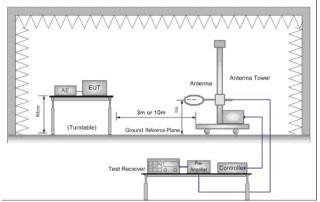
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房



Report No.: HR/2021/1001402-01

69 of 90 Page:

Test Setup:



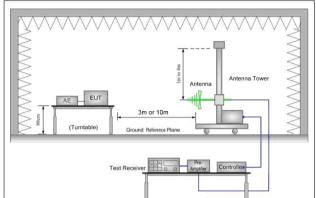


Figure 1. Below 30MHz

Figure 2. 30MHz to 1GHz

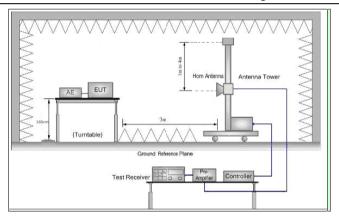


Figure 3. Above 1 GHz

Test Procedure:

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. Use the following spectrum analyzer settings:
 - Span shall wide enough to fully capture the emission being (1) measured:
 - (2)Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz; VBW ≥ RBW; Sweep = auto;
 - Detector function = peak; Trace = max hold for peak
 - (3)For average measurement: use duty cycle correction factor method per 15.35(c).



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.sapx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.sapx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (85-755) 8307 1443.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

sgs.china@sgs.com



Report No.: HR/2021/1001402-01

Page: 70 of 90

	Page. 70 01 90
	Duty cycle = On time/100 milliseconds
	On time = N 1 *L 1 +N 2 *L 2 ++N n-1 *LN n-1 +N n *L n
	Where N 1 is number of type 1 pulses, L 1 is length of type 1 pulses, etc.
	Average Emission Level = Peak Emission Level + 20*log(Duty cycle)
	f. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
	g. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	h. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
	i. Test the EUT in the lowest channel, the middle channel ,the Highest channel.
	 j. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case. k. Repeat above procedures until all frequencies measured was complete.
	Non-hopping transmitting mode with all kind of modulation and all kind of
Exploratory Test Mode:	data type
	Charge + Transmitting mode.
	Through Pre-scan, find the
	DH5 of data type and GFSK modulation is the worst case.
Final Test Mode:	Pretest the EUT at Charge + Transmitting mode
	For below 1GHz part, through pre-scan, the worst case is the lowest channel.
	Only the worst case is recorded in the report.
Test Configuration:	Measurements Below 1000MHz
3	• RBW = 120 kHz
	• VBW = 300 kHz
	Detector = Peak
	Trace mode = max hold
	Peak Measurements Above 1000 MHz
	• RBW = 1 MHz
	VBW ≥ 3 MHz
	Detector = Peak
	Sweep time = auto
	Trace mode = max hold
	Average Measurements Above 1000MHz
	• RBW = 1 MHz
	VBW = 10 Hz, when duty cycle is no less than 98 percent.
	 VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company is sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-Rises.com.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Report No.: HR/2021/1001402-01

Page: 71 of 90

maximum power control level for the tested mode of operation.				
Instruments Used:	Refer to section 6 for details			
Test Results:	Pass			
Remark:	The Emission Test data were reused from the report no:XHR/2021/1001401			





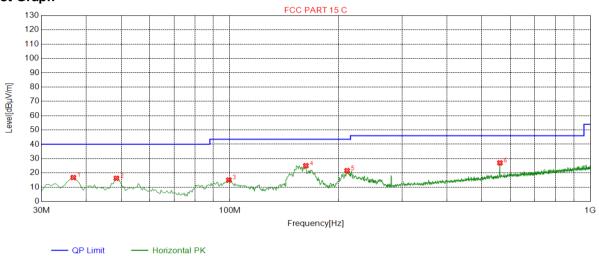
Report No.: HR/2021/1001402-01

72 of 90 Page:

4.11.1 Radiated emission below 1GHz

4.11.1.1 Charge + Transmitting

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	36.7934	16.76	-32.19	40.00	23.24	182	252	Horizontal	
2	48.4392	16.25	-30.19	40.00	23.75	246	277	Horizontal	
3	99.3897	15.01	-31.79	43.50	28.49	172	118	Horizontal	
4	162.471	25.05	-34.13	43.50	18.45	104	108	Horizontal	
5	211.480	21.56	-30.58	43.50	21.94	118	62	Horizontal	
6	561.340	27.02	-21.14	46.00	18.98	185	50	Horizontal	

