

FCC RADIO TEST REPORT

Applicant Ubiquiti Inc.

Address 685 Third Avenue, New York, New York 10017, USA

UniFi Connect Cast Equipment

Model No. : UC-Cast

Trade Name: UBIQUITI

FCC ID SWX-UCCAST

I HEREBY CERTIFY THAT:

The sample was received on Jan. 04, 2022 and the testing was completed on Jan. 20, 2022 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Supervisor

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory





Report No.: 21120307-TRFCC06

Cerpass Technology Corp.

T-FD-503-0 Ver 1.5 FCC ID. SWX-UCCAST

Issued Date: Jan. 21, 2022

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History of this test report

Report No.	Issued Date	Description
21120307-TRFCC06	Jan. 21, 2022	Original

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1. Summary of Test Procedure and Test Results

1.1 Applicable Standards

ANSI C63.10:2013

. Description of Test	Result
. CO-LOCATION	PASS

^{*}The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.

*This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report(21120307-TEFV01).

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2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

	I == /= /= /= /= /= /= /= /= /= /= /= /=
	BT / BLE: 2400-2483.5MHz
Operation Frequency Range	802.11b/g/n: 2400-2483.5MHz
Sporation requerity range	802.11a/n/ac: 5150-5250MHz, 5250-5350MHz,
	5470-5725MHz, 5725-5850MHz
	BT / BLE: 2402MHz-2480MHz
Center Frequency Range	802.11b/g/n: 2412MHz-2462MHz
Center i requericy realige	802.11a/n/ac: 5180-5240MHz, 5260-5320MHz,
	5500-5700MHz, 5745-5825MHz
	BT: GFSK, π /4-DQPSK, 8DPSK
	BLE: GFSK
	WLAN:
	2.4GHz:
Modulation Type	802.11b: CCK, DQPSK, DBPSK
	802.11g/n: BPSK, QPSK, 16QAM, 64QAM
	5GHz:
	802.11n/a: BPSK, QPSK, 16QAM, 64QAM
	802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Modulation Technology	DSSS, OFDM, FHSS, DTS
	BT:
	GFSK: 1Mbps, π /4-DQPSK: 2Mbps, 8DPSK: 3Mbps
	BLE:
	GFSK: 1Mbps, GFSK: 2Mbps
	WLAN:
	2.4GHz:
Data Rate	802.11b: 1, 2, 5.5, 11Mbps
	802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
	802.11n: MCS0 – MCS7, HT20/40
	5GHz:
	802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps
	802.11n: MCS0 – MCS7, HT20/40
	802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type	PIFA Antenna
	For BT / BLE:
	2400-2480MHz: 0.3dBi
	For WLAN:
	2400-2483.5MHz: 0.3dBi
Antenna Gain	5150-5250MHz: 5.4dBi
	5250-5350MHz: 5.4dBi
	5470-5725MHz: 5.4dBi
	5725-5850MHz: 5.4dBi
	Brand: UBIQUITI
Adapter	Model: E005-11050100VU
	Brand: YUQIU ELECTRONICS CO., LTD.
HDMI cable	Model: 680-00265
Noto	INIOUGI. 000-00203

Note:

- 1. EUT support TPC Function.
- 2. WLAN 5GHz and BT can simultaneously transmission.
- 3. EUT support DFS Client Mode, without radar detection.
- 4. For more details, please refer to the User's manual of the EUT.

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2.2 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to
- b. The complete test system included Notebook and EUT for RF test.
- c. An executive program, "wl command" under Windows OS system was executed to transmit and receive data via WLAN.
- d. An executive program, "RFTestTool ver.1" under Windows OS system was executed to transmit and receive data via Bluetooth.
- e. The following test modes were performed for the test:

THE IOIIOWITI	g test modes were performed for the test.				
Conducted	Emissions from the AC mains power ports				
Test Mode	Operating Description				
1	BT GFSK CH78 + 5G 11ac20 CH40 With Adapter				
2	BT GFSK CH78 + 5G 11ac20 CH40 With PoE				
caused "Te	st Mode 2" generated the worst case, it was reported as the final data.				
Radiation E	Emissions (9KHz ~30MHz & 30MHz ~ 1GHz)				
Test Mode	Operating Description				
1	BT GFSK CH78 + 5G 11ac20 CH40 With Adapter				
2	BT GFSK CH78 + 5G 11ac20 CH40 With PoE				
caused "Te	caused "Test Mode 1" generated the worst case, it was reported as the final data.				
Radiation E	Emissions (1GHz ~ 25GHz)				
Test Mode	Operating Description				
1	BT GFSK CH78 + 5G 11ac20 CH40 With Adapter				
2	BT GFSK CH78 + 5G 11ac20 CH40 With PoE				
caused "Te	caused "Test Mode 1" generated the worst case, it was reported as the final data.				

