

3 Appendix A3: Min emission bandwidth

3.1 Test Result

The antenna port 1 and antenna port 2 support 2x2 MIMO with identical RF transmission, therefor only antenna port 1 tested and record the data.

This test only for band U-NII-3 5.725–5.85 GHz.

Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A 20 SISO	Ant1	5745	16.880	5736.520	5753.400	0.5	PASS
		5785	15.160	5777.400	5792.560	0.5	PASS
		5825	15.200	5817.360	5832.560	0.5	PASS
11N20SISO	Ant1	5745	17.720	5736.080	5753.800	0.5	PASS
		5785	17.720	5776.120	5793.840	0.5	PASS
		5825	17.760	5816.080	5833.840	0.5	PASS
11N40SISO	Ant1	5755	35.840	5736.760	5772.600	0.5	PASS
		5795	35.200	5777.400	5812.600	0.5	PASS
11AC20SISO	Ant1	5745	17.400	5736.160	5753.560	0.5	PASS
		5785	16.840	5776.560	5793.400	0.5	PASS
		5825	14.960	5816.560	5831.520	0.5	PASS
11AC40SISO	Ant1	5755	35.440	5737.160	5772.600	0.5	PASS
		5795	35.200	5777.400	5812.600	0.5	PASS
11AC80SISO	Ant1	5775	71.520	5738.680	5810.200	0.5	PASS



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-a-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, or email: CN.Doccheck@sgs.com

3.2 Test Graphs



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-a-Documents.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.

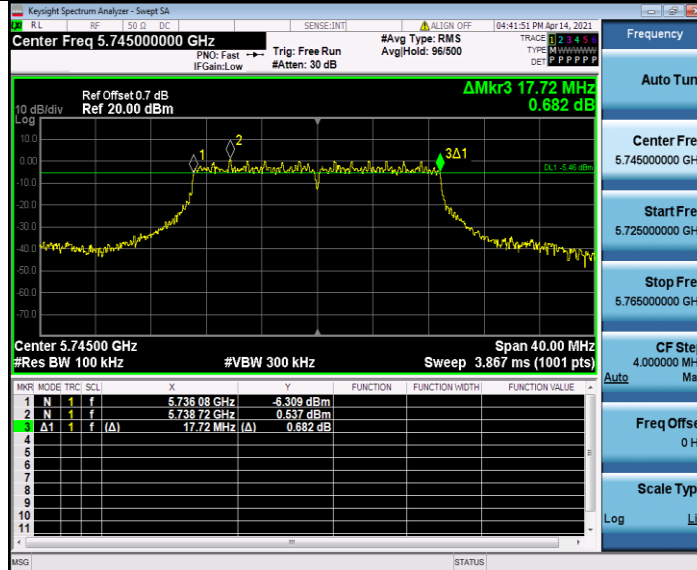
Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd. No. 198 Kezhu Road, Science Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
 Guangzhou Branch Inspection & Testing Services Laboratory 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

