

GTS Global United Technology Services Co., Ltd.

Report No.: GTS201803000232F06

TEST REPORT

Applicant:	Alco Electronics Ltd
Address of Applicant:	11/F, Metropole Square, 2 On Yiu Street, Sha Tin, New Territories, Hong Kong
Manufacturer:	Alco Electronics Ltd
Address of Manufacturer:	11/F, Metropole Square, 2 On Yiu Street, Sha Tin, New Territories, Hong Kong
Factory:	Alco Electronics (Dongguan) Limited
Address of Factory:	Gong Ye Xi Road, Houjie Technology Industrial Park, Houjie, Dongguan, Guangdong, P.R.China
Equipment Under Test (E	UT)
Product Name:	Notebook
Model No.:	(13") CN6x13yy / NS13A, (14") CN6x14yy / NS14A (x=numeric/alphabet, diff.outlook design; yy=numeric/alphabet, optional)
Trade Mark:	Venturer / Avita
FCC ID:	A2HCN6113
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B
Date of sample receipt:	March 29, 2018
Date of Test:	March 29, 2018-May 09, 2018
Date of report issued:	May 10, 2018
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



2 Version

Version No.	Date	Description
00	May 10, 2018	Original

Prepared By:

Bill. yuan

Date:

May 10, 2018

Project Engineer

Check By:

Andy wa

Date:

May 10, 2018

Reviewer

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4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission	FCC Part15.107	ANSI C63.4	Class B	PASS
Radiated Emissions #	FCC Part15.109	ANSI C63.4	Class B	PASS

Remark:

1. Pass: The EUT complies with the essential requirements in the standard.

2. # Refer to FCC Part 15.33 (b)(1) conditional testing procedure :

The highest frequency generated or used in the EUT	Test frequency range of Radiated emission
<108MHz	30MHz ~ 1GHz
108MHz ~ 500MHz	30MHz ~ 2GHz
500MHz ~ 1GHz	30MHz ~ 5GHz
>1GHz	30MHz ~ 5th harmonic of the highest frequency or 40 GHz, whichever is lower.

5 General Information

5.1 General Description of EUT

Product Name:	Notebook
Model No.:	(13") CN6x13yy / NS13A, (14") CN6x14yy / NS14A
	(x=numeric/alphabet, diff.outlook design; yy=numeric/alphabet, optional)
Remark:	All above models are identical in the same PCB layout, interior structure and electrical circuits. The only differences are model name, size and appearance color for marketing requirement.
Test Model No:	CN6113, CN6114
Serial No.:	548NA0700012
Test sample(s) ID:	GTS201803000232-1
Sample(s) Status	Normal sample
Hardware version:	HW-001
Software version:	SW-001
Power supply:	SWITCHING ADAPTER
	Model: ADS-45SN-19-3 19040G
	Input: AC 100-240V, 50/60Hz, 1.2A Max
	Output: DC 19V, 2.1A
	Rechargeable Li-Polymer Battery: DC 7.4V, 4900mAh, 36.26Wh

5.2 Test mode and Test voltage

Test mode:	
Burning Test mode	Keep the EUT in Burning Test mode.
HDMI mode	Keep the EUT in HDMI output mode.
TF card mode	Keep the EUT in TF card play mode
USB mode	Keep the EUT in USB play mode
REC mode	Keep the EUT in REC mode.
Test voltage	
AC120V 60Hz	

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• FCC — Registration No.: 381383

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383, January 08, 2018.

• Industry Canada (IC) — Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, August 15, 2016

5.7 Test Location

The test was performed at: Global United Technology Services Co., Ltd. Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

