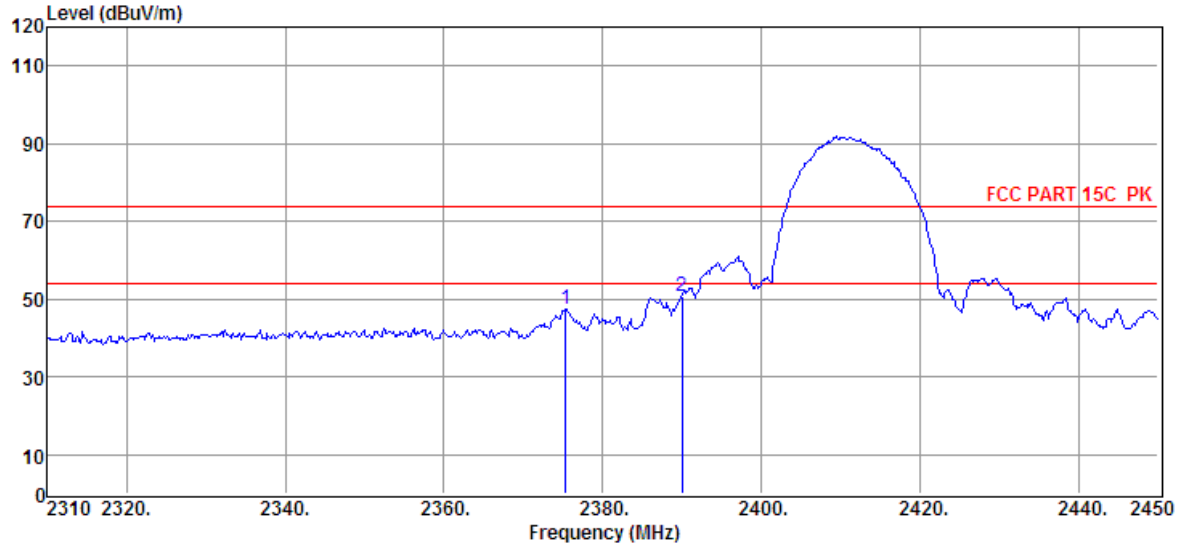
8.2. RESTRICTED BANDEDGE

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11b 2412MHz			

Data: 3



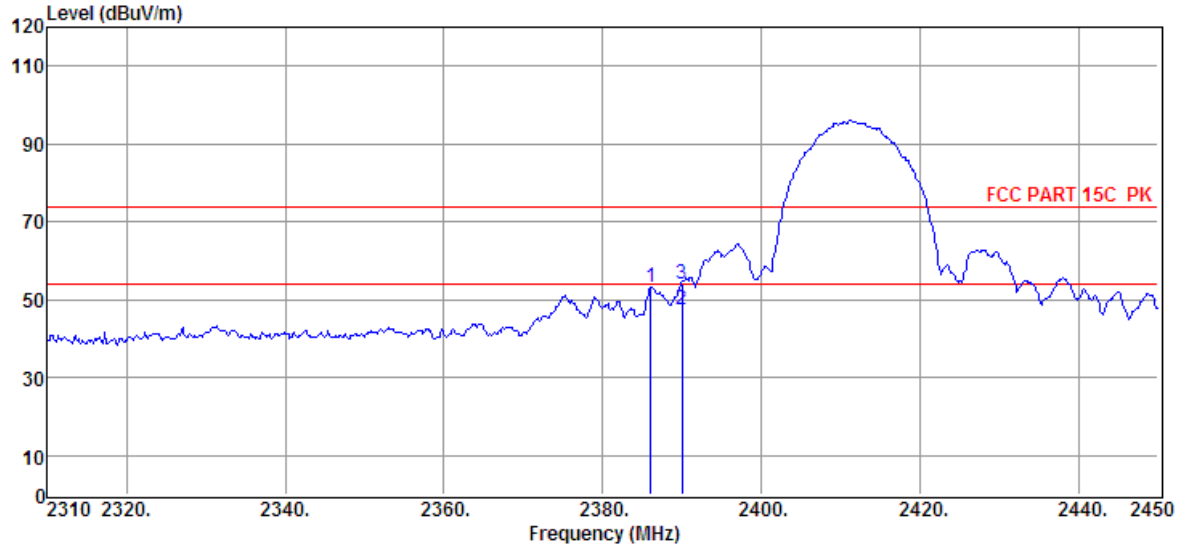
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2375.38	41.02	29.72	29.39	6.01	47.36	74.00	-26.64	Peak	HORIZONTAL
2	2390.00	44.26	29.78	29.42	6.03	50.65	74.00	-23.35	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11b 2412MHz			

