

FCC Radio Test Report FCC ID: V7TF1200

This report concerns ((check one)		Original Grant	Class II Change
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Project No. : 1406C099

Equipment: Wireless AC1200 Dual-band Router

Model Name : F1200

Applicant: SHENZHEN TENDA TECHNOLOGY

CO.,LTD

Address: 6-8 Floor, Tower E3, No. 1001,

Zhongshanyuan Road, Nanshan District,

Shenzhen, China. 518052

Tested by: BTL Inc. EMC Laboratory **Date of Receipt:** Jun. 16, 2014

Date of Test: Jun. 16, 2014 ~ Jul. 07, 2014

Issued Date: Jul. 07, 2014

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCP-2-1406C099	Original Issue.	Jul. 07, 2014

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1. CERTIFICATION

Equipment : Wireless AC1200 Dual-band Router

Brand Name : Tenda Model Name : F1200

Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD

Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District,

Shenzhen, China. 518052

Date of Test : Jun. 16, 2014 ~ Jul. 07, 2014 Test Item : ENGINEERING SAMPLE

Standard(s) : FCC Part15, Subpart E(15.407) / ANSI C63.4 : 2009

FCC KDB 789033 D01 General UNII Test Procedures v01r03.

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-2-1406C099) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E				
Standard(s) Section FCC	Test Item	Judgment	Remark	
15.207	AC Power Line Conducted Emissions	PASS		
15.407(a)	26dB Spectrum Bandwidth	PASS		
15.407(a)	Maximum Conducted Output Power	PASS		
15.407(a)	Power Spectral Density	PASS		
15.407(a)	Peak Excursion	PASS		
15.407(a)	Radiated Emissions	PASS		
15.407(b)	Band Edge Emissions	PASS		
15.407(g)	Frequency Stability	PASS		
15.203	Antenna Requirements	PASS		

NOTE:

(1)" N/A" denotes test is not applicable in this test report

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2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792 BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately $\mathbf{95}\%$ \circ

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)	NOTE
		9KHz~30MHz	V	3.79	
		9KHz~30MHz	Н	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
DC CB03	DG-CB03 CISPR	200MHz ~ 1,000MHz	V	3.86	
DG-CB03		200MHz ~ 1,000MHz	Н	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Н	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	Н	4.14	

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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless AC1200 Dual-band Rou	Wireless AC1200 Dual-band Router		
Brand Name	Tenda			
Model Name	F1200			
Mode Different	N/A			
	Operation Frequency	5150MHz~5250MHz		
	Modulation Type	OFDM		
Product Description	Bit Rate of Transmitter	11a:6/9/12/18/24/36/48/54Mbps 11n:300Mbps		
	802.11a: 12.70dBm 802.11n (20M): 15.71dBm 802.11n (40M): 14.31dBm 802.11ac (20M): 14.71dBn 802.11ac (40M): 16.90dBn 802.11ac (80M): 13.60dBn			
	More details of EUT technical specification, please refer to the User's Manual.			
Power Source	DC Voltage supplied from AC/DC adapter. Manufacturer: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO.LTD Model: TEA12U-12100			
Power Rating	I/P: AC 100-240V~ 50/60Hz 0.3A O/P: DC 12V/1 A			
Connecting I/O Port(s)	Please refer to the User's Manua	I		

Note

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

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2. Channel List:

	1 / 802.11n 2.11ac 20MHz		M/802.11ac ИНz	802.11	ac 80MHz
Ba	and 1	Bar	Band 1		and 1
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	44	5210
40	5200	46	5230		
44	5220				
48	5240				

3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
2	Tenda °	Q5116	Internal	N/A	3.25
3	Tenda °	Q5116	Internal	N/A	3.25

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R), all transmit signals are completely uncorrelated, then, Direction gain = G_{ANT} , that is Directional gain=3.25.

4.

Operating Mode TX Mode	1TX	2TX
802.11a	V (ANT 2 or ANT 3)	-
802.11n(20MHz)	-	V (ANT 2 + ANT 3)
802.11n(40MHz)	-	V (ANT 2 + ANT 3)
802.11ac(40MHz)	-	V (ANT 2 + ANT 3)
802.11ac(80MHz)	-	V (ANT 2 + ANT 3)

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3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48(Band 1)
Mode 2	TX N20 Mode / CH36, CH40, CH48(Band 1)
Mode 3	TX N40 Mode / CH38, CH46 (Band 1)
Mode 4	TX AC N20 Mode / CH36, CH40, CH48(Band 1)
Mode 5	TX AC N40 Mode / CH38, CH46 (Band 1)
Mode 6	TX AC N80 Mode / CH44 (Band 1)
Mode 7	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test		
Final Test Mode Description		
Mode 4	TX Mode	

Note: For Conducted test, the Dipole antenna with external cable is found to be the worst case and recorded.

For Radiated Test			
Final Test Mode Description			
Mode 1	TX A Mode / CH36, CH40, CH48(Band 1)		
Mode 2	TX N20 Mode / CH36, CH40, CH48(Band 1)		
Mode 3	TX N40 Mode / CH38, CH46 (Band 1)		
Mode 4	TX AC N20 Mode / CH36, CH40, CH48(Band 1)		
Mode 5	TX AC N40 Mode / CH38, CH46 (Band 1)		
Mode 6	TX AC N80 Mode / CH44 (Band 1)		

Note: For Radiated Below 1G test, the 802.11a mode is found to be the worst case and recorded.

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3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

Test software version	Mtool_2.0.0.6.exe			
Frequency	5180 MHz 5200MHz 5240 N			
A Mode	54	54	65	
N20 Mode	51	51	62	
AC 20 Mode	58	57	56	

Test software version	Mtool_2.0.0.6.exe		
Frequency	5190 MHz	5230MHz	
N40 Mode	55	56	
AC 40 Mode	65	65	

Test software version	Mtool_2.0.0.6.exe		
Frequency	5210 MHz		
AC 80 Mode	53		

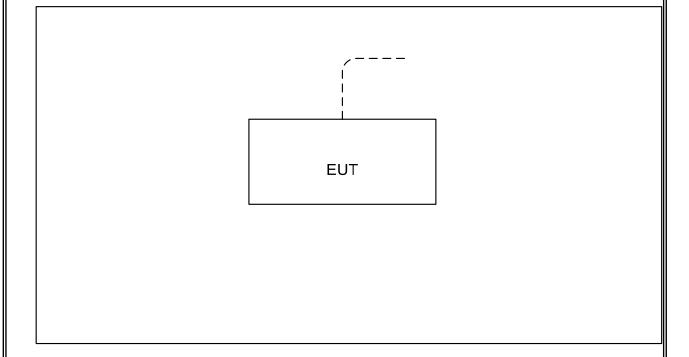
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C-1 RJ45 Cable

E-1 PC

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



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3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	PC	Dell 745	DCSM	DOC	G7K832X	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	10m	-

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4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

	Class A (dBuV)		Class B (dBuV)	
FREQUENCY (MHz)	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

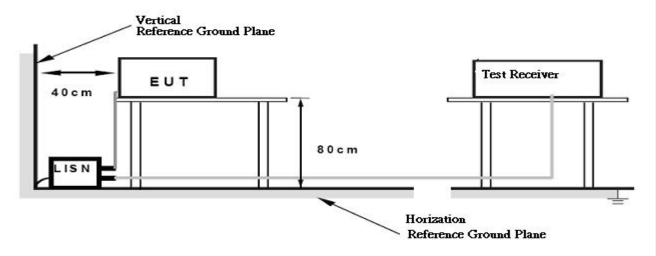
4.1.3 DEVIATION FROM TEST STANDARD

No deviation

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4.1.4 TEST SETUP



4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

The EUT was programmed to be in continuously transmitting/TX Mode mode.

