

FCC Test Report

Product Name	U-Net Gateway
Model No.	HSC04-0
FCC ID.	FU5HSC04

Applicant	EVERSPRING INDUSTRY CO., LTD
Address	3F, No.50, Sec.1, Zhonghua Rd., Tucheng Dist., New Taipei City 23666, Taiwan

Date of Receipt	Apr. 21, 2015
Issued Date	Jul. 02, 2015
Report No.	1540443R-RFUSP14V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issued Date : Jul. 02, 2015

Report No. : 1540443R-RFUSP14V00



Product Name	U-Net Gateway
Applicant	EVERSPRING INDUSTRY CO., LTD
Address	3F, No.50, Sec.1, Zhonghua Rd., Tucheng Dist., New Taipei City 23666, Taiwan
Manufacturer	Dong-Guan Li Yuan Electronics Co.,Ltd
Model No.	HSC04-0
FCC ID.	FU5HSC04
EUT Rated Voltage	AC 100-240V~50/60Hz
EUT Test Voltage	AC 120V / 60Hz
Trade Name	EVERSPRING
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2014 ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

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(Senior Adm. Specialist / Jinn Chen)

Tested By : Nick Chen
(Assistant Engineer / Nick Chen)

Approved By : 
(Director / Vincent Lin)

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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. General Information

1.1. EUT Description

Product Name	U-Net Gateway
Trade Name	EVERSPRING
Model No.	HSC04-0
FCC ID	FU5HSC04
Frequency Range	923MHz
Number of Channels	1
Channel Control	N/A
Type of Modulation	FSK
Antenna Type	Monopole
Power Adapter	MFR: GOE, M/N: GS018-090, GS018US-090 Input: AC 100-240V~50/60Hz 0.5A Output: DC 9.0V $\overline{\text{---}}$ 2000mA Cable Out: Non-shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	Unictron	H2B1SF1A1S0100	-3.1 dBi

Note: The antenna of EUT is conform to FCC 15.203

Center Frequency of Each Channel:

Channel	Frequency
Channel 1:	923 MHz

Note:

1. The EUT is a U-Net Gateway with a built-in 923 MHz Z-Wave transceiver.
2. The EUT will stop the transmission immediately when the test button is pressed and releases. The EUT will stop the transmission within 5 seconds when the test button is pressed and held.
3. These tests are conducted on a sample for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.231.

Test Mode	Mode 1: Transmit
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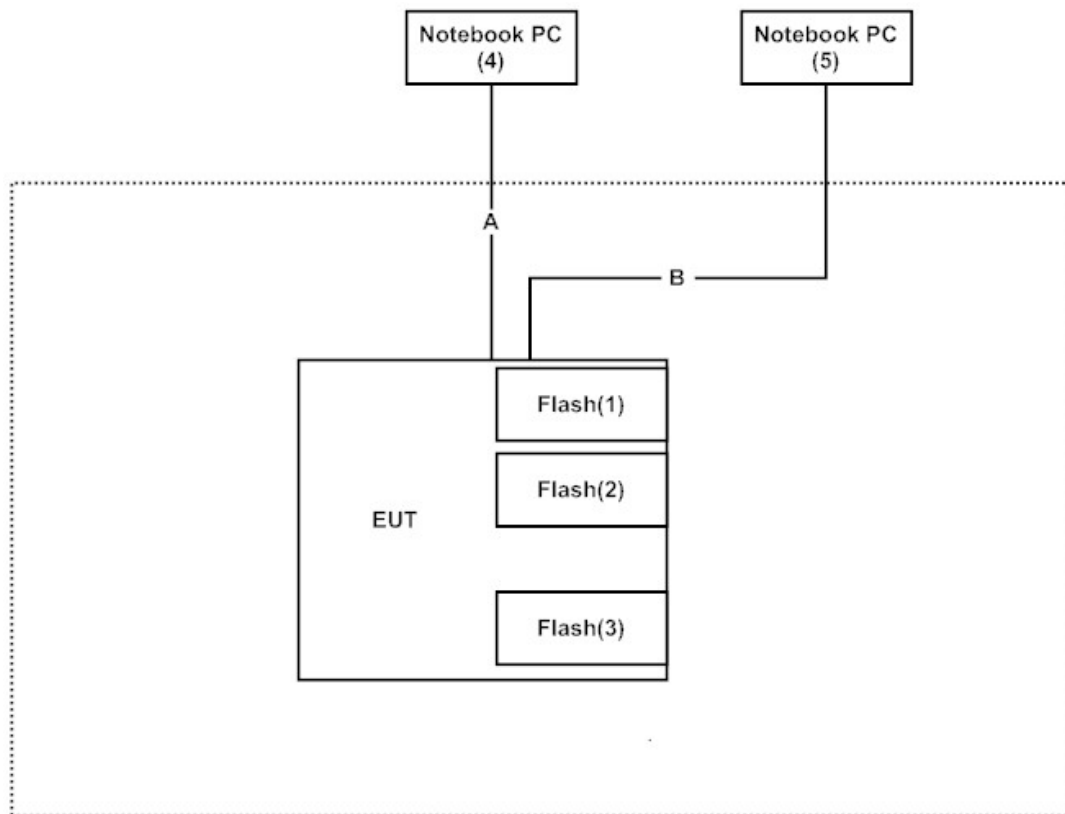
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1.	Flash	Transcend	Jet Flash 700	N/A	FU5HSC04	N/A
2.	Flash	Transcend	Jet Flash 700	N/A	FU5HSC04	N/A
3.	Flash	Transcend	Jet Flash 700	N/A	FU5HSC04	N/A
4.	Notebook PC	DELL	PP18L	36119001664	FU5HSC04	Non-Shielded, 0.8m
5.	Notebook PC	ASUS	S1300	24NP035390	FU5HSC04	Non-Shielded, 1.8m

Signal Cable Type	Signal Cable Description
A. LAN Cable	Non-Shielded, 1.8m
B. LAN Cable	Non-Shielded, 1.8m

1.4. sConfiguration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4
- (2) Press and hold the button, Start transmits continually.
- (3) Verify that the EUT works correctly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	22
Humidity (%RH)		25 - 75	55
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.231 Duty Cycle	15 - 35	22
Humidity (%RH)		25 - 75	55
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.231 Occupied Bandwidth	15 - 35	22
Humidity (%RH)		25 - 75	55
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.231 Radiated Emission	15 - 35	22
Humidity (%RH)		25 - 75	55
Barometric pressure (mbar)		860 - 1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : <http://www.quietek.com/chinese/about/certificates.aspx?bval=5>
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Site Name: Quietek Corporation
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
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FCC Accreditation Number: TW1014

2. Conducted Emission

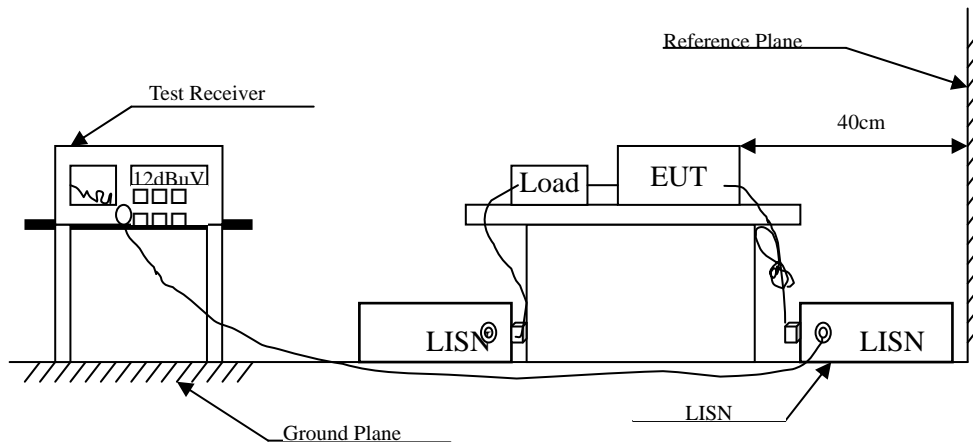
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2014	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2015	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2015	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2015	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2015	
	No.1 Shielded Room				