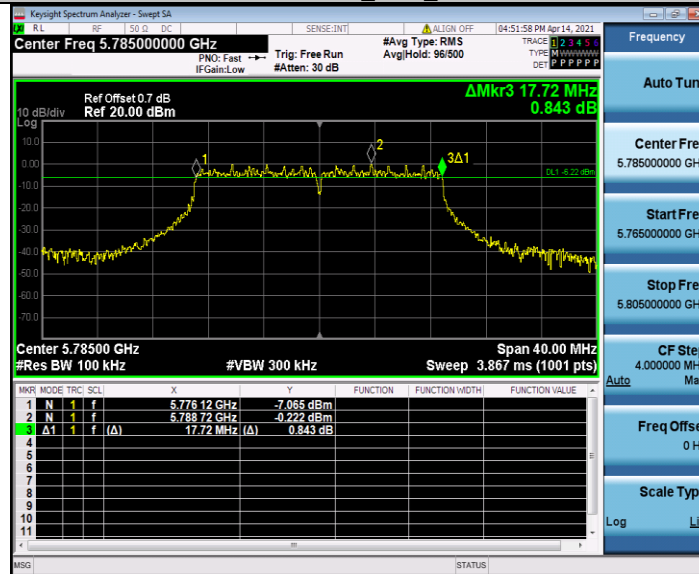
11A_Ant1_5825



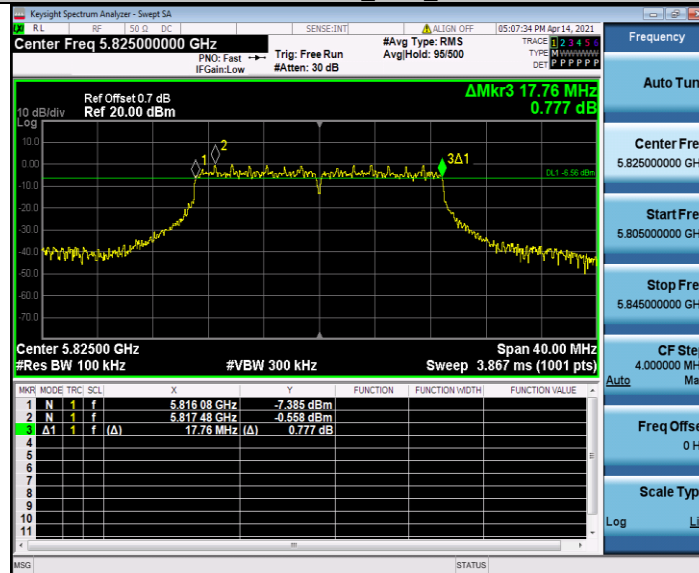
11N20SISO_Ant1_5745



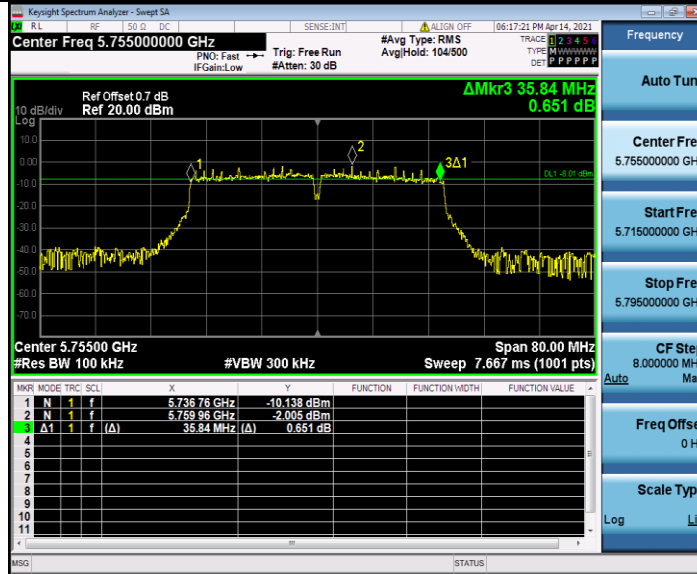
11N20SISO_Ant1_5785



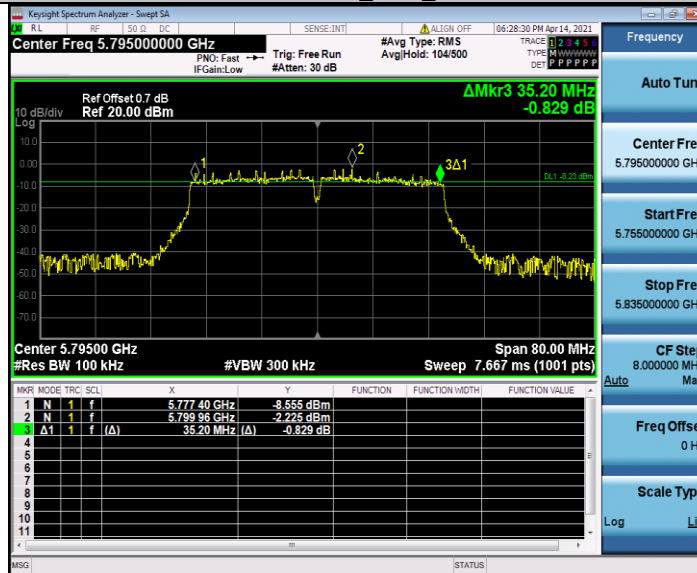
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