4.1.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Attachment A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform on this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the North AVG Mode column of Interference Voltage Measured on
- (2) Measuring frequency range from 150KHz to 30MHz o

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4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a) and RSS-210 section 2.2&A8.5, then the 15.209(a) and RSS-Gen limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies	EIRP Limit (dBm)	Equivalent Field Strength
(MHz)	Litte Liiliit (dDill)	at 3m (dBµV/m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27	68.3
	-17	78.3

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{10000000\sqrt{30P}}{3}$$
 µV/m, where P is the eirp (Watts)

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4.2.2 TEST PROCEDURE

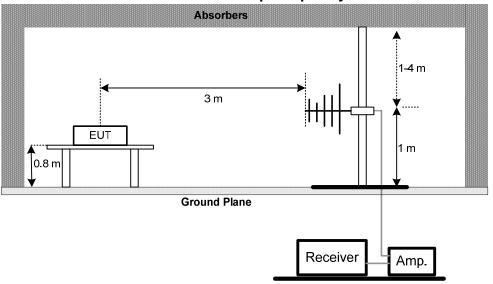
- a. The measuring distance of at 1.5m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

No deviation

4.2.4 TEST SETUP

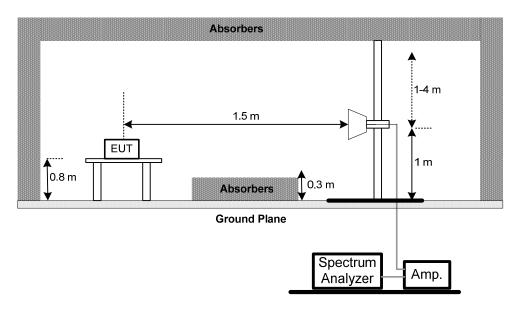
Radiated Emission Test Set-Up Frequency30 - 1000MHz



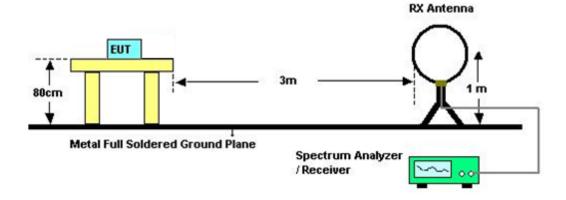
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Radiated Emission Test Set-Up Frequency Above 1 GHz



Radiated emissions below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

4.2.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

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4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Attachment B

4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)

Please refer to the Attachment C.

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = $0.3 \text{ sec./MHz} \circ$
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (3) Measuring frequency range from 30MHz to 1000MHz •
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ

4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Attachment D.

Remark:

- (1) Spectrum Setting: 30MHz 1000MHz, RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated AV in column of 『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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5. 26dB SPECTRUM BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Result		
26 dB Bandwidth		5150MHz~5250	PASS

5.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

ti ie biot	lock diagram below,			
b.	Spectrum Parameters	Setting		
	Attenuation	Auto		
	Span Frequency	> 26dB Bandwidth		
	RB	300 kHz		
	VB	1000 kHz		
	Detector	Peak		
	Trace	Max Hold		
	Sweep Time	Auto		
	1 (1 (1 1 1 1			

c. Measured the spectrum width with power higher than 26dB below carrier

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60HZ

5.1.6 TEST RESULTS

Please refer to the Attachment E.

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6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Frequency Range (MHz)	Limit	Result
Conducted Output Power	5150 - 5250	Indoor AP:1 Watt Mobile and portable:250mW Fixed P to P AP:1W Outdoor AP:1 Watt The maximum e.i.r.p. at anyelevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).	PASS

6.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
Chan Fraguency	Encompass the entire emissions bandwidth
Span Frequency	(EBW) of the signal
RBW	= 1 MHz.
VBW	≥ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

b. Test was performed in accordance with method of KDB 789033 D01.

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6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

6.1.6 TEST RESULTS

Please refer to the Attachment F.

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7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	-27 dBm/1MHz	5150 – 5250	PASS

7.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

n	

Spectrum Parameter	Setting
Attenuation	Auto
RB	1000 kHz
VB	1000 kHz
Trace	Max Hold
Sweep Time	Auto

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP

EUT	·	SPECTRUM
		ANALYZER

7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60HZ

7.1.6 TEST RESULTS

Please refer to the Attachment G.

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8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	Other then Mobile and portable:17dBm/Mhz Mobile and portable:11dBm/MHz	5150 - 5250	PASS

8.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

1_	
n	
v	

Spectrum Parameter	Setting
Attenuation	Auto
Span Fraguency	Encompass the entire emissions bandwidth (EBW) of
Span Frequency	the signal
RB	= 1 MHz.
VB	≥ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60HZ

8.1.6 TEST RESULTS

Please refer to the Attachment H.

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9. FREQUENCY STABILITY MEASUREMENT

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E 15.407(g)						
Test Item	Limit	Frequency Range (MHz)	Result			
Frequency Stability specified in the user's manual		5150 – 5250	PASS			

9.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

	nt diagram bolow,	and the great transfer of the state of the s								
b.	Spectrum Parameter	Setting								
	Attenuation	Auto								
	Span Frequency	Entire absence of modulation emissions bandwidth								
	RB	10 kHz								
	VB	10 kHz								
	Sweep Time	Auto								
— : (

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- d. user manual temperature is 0°C~40°C.

9.1.2 DEVIATION FROM STANDARD

No deviation.

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9.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

9.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60HZ

9.1.6 TEST RESULTS

Please refer to the Attachment J.

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10. MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement								
Item	Kind of Equipment	Equipment Manufacturer Type No. Serial No.		Calibrated until					
1	LISN	EMCO	3816/2	00052765	Mar. 29, 2015				
2	LISN	R&S	ENV216	100087	Mar. 29, 2015				
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015				
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	Mar. 29, 2015				
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015				

	Radiated Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015			
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015			
3	Test Receiver	R&S	ESCI	100382	Mar. 29, 2015			
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 02, 2014			
5	Antenna	ETS	3115	00075789	Mar. 29, 2015			
6	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015			
7	Spectrum	Agilent	E4408B	US39240143	Nov. 09, 2014			
8	Test Cable	HUBER+SUHNER	C-45	N/A	Mar. 29, 2015			
9	Controller	СТ	SC100	N/A	N/A			
10	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015			
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015			
12	Broad-Band Horn Antenna (40G)	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015			

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	26dB Spectrum Bandwidth Measurement							
Iten	n Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014			

	Maximum Conducted Output Power Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014			

	Antenna Conducted Spurious Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014			

	Power Spectral Density Measurement						
Item	Kind of Equipment	Serial No.	Calibrated until				
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014		

	Peak Excurison Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014			

	Frequency Stability Measurement								
Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated									
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014				
2	Precision Oven Tester	HOLINK	H-T-1F-D	BA03101701	May. 25, 2014				

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

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11. EUT TEST PHOTOS

Conducted Measurement Photos





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Radiated Measurement Photos 9KHz to 30MHz





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Radiated Measurement Photos 30MHz to 1000MHz



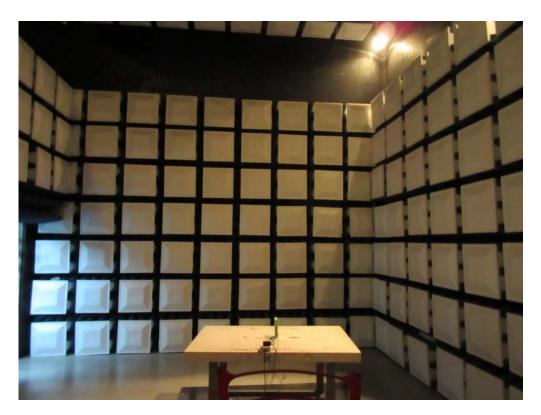


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Radiated Measurement Photos Above 1000MHz





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ATTACHMENT A - CONDUCTED EMISSION

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Test Mode : TX MODE

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.2008	43.99	9.54	53.53	63.58	-10.05	peak	
2		0.2008	31.70	9.54	41.24	53.58	-12.34	AVG	
3		0.2672	38.65	9.58	48.23	61.20	-12.97	peak	
4		0.3297	33.90	9.61	43.51	59.46	-15.95	peak	
5		0.4000	33.15	9.65	42.80	57.85	-15.05	peak	
6		0.9352	32.85	9.68	42.53	56.00	-13.47	peak	
7		1.7672	31.72	9.70	41.42	56.00	-14.58	peak	

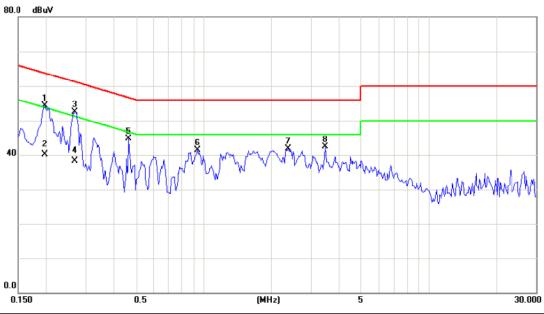
Note: The test result has included the cable loss.

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Test Mode : TX MODE

Neutral



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1970	44.65	9.61	54.26	63.74	-9.48	peak	
2	0.1970	30.50	9.61	40.11	53.74	-13.63	AVG	
3 *	0.2672	42.87	9.62	52.49	61.20	-8.71	peak	
4	0.2672	28.70	9.62	38.32	51.20	-12.88	AVG	
5	0.4625	35.00	9.64	44.64	56.65	-12.01	peak	
6	0.9430	31.60	9.67	41.27	56.00	-14.73	peak	
7	2.3687	31.86	9.76	41.62	56.00	-14.38	peak	
8	3.4688	32.57	9.81	42.38	56.00	-13.62	peak	

Note: The test result has included the cable loss.

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-3TL -----**ATTACHMENT B - RADIATED EMISSION (9KHZ to 30MHZ)**

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Test Mode: TX Mode 2412MHz

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
0.0094	0°	68.35	24.30	92.65	128.12	-35.47	AVG
0.0095	0°	72.35	24.30	96.65	148.12	-51.47	PEAK
0.0136	0°	70.35	24.30	94.65	124.93	-30.28	AVG
0.0137	0°	79.35	24.30	103.65	144.93	-41.28	PEAK
0.0243	0°	56.36	24.03	80.39	119.89	-39.50	AVG
0.0245	0°	60.12	24.03	84.15	139.89	-55.74	PEAK
0.0326	0°	61.36	23.50	84.86	117.34	-32.48	AVG
0.0328	0°	65.38	23.50	88.88	137.34	-48.46	PEAK
0.5670	0°	18.72	20.01	38.73	72.53	-33.80	QP
1.7535	0°	18.95	19.52	38.47	69.54	-31.07	QP

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
0.0094	90°	76.35	24.30	100.65	128.19	-27.54	AVG
0.0094	90°	82.36	24.30	106.66	148.19	-41.53	PEAK
0.0234	90°	56.38	24.08	80.46	120.22	-39.76	AVG
0.0237	90°	59.35	24.08	83.43	140.22	-56.79	PEAK
0.0315	90°	57.35	23.57	80.92	117.64	-36.72	AVG
0.0318	90°	58.35	23.57	81.92	137.64	-55.72	PEAK
0.0426	90°	59.35	22.87	82.22	115.02	-32.80	AVG
0.0429	90°	63.35	22.87	86.22	135.02	-48.80	PEAK
0.4914	90°	17.45	19.82	37.27	73.78	-36.50	QP
1.7157	90°	18.63	19.53	38.16	69.54	-31.38	QP

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

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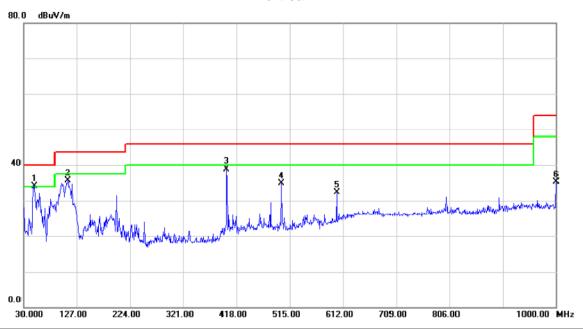
ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)

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Test Mode: Band 1/TX A Mode 5180MHz

Vertical



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	50.3700	48.47	-14.29	34.18	40.00	-5.82	peak	
_	2	,	110.5100	51.00	-15.35	35.65	43.50	-7.85	peak	
_	3	;	399.5700	48.67	-9.70	38.97	46.00	-7.03	peak	
_	4	ţ	500.4500	45.50	-10.52	34.98	46.00	-11.02	peak	
	5	(500.3600	40.30	-8.08	32.22	46.00	-13.78	peak	
	6	•	1000.000	35.67	-0.44	35.23	54.00	-18.77	peak	
_										

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Test Mode: Band 1/TX A Mode 5180MHz

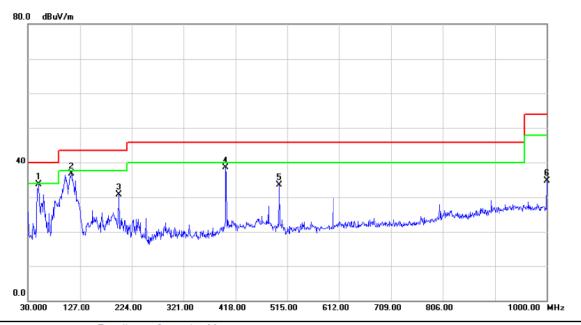
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		49.4000	42.39	-14.22	28.17	40.00	-11.83	peak	
2		168.7100	35.21	-12.90	22.31	43.50	-21.19	peak	
3		199.7500	39.63	-15.13	24.50	43.50	-19.00	peak	
4	*	399.5700	46.99	-9.70	37.29	46.00	-8.71	peak	
5		500.4500	35.65	-10.52	25.13	46.00	-20.87	peak	
6		958.2900	29.41	-0.33	29.08	46.00	-16.92	peak	