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231

2.6. Uncertainty

± 2.26 dB

2.7. Test Result

Product : U-Net Gateway
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 1: Transmit

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.252	9.663	17.410	27.073	-36.013	63.086
0.427	9.673	28.160	37.833	-20.253	58.086
0.736	9.690	20.060	29.750	-26.250	56.000
1.271	9.719	19.310	29.029	-26.971	56.000
2.330	9.783	16.920	26.703	-29.297	56.000
5.181	9.861	15.400	25.261	-34.739	60.000
Average					
0.252	9.663	2.030	11.693	-41.393	53.086
0.427	9.673	8.150	17.823	-30.263	48.086
0.736	9.690	6.280	15.970	-30.030	46.000
1.271	9.719	7.400	17.119	-28.881	46.000
2.330	9.783	6.250	16.033	-29.967	46.000
5.181	9.861	4.140	14.001	-35.999	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : U-Net Gateway
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 1: Transmit

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.158	9.668	14.820	24.488	-41.283	65.771
0.259	9.664	10.750	20.414	-42.472	62.886
0.431	9.673	19.920	29.593	-28.378	57.971
0.654	9.685	15.130	24.815	-31.185	56.000
1.291	9.720	11.960	21.680	-34.320	56.000
2.662	9.790	9.510	19.300	-36.700	56.000
Average					
0.158	9.668	3.820	13.488	-42.283	55.771
0.259	9.664	0.710	10.374	-42.512	52.886
0.431	9.673	3.190	12.863	-35.108	47.971
0.654	9.685	1.040	10.725	-35.275	46.000
1.291	9.720	0.220	9.940	-36.060	46.000
2.662	9.790	0.450	10.240	-35.760	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Radiated Emission

3.1. Test Equipment

The following test equipments are used during the radiated emission test:

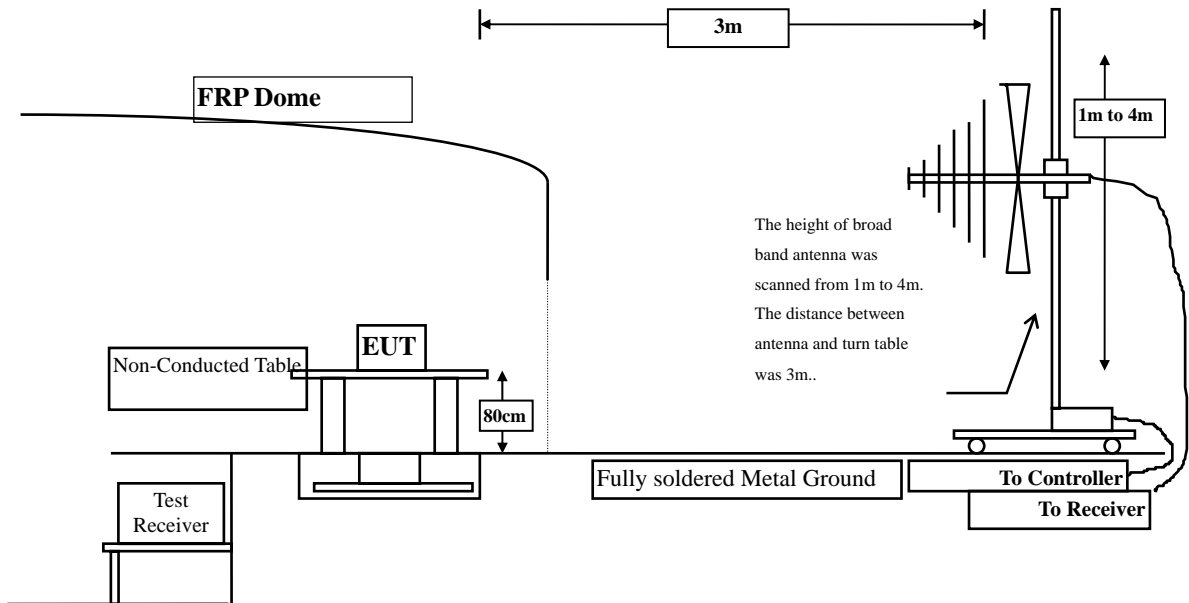
Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Magnetic Loop Antenna	Teseq	HLA6121/ 37133	Sep, 2014
	X	Bilog Antenna	Schaffner Chase	CBL6112B/ 2707	Jun, 2015
	X	EMI Test Receiver	R&S	ESCS 30/838251/ 001	Jun, 2015
	X	Coaxial Cable	QTK(Arnist)	RG 214/ LC003-RG	Jun, 2015
	X	Coaxial signal switch	Arnist	MP59B/ 6200798682	Jun, 2015

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒ CB # 8	X	Spectrum Analyzer	R&S	FSP40/ 100339	Oct, 2014
	X	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar, 2015
	X	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan, 2015
	X	Horn Antenna	TRC	AH-0801/95051	Aug, 2014
	X	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan, 2015
	X	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul, 2015
	X	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul, 2015

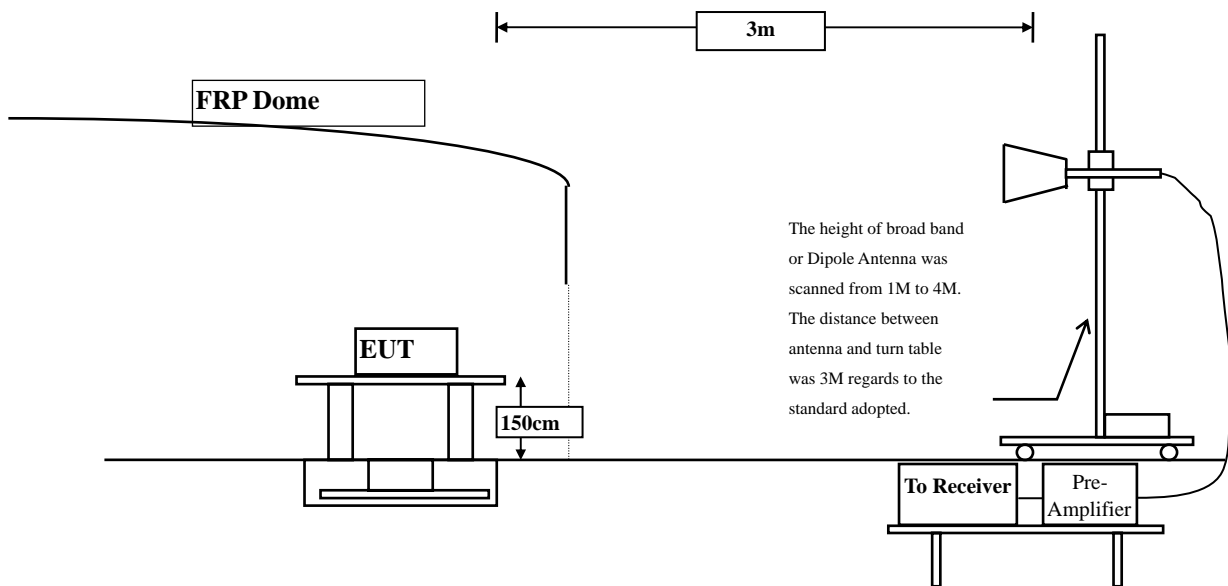
- Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

3.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



3.3. Limits

➤ Fundamental and Harmonics Emission Limits

Fundamental Frequency MHz	Field Strength of Fundamental	Field Strength of Spurious Emission
40.66-40.70	2250	225
70-130	1250	125
130-174	1250-3750	125-375
174-260	3750	375
260-470	3750-12500	375-1250
above 470	12500	1250

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

➤ Spurious electric field strength limits

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	See Remark ¹	300
0.490-1.705	24000/F(kHz)	See Remark ¹	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested compliance to FCC 47CFR 15.231 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231

3.6. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

3.7. Test Result

Product	U-Net Gateway				
Test Item	Fundamental Radiated Emission				
Test Mode	Mode 1: Transmit				
Date of Test	2015/05/25	Test Site	No.3 OATS		

Fundamental Power (Peak Detector)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
923.000	0.521	93.815	94.336	-7.594	101.930
Vertical					
923.000	1.537	99.715	101.252	-0.678	101.930

Note:

1. Correct factor = Antenna Factor + Cable Loss – Pre-amplifier Gain
2. Average Limit= $20\log(12500\mu V) = 81.93\text{dBuV}$
3. Peak Limit= $20\text{dB} + \text{Average Limit} = 101.93\text{dBuV}$.

Average Detector:

Frequency MHz	Peak Measurement dBuV/m	Duty Cycle Correct Factor dB	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
923.000	94.336	-26.792	67.544	-14.386	81.930
Vertical					
923.000	99.715	-26.792	72.923	-9.007	81.930

Note:

1. $\text{AVG Measurement} = \text{Peak Measurement} - \text{Duty Cycle Correct Factor}$
2. The Duty Cycle refers to section 6.

Product	U-Net Gateway		
Test Item	Harmonic Radiated Emission		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/28	Test Site	No.3 OATS

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Peak Limit dBuV/m	Average Limit dBuV/m
Harmonic Radiated Emission						
Horizontal						
Peak						
1846.000	-3.183	55.761	52.578	-21.422	74.000	54.000
2769.000	-3.473	45.121	41.648	-32.352	74.000	54.000
3692.000	-4.385	43.815	39.430	-34.570	74.000	54.000
4615.000	-1.151	50.416	49.266	-24.734	74.000	54.000
5538.000	2.243	47.759	50.002	-23.998	74.000	54.000
6461.000	2.257	42.505	44.763	-29.237	74.000	54.000
7384.000	7.018	38.929	45.946	-28.054	74.000	54.000
8307.000	6.285	40.584	46.870	-27.130	74.000	54.000
9230.000	7.915	37.819	45.734	-28.266	74.000	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	U-Net Gateway		
Test Item	Harmonic Radiated Emission		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/28	Test Site	No.3 OATS

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Peak Limit dBuV/m	Average Limit dBuV/m
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Harmonic Radiated Emission

Vertical

Peak

1846.000	-2.719	61.373	58.653	-15.347	74.000	54.000
2769.000	-4.376	45.749	41.373	-32.627	74.000	54.000
3692.000	-4.062	43.872	39.810	-34.190	74.000	54.000
4615.000	0.417	46.727	47.144	-26.856	74.000	54.000
5538.000	2.239	46.475	48.714	-25.286	74.000	54.000
6461.000	2.259	44.939	47.198	-26.802	74.000	54.000
7384.000	7.818	40.427	48.244	-25.756	74.000	54.000
8307.000	7.302	39.976	47.278	-26.722	74.000	54.000
9230.000	7.901	38.279	46.179	-27.821	74.000	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Average Detector:

Frequency MHz	Peak Measurement dBuV/m	Duty Cycle Correct Factor dB	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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Horizontal

Average Detector:

1846.000	58.653	-26.792	31.861	-22.139	54.000
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Note:

1. AVG Measurement=Peak Measurement + Duty Cycle Correct Factor
2. The Duty Cycle is refer to section 6.

Product	U-Net Gateway		
Test Item	General Radiated Emission		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/28	Test Site	No.3 OATS

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Quasi-Peak					
107.600	-7.597	35.271	27.674	-15.826	43.500
136.700	-7.491	38.360	30.869	-12.631	43.500
225.940	-9.647	36.451	26.804	-19.196	46.000
461.650	3.954	31.737	35.692	-10.308	46.000
747.800	3.915	34.759	38.674	-7.326	46.000
923.370	6.610	30.449	37.059	-8.941	46.000
Vertical					
Quasi-Peak					
107.600	-4.027	34.296	30.269	-13.231	43.500
177.440	-1.248	30.407	29.159	-14.341	43.500
378.230	0.769	29.672	30.441	-15.559	46.000
539.250	2.157	29.095	31.252	-14.748	46.000
747.800	1.665	31.746	33.411	-12.589	46.000
923.370	3.170	37.941	41.111	-4.889	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