6 Test Instruments list

Radia	Radiated Emission:						
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.0(L)*6.0(W)* 6.0(H)	GTS250	July. 03 2015	July. 02 2020	
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A	
3	ESU EMI Test Receiver	R&S	ESU26	GTS203	June.28 2017	June.27 2018	
4	BiConiLog Antenna	SCHWARZBECK	VULB9163	GTS214	June.28 2017	June.27 2018	
5	Double-ridged horn antenna	SCHWARZBECK	9120D	GTS208	June.28 2017	June.27 2018	
6	Horn Antenna	ETS-LINDGREN	3160-09	GTS218	June.28 2017	June.27 2018	
7	RF Amplifier	HP	8347A	GTS204	June.28 2017	June.27 2018	
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	June.28 2017	June.27 2018	
9	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	
10	Coaxial Cable	GTS	N/A	GTS211	June.28 2017	June.27 2018	
11	Coaxial Cable	GTS	N/A	GTS210	June.28 2017	June.27 2018	
12	Coaxial Cable	GTS	N/A	GTS212	June.28 2017	June.27 2018	
13	Thermo meter	N/A	N/A	GTS256	June.28 2017	June.27 2018	

Conc	Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.16 2014	May.15 2019	
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June.28 2017	June.27 2018	
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June.28 2017	June.27 2018	
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June.28 2017	June.27 2018	
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A	
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	
7	Thermo meter	KTJ	TA328	GTS233	June.28 2017	June.27 2018	

Gene	General used equipment:					
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	Barometer	ChangChun	DYM3	GTS257	June.28 2017	June.27 2018



7 Test Results and Measurement Data

7.1 Radiated Emission

1 OO T altio D C	Section 15.109	1			
ANSI C63.4:2014					
30MHz to 6000	MHz				
Measurement D	istance: 3m (Semi-Anecho	ic Chambei	r)	
Frequency	Detector	RBW	VBW	Remark	
30MHz- 1GHz	-		300kHz	Quasi-peak Value	
Above 1GHz	Peak	1MHz		Peak Value	
				Average Value	
	-		,	Remark	
30MHz-8	8MHz	40.0	00	Quasi-peak Value	
88MHz-21	16MHz	43.5	50	Quasi-peak Value	
216MHz-9	60MHz	46.0	00	Quasi-peak Value	
960MHz-	1GHz	54.0	00	Quasi-peak Value	
	0.1	54.0	00	Average Value	
Above 1	Above 1GHz 74.00			Peak Value	
÷		< 1n 1m Table=	n 4m > ₄ '	fier+	
	30MHz to 60001 Measurement D Frequency 30MHz- 1GHz Above 1GHz S0MHz-21 216MHz-9 960MHz- Above 1 Below 1GHz	30MHz to 6000MHz Measurement Distance: 3m (Frequency Detector 30MHz- Quasi-peak 1GHz Peak Above 1GHz Peak Frequency 30MHz-88MHz 88MHz-216MHz 960MHz-1GHz 960MHz-1GHz 960MHz Below 1GHz Guasi-peak EUT- EUT-	30MHz to 6000MHz Measurement Distance: 3m (Semi-Anechol Frequency 1GHz Quasi-peak 120kHz 1GHz Quasi-peak 120kHz Above 1GHz Peak 1MHz Frequency Limit (dBuV) 30MHz-88MHz 40.0 30MHz-88MHz 40.0 88MHz-216MHz 43.5 216MHz-960MHz 46.0 960MHz-1GHz 54.0 960MHz-1GHz 54.0 74.0 Below 1GHz Test LIMI table* ***********************************	30MHz to 6000MHz Measurement Distance: 3m (Semi-Anechoic Chamber Frequency Detector RBW VBW 30MHz- Quasi-peak 120kHz 300kHz 1GHz Quasi-peak 120kHz 300kHz Above 1GHz Peak 1MHz 3MHz Peak 1MHz 10Hz Frequency Limit (dBuV/m @3m) 30MHz-88MHz 40.00 88MHz-216MHz 43.50 216MHz-960MHz 46.00 960MHz-1GHz 54.00 54.00 54.00 Above 1GHz 74.00 54.00 54.00 Below 1GHz Im Table Im Table Im Am >utication of the second of the secon	