Final Data List



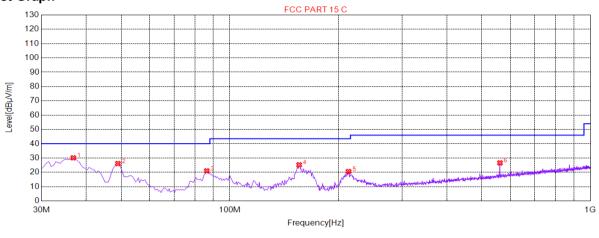
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small:



Report No.: HR/2021/1001402-01

Page: 73 of 90

Test Graph



QP Limit QP Detector

Suspected List

Susp	Suspected List									
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity		
1	36.7934	30.16	-32.19	40.00	9.84	271	291	Vertical		
2	48.9245	26.15	-30.19	40.00	13.85	200	282	Vertical		
3	86.2881	21.03	-34.32	40.00	18.97	170	85	Vertical		
4	155.677	25.26	-34.51	43.50	18.24	159	188	Vertical		
5	213.421	20.59	-30.52	43.50	22.91	296	304	Vertical		
6	561.340	26.61	-21.14	46.00	19.39	235	126	Vertical		

Final Data List





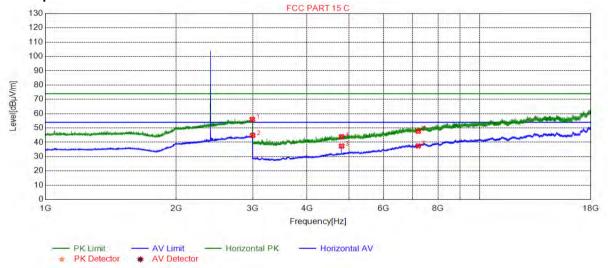
Report No.: HR/2021/1001402-01

74 of 90 Page:

4.11.2 Transmitter Emission above 1GHz

4.11.2.1 GFSK Channel 0

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2992.99	56.04	10.64	74.00	17.96	181	348	Horizontal	
2	2998.49	44.86	10.75	54.00	9.14	224	225	Horizontal	
3	4804.00	37.41	-17.18	54.00	16.59	142	208	Horizontal	
4	4804.00	43.89	-17.18	74.00	30.11	194	78	Horizontal	
5	7206.00	47.73	-9.48	74.00	26.27	169	242	Horizontal	
6	7206.00	37.48	-9.48	54.00	16.52	191	78	Horizontal	

Final Data List



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small:

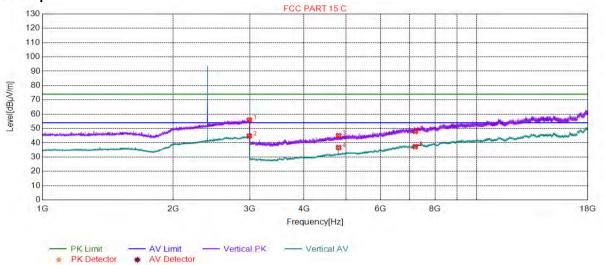


Report No.: HR/2021/1001402-01

Page: 75 of 90

4.11.2.2 GFSK Channel 0

Test Graph



Suspected List

Susp	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2992.49	55.87	10.63	74.00	18.13	179	331	Vertical	
2	2992.49	44.68	10.63	54.00	9.32	230	53	Vertical	
3	4804.00	44.99	-17.18	74.00	29.01	290	35	Vertical	
4	4804.00	36.62	-17.18	54.00	17.38	179	210	Vertical	
5	7206.00	37.31	-9.48	54.00	16.69	237	300	Vertical	
6	7206.00	48.05	-9.48	74.00	25.95	229	317	Vertical	

Final Data List



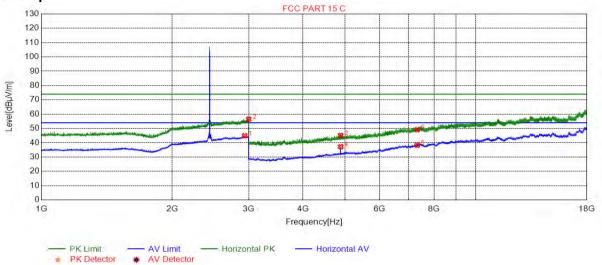


Report No.: HR/2021/1001402-01

Page: 76 of 90

4.11.2.3 GFSK Channel 39

Test Graph



Suspected List

Susp	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2935.98	44.90	10.60	54.00	9.10	145	229	Horizontal	
2	2999.49	56.45	10.77	74.00	17.55	167	182	Horizontal	
3	4882.00	45.11	-16.80	74.00	28.89	211	272	Horizontal	
4	4882.00	37.24	-16.80	54.00	16.76	245	230	Horizontal	
5	7323.00	38.23	-9.27	54.00	15.77	144	30	Horizontal	
6	7323.00	49.15	-9.27	74.00	24.85	240	119	Horizontal	