4. Transmit time

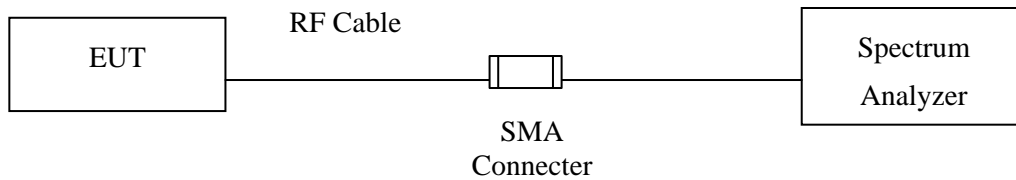
4.1. Test Equipment

The following test equipment are used during the test:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2015
X	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2015
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

4.2. Test Setup



4.3. Limits

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

4.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231

4.5. Uncertainty

± 25ms

5. Occupied Bandwidth

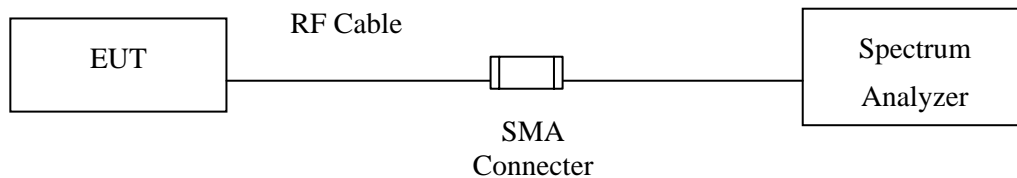
5.1. Test Equipment

The following test equipment are used during the test:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2015
X	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2015
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

5.2. Test Setup



5.3. Limits

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70MHz and below 900MHz. For devices operating above 900MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier

5.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231

5.5. Uncertainty

± 150Hz

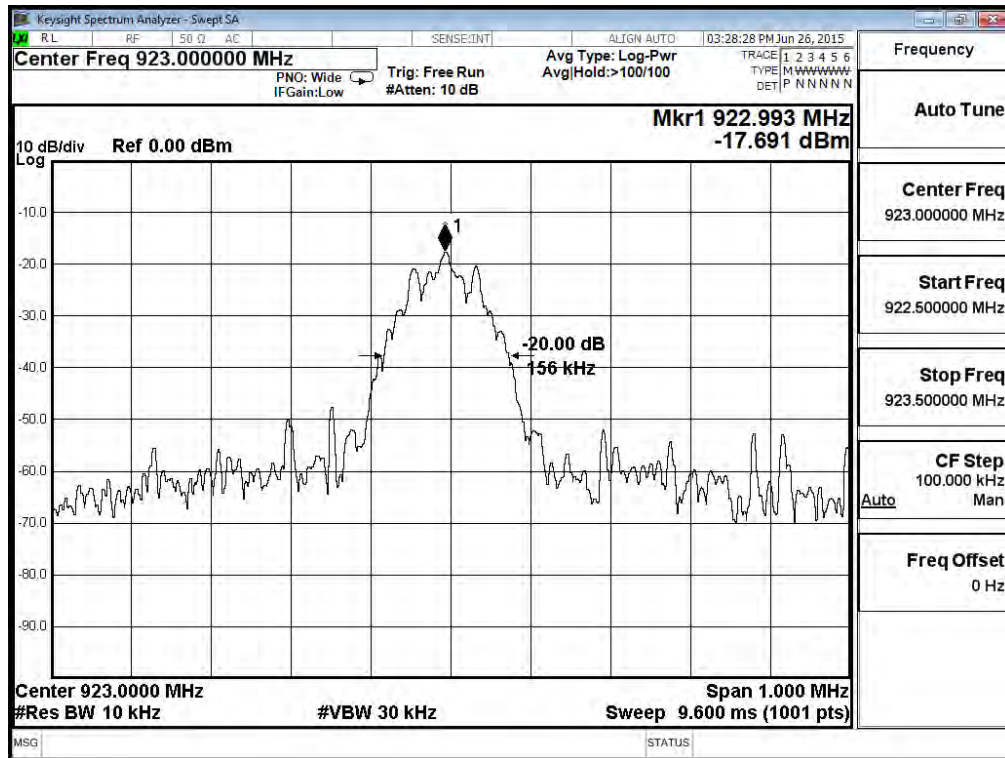
5.6. Test Result

Product	U-Net Gateway		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/28	Test Site	No.3 OATS