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Test Mode: Band 1/TX A Mode 5200MHz

Vertical



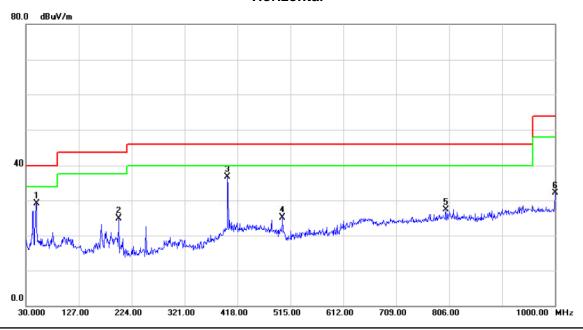
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	50.3700	47.97	-14.29	33.68	40.00	-6.32	peak	
2		110.5100	52.00	-15.35	36.65	43.50	-6.85	peak	
3		199.7500	45.88	-15.13	30.75	43.50	-12.75	peak	
4		399.5700	48.17	-9.70	38.47	46.00	-7.53	peak	
5		500.4500	44.00	-10.52	33.48	46.00	-12.52	peak	
6		1000.000	35.17	-0.44	34.73	54.00	-19.27	peak	

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Test Mode: Band 1/TX A Mode 5200MHz

Horizontal



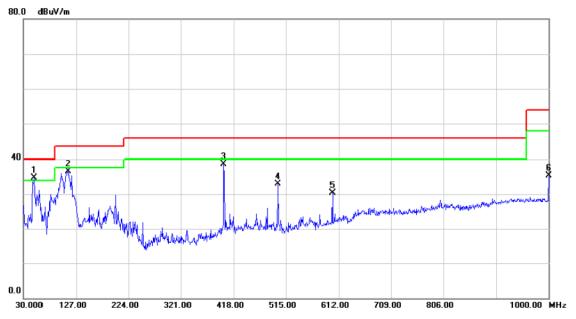
No	. M	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4	9.4000	43.39	-14.22	29.17	40.00	-10.83	peak	
2		19	9.7500	40.13	-15.13	25.00	43.50	-18.50	peak	
3	*	39	9.5700	46.49	-9.70	36.79	46.00	-9.21	peak	
4		50	0.4500	35.65	-10.52	25.13	46.00	-20.87	peak	
5		80	0.1800	30.20	-2.91	27.29	46.00	-18.71	peak	
6		10	00.000	32.63	-0.44	32.19	54.00	-21.81	peak	

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Test Mode: Band 1/TX A Mode 5240MHz

Vertical



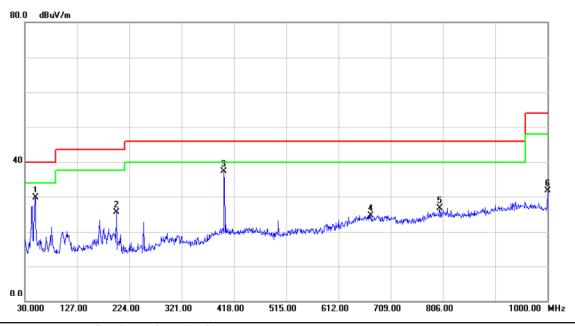
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	50.3700	48.97	-14.29	34.68	40.00	-5.32	peak	
2		111.4800	51.83	-15.24	36.59	43.50	-6.91	peak	
3		399.5700	48.17	-9.70	38.47	46.00	-7.53	peak	
4		500.4500	43.50	-10.52	32.98	46.00	-13.02	peak	
5		600.3600	38.30	-8.08	30.22	46.00	-15.78	peak	
6		1000.000	35.67	-0.44	35.23	54.00	-18.77	peak	

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Test Mode: Band 1/TX A Mode 5240MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		49.4000	43.89	-14.22	29.67	40.00	-10.33	peak	
2		199.7500	40.63	-15.13	25.50	43.50	-18.00	peak	
3	*	399.5700	46.99	-9.70	37.29	46.00	-8.71	peak	
4		672.1400	29.68	-5.09	24.59	46.00	-21.41	peak	
5		800.1800	29.70	-2.91	26.79	46.00	-19.21	peak	
6		1000.000	32.13	-0.44	31.69	54.00	-22.31	peak	

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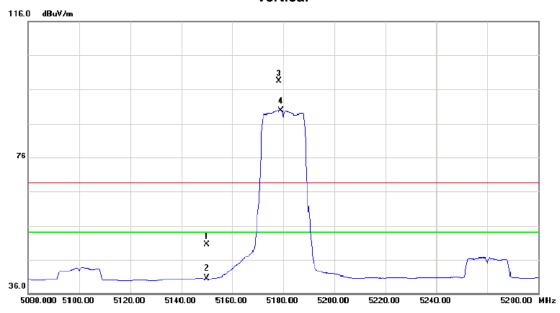
_3TL _____ ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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Test Mode: Band 1/ TX A Mode 5180MHz

Vertical



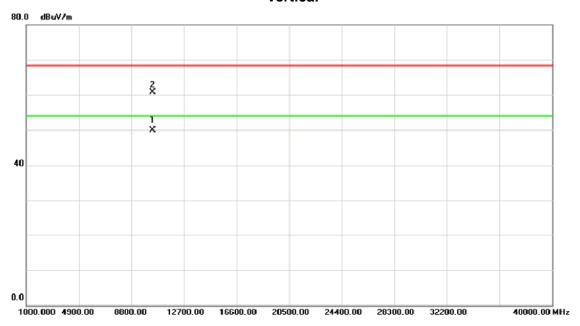
N	o. M	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Över		
			MHz	dBu∀	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	51	50.000	8.50	4 1.99	50.49	68.30	-17.81	peak	
	2	51	50.000	-1.45	4 1.99	40.54	54.00	-13. 4 6	AVG	
	3 X	51	78.200	56.36	4 2.11	98.47	68.30	30.17	peak	Fundamental frequency, no limit
	4 *	51	79.000	47.67	4 2.11	89.78	54.00	35.78	AVG	Fundamental frequency, no limit

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Test Mode: Band 1/ TX A Mode 5180MHz

Vertical



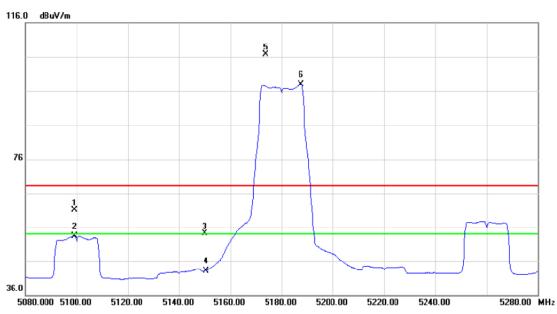
No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.10	34.20	15.70	49.90	54.00	-4.10	AVG	
2		10361.35	44.97	15.69	60.66	68.30	-7.64	peak	