Final Data List



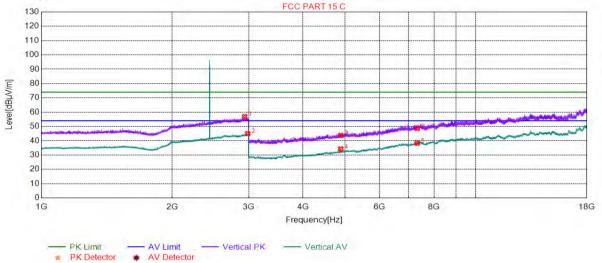


Report No.: HR/2021/1001402-01

Page: 77 of 90

4.11.2.4 GFSK Channel 39

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2934.98	56.95	10.62	74.00	17.05	243	359	Vertical	
2	2983.49	44.99	10.61	54.00	9.01	294	86	Vertical	
3	4882.00	43.77	-16.80	74.00	30.23	230	240	Vertical	
4	4882.59	34.31	-16.80	54.00	19.69	159	194	Vertical	
5	7323.00	38.26	-9.27	54.00	15.74	168	175	Vertical	
6	7323.00	48.61	-9.27	74.00	25.39	171	223	Vertical	

Final Data List



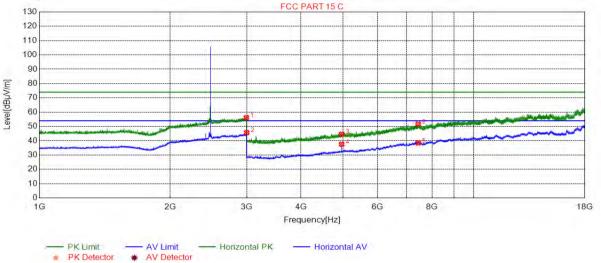


Report No.: HR/2021/1001402-01

Page: 78 of 90

4.11.2.5 GFSK Channel 78

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2993.49	56.14	10.66	74.00	17.86	210	314	Horizontal	
2	2998.49	45.68	10.75	54.00	8.32	165	244	Horizontal	
3	4960.00	44.61	-16.28	74.00	29.39	236	202	Horizontal	
4	4960.00	37.58	-16.28	54.00	16.42	243	221	Horizontal	
5	7440.00	38.46	-8.83	54.00	15.54	171	342	Horizontal	
6	7440.00	51.67	-8.83	74.00	22.33	216	22	Horizontal	

Final Data List



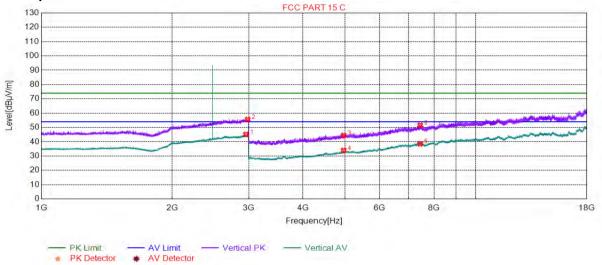


Report No.: HR/2021/1001402-01

79 of 90 Page:

4.11.2.6 GFSK Channel 78

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2956.48	45.15	10.68	54.00	8.85	291	110	Vertical	
2	2981.99	55.64	10.62	74.00	18.36	212	80	Vertical	
3	4960.00	44.43	-16.28	74.00	29.57	210	164	Vertical	
4	4960.00	33.98	-16.28	54.00	20.02	173	228	Vertical	
5	7440.00	38.55	-8.83	54.00	15.45	195	86	Vertical	
6	7440.00	51.59	-8.83	74.00	22.41	223	304	Vertical	

Final Data List

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

- 2) Scan from 9kHz to 25GHz, the disturbance between 9KHz to 30MHz and 18GHz to 25GHz was very low, and the above harmonics were the highest point could be found when testing, The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.
- 4) All Modes have been tested, but only the worst case data displayed in this report.