Note:

There are two kinds of test voltage: AC 120V / 60Hz and AC 240V / 60Hz.

For AC Power Line Conducted Emission, AC 120V / 60Hz is worst case.

For Radiated Spurious Emission, (9KHz ~30MHz & 30MHz ~ 1GHz), AC 240V / 60Hz is worst case.

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2.3 Description of Test System

RF Conducted						
Equipment	Brand	Model	Length/Type	Power cord/Length/Type		
Notebook	lenovo	S1GL2W	N/A	N/A		
Type C Cable	kolin	KEX-DLCP07	1m / NS	N/A		
RJ45 Cable	TE CONNECTIVITY	Cat5e	1.2m / NS	N/A		
POE	UBIQUITI	GP-H480-050G	N/A	0.6m / NS		
		Radiated Emissions	3			
Equipment	Brand	Model	Length/Type	Power cord/Length/Type		
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS		
Type C Cable	kolin	KEX-DLCP07	1m / NS	N/A		
RJ45 Cable	TE CONNECTIVITY	Cat5e	1.2m / NS	N/A		
POE	UBIQUITI	GP-H480-050G	N/A	0.6m / NS		
Monitor	DELL	U2410f	NA	N/A		
	AC Pow	er Line Conducted	Emission			
Equipment	Brand	Model	Length/Type	Power cord/Length/Type		
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS		
Type C Cable	kolin	KEX-DLCP07	1m / NS	N/A		
RJ45 Cable	TE CONNECTIVITY	Cat5e	1.2m / NS	N/A		
POE	UBIQUITI	GP-H480-050G	N/A	0.6m / NS		
Monitor	DELL	U2410f	NA	N/A		

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2.4 General Information of Test

	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888			
	Fax:+886-3-3226-881			
Test Site	FCC	TW1439, TW1079		
	IC	4934E-1, 4934E-2		
	VCCI	T-2205 for Telecommunication test C-4663 for Conducted emission test R-4218 for Radiated emission test G-10812, G-10813 for radiated disturbance above 1GHz		
Frequency Range Investigated:		Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 25,000MHz		
Test Distance:	The test	distance of radiated emission from antenna to EUT is 3 M.		

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Test Item	Test Site	Test period	Environmental Conditions	Tested By	
RF Conducted	RFCON01-NK	2022/01/20	22°C / 43%	Dian Chen	
Radiated Emissions	3M02-NK	2022/01/18~2022/01/19	20~21℃ /	Dian Chen	
Radialed Emissions	SIVIUZ-INK	2022/01/18~2022/01/19	52%~53%	Dian Chen	
AC Power Line	CON01-NK	2022/01/13~2022/01/19	19~20°C /	Dian Chan	
Conducted Emission	CONUT-NK	2022/01/13~2022/01/19	47~53%	Dian Chen	

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2.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.12dB
Radiated Spurious Emission(9KHz~30MHz)	±3.4dB
Radiated Spurious Emission(30MHz~1GHz)	±5.6dB
Radiated Spurious Emission(1GHz~25GHz)	±6.6dB
Conducted Spurious Emission	±1.8dB