Channel No.	Frequency (MHz)	Measurement Value (MHz)	Limit (MHz)	Result
1	923	0.156	4.615	Pass

Note: Limit = 923MHz * 0.5%= 4.615MHz

Figure Channel 1:



6. Duty Cycle

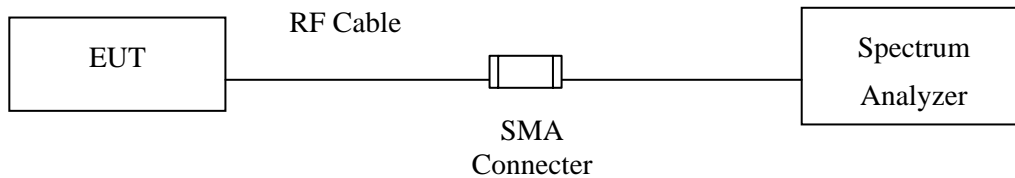
6.1. Test Equipment

The following test equipment are used during the test:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2015
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2015

Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup



6.3. Test Specification

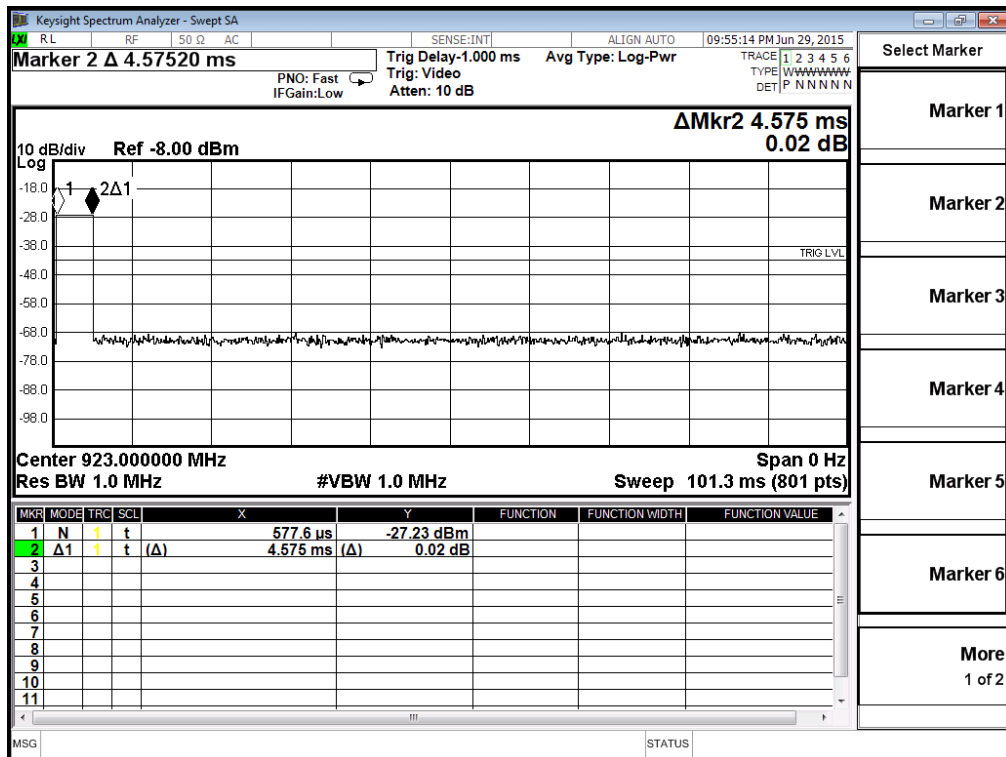
According to FCC Part 15 Subpart C Paragraph 15.231

6.4. Uncertainty

± 25ms

6.5. Test Result

Product	U-Net Gateway		
Test Item	Duty Cycle		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/28	Test Site	No.3 OATS



Time on of 100ms=4.575 ms

Duty Cycle=4.575msec / 100msec=0.04575

Duty Cycle correction factor= 20 LOG 0.04575=-26.792

Duty Cycle correction factor	-26.792	dB
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