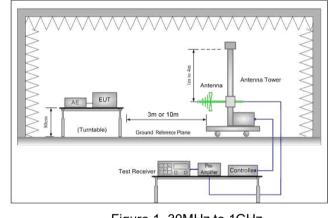


Report No.: HR/2021/1001402-01

Page: 80 of 90

4.12 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15	47 CFR Part 15C Section 15.209 and 15.205							
Test Method:	ANSI C63.10: 2013								
Test Site:	Measurement Distance: 3m	Measurement Distance: 3m (Semi-Anechoic Chamber)							
Limit:	Frequency	Limit (dBuV/m)	Remark						
	30MHz-88MHz	40.0	Quasi-peak						
	88MHz-216MHz	43.5	Quasi-peak						
	216MHz-960MHz	46.0	Quasi-peak						
	960MHz-1GHz	54.0	Quasi-peak						
	Above 1GHz	54.0	Average Value						
	74.0 Peak Value								
Test Setup:									



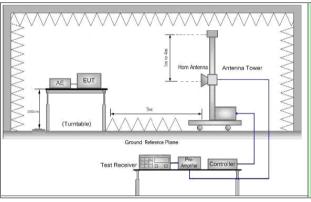


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

**Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

sgs.china@sgs.com



Report No.: HR/2021/1001402-01

Page: 81 of 90

	Fage. 010190					
Test Procedure:	a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.					
	b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.					
	c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.					
	d. The antenna height is varied from one meter to four meters above the gr to determine the maximum value of the field strength. Both horizontal vertical polarizations of the antenna are set to make the measurement.					
	e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.					
	f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.					
	g. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel					
	h. Test the EUT in the lowest channel , the Highest channel					
	i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it is worse case.					
	j. Repeat above procedures until all frequencies measured was complete.					
	Non-hopping transmitting mode with all kind of modulation and all kind of					
Exploratory Test Mode:	data type Charge + Transmitting mode.					
	Through Pre-scan, find the DH5 of data type and GFSK modulation is the worst					
Final Test Mode:	case.					
	Pretest the EUT at Charge + Transmitting mode, Only the worst case is recorded in the report.					
T + O f' + '						
Test Configuration:	Measurements Below 1000MHz RBW = 120 kHz					
	• VBW = 300 kHz					
	• Detector = Peak					
	Trace mode = max hold					
	Peak Measurements Above 1000 MHz					
	• RBW = 1 MHz					
	VBW ≥ 3 MHz					
	Detector = Peak					
	Sweep time = auto					
	Trace mode = max hold					
	Average Measurements Above 1000MHz					
	• RBW = 1 MHz					
- 11	nless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed					



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN. Doccheck-Gegs.com.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房



Report No.: HR/2021/1001402-01

Page: 82 of 90

	3
	 VBW = 10 Hz, when duty cycle is no less than 98 percent.
	• VBW \geqslant 1/T, when duty cycle is less than 98 percent where T is the minimum
	transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass
Remark:	The Emission Test data were reused from the report no:XHR/2021/1001401





Report No.: HR/2021/1001402-01

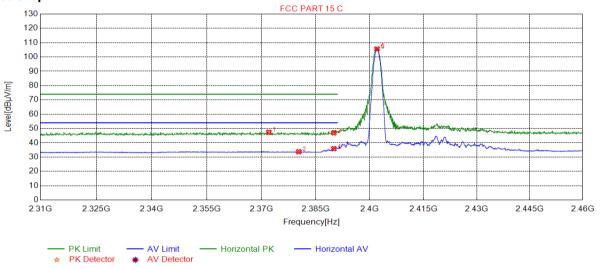
Page: 83 of 90

4.12.1 **Test Plots**

4.12.1.1 Worst Case Mode (GFSK(DH5))

4.12.1.2 GFSK_Channel 0

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2372.05	47.36	8.03	74.00	26.64	142	79	Horizontal	
2	2380.31	33.77	7.99	54.00	20.23	166	192	Horizontal	
3	2390.00	46.96	7.98	74.00	27.04	197	265	Horizontal	
4	2390.00	35.90	7.98	54.00	18.10	152	260	Horizontal	
5	2402.00	105.57	8.06	0.00	-105.57	108	268	Horizontal	
6	2402.00	105.97	8.06	0.00	-105.97	211	311	Horizontal	

Final Data List



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small:

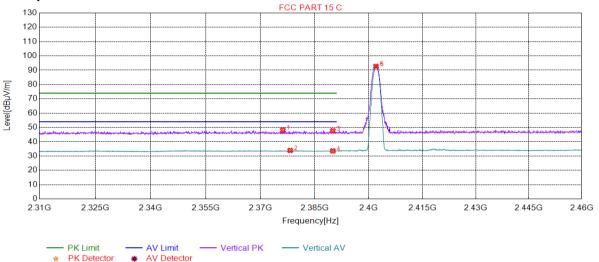


Report No.: HR/2021/1001402-01

Page: 84 of 90

4.12.1.3 GFSK Channel 0

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2376.18	48.07	7.96	74.00	25.93	207	5	Vertical	
2	2378.20	33.91	7.98	54.00	20.09	223	199	Vertical	
3	2390.00	47.66	7.98	74.00	26.34	172	110	Vertical	
4	2390.00	33.62	7.98	54.00	20.38	296	188	Vertical	
5	2402.00	92.71	8.06	0.00	-92.71	246	265	Vertical	
6	2402.00	92.84	8.06	0.00	-92.84	205	265	Vertical	

Final Data List



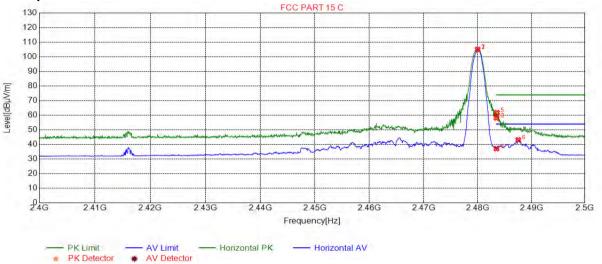


Report No.: HR/2021/1001402-01

Page: 85 of 90

4.12.1.4 GFSK Channel 78

Test Graph



Suspected List

Suspe	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2480.00	105.05	8.54	0.00	-105.05	205	258	Horizontal	
2	2480.00	104.94	8.54	0.00	-104.94	215	258	Horizontal	
3	2483.50	58.16	8.50	74.00	15.84	229	273	Horizontal	
4	2483.50	37.17	8.50	54.00	16.83	201	273	Horizontal	
5	2483.59	61.78	8.50	74.00	12.22	249	273	Horizontal	
6	2487.54	43.20	8.56	54.00	10.80	207	273	Horizontal	

Final Data List



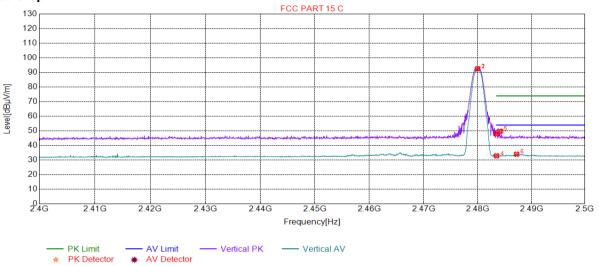


Report No.: HR/2021/1001402-01

Page: 86 of 90

4.12.1.5 GFSK Channel 78

Test Graph



Suspected List

Susp	Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	2480.00	92.53	8.54	0.00	-92.53	262	231	Vertical	
2	2480.00	92.39	8.54	0.00	-92.39	164	231	Vertical	
3	2483.50	47.78	8.50	74.00	26.22	158	345	Vertical	
4	2483.50	32.94	8.50	54.00	21.06	252	301	Vertical	
5	2484.09	49.76	8.50	74.00	24.24	275	231	Vertical	
6	2487.24	34.03	8.55	54.00	19.97	226	301	Vertical	

Final Data List

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor All Modes have been tested, but only the worst case data displayed in this report.





Report No.: HR/2021/1001402-01

Page: 87 of 90

Measurement Uncertainty (95% confidence levels, k=2)

Lab A:

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	±0.75dB
2	RF power density, conducted	±2.84dB
3	Spurious emissions, conducted	±0.75dB
4	Temperature test	±1°C
5	Humidity test	±3%
6	DC and low frequency voltages	±0.5%

I ah B·

No.	Item	Measurement Uncertainty		
		±4.8dB (30MHz-1GHz)		
4	Radiated Spurious emission test	±5.2dB (1GHz-6GHz)		
I		±5.5dB (6GHz-18GHz)		
		±5.02dB (18GHz-40GHz)		
2	Conduct emission test	±3.4 dB (9KHz- 30MHz)		



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small:



Report No.: HR/2021/1001402-01

Page: 88 of 90

Equipment List

	RF conducted test									
Test Equipment	Managara	Model No.	Inventory No	Cal. date	Cal.Duedate					
rest Equipment	Manufacturer	wouei no.	inventory No	(yyyy-mm-dd)	(yyyy-mm-dd)					
DC Power Supply	Agilent Technologie Inc	66311B	W009-09	2020/7/15	2021/7/15					
Cinnal Analyses	Rohde & Schwarz	FSV	W025-05	2021/1/3	2022/1/2					
Signal Analyzer				2020/1/4	2021/1/3					
Coaxial Cable	SGS	N/A	SEM031-01	2020/6/12	2021/6/11					
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A					
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2020/7/14	2021/7/14					
Temperature Chamber	GIANT FORCE	ICT-150-40-CP AR	W027-03	2020/10/27	2021/10/27					
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2020/7/14	2021/7/14					

CE TEST SYSTEM								
EQUIPMENT	MANUFACTURER	MODEL NO.	INVENTORY NO.	CAL DATE	CAL DUE DATE			
SHIELDING ROOM	BRILLIANT-EMC	N/A	XAW03-35-01	2019-09-11	2022-09-10			
TEST RECEIVER	ROHDE&SCHWARZ	ESR	XAW01-08-01	2020-09-11	2021-09-10			
ARTIFICIAL NETWORK	ROHDE&SCHWARZ	ENV216	XAW01-04-01	2020-08-04	2021-08-03			
TEMPERATURE AND HUMIDITY METER	MINGGAO	TH101B	XAW01-01-01	2020-11-06	2021-11-05			
MEASUREMENT SOFTWARE	TONSCEND	TS+ CE V2.5	XAW02-05-02	NCR	NCR			





Report No.: HR/2021/1001402-01

Page: 89 of 90

	RSE TEST SYSTEM							
EQUIPMENT	MANUFACTURER	MODEL NO.	INVENTORY NO.	CAL DATE	CAL DUE DATE			
SEMI-ANECHOIC CHAMBER	BRILLIANT-EMC	N/A	XAW03-35-01	2019-09-11	2022-09-10			
MXA SIGNAL ANALYZER	KEYSIGHT	N9020A	XAW01-06-01	2020-04-02	2021-04-01			
TEST RECEIVER	ROHDE&SCHWARZ	ESR	XAW01-08-01	2020-09-11	2021-09-10			
RECEIVING ANTENNA (30MHZ-3GHZ)	SCHWARZBECK	VULB 9163	XAW01-09-01	2019-10-13	2021-10-12			
RECEIVING ANTENNA (1GHZ~18GHZ)	SCHWARZBECK	BBHA 9120D	XAW01-09-02	2019-10-13	2021-10-12			
RECEIVING ANTENNA (15GHZ~40GHZ)	SCHWARZBECK	BBHA 9170	XAW01-09-03	2019-10-13	2021-10-12			
DIRECTIONAL ANTENNA RACK CONTROLLER	MAX-FULL	MF-7802BS	XAW03-03-01	NCR	NCR			
HIGH-SPEED ANTENNA RACK CONTROLLER	MAX-FULL	MF-7802	XAW03-04-01	NCR	NCR			
FILTER BANK	TONSCEND	JS0806-F	XAW03-05-01	NCR	NCR			
FILTER BANK	TONSCEND	JS0806S	XAW03-05-02	NCR	NCR			
AMPLIFIER	TONSCEND	TAP00903040	XAW01-41-01	2020-10-26	2021-10-25			
AMPLIFIER	TONSCEND	TAP01018048	XAW01-41-02	2020-10-26	2021-10-25			
AMPLIFIER	TONSCEND	TAP18040048	XAW01-41-03	2020-10-27	2021-10-26			
AMPLIFIER	SHANGHAI STEED	YX28980930	XAW01-41-06	2020-10-26	2021-10-25			
TEMPERATURE AND HUMIDITY METER	MINGGAO	TH101B	XAW01-01-01	2020-11-06	2021-11-05			
MEASUREMENT SOFTWARE	TONSCEND	TS+ RSE V3.0.0.2	XAW02-05-01	NCR	NCR			



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgety or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection ceport & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CN.Doccheck@ags.com.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房



Report No.: HR/2021/1001402-01

Page: 90 of 90

7 **Photographs - EUT Constructional Details**

Refer to Appendix A PCE&DTS&NII Setup Photos.

The End



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: CND Doccheck-the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or small: