



Page: 1 of 22

Appendix A for SHCR220300054401-FCC-1M

1. Duty Cycle

1.1 Ant1

1.1.1 Test Result

	Ant1								
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)		
		903.5	1.370	6.999	19.57	7.08	0.11		
OFDM	SISO	914.5	1.375	7.002	19.64	7.07	0.16		
		926.5	1.376	6.999	19.66	7.06	0.07		



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, aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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 ose 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: CM.Doccheck@ags.com

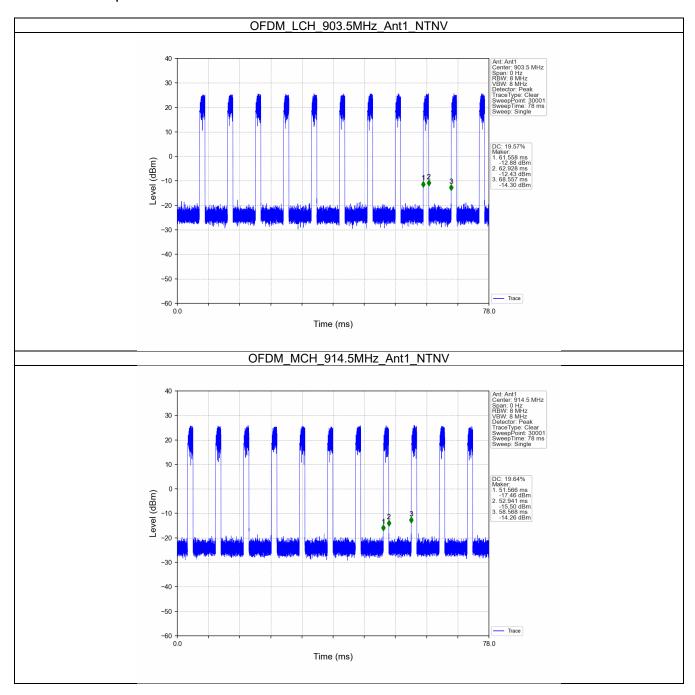
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 邮编: 201612

中国・上海 ・松江区金都西路588号



Page: 2 of 22

1.1.2 Test Graph





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-en-Document.aspx. Attention is dorawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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: Col.Doccheck@gs.com

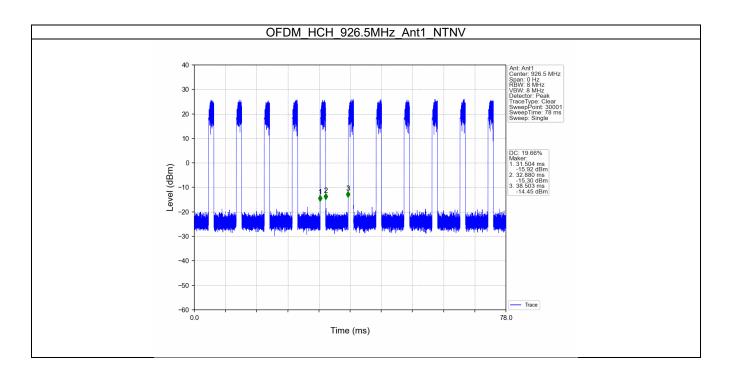
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612





Page: 3 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612

 $\begin{array}{lll} t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{www.sgsgroup.com.cn} \\ t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{e.sgs.china@sgs.com} \\ \end{array}$





Page: 4 of 22

2. Bandwidth

2.1 OBW

2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
OFDM	SISO	903.5	1	0.891	Pass
		914.5	1	0.895	Pass
		926.5	1	0.894	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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

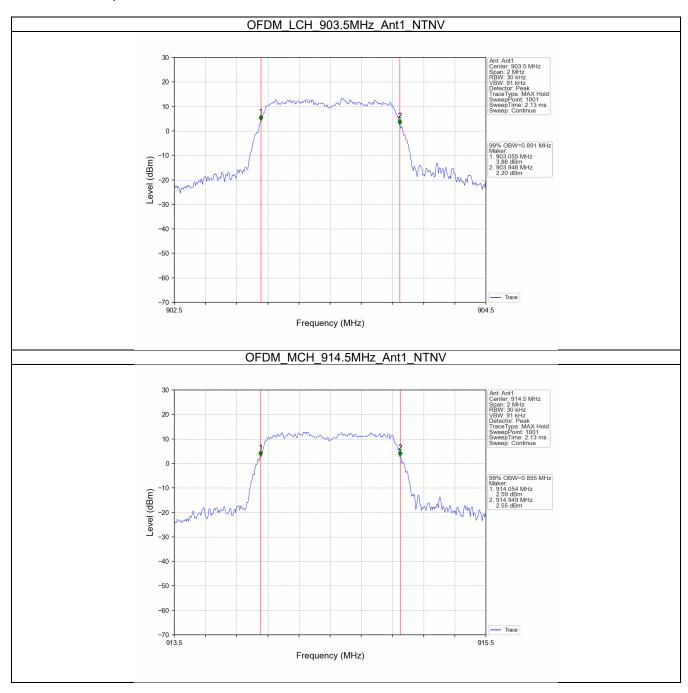
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 5 of 22

2.1.2 Test Graph





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, aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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 ose 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: CM.Doccheck@ags.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

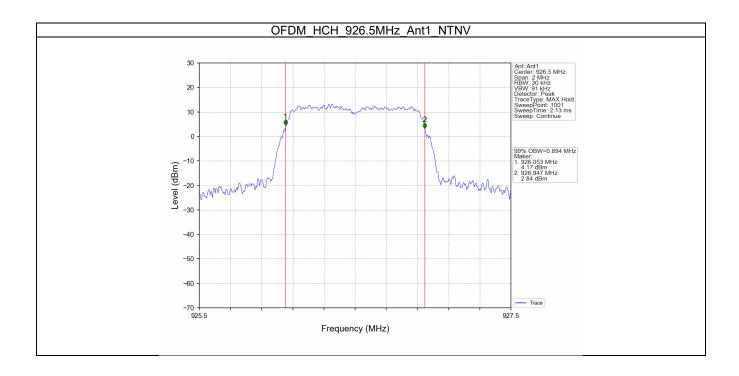
中国・上海・松江区金都西路588号 邮编: 201612

 $\begin{array}{lll} t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{www.sgsgroup.com.cn} \\ t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{e sgs.china@sgs.com} \\ \end{array}$





Page: 6 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

邮编: 201612

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号





Page: 7 of 22

2.2 6dB BW

2.2.1 Test Result

Mode	TX	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Vardiet
	Туре			Result	Limit	Verdict
OFDM	SISO	903.5	1	0.877	>=0.5	Pass
		914.5	1	0.867	>=0.5	Pass
		926.5	1	0.858	>=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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

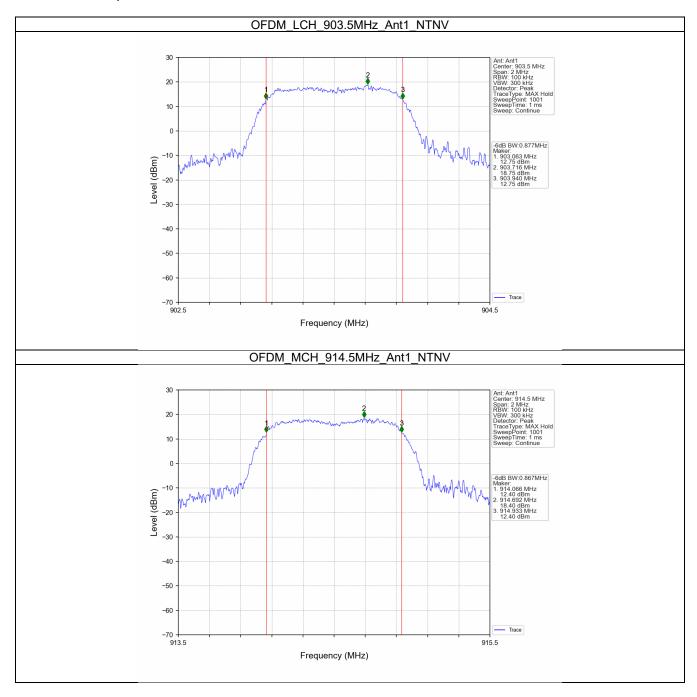
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 8 of 22

2.2.2 Test Graph





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, aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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 ose 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: CM.Doccheck@ags.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

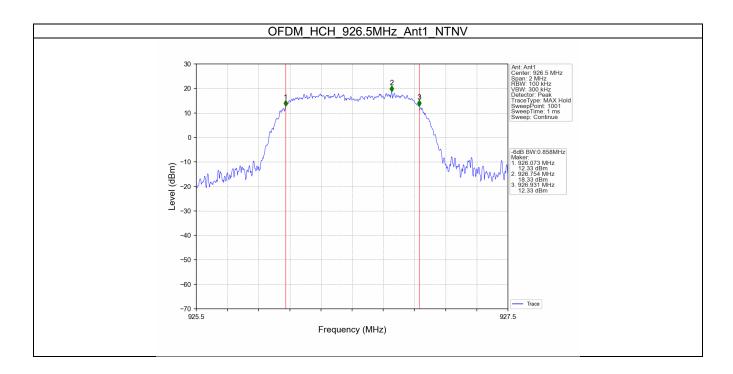
中国・上海・松江区金都西路588号 邮编: 201612

 $\begin{array}{lll} t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{www.sgsgroup.com.cn} \\ t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{e sgs.china@sgs.com} \\ \end{array}$





Page: 9 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 邮编: 201612

中国・上海 ・松江区金都西路588号





Page: 10 of 22

3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Mode	TX	Frequency	Maximum Peak Conduct	Verdict		
iviode	Type	(MHz)	ANT1	Limit	Verdict	
OFDM		903.5	25.39	<=30	Pass	
	SISO	914.5	25.59	<=30	Pass	
		926.5	25.86	<=30	Pass	
Note1: Antenna Gain: Ant1: 1.50dBi;						



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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

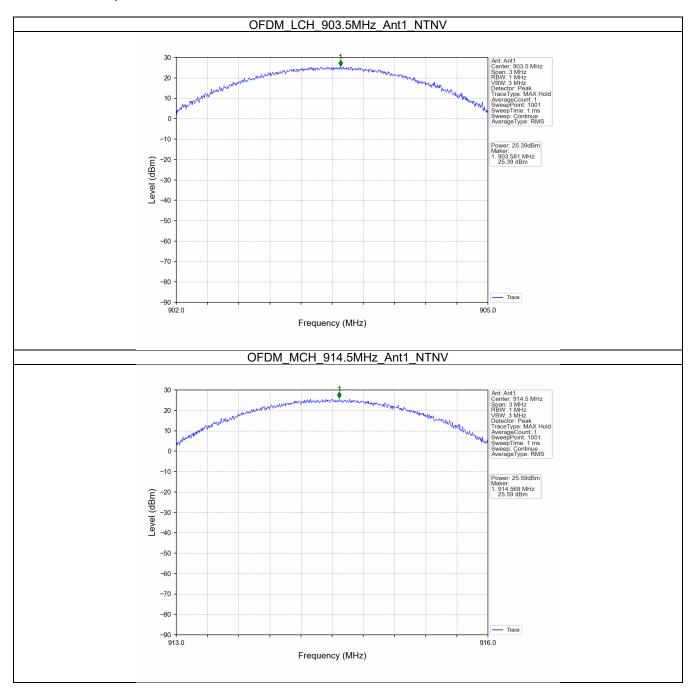
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 11 of 22