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3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	275	2021/11/05	2022/11/04
Active Loop Antenna	EMCO	6507	40855	2021/06/10	2022/06/09
Horn Antenna	EMCO	3115	31601	2021/10/14	2022/10/13
EMI Receiver	ROHDE & SCHWARZ	ESCI	101402	2021/03/12	2022/03/11
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2021/08/06	2022/08/05
Preamplifier	EM Electronics corp.	EM330	60658	2021/10/13	2022/10/12
Preamplifier	Agilent	8449B	3008A01954	2021/03/22	2022/03/21
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2021/04/19	2022/04/18
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2021/04/12	2022/04/11
Cable-0.5m(1G-18G)	EMEC	EM104-SMSM-0.5M	CCE1354	2021/05/06	2022/05/05
Cable-3m(1G-18G)	EMEC	EM104-SMSM-3M	CCE1355	2021/05/06	2022/05/05
Cable-8m(1G-18G)	EMEC	EM104-SMSM-8M	CCE1356	2021/05/06	2022/05/05
Cable-0.5m(30M-40G)	HUBER SUHNER	SUCOFLEX 102	28420/2	2021/04/03	2022/04/02
Cable-3m(30M-40G)	HUBER SUHNER	SUCOFLEX 102	MY2608/2	2021/04/09	2022/04/08
Cable-0.5m(1G-40G)	Rapidtek	40GHZ 50CM	38MS-38MS50 314	2021/04/08	2022/04/07
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130605	2021/09/22	2022/09/21
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

Test Item	RF Conducted						
Test Site	RFCON01-NK	RFCON01-NK					
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date		
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2021/04/19	2022/04/18		
CAX Signal Analyzer	KEYSIGHT	N9000B	MY57100339	2022/01/10	2023/01/09		
Attenuator	KEYSIGHT	8491B	MY39250703	2021/04/09	2022/04/08		
TEMP & HUMI CHAMBER	T-MACHINE	TMJ-9712	T-12-040111	2021/08/27	2022/08/26		
Cable-0.5m(1G-26.5G)	HUBER SUHNER	SUCOFLEX 102	28422/2	2021/04/08	2022/04/07		
Power Meter	Anritsu	ML2495A	1224005	2021/04/14	2022/04/13		
Power Sensor	Anritsu	MA2411B	1207295	2021/04/14	2022/04/13		
Switch Box	Theda	1-4	TW5451159	NA	NA		
MXG-B RF Vector Signal Generator	KEYSIGHT	N5182B	MY53051383	2021/06/30	2022/06/29		

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Test Item	AC Power Line Conducted Emission				
Test Site	CON01-NK Manufacturer Model No Serial No Calibration Date Valid Date				
Instrument					
EMI Receiver	ROHDE & SCHWARZ	ESCI	101200	2021/08/30	2022/08/29
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-568	2021/06/02	2022/06/01
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101934	2021/03/10	2022/03/09
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130606	2021/03/15	2022/03/14
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA

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4. Test of AC Power Line Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.10-2013. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

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Frequency (MHz)	Quasi Peak (dB µ V)	Average (dB µ V)
0.15 – 0.5	66-56*	56-46*
0.5 - 5.0	56	46
5.0 – 30.0	60	50

^{*}Decreases with the logarithm of the frequency.

4.2 Test Procedures

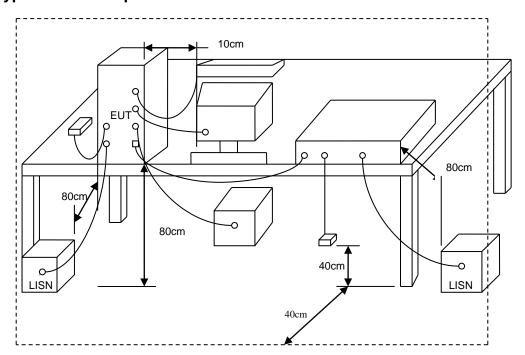
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

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4.3 Typical Test Setup



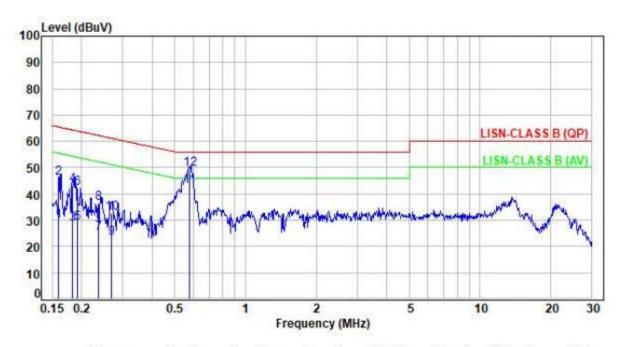
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4.4 Test Result and Data

Power	:	AC 120V / 60Hz	Pol/Phase :	LINE
Test Mode	:	Mode 2	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.16	9.92	19.67	29.59	55.49	-25.90	Average	P
2	0.16	9.92	36.25	46.17	65.49	-19.32	QP	P
3	0.18	9.92	18.73	28.65	54.34	-25.69	Average	P
4		9.92	33.40	43.32	64.34	-21.02	QP	P
5	0.19	9.92	18.91	28.83	53.93	-25.10	Average	P
6	0.19	9.92	32.23	42.15	63.93	-21.78	QP	P
7	0.24	9.92	14.99	24.91	52.26	-27.35	Average	P
8	0.24	9.92	26.58	36.50	62.26	-25.76	QP	P
9	0.27	9.91	13.28	23.19	51.20	-28.01	Average	P
10	0.27	9.91	22.76	32.67	61.20	-28.53	QP	P
11	0.58	9.92	32.87	42.79	46.00	-3.21	Average	P
12	0.58	9.92	39.57	49.49	56.00	-6.51	QP	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

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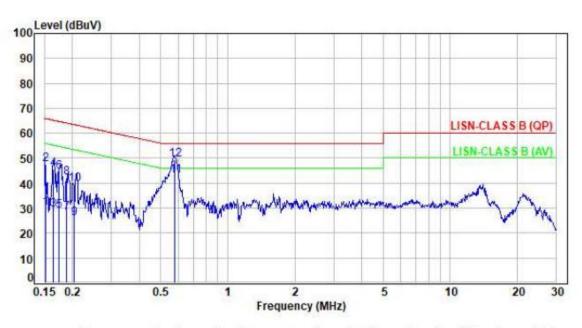
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Power : AC 120V / 60Hz Pol/Phase : NEUTRAL
Test Mode : Mode 2 :

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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	20.21	30.13	55.93	-25.80	Average	P
2	0.15	9.92	37.49	47.41	65.93	-18.52	QP	P
3	0.16	9.92	19.39	29.31	55.28	-25.97	Average	P
4	0.16	9.92	35.84	45.76	65.28	-19.52	QP	P
5	0.17	9.92	18.86	28.78	54.79	-26.01	Average	P
6	0.17	9.92	34.49	44.41	64.79	-20.38	QP	P
7	0.19	9.92	18.03	27.95	54.12	-26.17	Average	P
8		9.92	32.43	42.35	64.12	-21.77	QP	P
9	0.20	9.92	16.04	25.96	53.41	-27.45	Average	P
10	0.20	9.92	29.79	39.71	63.41	-23.70	QP	P
11	0.58	9.91	33.20	43.11	46.00	-2.89	Average	P
12	0.58	9.91	39.41	49.32	56.00	-6.68	QP	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss

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5. Test of Spurious Emission (Radiated)

5.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/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

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5.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

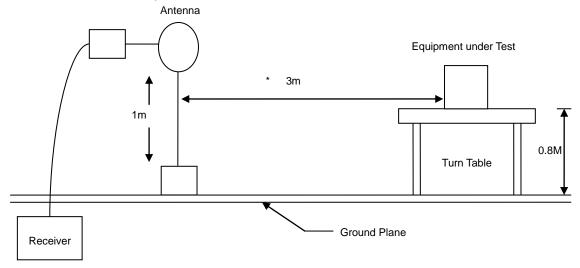
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- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

Note: The supporting fixture shall permit orientation of the EUT in each of three orthogonal axis positions such that emissions from the EUT are maximized. (Z-AXIS is the worst.)

5.3 Typical Test Setup

Below 30MHz test setup



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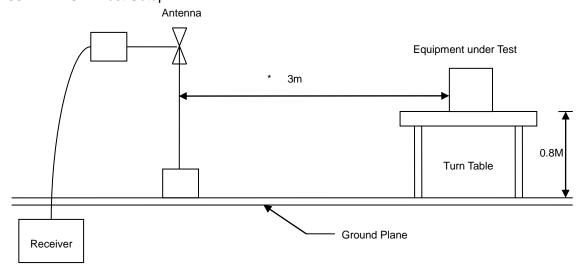
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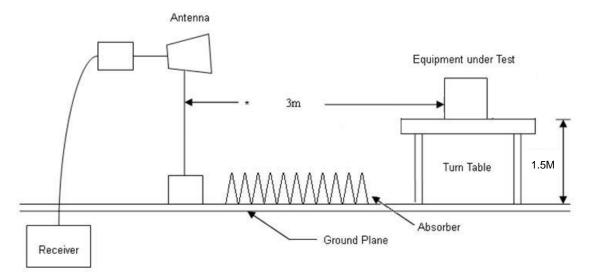
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30MHz- 1GHz Test Setup



