

USB Adaptor

Model No.: W-USB

Date: 22-Dec-2013

Report Prepared By:

Sasikala Subramani

EMC Test Report

Report Number	EMC-1210-1
EUT Nomenclature	USB Adapter
Sample Identification	Model No. : W-USB Sl. No. : 01 Software Version : 1.00 Hardware Version : Rev 4
Number of Samples	1
Date of receipt of Sample	15-07-2013
Condition of Sample on receipt	Good
Client name	Honeywell International Inc.
Client Address	Honeywell Life Safety, 12, Clintonville Road, Northford, Connecticut, USA - 06472
Testing Laboratory	Honeywell Technology Solutions Lab Pvt. Ltd.
Address	RMZ ECOWORLD INFRASTRUCTURE PVT. LTD., (Formerly Adarsh Prime Projects Pvt. Ltd., SEZ). Survey # 19/2, Devarabisanahalli Village, Varthur Hobli, Bangalore East Taluk, Bangalore – 560103
Test Dates	15-07-2013 to 14-Dec-2013
Applicable Standard	FCC Part 15 Subpart C
Test Results	PASS

Prepared By: Technical Lead
Name : Sasikala Subramani

Signature:

Date : 23-Dec-2013

Reviewed By: Project Lead
Name : Loganathan Joghee

Signature:

Date : 23-Dec-2013

Authorized By: Quality Manager
Name : Prasanna Kumar BT

Signature:

Date : 23-Dec-2013

Authorized By: Lab Manager
Name : Ananth Krishna

Signature:

Date : 23-Dec-2013

This Report relates to the above mentioned test sample only. Without the approval of Lab manager, this report shall not be reproduced except in full.

TEST SUMMARY						
#	Name	Specification	Test Method	Pass	Fail	NA
FHSS						
1	20dB Bandwidth	FCC Part 15.247	DA 00-705	☐	☐	☒
2	Maximum Peak Output Power	FCC Part 15.247	DA 00-705	☐	☐	☒
3	Carrier Frequency Separation	FCC Part 15.247	DA 00-705	☐	☐	☒
4	Number of Hopping Frequencies	FCC Part 15.247	DA 00-705	☐	☐	☒
5	Band Edge compliance	FCC Part 15.247	DA 00-705	☐	☐	☒
6	Time of Occupancy (Dwell Time)	FCC Part 15.247	DA 00-705	☐	☐	☒
7	Spurious RF Conducted Emissions	FCC Part 15.247	DA 00-705	☐	☐	☒
8	Spurious Radiated Emissions	FCC Part 15.247 and 15.209	DA 00-705	☐	☐	☒
DTS						
1	DTS 6dB Bandwidth	FCC Part 15.247	KDB 558074	☒	☐	☐
2	Maximum Peak Output Power	FCC Part 15.247	KDB 558074	☒	☐	☐
3	Maximum Power Spectral Density	FCC Part 15.247	KDB 558074	☒	☐	☐
4	Band Edge Conducted Emissions	FCC Part 15.247	KDB 558074	☒	☐	☐
5	Radiated Spurious Emissions	FCC Part 15.209 and 15.209	KDB 558074	☒	☐	☐

MEASUREMENT UNCERTAINTY		
Where relevant, the following measurement uncertainty levels has been estimated for tests performed on the EUT as specified in CISPR 16-4		
The Expanded measurement uncertainty (K=2) is provided below		
#	Name	Value
1	20dB & 6dB Occupied Bandwidth	1.4dB
2	Maximum Peak Output Power Level	1.4dB
3	Power Spectral Density	1.4dB
4	Band Edge Conducted Emission	1.4dB
5	Spurious RF Conducted Emission	1.4dB
6	Radiated Spurious Emission < 1GHz	4.9dB
7	Radiated Spurious Emission > 1GHz	6.3dB

1 PRODUCT DETAILS

PRODUCT OPERATION AND INTENDED USE

The Wireless USB Adapter is an interface that can be connected to a PC through USB port. It communicates with RF devices using 914.325 MHz and 927.125 MHz frequencies as same as mesh protocol frequencies. This device is powered directly by the USB port.

RATINGS AND SYSTEM DETAILS

Operating Frequency	914.325MHz and 927.125MHz
Number of Channels	DTS :2
	FHSS :NA
Channel Bandwidth (20dB)	DTS :1MHz
	FHSS :NA
Transmitted Power	DTS :2dBm
	FHSS :NA
Modulation Type	FSK
Data Rate	DTS :300Kbps
	FHSS :NA
Antenna Type	Chip Antenna
No. of Antenna	1
Antenna Gain	0 dBi
Supply Voltage and Current	5V, 33mA
Dimensions (Diameter x Height)	96.2 mm x31.2mmx13 mm
Environmental Conditions	Operating Temperature :0°C to 50°C
	Storage Temperature : -10°C to 60°C
	Humidity : 10% to 93% RH

TEST CONFIGURATION	
Config #	Description
DTS	EUT is plugged into the USB port of the Laptop. EUT Debug port (UART) is connected to USB to UART converter cable which is in turn connected to Laptop. EUT is configured to continuous transmission mode through HyperTerminal.

OPERATING MODES	
Mode #	Description
DTS	Following DTS channels have been used for Continuous Transmission Channel 1 : 902.875MHz Channel 2 : 927.125MHz

INPUT AND OUTPUT CABLES					
Port #	Name	Port Type	Cable Length	Cable type Shielded/ Unshielded	Comments
	Not applicable				

*Note : AC = AC Power Port
TP = Telecommunication Ports (E.g. Ethernet)
N /E = Non Electrical

DC = DC Power Port
DI / DO = Digital Input / Output
AI / AO = Analog Input / Output

SUPPORT EQUIPMENTS AND ACCESSORIES USED					
#	Item Description	Make	Model	Part No. / Sl. No	Cal Due Date
1	Laptop	DELL	E6400	3351399400	NA
2	USB to U A R T Cable	FTDI	NA	TTL-232R-3V3	NA