Data: 4



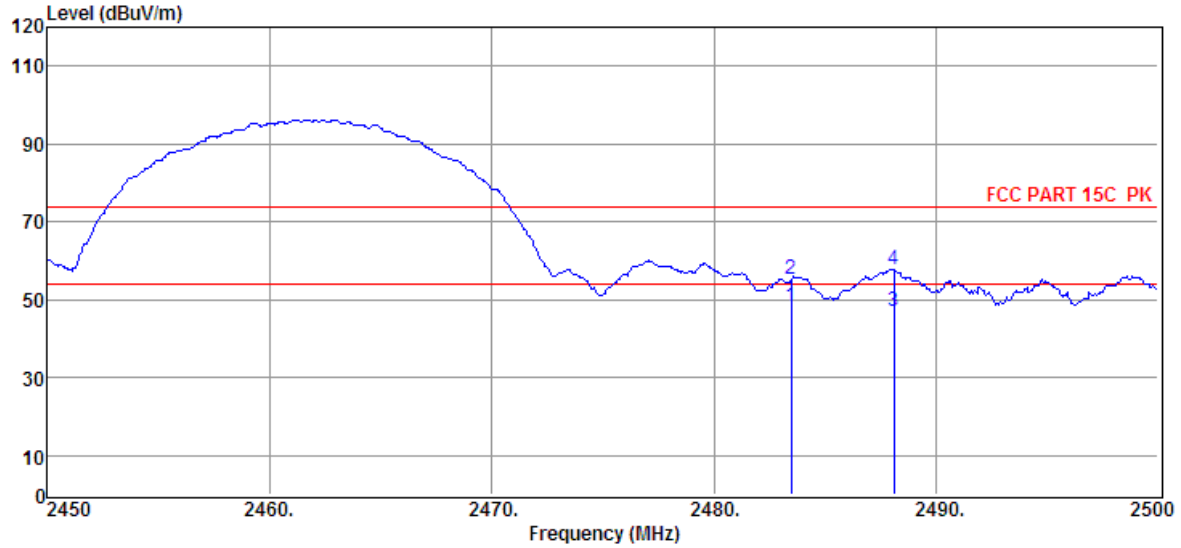
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2386.02	46.81	29.76	29.41	6.01	53.17	74.00	-20.83	Peak	VERTICAL
2	2390.00	40.88	29.78	29.42	6.03	47.27	54.00	-6.73	Average	VERTICAL
3	2390.00	47.78	29.78	29.42	6.03	54.17	74.00	-19.83	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11b 2462MHz			

Data: 9



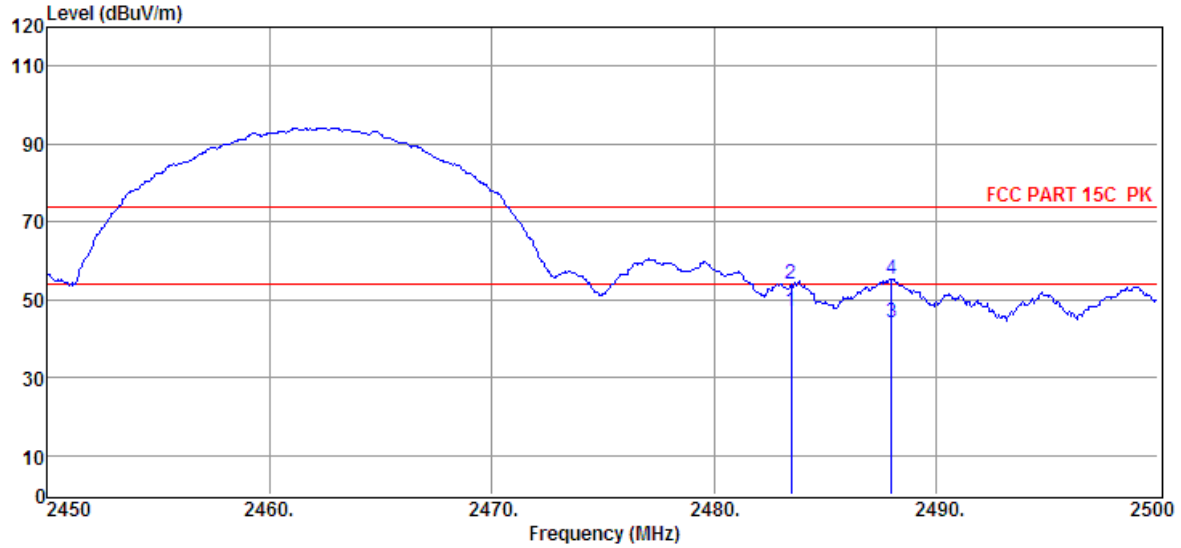
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	41.77	30.14	29.71	6.13	48.33	54.00	-5.67	Average	VERTICAL
2	2483.50	48.77	30.14	29.71	6.13	55.33	74.00	-18.67	Peak	VERTICAL
3	2488.10	40.35	30.16	29.71	6.15	46.95	54.00	-7.05	Average	VERTICAL
4	2488.10	51.21	30.16	29.71	6.13	57.79	74.00	-16.21	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11b 2462MHz			