3.1.2 Test Graph





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

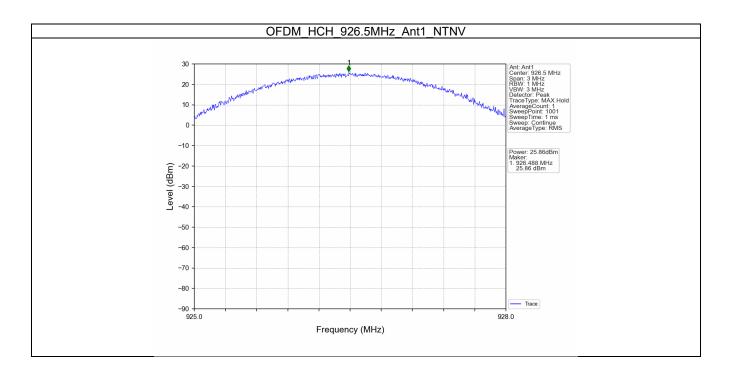
中国・上海・松江区金都西路588号 邮编: 201612

 $\begin{array}{lll} t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{www.sgsgroup.com.cn} \\ t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{e.sgs.china@sgs.com} \\ \end{array}$





Page: 12 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 邮编: 201612

中国・上海 ・松江区金都西路588号





Page: 13 of 22

4. Maximum Power Spectral Density

4.1 PSD

4.1.1 Test Result

Mode	TX	Frequency	Maximum PS	Verdict		
	Type	(MHz)	ANT1	Limit	Verdict	
OFDM	SISO	903.5	7.78	<=8	Pass	
		914.5	7.67	<=8	Pass	
		926.5	7.62	<=8	Pass	
Note1: Antenna Gain: Ant1: 1.50dBi;						



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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

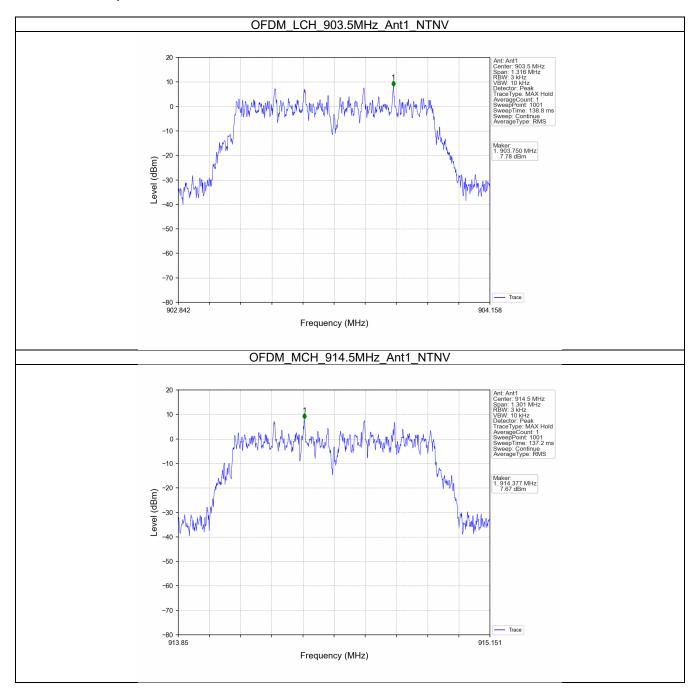
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 14 of 22

4.1.2 Test Graph





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-en-Document.aspx. Attention is dorawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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.

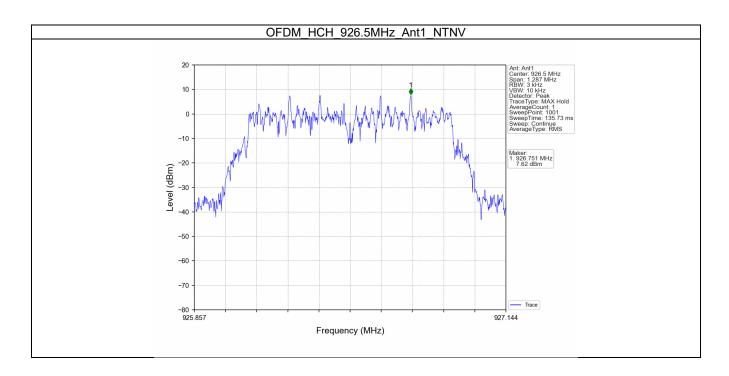
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: Col.Doccheck@gs.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 中国・上海 ・松江区金都西路588号 邮编: 201612





Page: 15 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612





Page: 16 of 22

5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Ref

5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
OFDM	SISO	903.5	1	15.33
		914.5	1	18.33
		926.5	1	17.94

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.