CONNECTION DIAGRAM AND SETUP DIAGRAM

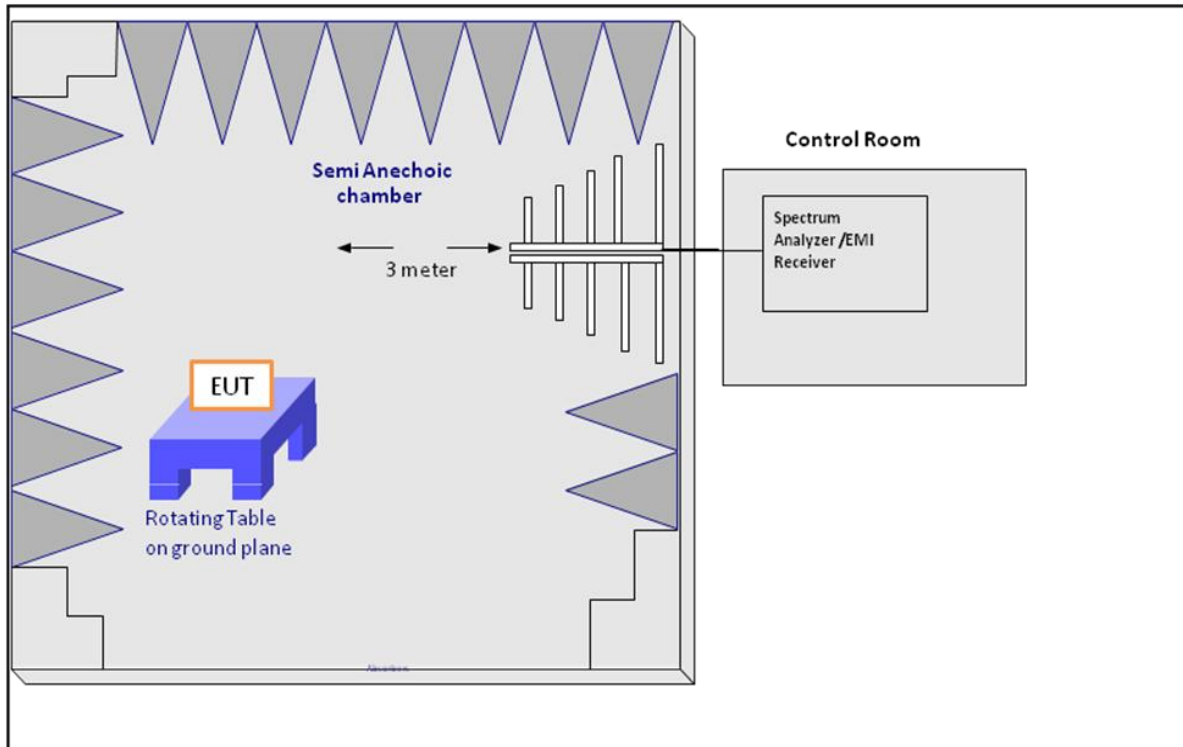


Figure1 : Radiated Emission Test Setup

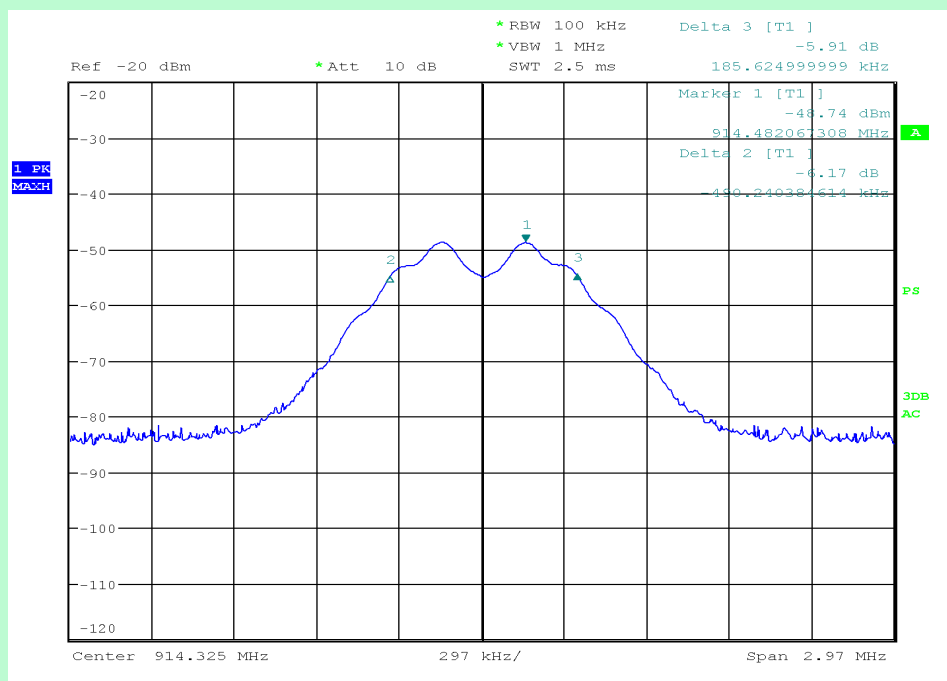
2 DTS CHANNELS

3.1 DTS 6dB Bandwidth

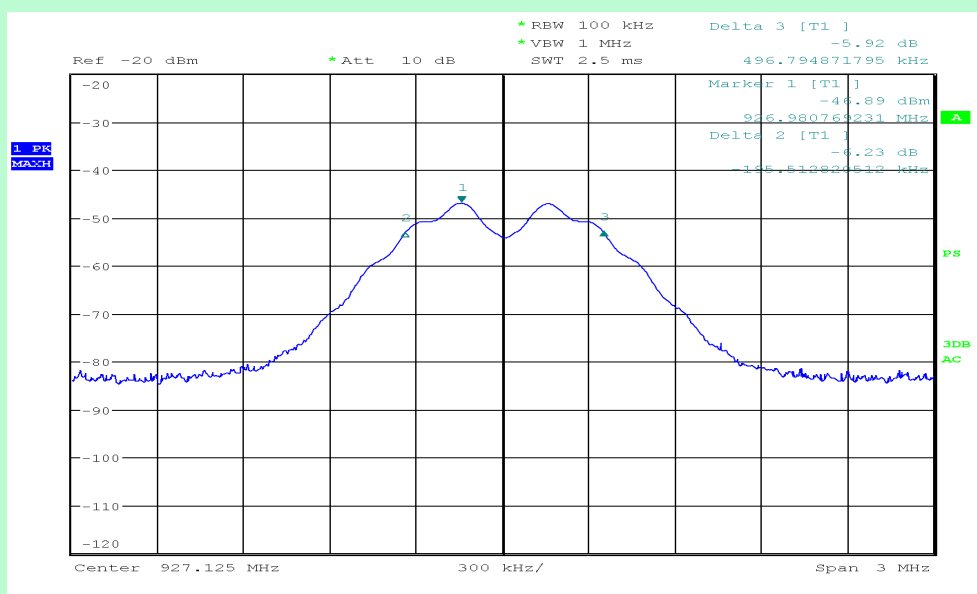
EUT Nomenclature	USB Adapter	Test Report No.	EMC-1210-1
Model No.	W-USB	Serial No.	01
Test Start Date	21-Dec-2013	Temperature (°C)	23.1
Test End Date	21-Dec-2013	Humidity RH (%)	55.2
Tested By	Sasikala Subramani	Pressure (mbar)	NR
Input Voltage / Freq	5Vdc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NA		
Applicable standard	FCC Part 15.247		
Test Method	KDB 558074		
Comment			
TEST DETAILS			
Method	☐ Conducted ☒ Radiated		
TEST PARAMETERS			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

TEST EQUIPMENT					
Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	31-Dec-2014
Y	EMI Test Receiver	R&S	ESU26	100229	04-Feb-2014
Y	Bilog Antenna	TDK	HLP3003C	130525	30-Nov-2013
Y	N to N RF Cable, 8m	COLEMAN	RG214	RE-1A	09-May-2014
Y	N to N RF Cable, 3m	COLEMAN	RG214	RE-1A	09-May-2014
Y	Log periodic Antenna	ETS Lindgren	3148	00066012	09-Nov-2014
Y	RF Cable	Huber- Suhner	SF104/2X11PC3542/500	NA	NA

TEST GRAPHS



Channel 1 (914.325 MHz)



Channel 2 (927.125 MHz)

TEST RESULT				
Channel	Frequency	Measured Value	Limit	Result
#	MHz	KHz	KHz	
1	914.325	675.86	>500	PASS
2	927.125	692.30	>500	PASS