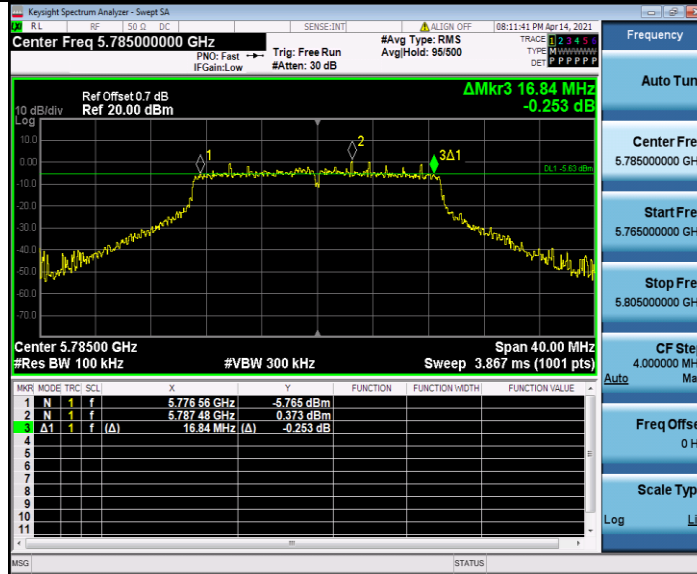


11AC20SISO_Ant1_5745



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-a-Documents.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, or email: CN.Doccheck@sgs.com

