

FCC Test Report

(Spot Check) Report No.: RF180702E06 FCC ID: KA2IR2660A1 Original FCC ID: KA2IR882A1 Test Model: DIR-2660 Received Date: July 02, 2018 Test Date: Aug. 04, 2018 Issued Date: Dec. 12, 2018 Applicant: D-Link Corporation Address: 17595 Mt. Herrmann Street Fountain Valley, CA92708 USA Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C. Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C. FCC Registration / 723255 / TW2022 **Designation Number:**



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.



Table of Contents

Rele	ease	e Control Record	3		
1	Certificate of Conformity4				
2	S	ummary of Test Results	5		
2. 2.		Measurement Uncertainty Modification Record			
3	G	General Information	6		
3.3	2 2.1 3 3.1 4	General Description of EUT Description of Test Modes Test Mode Applicability and Tested Channel Detail Description of Support Units Configuration of System under Test General Description of Applied Standards	9 10 .11 12 13		
4	Т	est Types and Results	14		
4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.1 2.2 2.3 2.4 2.5 2.6 2.7	Radiated Emission and Bandedge Measurement Limits of Radiated Emission and Bandedge Measurement	14 15 16 16 17 17 18 20 20 20 21 21 21 21 22		
•		-			
Арр	ena	lix – Information on the Testing Laboratories	20		



Release Control Record				
Issue No.	Description	Date Issued		
RF180702E06	Original release.	Dec. 12, 2018		



1 Certificate of Conformity

Product:	AC2600 Mesh-Enabled Smart Wi-Fi Router	
Brand:	D-Link	
Test Model:	DIR-2660	
Sample Status:	ENGINEERING SAMPLE	
Applicant:	D-Link Corporation	
Test Date:	Aug. 04, 2018	
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247)	
	ANSI C63.10: 2013	

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :	Phone is Huang	, Date:	Dec. 12, 2018	
	Phoenix Huang / Specialist			
Approved by :	May Chen / Manager	_, Date:	Dec. 12, 2018	



2 Summary of Test Results

	47 CFR FCC Part 15, Subpart C (Section 15.247)					
FCC Clause	Test Item	Result	Remarks			
15.207	15.207 AC Power Conducted Emission		Meet the requirement of limit. Minimum passing margin is -10.76dB at 20.67969MHz.			
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -3.1dB at 494.68MHz.			

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.53 dB

2.2 Modification Record

There were no modifications required for compliance.



3 General Information

3.1 General Description of EUT

Product	AC2600 Mesh-Enabled Smart Wi-Fi Router
Brand	D-Link
Test Model	DIR-2660
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT20/40 in 2.4GHz band
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.3Mbps 802.11ac (VHT80+80): up to 3466.7Mbps
Operating Frequency	2.4GHz: 2.412 ~ 2.462GHz 5GHz: 5.18 ~ 5.24GHz, 5.745 ~ 5.825GHz
Number of Channel	2.4GHz: 802.11b, 802.11g, 802.11n (HT20), VHT20: 11 802.11n (HT40), VHT40: 7 5GHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 9 802.11n (HT40), 802.11ac (VHT40): 4 802.11ac (VHT80): 2 802.11ac (VHT80+80): 1 set
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x1
Data Cable Supplied	NA

Note:

- 1. Exhibit prepared for FCC Spot Check Verification report, the format, test items and amount of spot-check test data are decided by applicant's engineering judgment, for more details pleae refer to declaration letter exhibit.
- 2. Simultaneously transmission condition.

Condition	Technology				
1	WLAN (2.4GHz)		WLAN (5GHz)		
Note: The emission of	Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.				
3. The antennas provided to the EUT, please refer to the following table:					
Frequency Range (GHz)	Directional Antenna Gain (dBi)	Ante	enna Type	Connecter Type	
2.4~2.4835	10.06		Dipole	i-pex(MHF)	
5.15~5.85 10.90 Dipole i-pex(MHF)				i-pex(MHF)	
Note: More detailed information, please refer to operating description.					



No.	Brand	Model No.	45 101	Spec. Plug		
				AC Input: 100-240Vac, 1A, 50/60Hz		- 5
1	Shenzhen Gongj Electronics Co., L		-04	DC Output: 12V, 2.5A		FCC
5 Th	ELIT incorporates	EUT incorporates a MIMO function				
	2.4GHz Band					
MOD	ULATION MODE	DATA RATE (MCS)		TX & RX COI	NFIGURATION	
	802.11b	1 ~ 11Mbps		4TX	4RX	
	802.11g	6 ~ 54Mbps		4TX	4RX	
		MCS 0~7		4TX	4RX	
	2 44m (UT20)	MCS 8~15		4TX	4RX	
80	2.11n (HT20)	MCS 16~23		4TX	4RX	
		MCS 24~31		4TX	4RX	
		MCS 0~7		4TX	4RX	
	0.44m (UT40)	MCS 8~15		4TX	4RX	
80	2.11n (HT40)	MCS 16~23		4TX	4RX	
		MCS 24~31		4TX	4RX	
		MCS 0~8, Nss=1		4TX	4RX	
		MCS 0~8, Nss=2		4TX	4RX	
	VHT20	MCS 0~9, Nss=3		4TX	4RX	
		MCS 0~8, Nss=4		4TX	4RX	
		MCS 0~9, Nss=1		4TX	4RX	
		MCS 0~9, Nss=2		4TX	4RX	
	VHT40	MCS 0~9, Nss=3		4TX	4RX	
		MCS 0~9, Nss=4		4TX	4RX	
		50	GHz Ba	and		
MOD	ULATION MODE	DATA RATE (MCS)		TX & RX COI	NFIGURATION	
	802.11a	6 ~ 54Mbps		4TX	4RX	
		MCS 0~7		4TX	4RX	
80	2.11n (HT20)	MCS 8~15		4TX	4RX	
00	2.1111 (11120)	MCS 16~23		4TX	4RX	
		MCS 24~31		4TX	4RX	
		MCS 0~7		4TX	4RX	
80	2.11n (HT40)	MCS 8~15		4TX	4RX	
	2.1111 (11140)	MCS 16~23		4TX	4RX	
		MCS 24~31		4TX	4RX	
		MCS 0~8, Nss=1		4TX	4RX	
802	2.11ac (VHT20)	MCS 0~8, Nss=2		4TX	4RX	
002		MCS 0~9, Nss=3		4TX	4RX	
		MCS 0~8, Nss=4		4TX	4RX	
		MCS 0~9, Nss=1		4TX	4RX	
802	2.11ac (VHT40)	MCS 0~9, Nss=2		4TX	4RX	
002		MCS 0~9, Nss=3		4TX	4RX	
		MCS 0~9, Nss=4		4TX	4RX	

4. The EUT must be supplied from power adapter as following table:



	MCS 0~9, Nss=1	4TX	4RX
902 44aa (\/UT90\	MCS 0~9, Nss=2	4TX	4RX
802.11ac (VHT80)	MCS 0~9, Nss=3	4TX	4RX
	MCS 0~9, Nss=4	4TX	4RX
902 44ee (\/UT90 · 90)	MCS 0~9, Nss=1	2TX+2TX	2RX+2RX
802.11ac (VHT80+80)	MCS 0~9, Nss=2	2TX+2TX	2RX+2RX

Note: All of modulation mode support beamforming function except 2.4GHz & 802.11a modulation mode.

6. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



3.2 Description of Test Modes

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20), VHT20:

7 channels are provided for 802.11n (HT40), VHT40:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437		



3.2.1 Test Mode Applicability and Tested Channel Detail

EUT	APPLIC	DESCRIPTION	
CONFIGURE MODE	RE<1G	PLC	DESCRIPTION
-	\checkmark	\checkmark	-

 Where
 RE<1G: Radiated Emission below 1GHz
 PLC: Power Line Conducted Emission

Note: The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on X-plane

Radiated Emission Test (Below 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE	TESTED	MODULATION	MODULATION	DATA RATE
	CHANNEL	CHANNEL	TECHNOLOGY	TYPE	(Mbps)
802.11b	1 to 11	6	DSSS	DBPSK	1

Power Line Conducted Emission Test:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE AVAILABLE		TESTED	MODULATION	MODULATION	DATA RATE
CHANNEL		CHANNEL	TECHNOLOGY	TYPE	(Mbps)
802.11b	1 to 11	6	DSSS	DBPSK	1

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	22deg. C, 67%RH	120Vac, 60Hz	Frang Chuang
PLC	24deg. C, 72%RH	120Vac, 60Hz	Andy Ho



3.3 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.

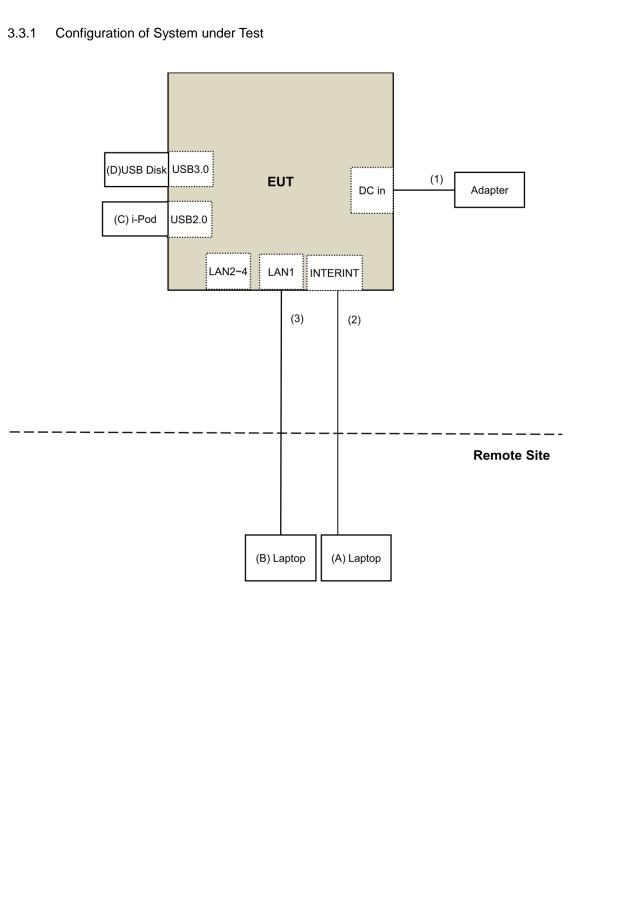
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
Α.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
В.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
C.	iPod	ZyXEL	ES-116P	S060H02000215	FCC DoC	Provided by Lab
D.	USB Disk	Tracscend	NA	NA	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.1	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab







3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247) KDB 558074 D01 15.247 Meas Guidance v05 ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.



4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)	
0.009 ~ 0.490	2400/F(kHz)	300	
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	

Note:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-00 1	Jan. 15, 2018	Jan. 14, 2019
RF Cable	NA	LOOPCAB-00 2	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-05	May 05, 2018	May 04, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-3-1	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-2	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-3	Mar. 20, 2018	Mar. 19, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Oct. 03, 2017	Oct. 02, 2018
Software	e ADT_Radiated V8.7.08		NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

- 2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
- 3. The test was performed in 966 Chamber No. 3.
- 4. The CANADA Site Registration No. is 20331-1
- 5. Loop antenna was used for all emissions below 30 MHz.
- 6. Tested Date: Aug. 04, 2018



4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Note:

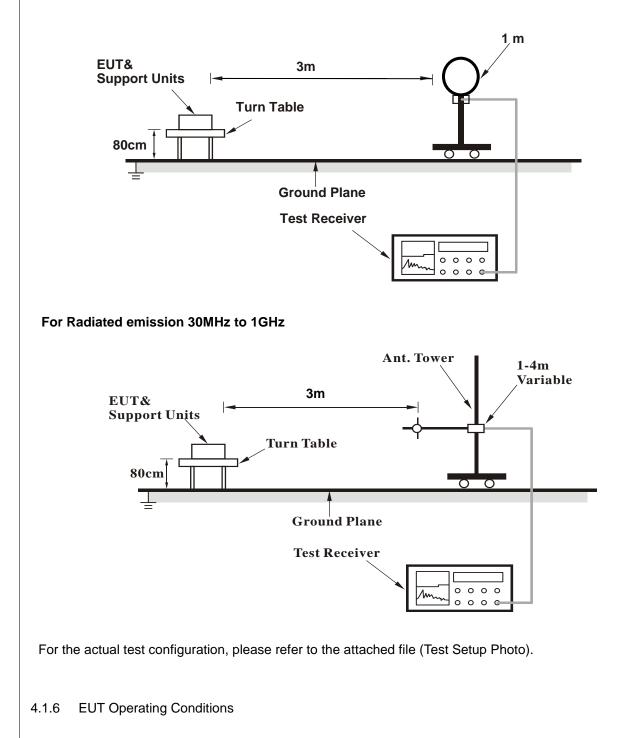
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. All modes of operation were investigated and the worst-case emissions are reported.
- 4.1.4 Deviation from Test Standard

No deviation.



4.1.5 Test Setup





- a. Connected the EUT with the Laptop which is placed on remote site.
- b. Controlling software (MT7615 QA 0.0.1.73) has been activated to set the EUT on specific status.



4.1.7 Test Results

802.11b

CHANNEL	TX Channel 6	DETECTOR	Quesi Besk (QD)
FREQUENCY RANGE	9kHz ~ 1GHz	FUNCTION	Quasi-Peak (QP)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	88.98	32.0 QP	43.5	-11.5	2.00 H	294	45.8	-13.8	
2	296.80	37.8 QP	46.0	-8.2	1.00 H	128	44.8	-7.0	
3	395.71	39.5 QP	46.0	-6.5	1.00 H	143	44.1	-4.6	
4	593.57	36.5 QP	46.0	-9.5	1.50 H	322	36.3	0.2	
5	692.46	39.4 QP	46.0	-6.6	1.00 H	303	37.6	1.8	
6	892.84	42.4 QP	46.0	-3.6	1.50 H	117	37.6	4.8	

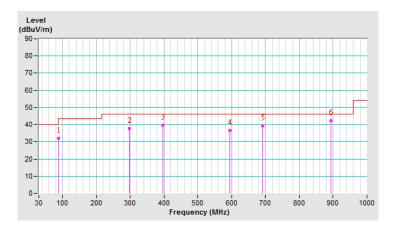
REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

3. Margin value = Emission Level – Limit value

4. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



CHANNEL	TX Channel 6	DETECTOR	
FREQUENCY RANGE	9kHz ~ 1GHz	FUNCTION	Quasi-Peak (QP)

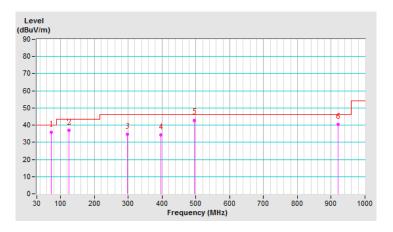
	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	73.43	35.7 QP	40.0	-4.3	1.00 V	66	46.6	-10.9	
2	124.99	37.0 QP	43.5	-6.5	1.00 V	167	46.3	-9.3	
3	296.75	34.8 QP	46.0	-11.2	1.50 V	23	41.8	-7.0	
4	395.71	34.3 QP	46.0	-11.7	1.50 V	223	38.9	-4.6	
5	494.68	42.9 QP	46.0	-3.1	2.00 V	201	45.1	-2.2	
6	919.51	40.3 QP	46.0	-5.7	1.50 V	193	34.9	5.4	

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

- 3. Margin value = Emission Level Limit value
- 4. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.