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Test Mode: Band 1/ TX A Mode 5180MHz

Horizontal



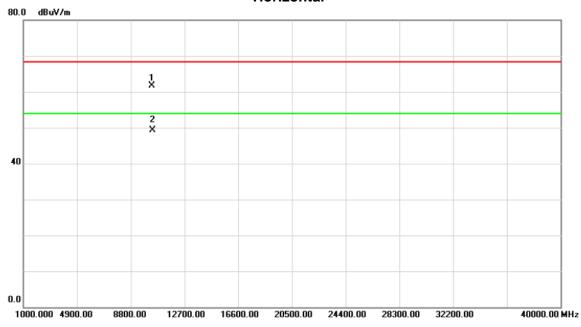
No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dВ	dBuV/m	dBuV/m	dΒ	Detector	Comment
1		5099.000	19.32	41.79	61.11	68.30	-7.19	peak	
2		5099.000	11.60	41.79	53.39	54.00	-0.61	AVG	
3		5150.000	12.04	41.99	54.03	68.30	-14.27	peak	
4		5150.000	1.17	41.99	43.16	54.00	-10.84	AVG	
5	X	5173.800	64.55	42.09	106.64	68.30	38.34	peak	Fundamental frequency, no limit
6	*	5187.600	55.83	42.15	97.98	54.00	43.98	AVG	Fundamental frequency, no limit

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Test Mode: Band 1/ TX A Mode 5180MHz

Horizontal



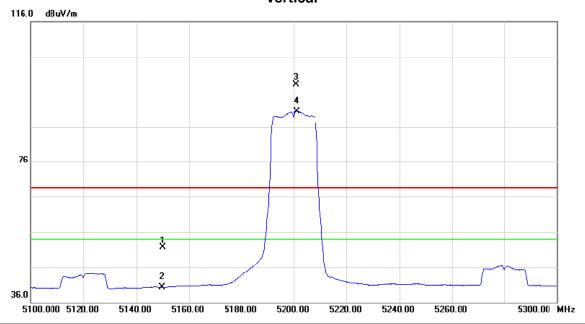
No.	Mk.	Freq.			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10359.35	46.01	15.70	61.71	68.30	-6.59	peak	
2	*	10362.00	33.71	15.69	49.40	54.00	-4.60	AVG	

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Test Mode: Band 1/ TX A Mode 5200MHz

Vertical



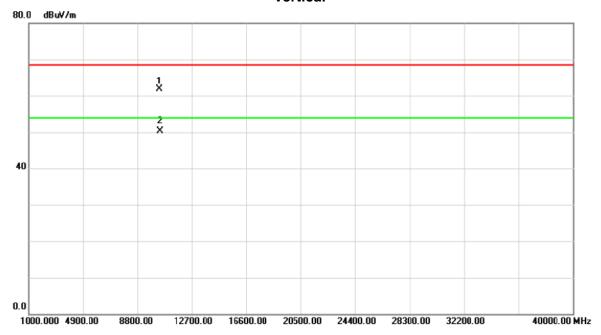
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	9.45	41.99	51.44	68.30	-16.86	peak	
2		5150.000	-1.71	41.99	40.28	54.00	-13.72	AVG	
3	Х	5201.000	55.99	42.20	98.19	68.30	29.89	peak	Fundamental frequency, no limit
4	*	5201.200	48.37	42.20	90.57	54.00	36.57	AVG	Fundamental frequency, no limit

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Test Mode: Band 1/ TX A Mode 5200MHz

Vertical



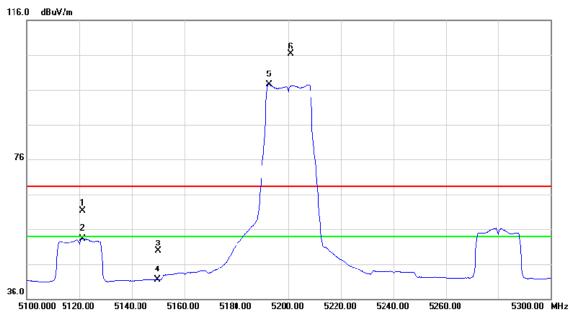
No.	Mk	. Freq.	Level		ment	Limit	Over				
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1		10398.85	46.28	15.64	61.92	68.30	-6.38	peak			
2	*	10401.80	34.74	15.63	50.37	54.00	-3.63	AVG			

Report No.: NEI-FCCP-2-1406C099 Page 53 of 162



Test Mode: Band 1/ TX A Mode 5200MHz

Horizontal



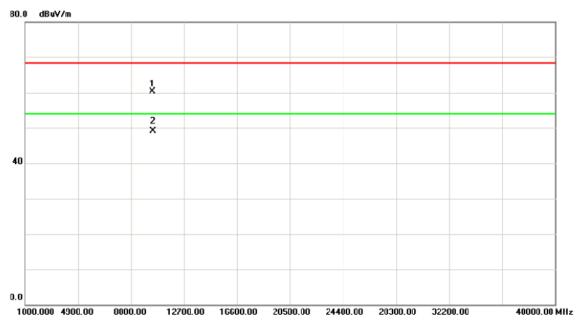
	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1		5121.200	19.49	41.88	61.37	68.30	-6.93	peak	
	2		5121.200	11.51	41.88	53.39	54.00	-0.61	AVG	
_	3		5150.000	7.74	41.99	49.73	68.30	-18.57	peak	
_	4		5150.000	-0.46	41.99	41.53	54.00	-12.47	AVG	
_	5	*	5192.600	55.38	42.16	97.54	54.00	43.54	AVG	Fundamental frequency, no limit
	6	X	5200.800	64.04	42.20	106.24	68.30	37.94	peak	Fundamental frequency, no limit
_			,	,						·

Report No.: NEI-FCCP-2-1406C099 Page 54 of 162



Test Mode: Band 1/ TX A Mode 5200MHz

Horizontal



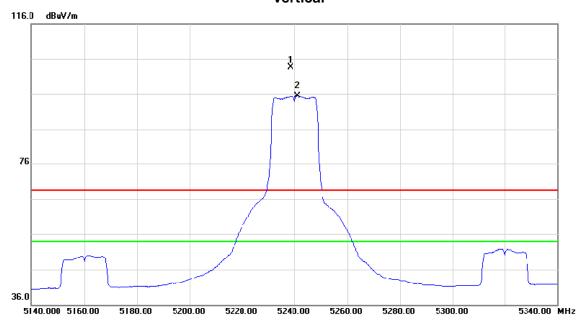
No.	Mk	. Freq.	Reading Level		Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10399.85	44./2	15.64	60.36	68.30	-7.94	peak	
2	*	10401.95	33.43	15.63	49.06	54.00	-4.94	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 55 of 162