Data: 10



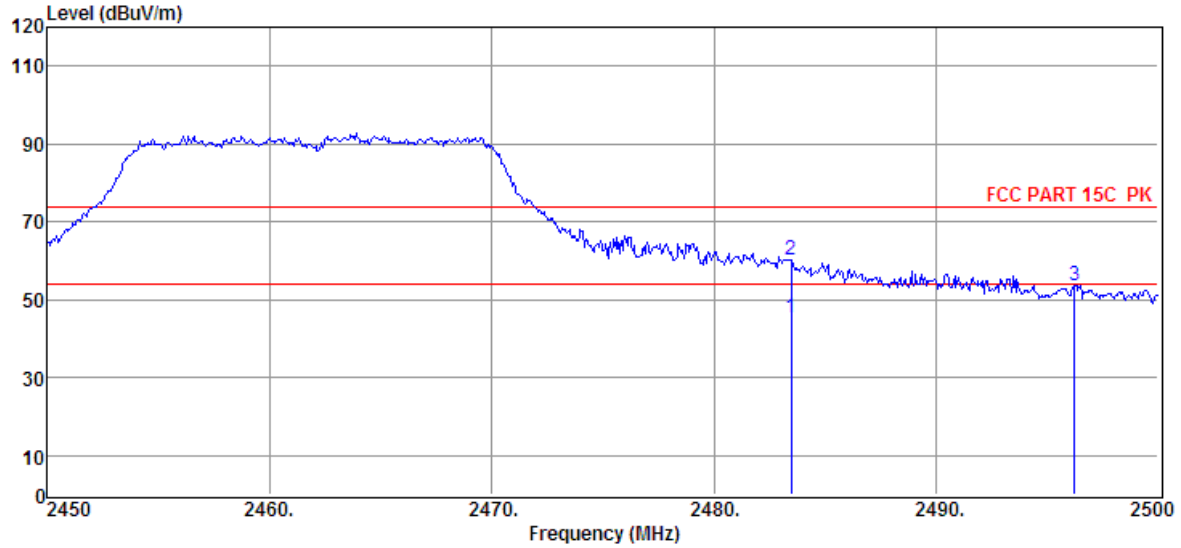
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	40.36	30.14	29.71	6.13	46.92	54.00	-7.08	Average	HORIZONTAL
2	2483.50	47.36	30.14	29.71	6.13	53.92	74.00	-20.08	Peak	HORIZONTAL
3	2488.00	37.50	30.15	29.71	6.15	44.09	54.00	-9.91	Average	HORIZONTAL
4	2488.00	48.76	30.15	29.71	6.13	55.33	74.00	-18.67	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11g 2462MHz			

Data: 11



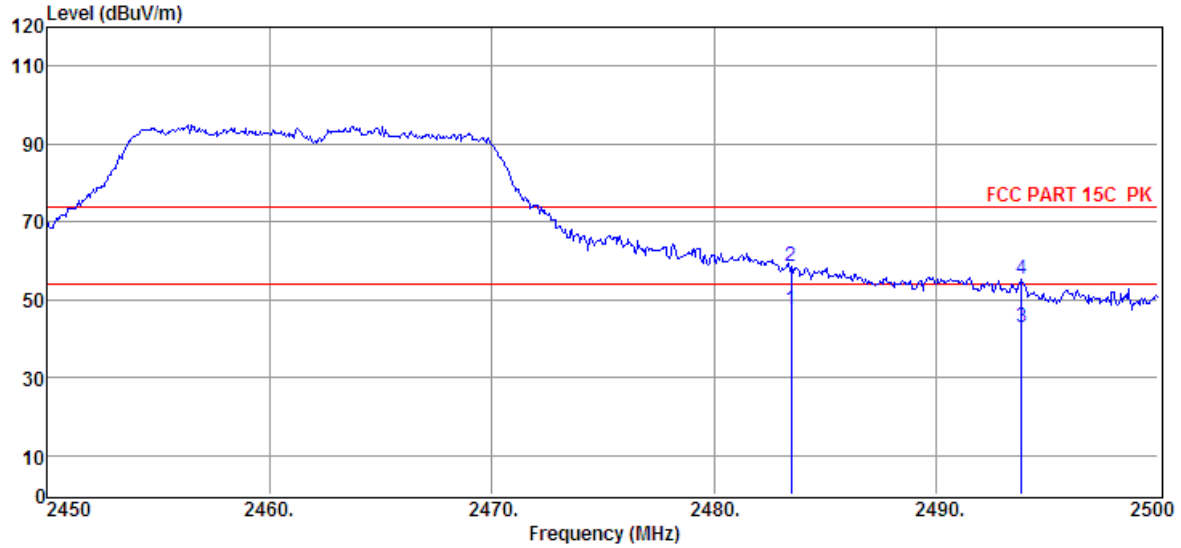
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	38.87	30.14	29.71	6.13	45.43	54.00	-8.57	Average	HORIZONTAL
2	2483.50	53.48	30.14	29.71	6.13	60.04	74.00	-13.96	Peak	HORIZONTAL
3	2496.25	47.13	30.19	29.73	6.17	53.76	74.00	-20.24	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11g 2462MHz			