TEST SETUP PHOTOGRAPHS
Refer Annexure – 1 Radiated Test Setup

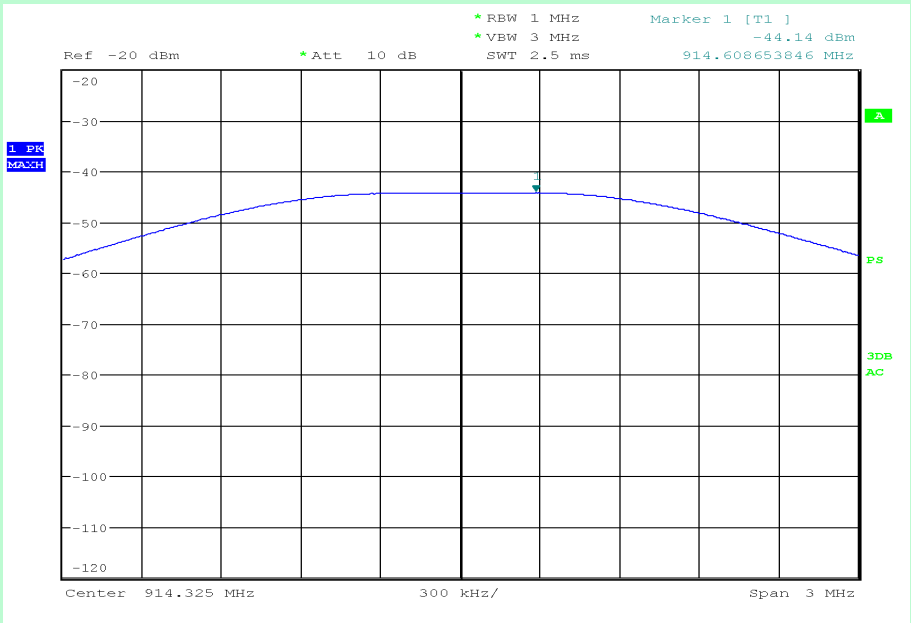
3.2 MAXIMUM PEAK OUTPUT POWER

EUT Nomenclature	USB Adapter	Test Report No.	EMC-1210-1
Model No.	W-USB	Serial No.	01
Test Start Date	21-Dec-2013	Temperature (°C)	23.2
Test End Date	21-Dec-2013	Humidity RH (%)	55.2
Tested By	Sasikala Subramani	Pressure (mbar)	NR
Input Voltage / Freq	5 Vdc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NIL		
Applicable standard	FCC Part 15.247		
Test Method	KDB 558074		
Comment			
TEST DETAILS			
Method	☐ Conducted ☒ Radiated		
TEST PARAMETERS – RADIATED			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

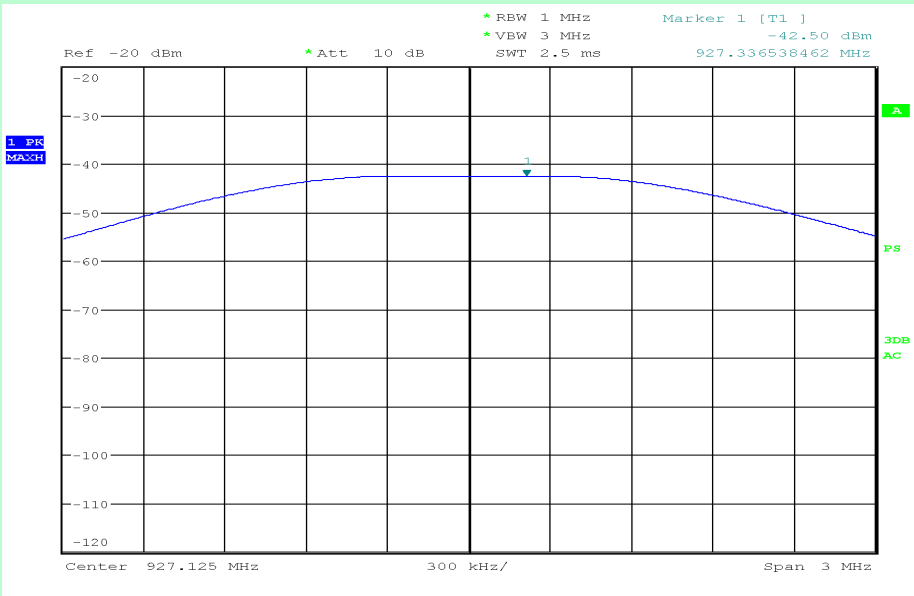
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	31-Dec-2014
Y	EMI Test Receiver	R&S	ESU26	100229	04-Feb-2014
Y	Bilog Antenna	TDK	HLP3003C	130525	30-Nov-2013
Y	N to N RF Cable, 8m	COLEMAN	RG214	RE-1A	09-May-2014
Y	N to N RF Cable, 3m	COLEMAN	RG214	RE-1A	09-May-2014
Y	Log periodic Antenna	ETS Lindgren	3148	00066012	09-Nov-2014
Y	RF Cable	Huber- Suhner	SF104/2X11PC3542/500	NA	NA

TEST GRAPHS



Channel 1 (914.325 MHz)



Channel 2 (927.125 MHz)

TEST RESULT									
Channel No.	Freq	Ant Pol	Antenna Height	Azimuth	Measured Level	*CF	Output Power Level	Limit	Test Results
#	MHz	H/V	cm	deg	dBm	dB	dBm	dBm	
1	914.325	H	155.1	340.2	-44.14	44.914	0.77	≤30	PASS
2	927.125	H	155.1	340.2	-42.50	44.914	2.41	≤30	PASS
*Correction Factor (CF)= Path Loss (dB)– Rx Antenna Gain (dBi) + Cable loss (dB) CF= 41.214 dB – 2.0dB + 5.7dB = 44.914 dB									

TEST SETUP PHOTOGRAPHS
Refer Annexure – 1 Radiated Test Setup

3.3 MAXIMUM POWER SPECTRAL DENSITY

EUT Nomenclature	USB Adapter	Test Report No.	EMC-1210-1
Model No.	W-USB	Serial No.	01
Test Start Date	21-Dec-2013	Temperature (°C)	22.9
Test End Date	21-Dec-2013	Humidity RH (%)	54.2
Tested By	Sasikala Subramani	Pressure (mbar)	NR
Input Voltage / Freq	5Vdc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NIL		
Applicable standard	FCC Part 15.247		
Test Method	KDB 558074		
Comment			

TEST DETAILS

Method	☐ Conducted ☒ Radiated
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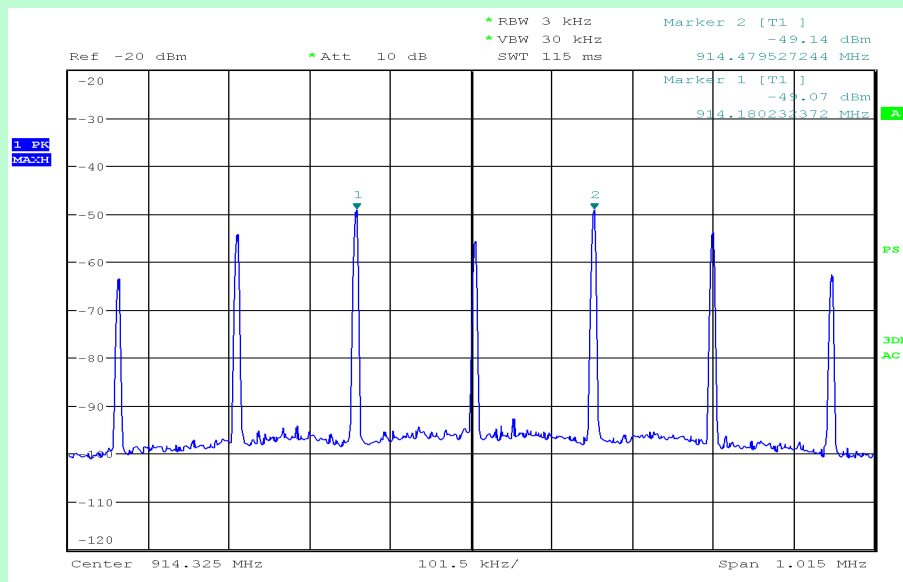
TEST PARAMETERS – RADIATED

Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

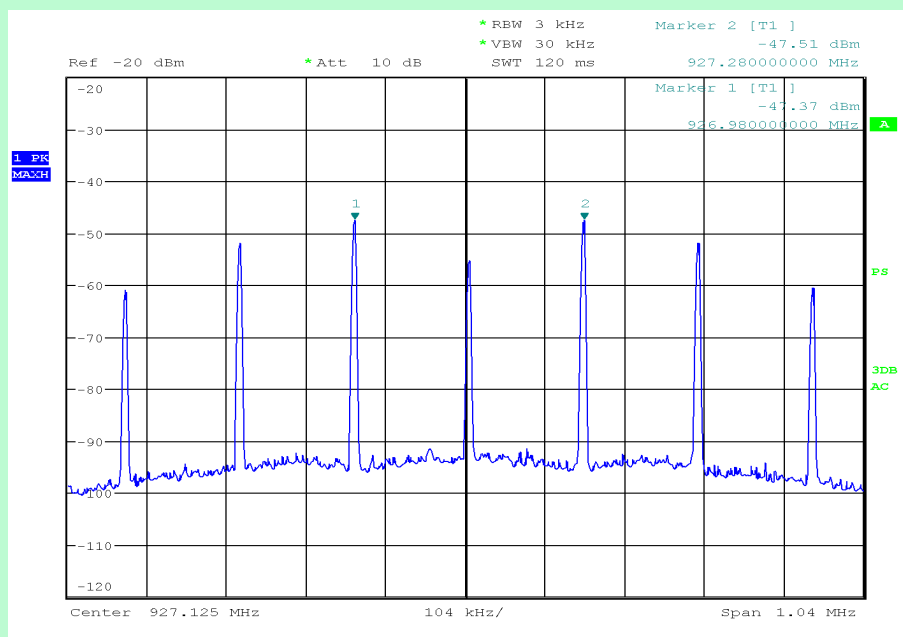
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	31-Dec-2014
Y	EMI Test Receiver	R&S	ESU26	100229	04-Feb-2014
Y	Bilog Antenna	TDK	HLP3003C	130525	30-Nov-2013
Y	N to N RF Cable, 8m	COLEMAN	RG214	RE-1A	09-May-2014
Y	N to N RF Cable, 3m	COLEMAN	RG214	RE-1A	09-May-2014
Y	Log periodic Antenna	ETS Lindgren	3148	00066012	09-Nov-2014
Y	RF Cable	Huber- Suhner	SF104/2X11PC3542/500	NA	NA

TEST GRAPHS



Channel 1 (914.325 MHz)



Channel 2 (927.125 MHz)

TEST RESULT									
Channel No	Freq	Ant Pol	Antenna Height	Azimuth	Measured Level	*CF	Power Spectral Density	Limit	Test Results
#	MHz	H/V	cm	deg	dBm/3KHz	dB	dBm/3KHz	dBm/3KHz	
1	914.325	H	155.1	340.2	-49.14	44.914	-4.22	<8	PA SS
2	927.125	H	155.1	340.2	-47.51	44.914	-2.59	<8	PA SS
*Correction Factor (CF)= Path Loss (dB)– Rx Antenna Gain (dBi) + Cable loss (dB) CF= 41.214 dB – 2.0dB + 5.7dB = 44.914 dB									

TEST SETUP PHOTOGRAPHS
Refer Annexure - 1 Radiated Test Setup

3.4 BAND-EDGE MEASUREMENTS

EUT Nomenclature	USB Adapter	Test Report No.	EMC-1210-1
Model No.	W-USB	Serial No.	01
Test Start Date	21-Dec-2013	Temperature (°C)	22.9
Test End Date	21-Dec-2013	Humidity RH (%)	54.2
Tested By	Sasikala Subramani	Pressure (mbar)	NR
Input Voltage / Freq	5V dc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NIL		
Applicable standard	FCC Part 15.247		
Test Method	KDB 558074		
Comment			

TEST DETAILS

Method	☐ Conducted ☒ Radiated
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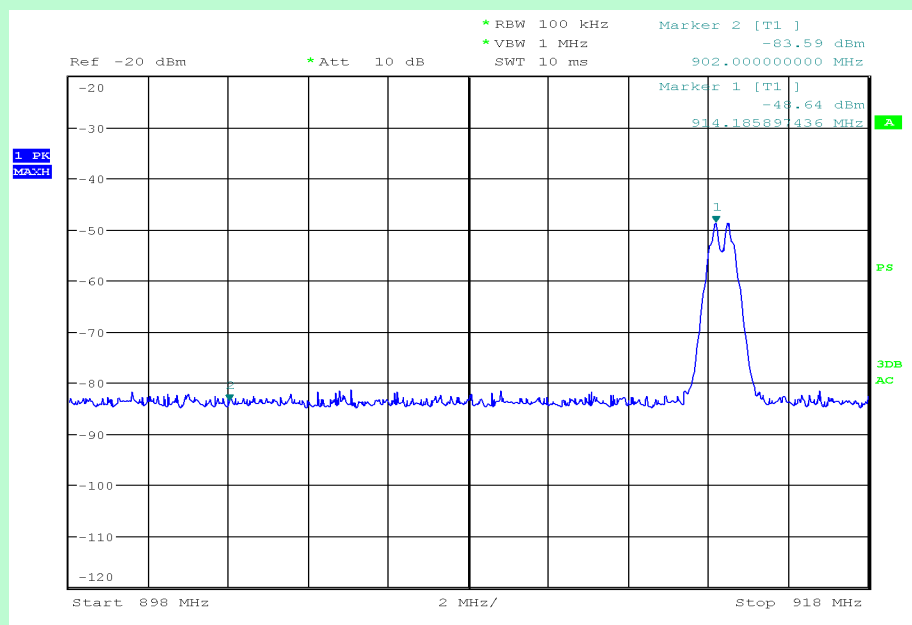
TEST PARAMETERS – RADIATED

Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Equipment Class	NA	Measurement Distance	3m

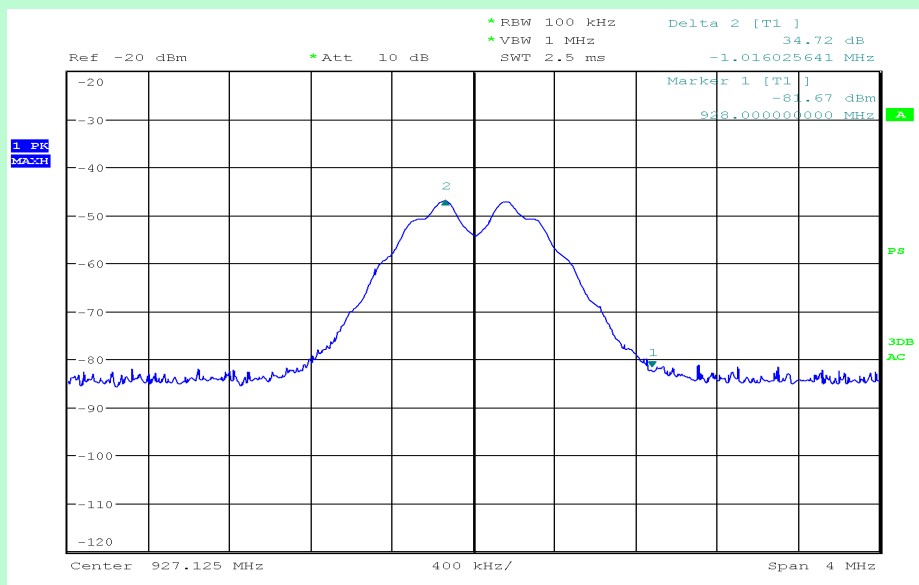
TEST EQUIPMENT

Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	31-Dec-2014
Y	EMI Test Receiver	R&S	ESU26	100229	04-Feb-2014
Y	Bilog Antenna	TDK	HLP3003C	130525	30-Nov-2013
Y	N to N RF Cable, 8m	COLEMAN	RG214	RE-1A	09-May-2014
Y	N to N RF Cable, 3m	COLEMAN	RG214	RE-1A	09-May-2014
Y	Log periodic Antenna	ETS Lindgren	3148	00066012	09-Nov-2014
Y	RF Cable	Huber- Suhner	SF104/2X11PC3542/500	NA	NA