Test Mode: Band 1/ TX A Mode 5240MHz

Vertical

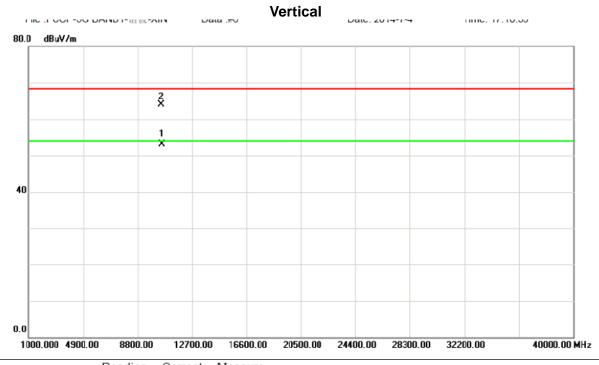


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∀	dB	dBuV/m	dBu∀/m	dB	Detector	Comment
1	Χ	5238.400	61.20	42.35	103.55	68.30	35.25	peak	Fundamental frequency, no limit
2	*	5241.200	53.08	42.37	95.45	54.00	41.45	AVG	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 56 of 162



Test Mode: Band 1/ TX A Mode 5240MHz



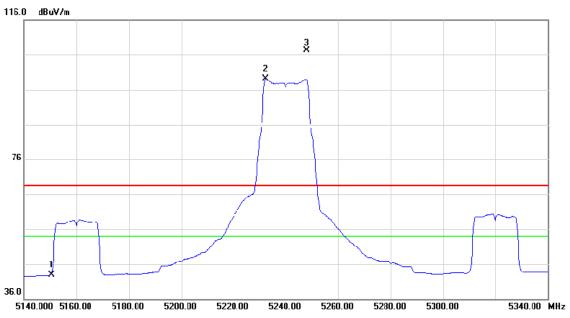
No.	M	k. Freq.			Measure- ment		Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10481.90	37.50	15.51	53.01	54.00	-0.99	AVG	
2		10482.25	48.62	15.51	64.13	68.30	-4.17	peak	

Report No.: NEI-FCCP-2-1406C099 Page 57 of 162



Test Mode: Band 1/ TX A Mode 5240MHz

Horizontal



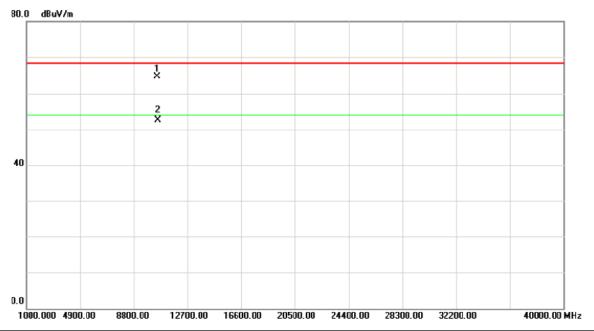
No.	Mk	. Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	0.97	41.99	42.96	54.00	-11.04	AVG	
2	*	5232.400	56.71	42.33	99.04	54.00	45.04	AVG	Fundamental frequency, no limit
3	X	5247.800	64.95	42.39	107.34	68.30	39.04	peak	Fundamental frequency, no limit

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Test Mode: Band 1/ TX A Mode 5240MHz

Horizontal



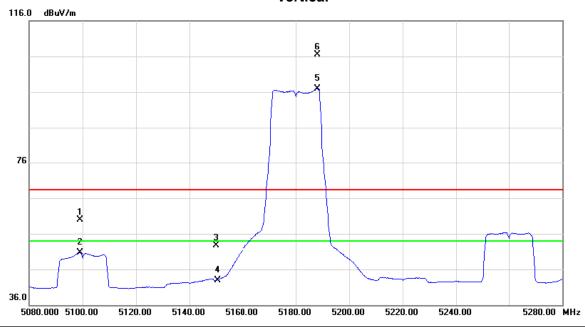
No). I	Mk.	Freq.		Correct Factor	Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		-	10479.10	49.14	15.52	64.66	68.30	-3.64	peak	
2)	* *	10481.90	37.05	15.51	52.56	54.00	-1.44	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 59 of 162



Test Mode: Band 1/ TX N20 Mode 5180MHz

Vertical



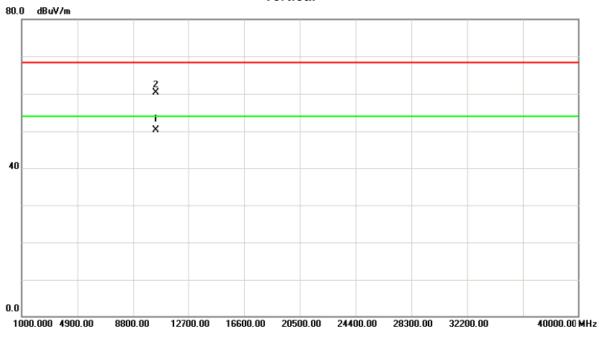
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5099.000	18.04	41.79	59.83	68.30	-8.47	peak	
2		5099.000	8.85	41.79	50.64	54.00	-3.36	AVG	
3		5150.000	10.77	41.99	52.76	68.30	-15.54	peak	
4		5150.000	0.95	41.99	42.94	54.00	-11.06	AVG	
5	*	5188.000	54.76	42.15	96.91	54.00	42.91	AVG	Fundamental frequency, no limit
6	X	5188.200	64.26	42.15	106.41	68.30	38.11	peak	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 60 of 162



Test Mode: Band 1/ TX N20 Mode 5180MHz

Vertical



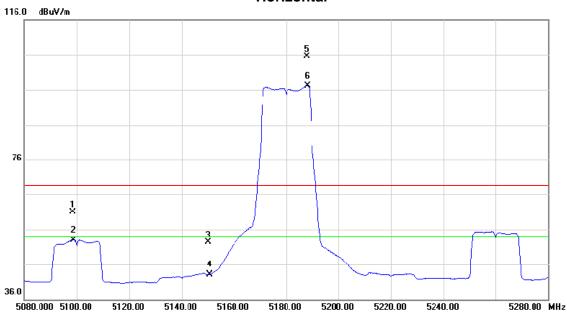
No.	Mk	c. Freq.	_	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10359.95	34.56	15.70	50.26	54.00	-3.74	AVG	
2		10360.25	44.70	15.70	60.40	68.30	-7.90	peak	

Report No.: NEI-FCCP-2-1406C099 Page 61 of 162



Test Mode: Band 1/ TX N20 Mode 5180MHz

Horizontal



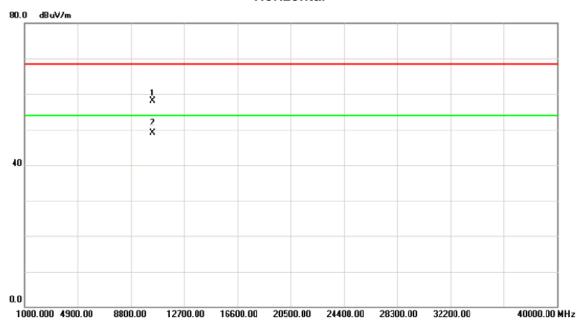
No.	Mk.	Γreq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5	098.500	19.17	41.78	60.95	68.30	-7.35	peak	
2	5	098.800	11.16	41.79	52.95	54.00	-1.05	AVG	
3	5	150.000	10.26	41.99	52.25	68.30	-16.05	peak	
4	5	150.000	1.10	41.99	43.09	54.00	-10.91	AVG	
5	X 5	187.800	63.43	42.15	105.58	68.30	37.28	peak	Fundamental frequency, no limit
6	* 5	188.000	54.89	42.15	97.04	54.00	43.04	AVG	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 62 of 162