Data: 12



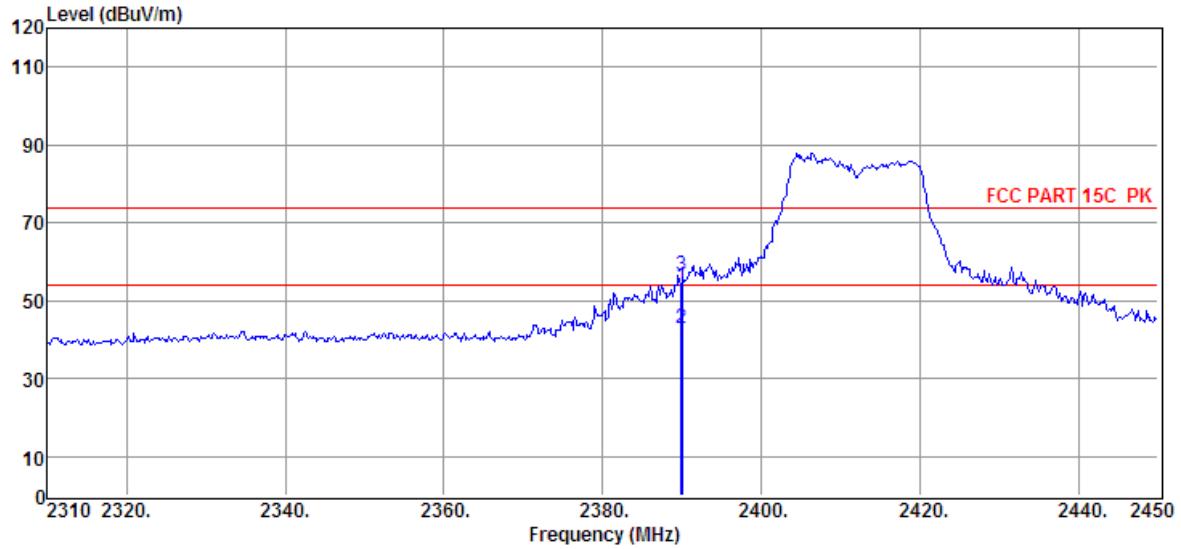
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	40.80	30.14	29.71	6.13	47.36	54.00	-6.64	Average	VERTICAL
2	2483.50	51.80	30.14	29.71	6.13	58.36	74.00	-15.64	Peak	VERTICAL
3	2493.85	36.24	30.18	29.73	6.15	42.84	54.00	-11.16	Average	VERTICAL
4	2493.85	48.61	30.18	29.73	6.17	55.23	74.00	-18.77	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11g 2412MHz			

Data: 19



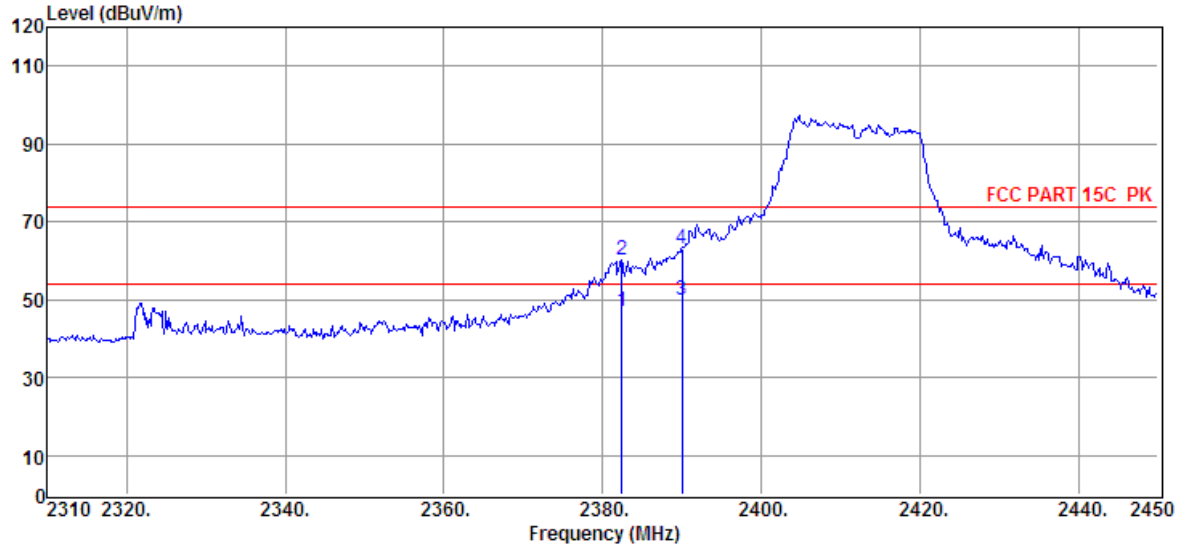
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2389.94	36.52	29.78	29.42	6.03	42.91	54.00	-11.09	Average	HORIZONTAL
2	2389.94	47.40	29.78	29.42	6.03	53.79	74.00	-20.21	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11g 2412MHz			