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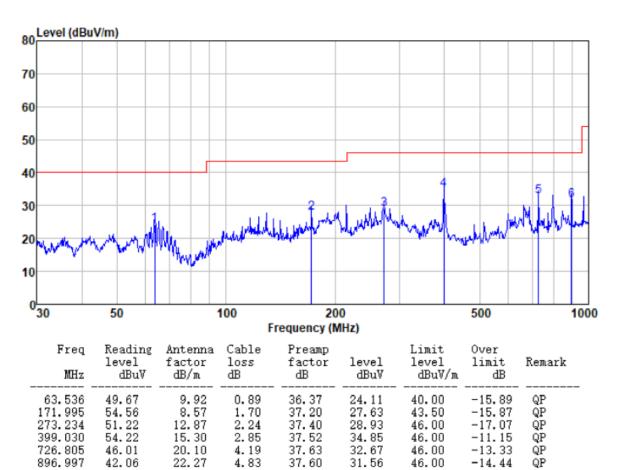
	Image: Signal set Image: Signal set Image: Signal set		
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away 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. 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. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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. 		
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1 012mbar		
Measurement Record:	Uncertainty: ± 4.50dB		
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.2 for details.		
Test results:	Pass		



Measurement Data

Model: CN6113 Below 1GHz

Test mode: Burning Test mode Antenna Polarity: Horizontal

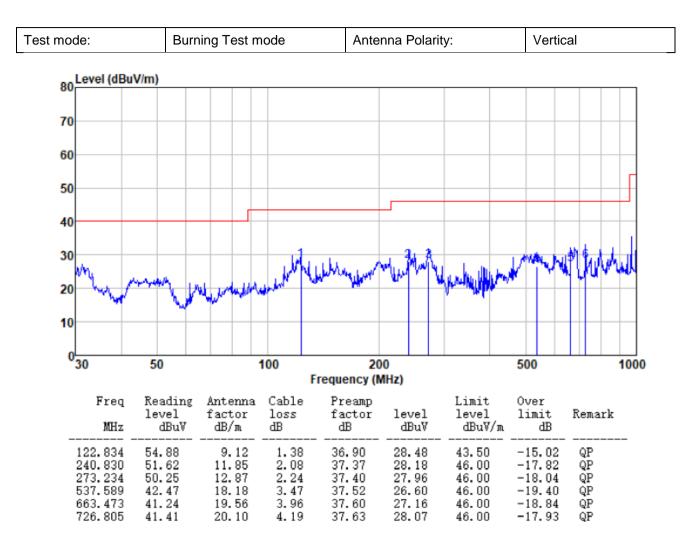




mode:	Bu	Irning Test	mode	Ar	ntenna Pol	arity:	Ve	rtical
BO Level (dBu	V/m)							
70								
60							_	
50								
40								67
							- L - L	bH L
30	and the	whenhow	white he	Winter	hall	hickoridet Jana	Lown	J. Waldanda
30 20 10	en fred	Marywalang	WILLIAM A	Window	4.14	n, when which for the	LownM	J. M. S. Huda
20	6 14-44 50		100 F	20 requency (I	DO MHz)	s,whenveldely <mark>l</mark> apidy	500	1000
20 ()						Limit dBuV/m		

st mode:	Burning Test mode			Ant	enna Pola	Н	Horizontal		
80 Level (d	BuV/m)								
70								_	
60									\square
50									
40									
30			14		2	3		. ? 6	11
			Jul Nu	the start	NUL LAWYU		L.	միիվալ	
20	nad	A Westward		had a frank	V July Walte	1 minuter	seeder that	1.11/14	ull
20 10	m	A yout what	Jud Marine Mary	ble black	V. UNION	Kanulukon	Here and a start of the		r dd
- Marine	50	d Hard and the	100	ملیلہ کی ملیلہ 20 equency (N	00	Krigalater	500		100
10	q Reading level	Antenna factor dB/m	100	20	00	Limit level dBuV/m	500 Over limit dB	Remark	100