TEST GRAPHS



Channel 1 (902.875 MHz)



Channel 6 (927.125 MHz)

TEST RESULT				
Channel	Frequency	Measured Level	Limit	Results
#	MHz	dB	dBc	
1	914.325	34.95	>20	PASS
2	927.125	34.72	>20	PASS

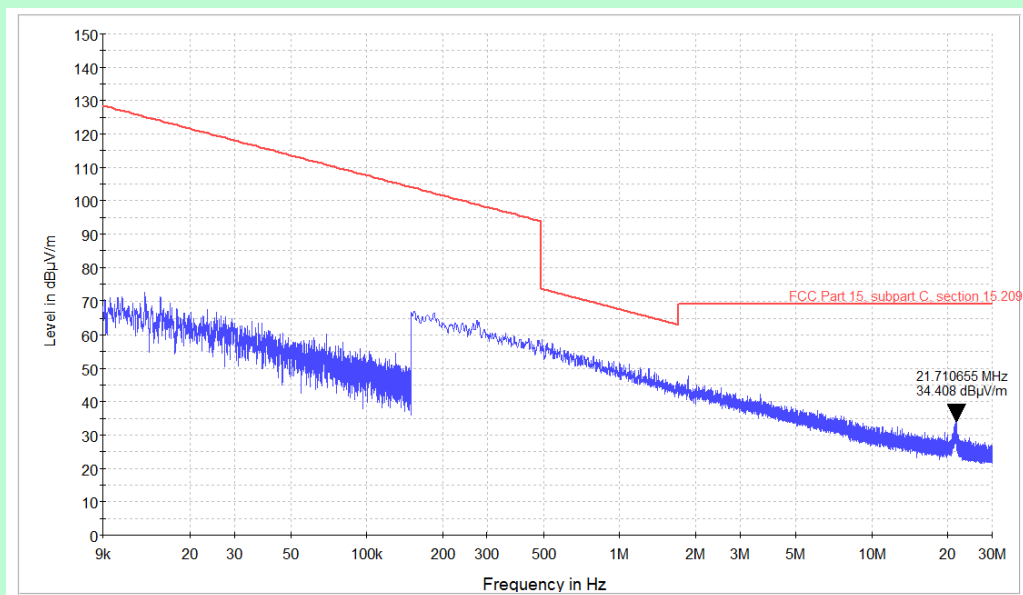
TEST SETUP PHOTOGRAPHS
Refer Annexure-1 Radiated Test Setup

3.5 SPURIOUS RADIATED EMISSIONS

EUT Nomenclature	USB Adapter	Test Report No.	EMC-1210-1
Model No.	W-USB	Serial No.	01
Test Start Date	29-July-2013	Temperature (°C)	23.5
Test End Date	21-Dec-2013	Humidity RH (%)	57.1
Tested By	Sasikala Subramani	Pressure (mbar)	NR
Input Voltage / Freq	5Vdc		
Operating Mode	Refer Page 5 Operating Modes Table		
Test configuration	Refer Page 5 Test Configuration Table		
Deviation from Std	NA		
Comment			
TEST FREQUENCY RANGE			
Start Frequency	9KHz	Stop Frequency	10GHz
MAXIMUM OPERATING FREQUENCY			
902MHz to 928MHz			
TEST PARAMETERS			
Antenna Height	1m to 4m	Turntable Rotation	0° to 360°
Applicable standard	FCC Part 15.247 & 15.209	Test Method	KDB 558074
Equipment Class	NA	Measurement Distance	3m

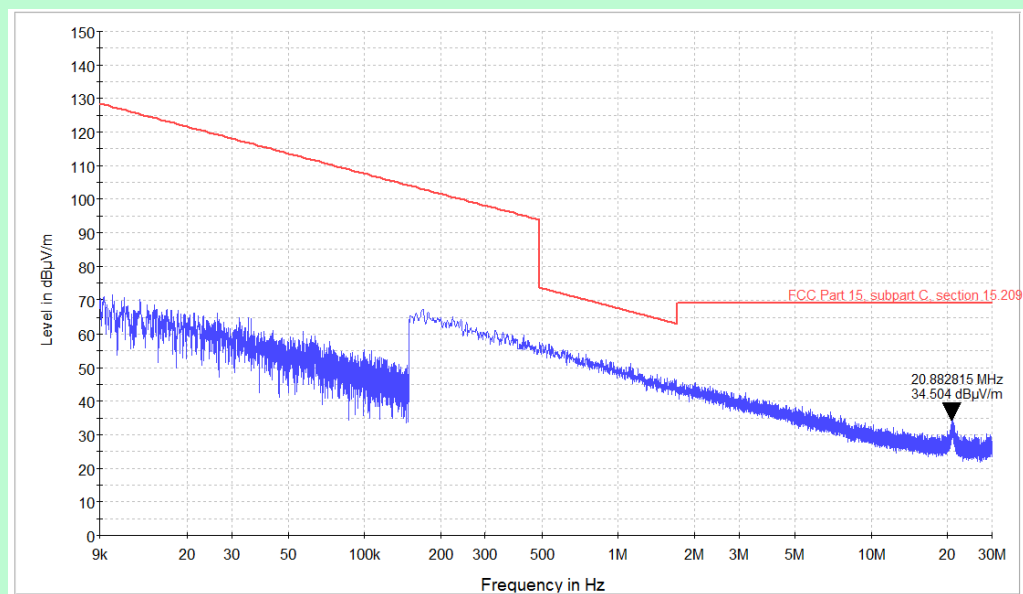
TEST EQUIPMENT					
Y/N	Equipment	Make	Model	Sl. No.	Cal Due Date
Y	EMI Test Receiver	R&S	ESU26	100229	04-Feb-2014
Y	3m Semi Anechoic Chamber	ETS Lindgren	DKE 6X7 DBL.DR	1625	31-Dec-2013
Y	Double Ridge Guide Horn Antenna	ETS Lindgren	3117	00064055	07-Nov-2013
Y	Bilog Antenna	ETS Lindgren	HLP3003C	130525	30-Nov-2013
Y	Loop Antenna	ETS Lindgren	6507	000103694	12-Mar-2014
Y	RF cable (9KHz to 1GHz)	COLEMAN	RG214	RE-1A	09-May-2014
Y	RF cable (9KHz to 1GHz)	COLEMAN	RG214	RE-1B	09-May-2014
Y	RF cable (1GHz to 18GHz)	AH Systems	SAC-18G-06	RE-2A	09-May-2014
Y	RF cable (1GHz to 18GHz)	AH Systems	SAC-18G-06	RE-2B	09-May-2014
Y	Signal Conditioning unit	R&S	SCU-18	10178	13-June-2014
Y	High Pass Filter	Wainwright	WHKX1.5/15G-12ST	1	09-May-2014
Y	EMC32 Software	R&S	8.30.0	820-OT101248	NA
Note: Switch ON/OFF the Internal Preamplifier based on carrier level and or noise floor without overloading the receiver					