Data: 20



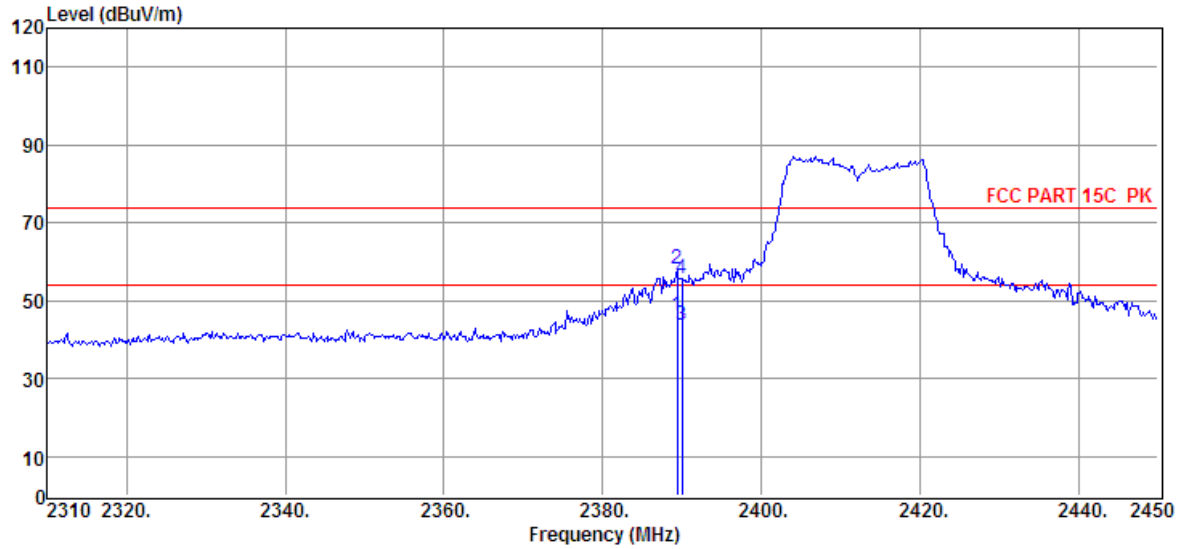
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2382.38	40.50	29.75	29.39	6.01	46.87	54.00	-7.13	Average	VERTICAL
2	2382.38	53.71	29.75	29.41	6.01	60.06	74.00	-13.94	Peak	VERTICAL
3	2390.00	43.65	29.78	29.42	6.03	50.04	54.00	-3.96	Average	VERTICAL
4	2390.00	56.65	29.78	29.42	6.03	63.04	74.00	-10.96	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11n20 2412MHz			

Data: 23



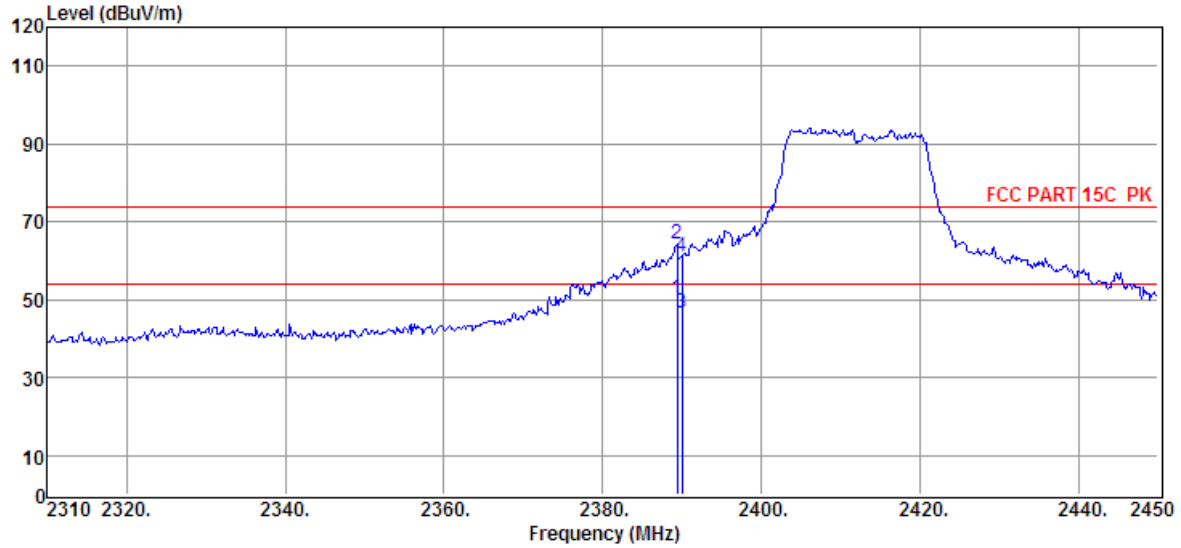
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2389.38	39.64	29.77	29.42	6.01	46.00	54.00	-8.00	Average	HORIZONTAL
2	2389.38	51.64	29.77	29.42	6.01	58.00	74.00	-16.00	Peak	HORIZONTAL
3	2390.00	37.21	29.78	29.41	6.01	43.59	54.00	-10.41	Average	HORIZONTAL
4	2390.00	49.15	29.78	29.42	6.03	55.54	74.00	-18.46	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11n20 2412MHz			