Test Mode: Band 1/ TX N20 Mode 5180MHz

Horizontal



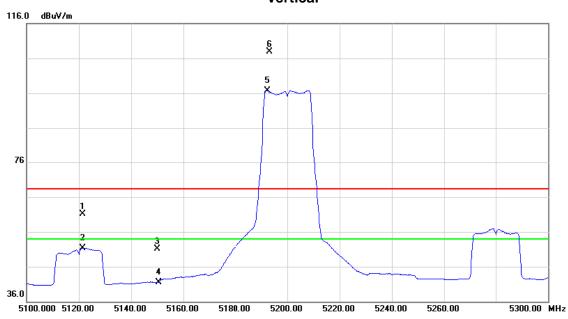
No	Mk	Freq	Reading Level		Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10360.25	42.50	15.70	58.20	68.30	-10.10	peak	
2	*	10360.25	33.34	15.70	49.04	54.00	-4.96	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 63 of 162



Test Mode: Band 1/ TX N20 Mode 5200MHz

Vertical



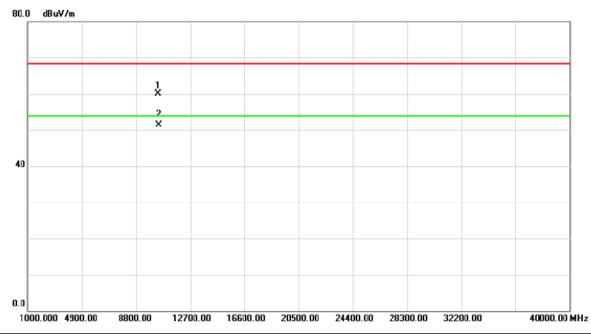
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5	5121.400	19.16	41.88	61.04	68.30	-7.26	peak	
2	Ę	5121.400	9.44	41.88	51.32	54.00	-2.68	AVG	
3	5	5150.000	9.13	41.99	51.12	68.30	-17.18	peak	
4	Ę	5150.000	-0.46	41.99	41.53	54.00	-12.47	AVG	
5	* [5192.400	54.60	42.16	96.76	54.00	42.76	AVG	Fundamental frequency, no limit
6	X 5	5193.200	65.67	42.17	107.84	68.30	39.54	peak	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 64 of 162



Test Mode: Band 1/ TX N20 Mode 5200MHz

Vertical



No	Mk	Freq			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10399.90		15.64	60.13	68.30	-8.17	peak	
2			35.89		51.53	54.00	-2.47	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 65 of 162



36.D

5100.000 5120.00

5140.00

5160.D0

5180.00

Test Mode: Band 1/ TX N20 Mode 5200MHz

Horizontal 116.0 dBuV/m 5 5 1 2 3

ı	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	5	5121.600	19.49	41.88	61.37	68.30	-6.93	peak	
	2	Ę	5121.600	11.19	41.88	53.07	54.00	-0.93	AVG	
	3	Ę	5150.000	9.13	41.99	51.12	68.30	-17.18	peak	
	4	į	5150 000	-0 45	41 99	41 54	54 00	-12 46	AVG	
	5	* [5192.200	54.63	42.16	96.79	54.00	42.79	AVG	Fundamental frequency, no limit
	6	X 5	5203.600	63.88	42.21	106.09	68.30	37.79	peak	Fundamental frequency, no limit

5200.00

5220.00

5240.00

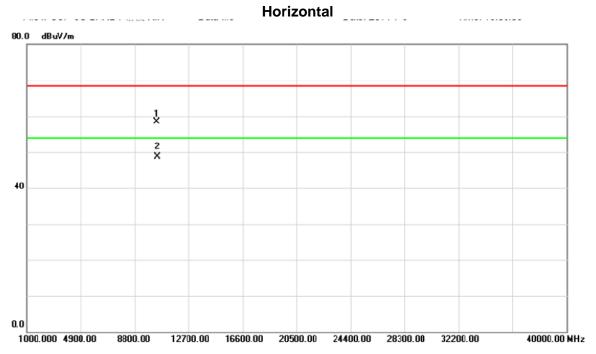
5260.00

5300.00 MHz

Report No.: NEI-FCCP-2-1406C099 Page 66 of 162



Test Mode: Band 1/ TX N20 Mode 5200MHz



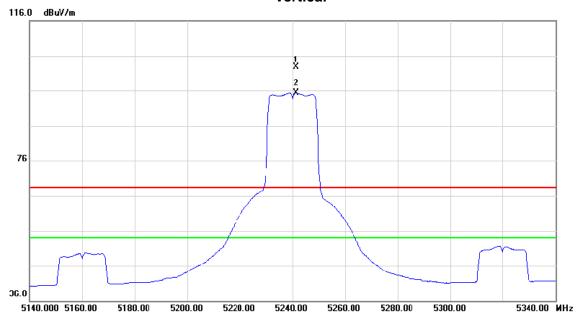
No.	Mk	. Freq.	_		Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10399.90	42.81	15.64	58.45	68.30	-9.85	peak	
2	*	10399.95	33.16	15.64	48.80	54.00	-5.20	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 67 of 162



Test Mode: Band 1/ TX N20 Mode 5240MHz

Vertical



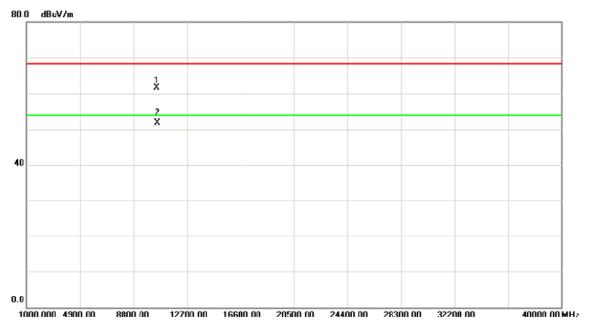
	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	Х	5241.400	60.40	42.37	102.77	68.30	34.47	peak	Fundamental frequency, no limit
·	2	*	5241.400	52.95	42.37	95.32	54.00	41.32	AVG	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 68 of 162



Test Mode: Band 1/ TX N20 Mode 5240MHz

Vertical



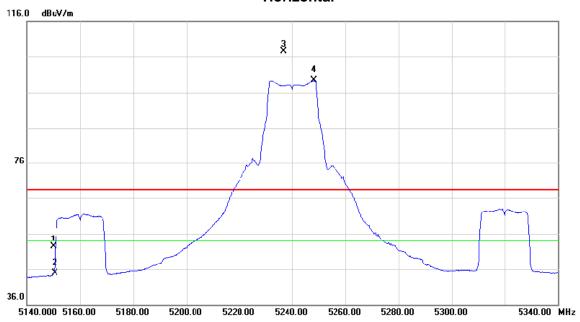
No.	Mk	. Froq.			Measure- ment		Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Delector	Comment
1		10480.15	46.04	15.51	61.55	68.30	-6.75	peak	
2	*	10480.15	36.19	15.51	51.70	54.00	-2.30	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 69 of 162