TEST GRAPHS – 9KHz to 30MHz



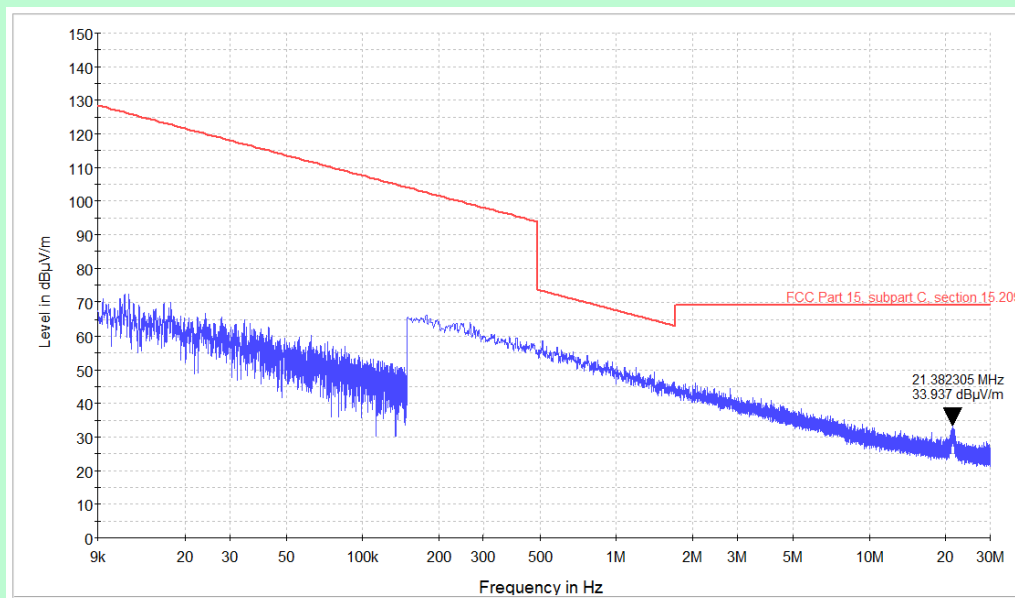
Channel 1 (914.325 MHz)

Note : Peak Graph - Parallel



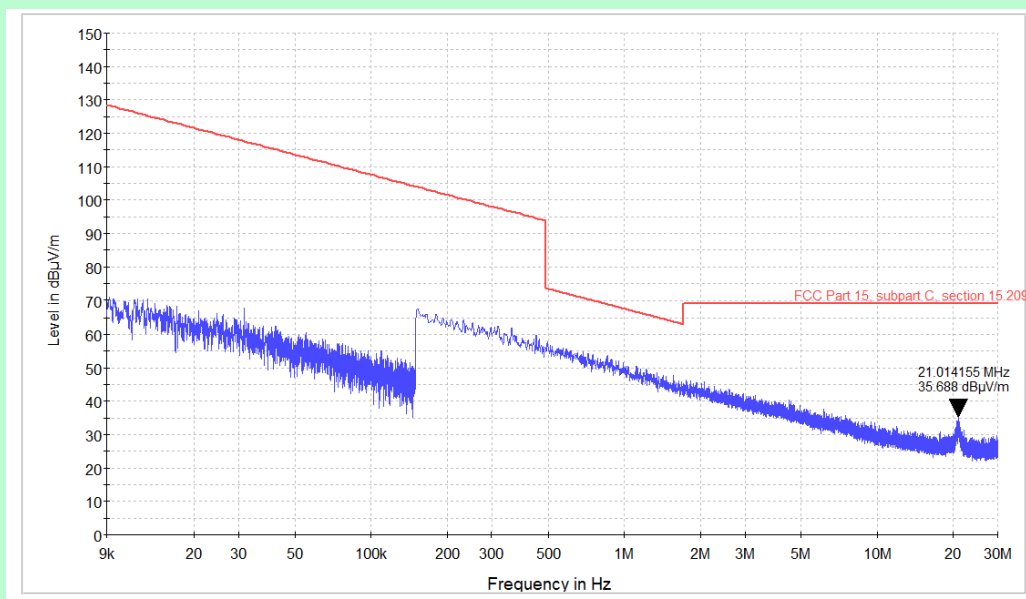
Channel 1 (914.325 MHz)

Note : Peak Graph - Perpendicular



Channel 2 (927.125 MHz)

Note : Peak Graph - Parallel

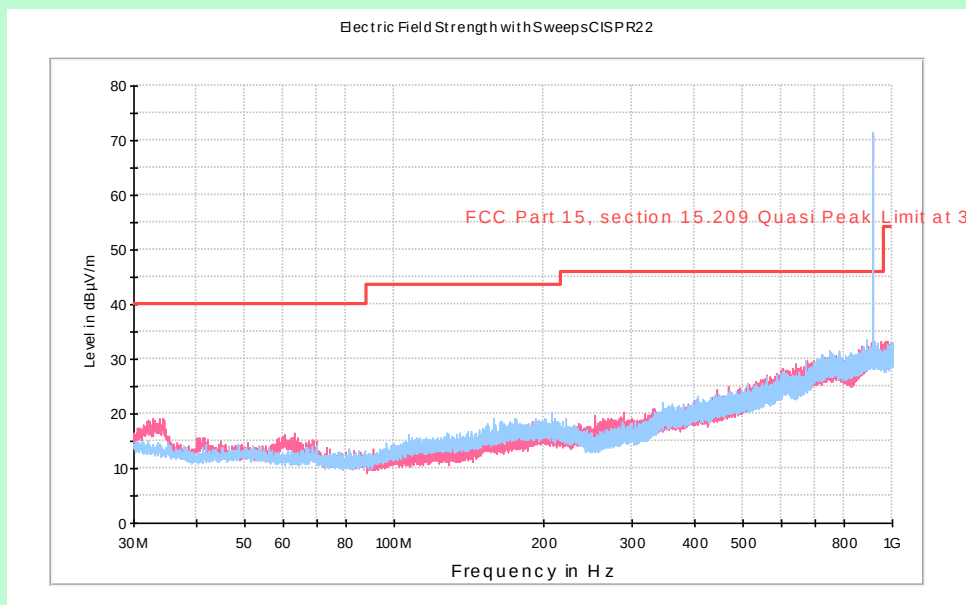


Channel 2 (927.125 MHz)