Data: 24



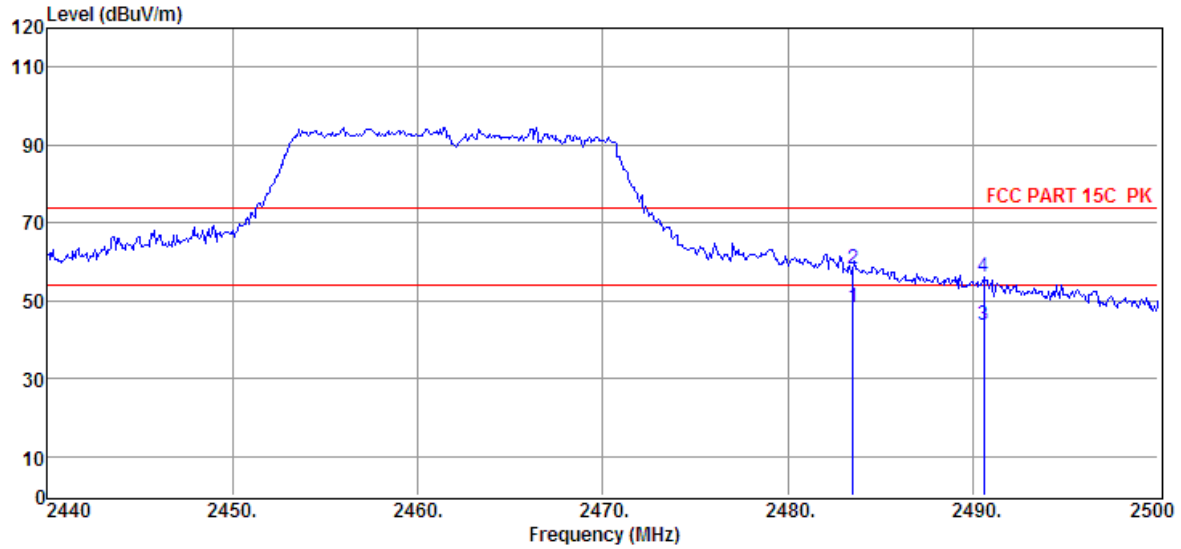
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2389.38	43.87	29.77	29.42	6.01	50.23	54.00	-3.77	Average	VERTICAL
2	2389.38	57.87	29.77	29.42	6.01	64.23	74.00	-9.77	Peak	VERTICAL
3	2390.00	40.13	29.78	29.41	6.01	46.51	54.00	-7.49	Average	VERTICAL
4	2390.00	54.57	29.78	29.42	6.03	60.96	74.00	-13.04	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11n20 2462MHz			