Test Mode: Band 1/ TX N20 Mode 5240MHz

Horizontal



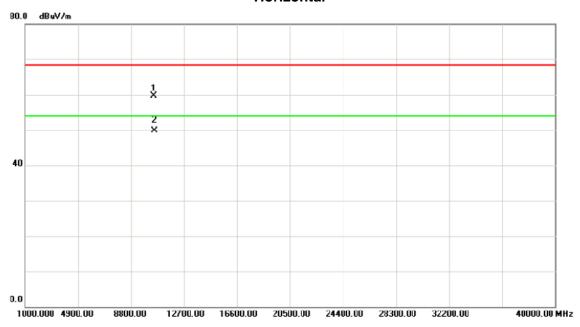
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	10.36	41.99	52.35	68.30	-15.95	peak	
2		5150.000	2.87	41.99	44.86	54.00	-9.14	AVG	
3	X	5236.600	65.09	42.34	107.43	68.30	39.13	peak	Fundamental frequency, no limit
4	*	5248.000	57.03	42.39	99.42	54.00	45.42	AVG	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 70 of 162



Test Mode: Band 1/ TX N20 Mode 5240MHz

Horizontal



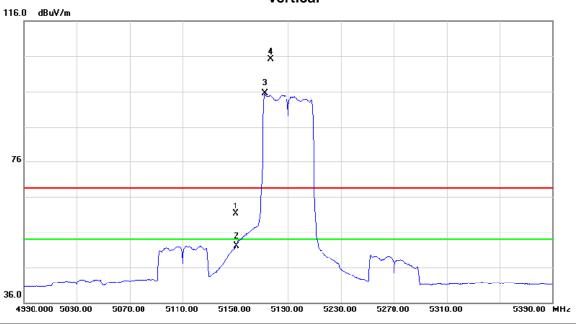
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∀	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10480.15	44.28	15.51	59.79	68.30	-8.51	peak	
2		10480.15			49.94	54.00	-4.06	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 71 of 162



Test Mode: Band 1/ TX N40 Mode 5190MHz

Vertical



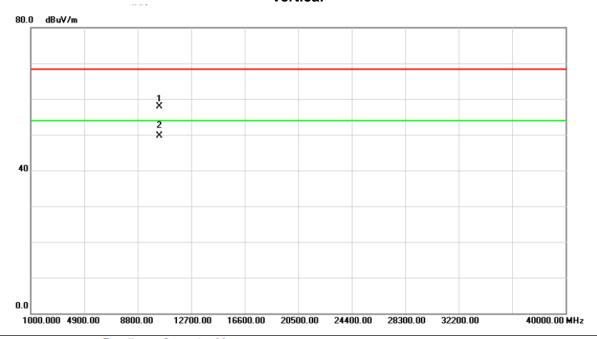
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	19.17	41.99	61.16	68.30	-7.14	peak	
2		5150.000	9.82	41.99	51.81	54.00	-2.19	AVG	
3	*	5172.400	53.33	42.08	95.41	54.00	41.41	AVG	Fundamental frequency, no limit
4	X	5176.800	62.96	42.10	105.06	68.30	36.76	peak	Fundamental frequency, no limit
	1 2 3	1 2 3 *	MHz 1 5150.000 2 5150.000	No. Mk. Freq. Level MHz dBuV 1 5150.000 19.17 2 5150.000 9.82 3 * 5172.400 53.33	No. Mk. Freq. Level Factor MHz dBuV dB 1 5150.000 19.17 41.99 2 5150.000 9.82 41.99 3 * 5172.400 53.33 42.08	No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m 1 5150.000 19.17 41.99 61.16 2 5150.000 9.82 41.99 51.81 3 * 5172.400 53.33 42.08 95.41	No. Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m 1 5150.000 19.17 41.99 61.16 68.30 2 5150.000 9.82 41.99 51.81 54.00 3 * 5172.400 53.33 42.08 95.41 54.00	No. Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB 1 5150.000 19.17 41.99 61.16 68.30 -7.14 2 5150.000 9.82 41.99 51.81 54.00 -2.19 3 * 5172.400 53.33 42.08 95.41 54.00 41.41	No. Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 1 5150.000 19.17 41.99 61.16 68.30 -7.14 peak 2 5150.000 9.82 41.99 51.81 54.00 -2.19 AVG 3 * 5172.400 53.33 42.08 95.41 54.00 41.41 AVG

Report No.: NEI-FCCP-2-1406C099 Page 72 of 162



Test Mode: Band 1/ TX N40 Mode 5190MHz

Vertical



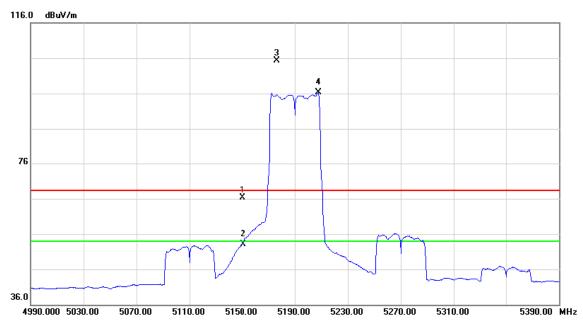
No. Mk	. Freq.	Reading Level		Measure- ment		Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10378.70	42.14	15.67	57.81	68.30	-10.49	peak	
2 *	10378.70	33.97	15.67	49.64	54.00	-4.36	AVG	

Report No.: NEI-FCCP-2-1406C099 Page 73 of 162



Test Mode: Band 1/ TX N40 Mode 5190MHz

Horizontal



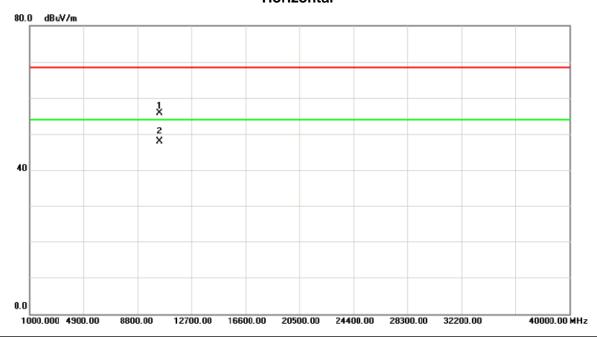
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	24.34	41.99	66.33	68.30	-1.97	peak	
2		5150.000	11.16	41.99	53.15	54.00	-0.85	AVG	
3	X	5176.400	63.27	42.10	105.37	68.30	37.07	peak	Fundamental frequency, no limit
4	*	5207.600	54.06	42.23	96.29	54.00	42.29	AVG	Fundamental frequency, no limit

Report No.: NEI-FCCP-2-1406C099 Page 74 of 162



Test Mode: Band 1/ TX N40 Mode 5190MHz

Horizontal



No.	Mk.	Freq.	_		Measure- ment		Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	1	0378.70		15.67	55.79	68.30	-12.51	peak		
2	* 1	0378.70	32.20	15.67	47.87	54.00	-6.13	AVG		

Report No.: NEI-FCCP-2-1406C099 Page 75 of 162