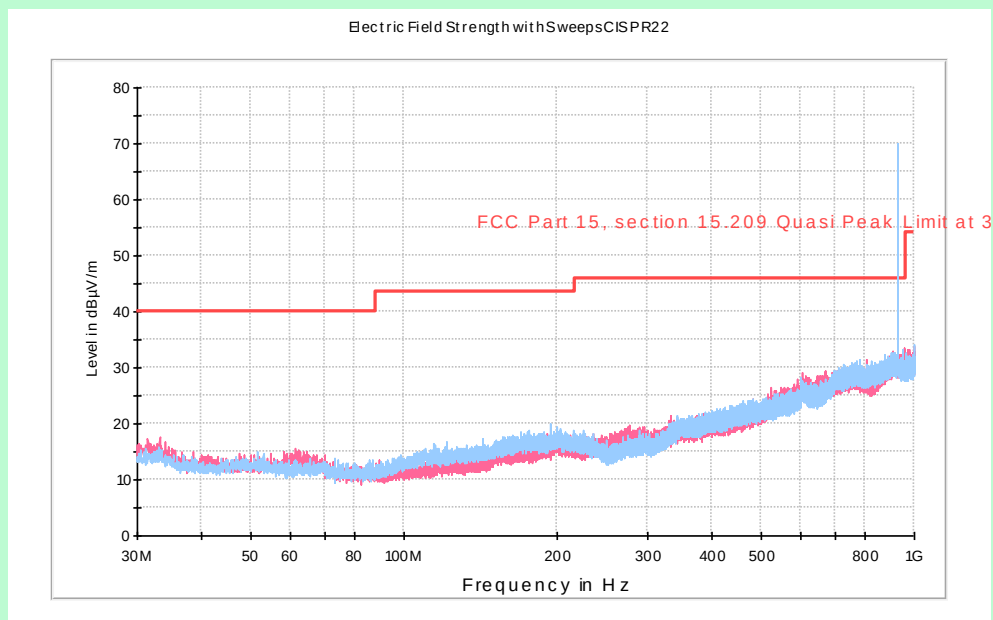
Note : Peak Graph - Perpendicular

TEST RESULT – 9KHz to 30MHz									
Channel	Channel Frequency	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	MHz	dBμV/m	cm	Parallel / Perpendicular	deg	dB	dBμV/m	
1	914.325	21.71	34.408	100	Parallel	33	35.132	69.54	PASS
1	914.325	20.88	34.504	100	Perpendicular	33	35.036	69.54	PASS
1	927.125	21.38	33.937	100	Parallel	62	35.603	69.54	PASS
1	927.125	21.01	35.688	100	Perpendicular	62	33.852	69.54	PASS
2	914.325	19.87	37.732	100	Parallel	33	32.268	65.94	PASS
2	914.325	20.17	35.373	100	Perpendicular	33	34.627	65.94	PASS
2	927.125	19.82	39.386	100	Parallel	62	30.614	65.94	PASS
2	927.125	19.86	36.777	100	Perpendicular	62	33.223	65.94	PASS
Note : Measured Field Strength (dBuV/m) = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)									

TEST GRAPHS – 30MHz to 1GHz

**Channel 1 (914.325 MHz)**

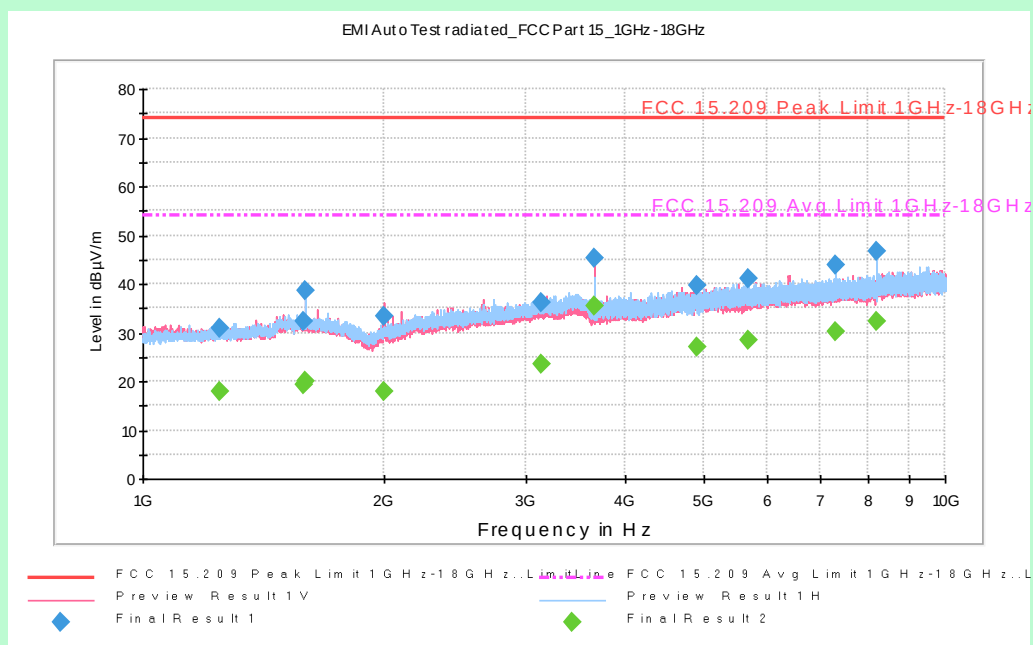
Note : Peak Graph Vertical (Red), Peak Graph Horizontal (Blue)

**Channel 2 (927.125 MHz)**

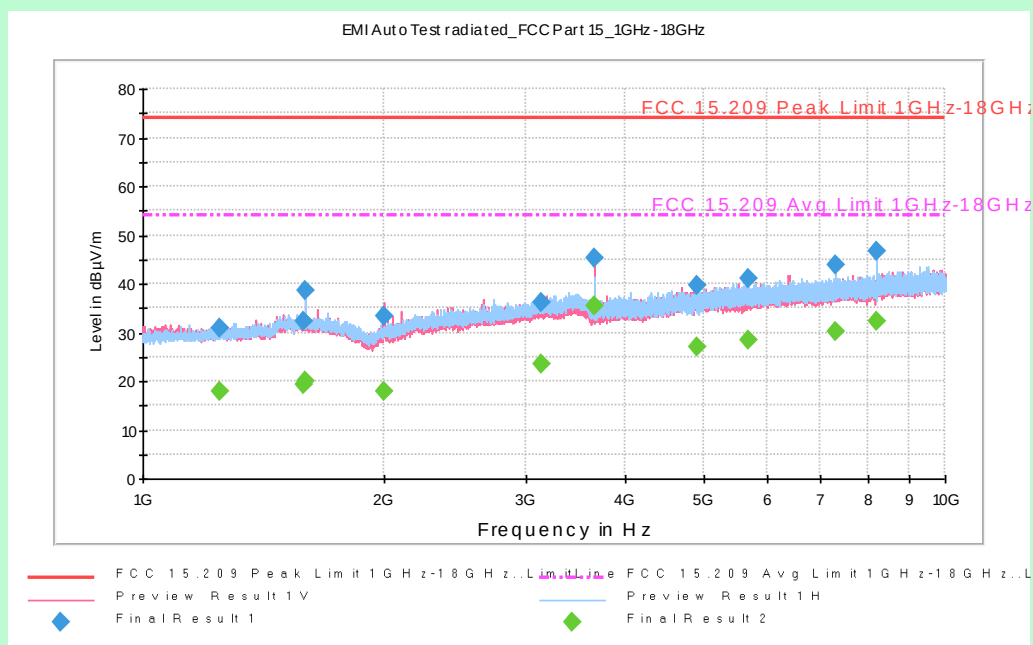
Note : Peak Graph Vertical (Red), Peak Graph Horizontal (Blue)

TEST RESULT – 30MHz to 1GHz								
Channel	Measured Spurious	Quasi Peak	Height	Ant Pol	Azimuth	Margin	Limit @ 3m Distance	Results
#	MHz	dBµV/m	cm	H / V	deg	dB	dBµV/m	
1	33.23	10.3	200.0	V	120.0	29.7	40.0	PASS
1	60.57	10.6	100.0	V	240.0	29.4	40.0	PASS
1	63.26	10.1	100.0	V	180.0	29.9	40.0	PASS
1	87.63	6.5	400.0	V	180.0	33.5	40.0	PASS
1	157.89	11.8	400.0	H	270.0	31.7	43.5	PASS
1	206.99	13.2	100.0	H	180.0	30.3	43.5	PASS
1	345.51	15.3	200.0	H	270.0	30.7	46.0	PASS
1	469.90	18.1	300.0	H	180.0	27.9	46.0	PASS
1	669.86	23.0	300.0	V	240.0	23.0	46.0	PASS
1	914.18	70.0	100.0	V	120.0	-24.0	46.0	Intended Frequency
2	33.25	9.2	400.0	V	270.0	30.8	40.0	PASS
2	50.86	8.2	200.0	V	60.0	31.8	40.0	PASS
2	60.93	10.1	100.0	V	240.0	29.9	40.0	PASS
2	85.90	6.7	300.0	V	30.0	33.3	40.0	PASS
2	168.32	12.5	200.0	H	180.0	31.0	43.5	PASS
2	193.66	12.8	100.0	H	150.0	30.7	43.5	PASS
2	345.01	15.4	300.0	H	180.0	30.6	46.0	PASS
2	483.32	18.3	200.0	H	150.0	27.7	46.0	PASS
2	698.95	23.4	100.0	V	180.0	22.6	46.0	PASS
2	926.98	68.9	100.0	V	120.0	-22.9	46.0	Intended Frequency