Data: 29



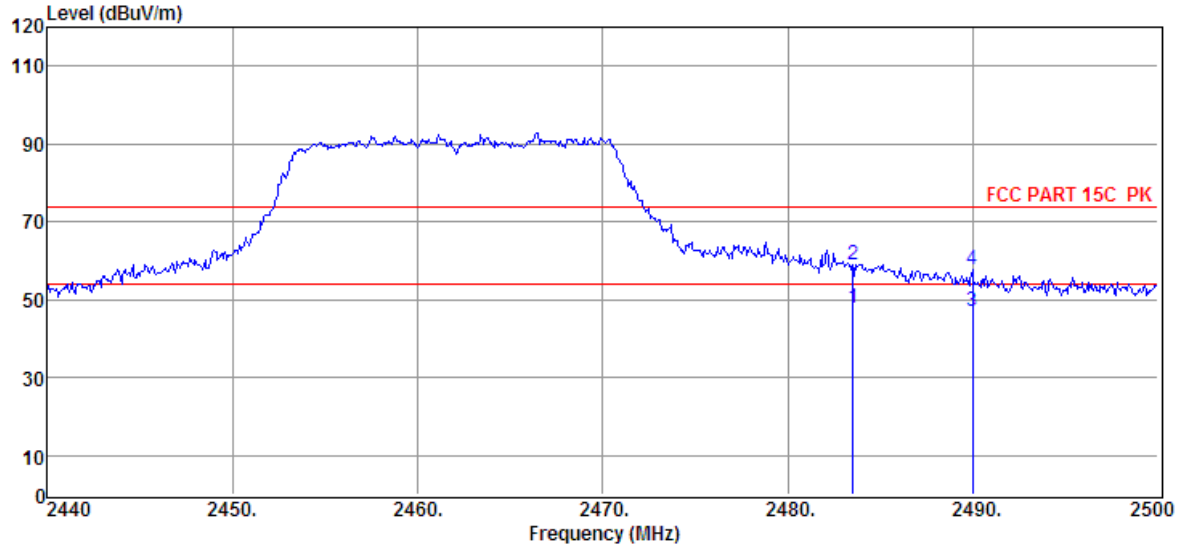
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2483.50	41.74	30.14	29.71	6.13	48.30	54.00	-5.70	Average	VERTICAL
2	2483.50	51.74	30.14	29.71	6.13	58.30	74.00	-15.70	Peak	VERTICAL
3	2490.58	37.15	30.16	29.73	6.15	43.73	54.00	-10.27	Average	VERTICAL
4	2490.58	49.66	30.16	29.71	6.17	56.28	74.00	-17.72	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11n20 2462MHz			

Data: 30



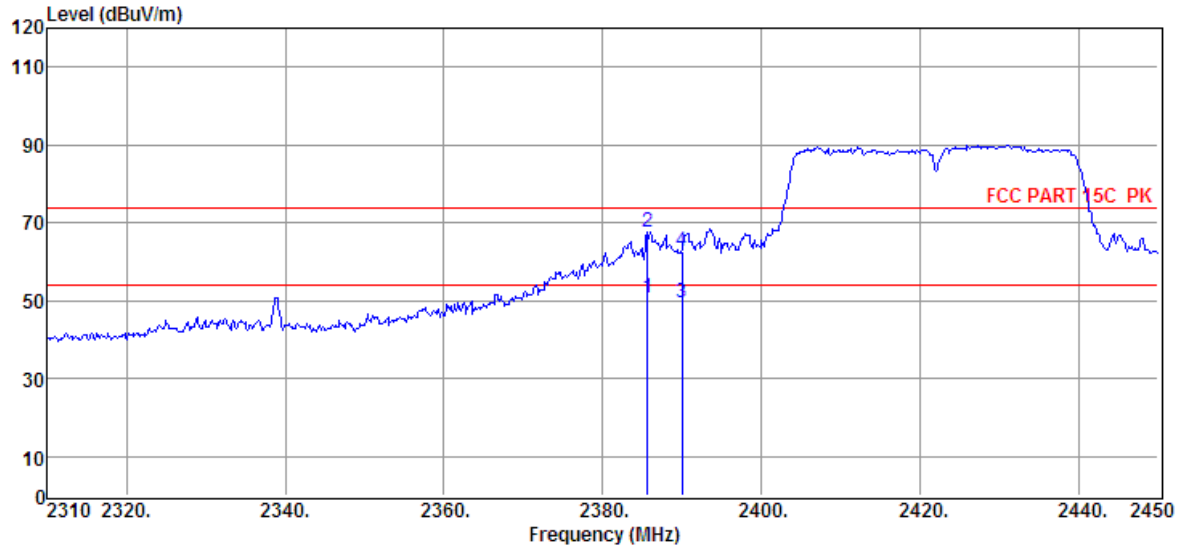
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBμV)	(dB/m)	dB	dB	(dBμV/m)	(dBμV/m)	(dB)		
1	2483.50	41.34	30.14	29.71	6.13	47.90	54.00	-6.10	Average	HORIZONTAL
2	2483.50	52.34	30.14	29.71	6.13	58.90	74.00	-15.10	Peak	HORIZONTAL
3	2489.98	40.32	30.16	29.73	6.15	46.90	54.00	-7.10	Average	HORIZONTAL
4	2489.98	51.09	30.16	29.71	6.17	57.71	74.00	-16.29	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11n40 2422MHz			