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 focuments, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/

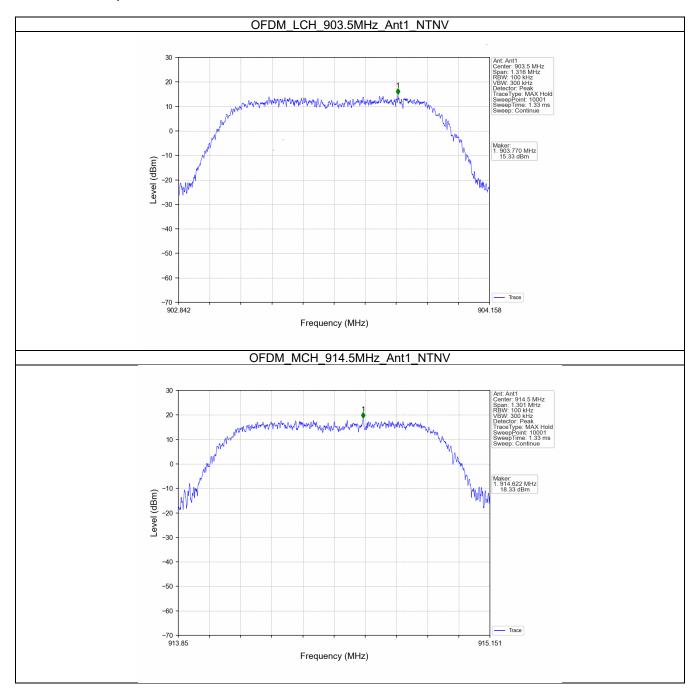
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 17 of 22

5.1.2 Test Graph





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, aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of his 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 ose 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.

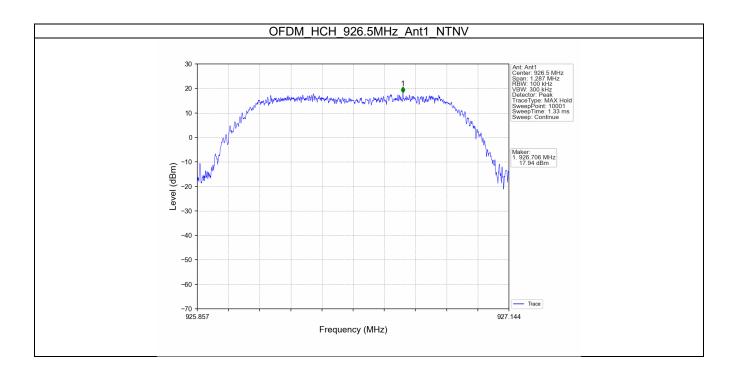
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CM.Doccheck@ags.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 中国・上海 ・松江区金都西路588号 邮编: 201612





Page: 18 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

邮编: 201612

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号





Page: 19 of 22

5.2 CSE

5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
		903.5	1	18.33	-1.67	Pass
OFDM	SISO	914.5	1	18.33	-1.67	Pass
		926.5	1	18.33	-1.67	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