TEST GRAPHS – 1GHz to 10GHz



Channel 1 (914.325 MHz)



Channel 2 (927.125 MHz)

TEST RESULT –1GHz to 10GHz					RESTRICTED BAND – PEAK		
Channel	Frequency	MaxPeak	Height	Ant Pol	Azimuth	Margin	Limit
#	(MHz)	(dBμV/m)	(cm)	H /V	(deg)	(dB)	(dBμV/m)
1	1244.8	31.0	400.0	V	198.0	43.0	74.0
1	1583.2	32.1	400.0	V	22.0	41.9	74.0
1	1596.3	38.7	300.0	V	0.0	35.3	74.0
1	1995.9	33.2	400.0	V	22.0	40.8	74.0
1	3136.2	36.1	400.0	V	22.0	37.9	74.0
1	3656.4	45.4	100.0	V	176.0	28.6	74.0
1	4903.3	39.5	400.0	H	66.0	34.5	74.0
1	5681.8	41.2	400.0	H	88.0	32.8	74.0
1	7316.7	44.0	200.0	H	0.0	30.0	74.0
1	8232.0	46.5	100.0	H	44.0	27.5	74.0
2	1219.2	29.9	300.0	H	154.0	44.1	74.0
2	1571.1	32.4	300.0	H	154.0	41.6	74.0
2	1592.7	31.4	400.0	V	22.0	42.6	74.0
2	2389.2	33.1	400.0	V	66.0	40.9	74.0
2	2391.9	33.5	400.0	V	66.0	40.5	74.0
2	2639.4	32.8	300.0	H	154.0	41.2	74.0
2	3708.1	37.1	400.0	V	22.0	36.9	74.0
2	4667.5	38.8	300.0	H	154.0	35.2	74.0
2	5840.7	40.9	300.0	H	154.0	33.2	74.0
2	7713.6	42.1	300.0	H	154.0	31.9	74.0
2	8347.2	43.2	400.0	V	66.0	30.8	74.0
Note : Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) + Filter Insertion loss - Pre amplifier Gain (dB)							

TEST RESULT –1GHz to 10GHz					RESTRICTED BAND – AVERAGE		
Channel	Frequency	Average	Height	Polarization	Azimuth	Margin	Limit
#	(MHz)	(dBμV/m)	(cm)		(deg)	(dB)	(dBμV/m)
1	1245	17.8	400.0	V	198.0	36.2	54.0
1	1583	19.4	400.0	V	22.0	34.6	54.0
1	1596	19.9	300.0	V	0.0	34.1	54.0
1	1996	18.0	400.0	V	22.0	36.0	54.0
1	3136	23.4	400.0	V	22.0	30.6	54.0
1	3656	35.5	100.0	V	176.0	18.5	54.0
1	4903	27.0	400.0	H	66.0	27.0	54.0
1	5682	28.6	400.0	H	88.0	25.4	54.0
1	7317	30.3	200.0	H	0.0	23.7	54.0
1	8232	32.3	100.0	H	44.0	21.7	54.0
2	1219	17.1	300.0	H	154.0	36.9	54.0
2	1571	18.7	300.0	H	154.0	35.3	54.0
2	1593	18.6	400.0	V	22.0	35.4	54.0
2	2389	20.3	400.0	V	66.0	33.7	54.0
2	2392	20.4	400.0	V	66.0	33.6	54.0
2	2639	20.2	300.0	H	154.0	33.8	54.0
2	3708	24.3	400.0	V	22.0	29.7	54.0
2	4668	26.0	300.0	H	154.0	28.0	54.0
2	5841	27.8	300.0	H	154.0	26.2	54.0
2	7714	29.0	300.0	H	154.0	25.0	54.0
2	8347	29.7	400.0	V	66.0	24.3	54.0
Note : Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) + Filter Insertion loss - Pre amplifier Gain (dB)							

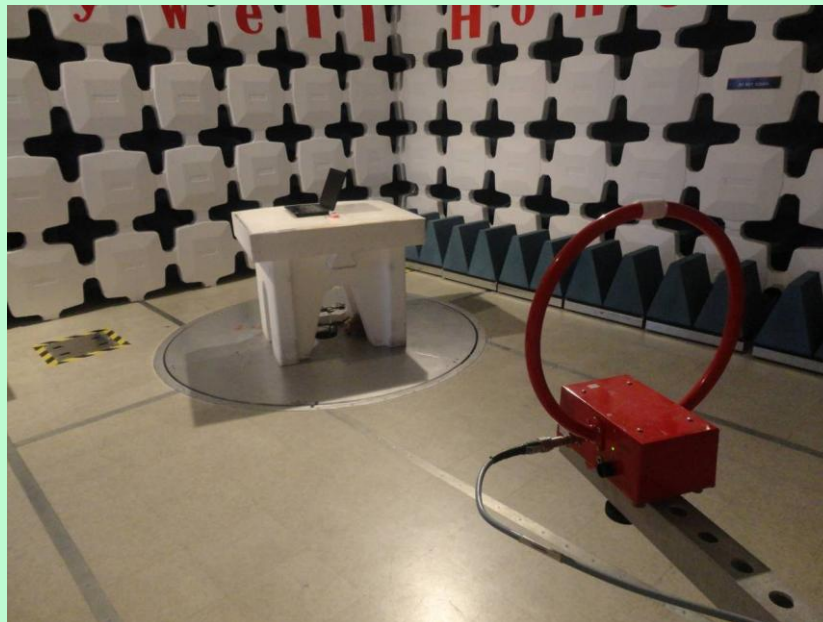
Test Result –1GHz to 10GHz					NON RESTRICTED BAND - PEAK				
Channel	Measured Fundamental	Spurious Emission	Measured Harmonic	Height	Ant Pol	Azimuth	Limit [Fundamental – 20dBc]	Margin	Results
#	dBμV/m	MHz	dBμV/m	cm	H / V		dBuV/m	dB	
2	68.9	1854	17.9	100	H	0	51.00	33.1	PASS
Note : Field Strength –dBuV/m = Receiver Readings (dBuV) + Antenna Factor (dB/m) + Cable loss (dB) + Filter Insertion loss - Pre amplifier Gain (dB)									

Annexure – 1

TEST SETUP PHOTOS



EUT Arrangement



Radiated Emission Setup – 9KHz to 30M Hz [Parallel]



Radiated Emission Setup – 9KHz to 30MHz [Perpendicular]



Radiated Emission Setup –30 MHz to 1GHz [Horizontal Polarization]



Radiated Emission Setup –30 MHz to 1GHz [Vertical Polarization]



Radiated Emission Setup –1GHz to 10GHz [Horizontal Polarization]



Radiated Emission Setup –1GHz to 10GHz [Vertical Polarization]