Above 1GHz Test Setup



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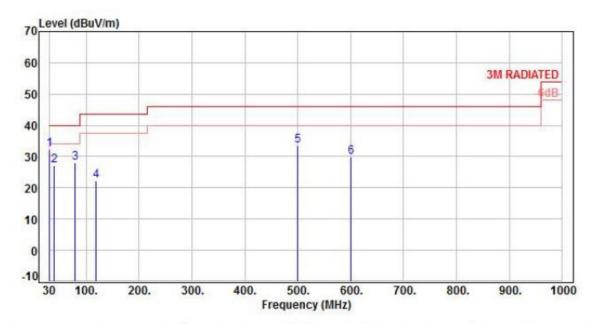


5.4 Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

5.5 Test Result and Data (30MHz ~ 1GHz)

Power	:	AC 240V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 1	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
17.000								asaannan	CARLET ALCO	
1	30.00	-12.63	44.82	32.19	40.00	-7.81	Peak	400	360	P
2	39.70	-11.86	39.12	27.26	40.00	-12.74	Peak	400	360	P
3	78.50	-15.51	43.44	27.93	40.00	-12.07	Peak	400	360	P
4	119.24	-13.82	35.92	22.10	43.50	-21.40	Peak	400	360	P
5	499.48	-5.46	39.05	33.59	46.00	-12.41	Peak	400	360	P
6	600.36	-2.94	32.93	29.99	46.00	-16.01	Peak	400	360	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

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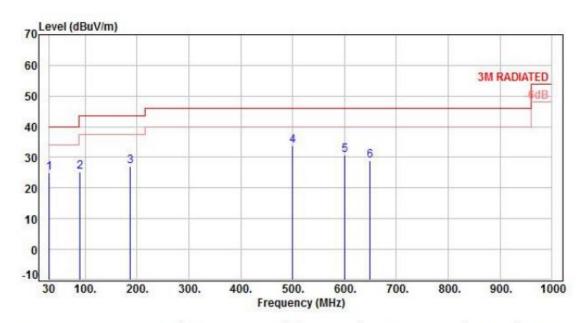
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Power	:	AC 240V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	•	Mode 1		

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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	30.00	-12.63	37.55	24.92	40.00	-15.08	Peak	400	0	P
2	90.14	-16.64	41.83	25.19	43.50	-18.31	Peak	400	0	P
3	187.14	-13.30	40.45	27.15	43.50	-16.35	Peak	400	0	P
4	499.48	-5.46	39.16	33.70	46.00	-12.30	Peak	400	0	P
5	600.36	-2.94	33.72	30.78	46.00	-15.22	Peak	400	0	P
6	648.86	-2.16	31.02	28.86	46.00	-17.14	Peak	400	0	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

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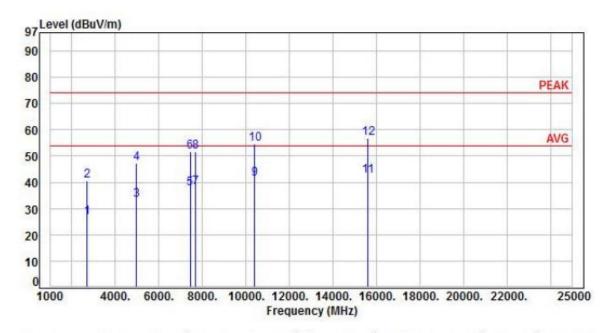


5.6 Test Result and Data (1GHz ~ 25GHz)

Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 1	:	