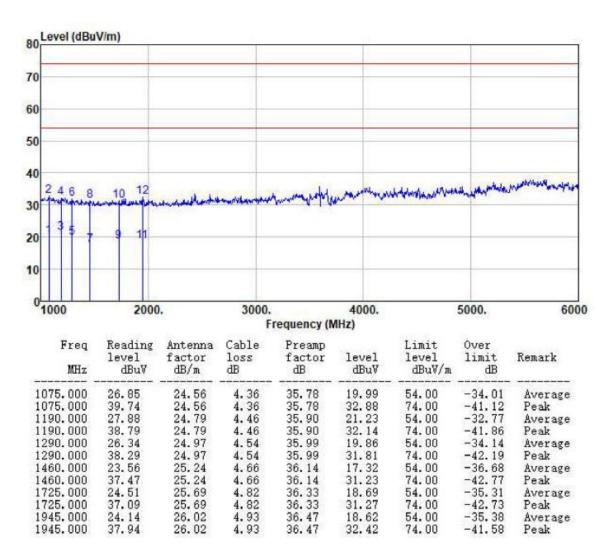




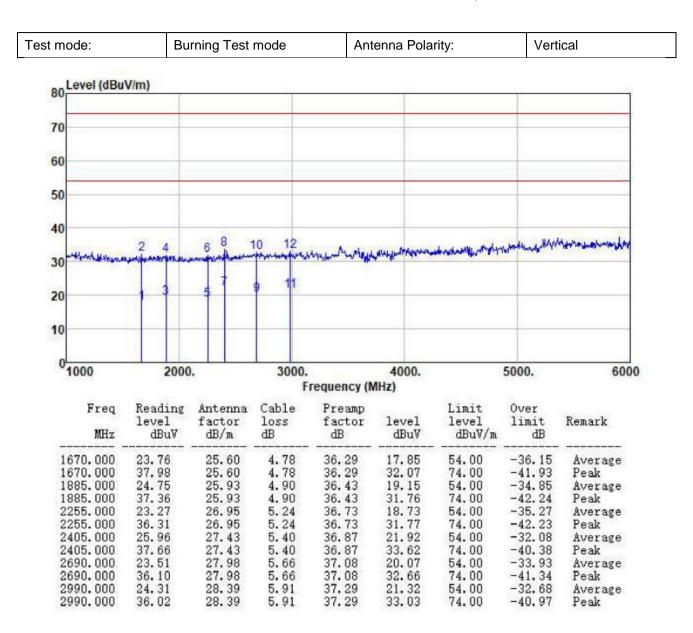
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Above 1GHz

Test mode: Burning Test mode Antenna Polarity: Horizontal	IVI	odel: CN6113			
	Τe	est mode:	Burning Test mode	Antenna Polarity:	Horizontal