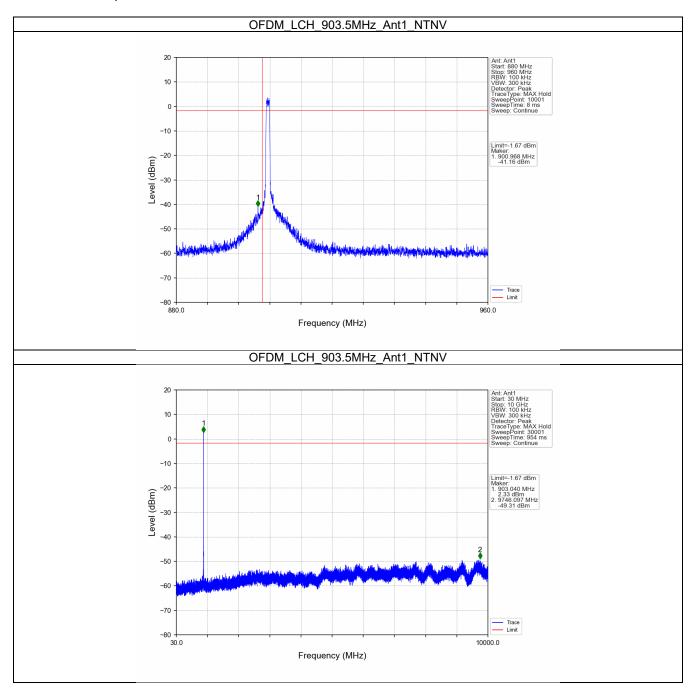
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Page: 20 of 22

5.2.2 Test Graph





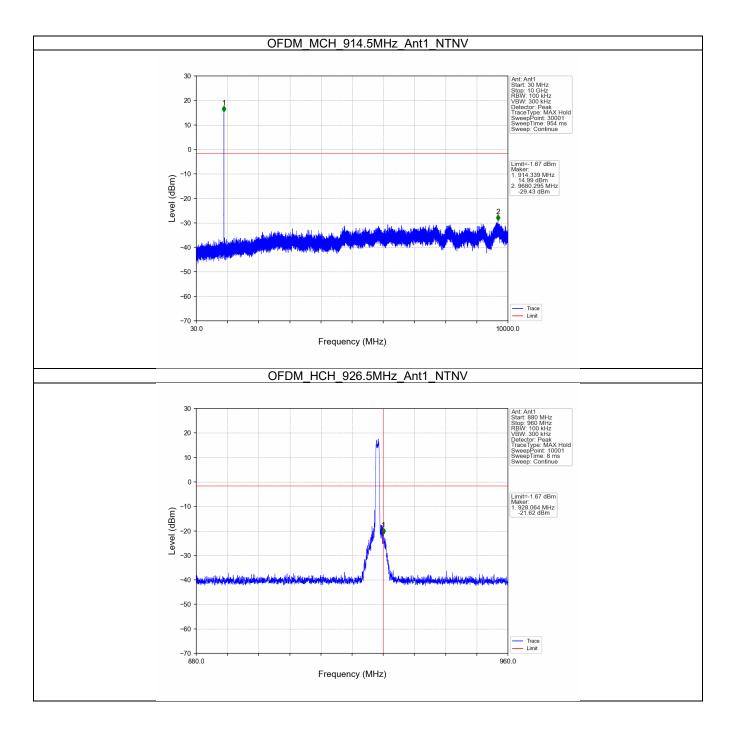
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612

 $\begin{array}{lll} t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{www.sgsgroup.com.cn} \\ t(86\text{-}21)\, 61915666 & f(86\text{-}21)61915678 & \text{e sgs.china@sgs.com} \\ \end{array}$

Page: 21 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

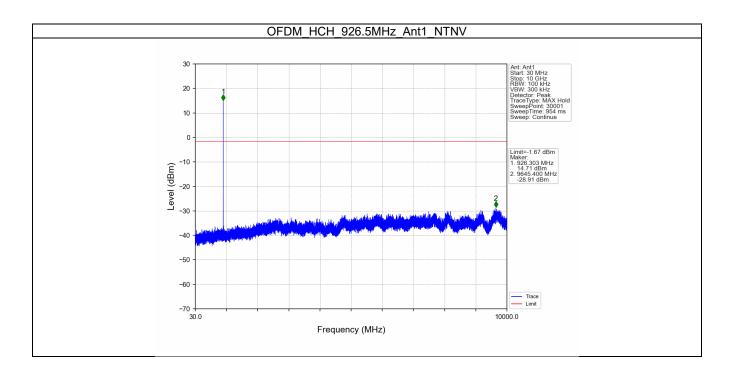
NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 邮编: 201612

中国・上海 ・松江区金都西路588号





Page: 22 of 22





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 <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612