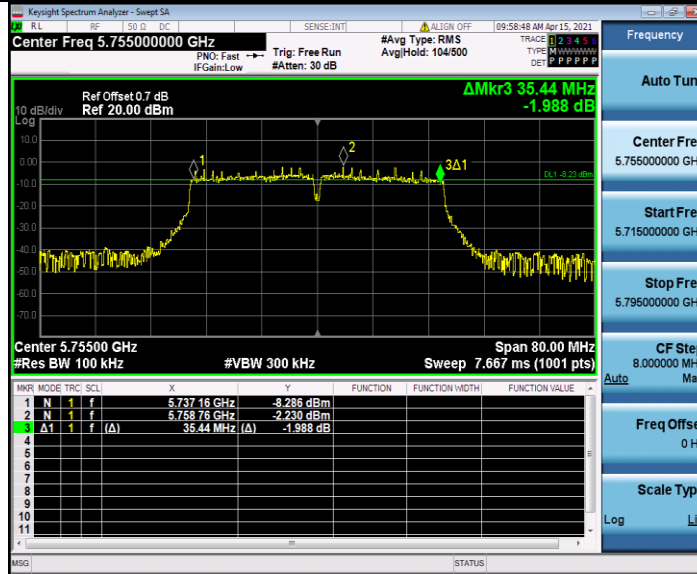
11AC20SISO_Ant1_5785



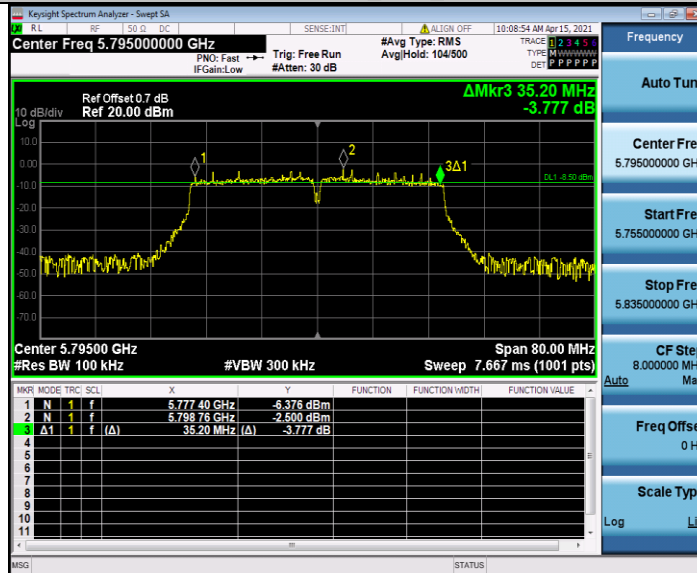
11AC20SISO_Ant1_5825



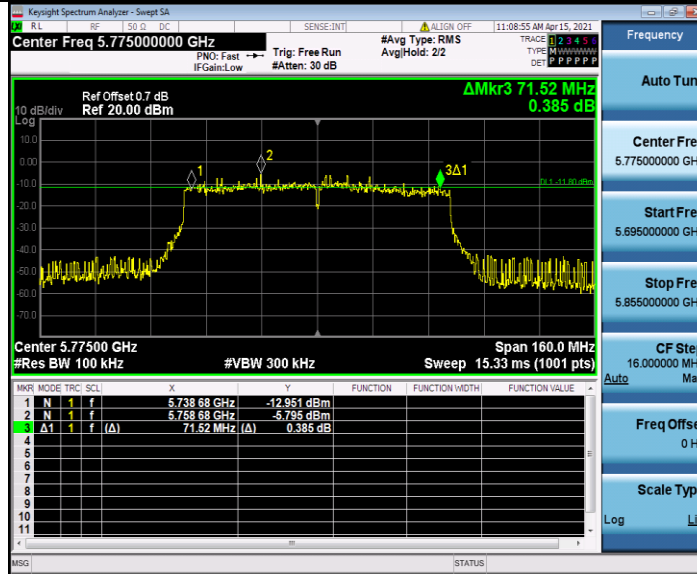
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



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-a-Documents.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, or email: CN.Doccheck@sgs.com

4 Appendix B: Maximum conducted output power

4.1 Test Result

Total power: Ant 1 conducted power + duty cycle factor + Ant 2 conducted power + duty cycle factor.

The directional gain is 9.1dBi, which exceed 6dBi 3.1dB, the total power limit will be reduced by 3.1dB.

Nominal limit for Band U-NII-1/-2A/-2C: Limit is 24dBm. Nominal limit for Band U-NII-3: Limit 30dBm

The Duty Cycle Factor is compensated in the conducted power test graph.

Therefore,

Final limit= nominal limit-antenna reduction factor.

Total power= Ant 1 conducted power + Ant 2 conducted power in the below table.



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-a-Documents.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, or email: CN.Doccheck@sgs.com