4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)		
	Quasi-peak	Average	
0.15 - 0.5	66 - 56	56 - 46	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL	
Test Receiver R&S	ESCS 30	847124/029	Nov. 01, 2017	Oct. 31, 2018	
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Nov. 15, 2017	Nov. 14, 2018	
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 04, 2018	June 03, 2019	
50 ohms Terminator	ms Terminator N/A		Sep. 22, 2017	Sep. 21, 2018	
RF Cable	Cable 5D-FB		Sep. 29, 2017	Sep. 28, 2018	
Fixed attenuator EMCI	ISTI02-2200-10		Mar. 16, 2018	Mar. 15, 2019	
Software BVADT			NA	NA	

Note:

- 2. The test was performed in Conduction 1.
- 3 Tested Date: Aug. 04, 2018

^{1.} The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



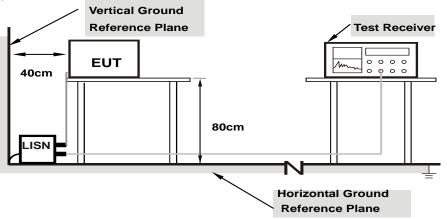
4.2.3 Test Procedures

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit 20dB) was not recorded.
- **Note:** The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

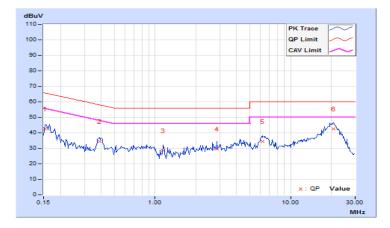


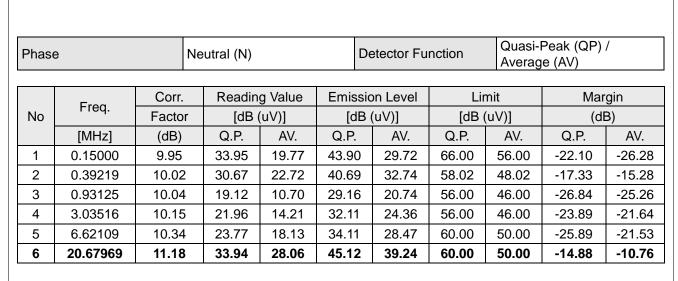
4.2.7 Test Results

Phase			Line (L)		C	Detector Function			Quasi-Peak (QP) / Average (AV)		
NO	F ace a	Corr.	Readin	g Value	Emiss	on Level	Lir	nit	Mar	gin	
	Freq.	Factor	[dB	(uV)]	[dB (uV)]		[dB (uV)]		(dB)		
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.15391	10.05	32.45	17.86	42.50	27.91	65.79	55.79	-23.29	-27.88	
2	0.38828	10.12	24.18	14.73	34.30	24.85	58.10	48.10	-23.80	-23.25	
3	1.14063	10.18	18.34	13.10	28.52	23.28	56.00	46.00	-27.48	-22.72	
4	2.84766	10.27	19.19	13.00	29.46	23.27	56.00	46.00	-26.54	-22.73	
5	6.17578	10.47	24.01	18.25	34.48	28.72	60.00	50.00	-25.52	-21.28	
6	20.76172	11.40	31.27	25.36	42.67	36.76	60.00	50.00	-17.33	-13.24	

Remarks:

- 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
- 2. The emission levels of other frequencies were very low against the limit.
- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value





Remarks:

- 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
- 2. The emission levels of other frequencies were very low against the limit.
- 3. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value





5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).



Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linkou EMC/RF Lab Tel: 886-2-26052180 Fax: 886-2-26051924 Hsin Chu EMC/RF/Telecom Lab Tel: 886-3-6668565 Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab Tel: 886-3-3183232 Fax: 886-3-3270892

Email: <u>service.adt@tw.bureauveritas.com</u> Web Site: <u>www.bureauveritas-adt.com</u>

The address and road map of all our labs can be found in our web site also.

--- END ---