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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2720.00	-2.77	29.34	26.57	54.00	-27.43	Average	100	194	P
2	2720.00	-2.77	43.21	40.44	74.00	-33.56	Peak	100	194	P
3	4960.00	4.35	28.77	33.12	54.00	-20.88	Average	100	76	P
4	4960.00	4.35	42.74	47.09	74.00	-26.91	Peak	100	76	P
5	7440.00	8.79	28.76	37.55	54.00	-16.45	Average	100	176	P
6	7440.00	8.79	42.98	51.77	74.00	-22.23	Peak	100	176	P
7	7680.00	8.67	29.15	37.82	54.00	-16.18	Average	100	168	P
8	7680.00	8.67	42.95	51.62	74.00	-22.38	Peak	100	168	P
9	10400.00	11.57	29.68	41.25	54.00	-12.75	Average	100	108	P
10	10400.00	11.57	42.91	54.48	74.00	-19.52	Peak	100	108	P
11	15600.00	13.65	28.74	42.39	54.00	-11.61	Average	100	187	P
12	15600.00	13.65	43.11	56.76	74.00	-17.24	Peak	100	187	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

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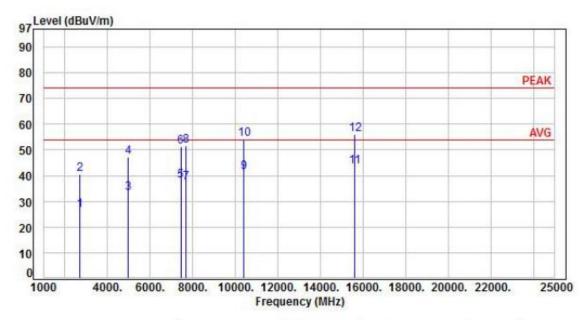
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Power : AC 120V / 60Hz Pol/Phase : HORIZONTAL

Test Mode : Mode 1 :

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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2720.00	-2.77	29.14	26.37	54.00	-27.63	Average	100	138	P
2	2720.00	-2.77	43.31	40.54	74.00	-33.46	Peak	100	138	P
3	4960.00	4.35	28.76	33.11	54.00	-20.89	Average	100	147	P
4	4960.00	4.35	42.68	47.03	74.00	-26.97	Peak	100	147	P
5	7440.00	8.79	29.24	38.03	54.00	-15.97	Average	100	124	P
6	7440.00	8.79	42.48	51.27	74.00	-22.73	Peak	100	124	P
7	7680.00	8.67	28.67	37.34	54.00	-16.66	Average	100	169	P
8	7680.00	8.67	42.97	51.64	74.00	-22.36	Peak	100	169	P
9	10400.00	11.57	29.85	41.42	54.00	-12.58	Average	100	265	P
10	10400.00	11.57	42.59	54.16	74.00	-19.84	Peak	100	265	P
11	15600.00	13.65	29.78	43.43	54.00	-10.57	Average	100	143	P
12	15600.00	13.65	42.58	56.23	74.00	-17.77	Peak	100	143	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

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5.7 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 - 0.11000	16.42000 - 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 - 0.505**	16.69475 - 16.69525	608.0 - 614.0	5.350 - 5.460
2.17350 - 2.19050	16.80425 - 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 - 8.500
4.17725 – 4.17775	37.50000 - 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 - 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 - 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 - 6.26825	108.00000 - 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 - 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 - 8.29400	149.90000 - 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 - 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 - 8.38675	156.70000 - 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 - 167.17000	3260.0 - 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 - 173.20000	3332.0 - 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 - 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 - 335.40000	3600.0 - 4400.0	Above 38.6
13.36000 – 13.41000			

^{**:} Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

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6. Test of Conducted Spurious Emission

6.1 Test Limit

According to the methods defined in ANSI C63.10-2013 Section 11.11.1

Below –20dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

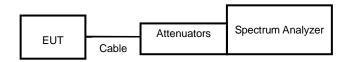
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6.2 Test Procedure

According to the methods defined in ANSI C63.10-2013 Section 11.11.2 & 11.11.3

- a. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20dB relative to the maximum measured in-band peak PSD level.
- d. The band edges was measured and recorded.

6.3 Test Setup Layout



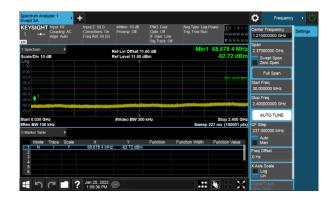
6.4 Test Result and Data

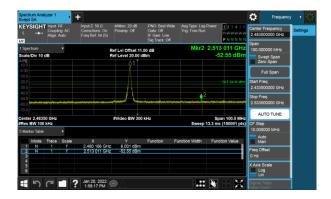
Note: Test plots refers to the following pages.

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-----THE END OF REPORT-----

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