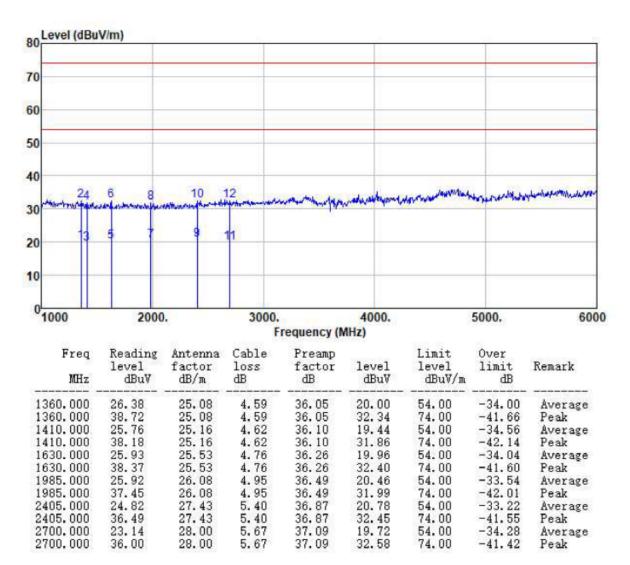




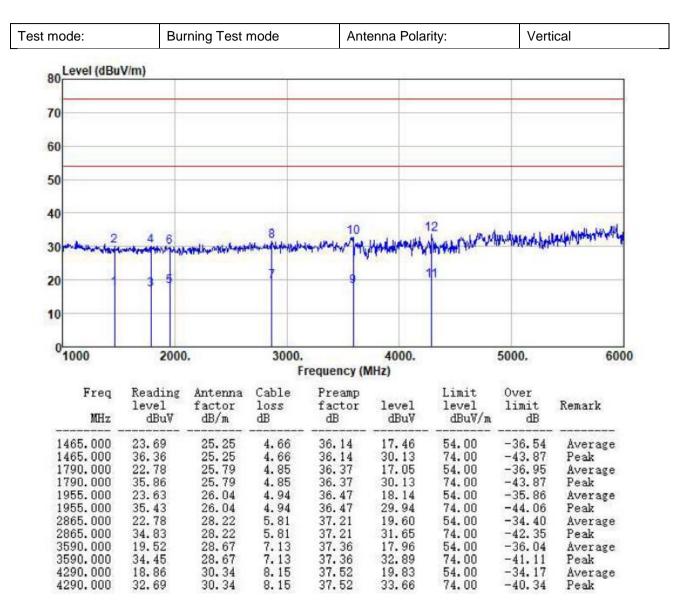


Model: CN6114

Test mode: Burning Test mode Antenna Polarity: Horizontal				
	Test mode:	Burning Test mode	Antenna Polarity:	Horizontal







Note:

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



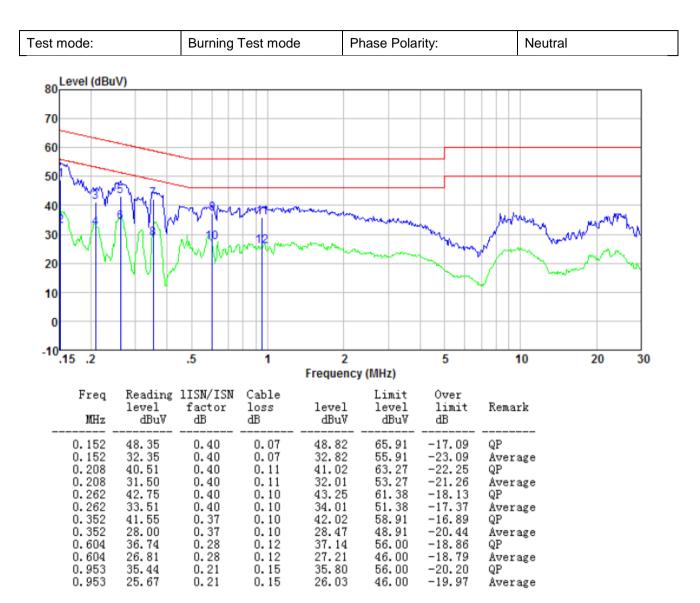
7.2 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107							
Test Method:	ANSI C63.4:2014							
Test Frequency Range:	150kHz to 30MHz							
Class / Severity:	Class B							
Receiver setup:	RBW=9kHz, VBW=30kHz							
Limit:								
Linte.	Frequency range (MHz)	Limit (c Quasi-peak	Average					
	0.15-0.5	66 to 56*	56 to 46*					
	0.5-5	56	46					
	0.5-30	60	50					
Test setup:	Reference	Plane						
Test procedure	LISN 40cm 40cm		– AC power main power through					
	 a line impedance stabiliza 50ohm/50uH coupling im 2. The peripheral devices an through a LISN that provi with 50ohm termination. (test setup and photograp 3. Both sides of A.C. line are interference. In order to fi positions of equipment are changed according to AN measurement. 	ation network(L.I.S.N.). pedance for the measu re also connected to th des a 50ohm/50uH cou (Please refers to the blo hs). e checked for maximur ind the maximum emis and all of the interface ca	The provide a uring equipment. e main power upling impedance ock diagram of the m conducted sion, the relative ables must be					
Test environment:	Temp.: 25 °C Humi	d.: 52% Pre	ss.: 1 012mbar					
Test Instruments:	Refer to section 6 for details							
Test mode:	Refer to section 5.2 for details							
Test results:	Pass							