Test Mode	Channel	Ant	Factor	Conducted power [dBm]	Ant	Factor	Conducted power [dBm]	Total Power[dBm]	Limit[dBm]	Verdict
11 a 20SISO	5180	Ant 1	0	9.40	Ant2	0	8.12	11.817	20.9	PASS
	5220		0	9.45		0	7.65	11.653	20.9	PASS
	5240		0	9.35		0	7.23	11.428	20.9	PASS
	5260		0	9.78		0	7.09	11.650	20.9	PASS
	5300		0	9.96		0	6.75	11.655	20.9	PASS
	5320		0	10.26		0	6.88	11.901	20.9	PASS
	5500		0	8.75		0	5.85	10.548	20.9	PASS
	5580		0	8.92		0	6.99	11.072	20.9	PASS
	5700		0	10.79		0	7.86	12.578	20.9	PASS
	5745		0	10.83		0	8.39	12.789	26.9	PASS
	5785		0	10.38		0	8.22	12.443	26.9	PASS
	5825		0	10.57		0	7.80	12.412	26.9	PASS
	11N20SISO		5180	Ant 1		0.65	10.35	Ant2	0.65	8.32
5220		0.65	9.82		0.65	7.39	11.783		20.9	PASS
5240		0.65	9.17		0.65	7.02	11.237		20.9	PASS
5260		0.65	9.11		0.65	6.96	11.177		20.9	PASS
5300		0.65	9.18		0.65	6.50	11.054		20.9	PASS
5320		0.65	9.48		0.65	6.94	11.403		20.9	PASS
5500		0.65	9.19		0.65	6.33	11.002		20.9	PASS
5580		0.65	8.85		0.65	7.22	11.121		20.9	PASS
5700		0.65	11.38		0.65	8.73	13.264		20.9	PASS
5745		0.65	11.23		0.65	9.39	13.417		26.9	PASS
5785		0.65	10.78		0.65	9.08	13.023		26.9	PASS
5825		0.65	10.51		0.65	8.69	12.705		26.9	PASS
11N40SISO		5190	Ant 1		0.17	10.45	Ant2		0.17	8.87
	5230	0.17		10.02	0.17	7.99		12.133	20.9	PASS
	5270	0.17		9.48	0.17	7.63		11.663	20.9	PASS
	5310	0.17		9.49	0.17	7.39		11.576	20.9	PASS
	5510	0.17		9.45	0.17	7.09		11.439	20.9	PASS
	5550	0.17		8.84	0.17	7.47		11.219	20.9	PASS
	5670	0.17		11.19	0.17	8.38		13.019	20.9	PASS
	5755	0.17		11.39	0.17	9.90		13.719	26.9	PASS
	5795	0.17		10.92	0.17	9.71		13.367	26.9	PASS



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-a-Documents.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, or email: CN.Doccheck@sgs.com

Test Mode	Channel	Ant	Factor	Conducted power [dBm]	Ant	Factor	Conducted power [dBm]	Total Power[dBm]	Limit[dBm]	Verdict
11AC20SISO	5180	Ant 1	0	10.12	Ant2	0	8.32	12.323	20.9	PASS
	5220		0	9.61		0	7.35	11.636	20.9	PASS
	5240		0	8.98		0	6.89	11.070	20.9	PASS
	5260		0	9.06		0	6.92	11.131	20.9	PASS
	5300		0	9.13		0	6.41	10.990	20.9	PASS
	5320		0	9.38		0	6.92	11.332	20.9	PASS
	5500		0	8.70		0	6.12	10.609	20.9	PASS
	5580		0	8.38		0	7.15	10.819	20.9	PASS
	5700		0	10.80		0	8.66	12.871	20.9	PASS
	5745		0	10.74		0	9.38	13.123	26.9	PASS
	5785		0	10.18		0	9.05	12.662	26.9	PASS
	5825		0	9.93		0	8.35	12.222	26.9	PASS
11AC40SISO	5190	Ant 1	0.17	10.90	Ant2	0.17	8.81	12.990	20.9	PASS
	5230		0.17	10.37		0.17	7.83	12.293	20.9	PASS
	5270		0.17	10.20		0.17	7.53	12.077	20.9	PASS
	5310		0.17	10.21		0.17	7.33	12.015	20.9	PASS
	5510		0.17	9.58		0.17	7.03	11.500	20.9	PASS
	5550		0.17	8.99		0.17	7.69	11.399	20.9	PASS
	5670		0.17	11.12		0.17	8.52	13.022	20.9	PASS
	5755		0.17	11.10		0.17	9.92	13.560	26.9	PASS
	5795		0.17	10.89		0.17	9.77	13.376	26.9	PASS
11AC80SISO	5210	Ant 1	0.34	16.18	Ant2	0.34	8.05	16.801	20.9	PASS
	5290		0.34	9.79		0.34	6.88	11.585	20.9	PASS
	5530		0.34	9.26		0.34	6.68	11.169	20.9	PASS
	5610		0.34	9.64		0.34	8.25	12.011	20.9	PASS
	5775		0.34	10.84		0.34	9.64	13.292	26.9	PASS



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-Documents.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, or email: CN.Doccheck@sgs.com