Measurement Data

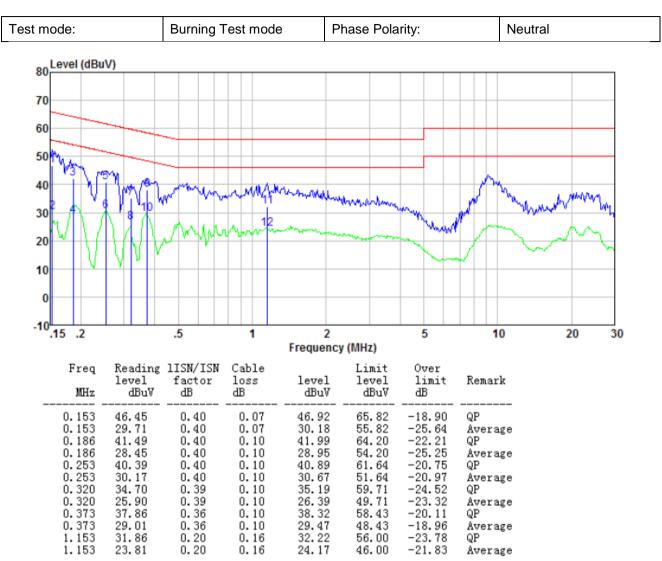
Model: CN6113		1							
Test mode:		Burning	Fest mode	e Pł	nase Pola	rity:		Line	
80 Level (dBu) 70 60 50 M 40 2 30		10 A.			www		Jun	Martin Martin	^ <u>∕</u> ∕∧∧
20 10 -10 .15 .2	₩V U	.5	1	2		5	10	20	30
				Frequency	(MHz)				
Freq MHz	Reading level dBuV	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark		
$\begin{array}{c} 0.\ 161\\ 0.\ 161\\ 0.\ 182\\ 0.\ 182\\ 0.\ 273\\ 0.\ 273\\ 0.\ 352\\ 0.\ 352\\ 0.\ 352\\ 0.\ 486\\ 0.\ 486\\ 0.\ 604\\ 0.\ 604\\ \end{array}$	49.70 34.06 44.62 30.68 37.55 22.96 41.49 30.91 34.21 24.94 32.41 20.61	0.40 0.40 0.40 0.40 0.40 0.40 0.37 0.37 0.37 0.32 0.32 0.28 0.28	0.08 0.08 0.10 0.10 0.10 0.10 0.10 0.10	50.18 34.54 45.12 31.18 38.05 23.46 41.96 31.38 34.64 25.37 32.81 21.01	$\begin{array}{c} 65.43\\ 55.43\\ 64.42\\ 54.42\\ 61.03\\ 51.03\\ 58.91\\ 48.91\\ 56.23\\ 46.23\\ 56.00\\ 46.00\end{array}$	-15.25 -20.89 -19.30 -23.24 -22.98 -27.57 -16.95 -17.53 -21.59 -20.86 -23.19 -24.99	QP Averag QP Averag QP Averag QP Averag QP Averag QP	re re re	





Model: CN611	4	_							
Test mode:		Burning	Test mo	de	Phase Po	larity:		Line	
80 Level (dBu) 70 60 50 40 20 10	n 		9 10 10 10						
0									
-10.15 .2		.5	1	2	(111-)	5	10	20	30
F	B	LTCH/TCH	C-11-	Frequenc		<u></u>			
Freq MHz	Reading level dBu∛	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark		
$\begin{array}{c} & 0.\ 158 \\ & 0.\ 158 \\ & 0.\ 274 \\ & 0.\ 352 \\ & 0.\ 352 \\ & 0.\ 524 \\ & 0.\ 524 \\ & 0.\ 853 \\ & 0.\ 853 \\ & 1.\ 282 \\ & 1.\ 282 \end{array}$	47.91 33.56 41.97 31.68 42.47 29.25 31.09 21.91 29.37 21.71 30.81 21.24	0.40 0.40 0.40 0.37 0.37 0.31 0.31 0.23 0.23 0.20 0.20	0.08 0.08 0.10 0.10 0.10 0.10 0.11 0.11	48. 39 34. 04 42. 47 32. 18 42. 94 29. 72 31. 51 22. 33 29. 74 22. 08 31. 17 21. 60	65.56 55.56 60.98 58.91 48.91 56.00 46.00 56.00 46.00 56.00 46.00 56.00	-17.17 -21.52 -18.51 -18.80 -15.97 -19.19 -24.49 -23.67 -26.26 -23.92 -24.83 -24.40	QP Average QP Average QP Average QP Average QP Average	9 9 9	





Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



8 Test Setup Photo

Radiated Emission







Conducted Emission



9 EUT Constructional Details

Reference to the test report No. : GTS201803000232F01

-----End-----