Data: 33



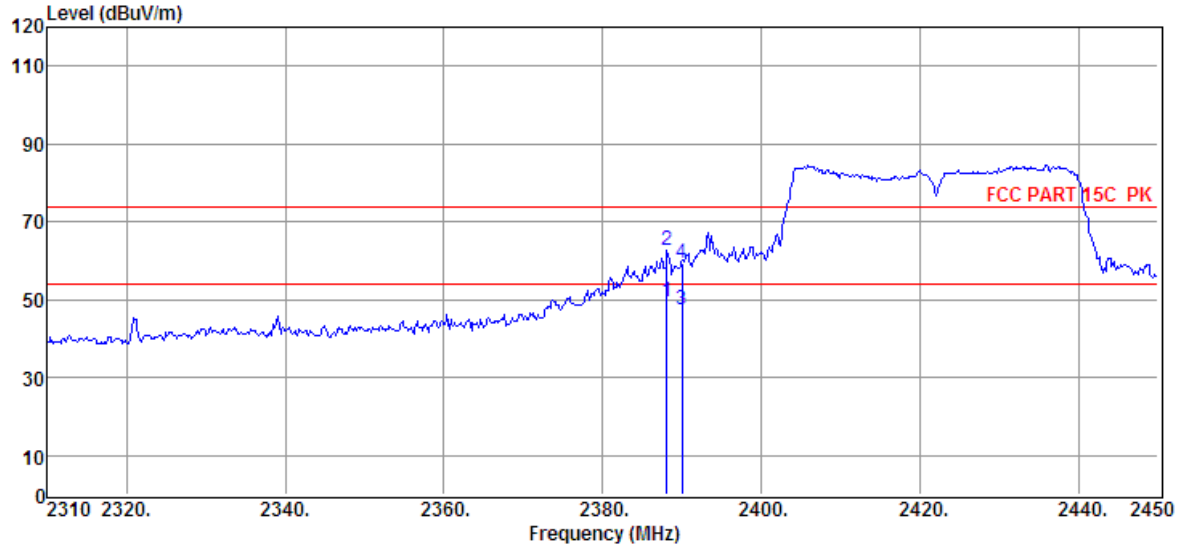
Item	Freq.	Read Level	Antenna Factor	PRM Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	2385.60	44.27	29.76	29.41	6.01	50.63	54.00	-3.37	Average	VERTICAL
2	2385.60	61.44	29.76	29.41	6.01	67.80	74.00	-6.20	Peak	VERTICAL
3	2390.00	43.25	29.78	29.41	6.01	49.63	54.00	-4.37	Average	VERTICAL
4	2390.00	56.34	29.78	29.42	6.03	62.73	74.00	-11.27	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11n40 2422MHz			

Data: 34



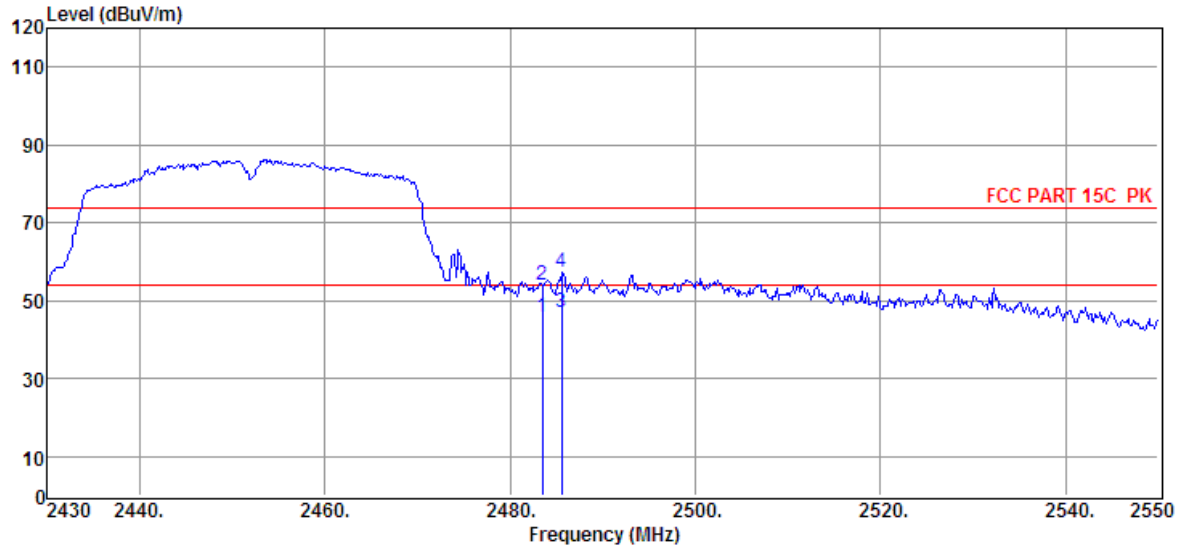
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2388.12	43.15	29.77	29.41	6.01	49.52	54.00	-4.48	Average	HORIZONTAL
2	2388.12	56.42	29.77	29.41	6.01	62.79	74.00	-11.21	Peak	HORIZONTAL
3	2390.00	41.12	29.78	29.41	6.01	47.50	54.00	-6.50	Average	HORIZONTAL
4	2390.00	53.00	29.78	29.42	6.03	59.39	74.00	-14.61	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/HORIZONTAL
Memo	:	11n40 2452MHz			

Data: 39



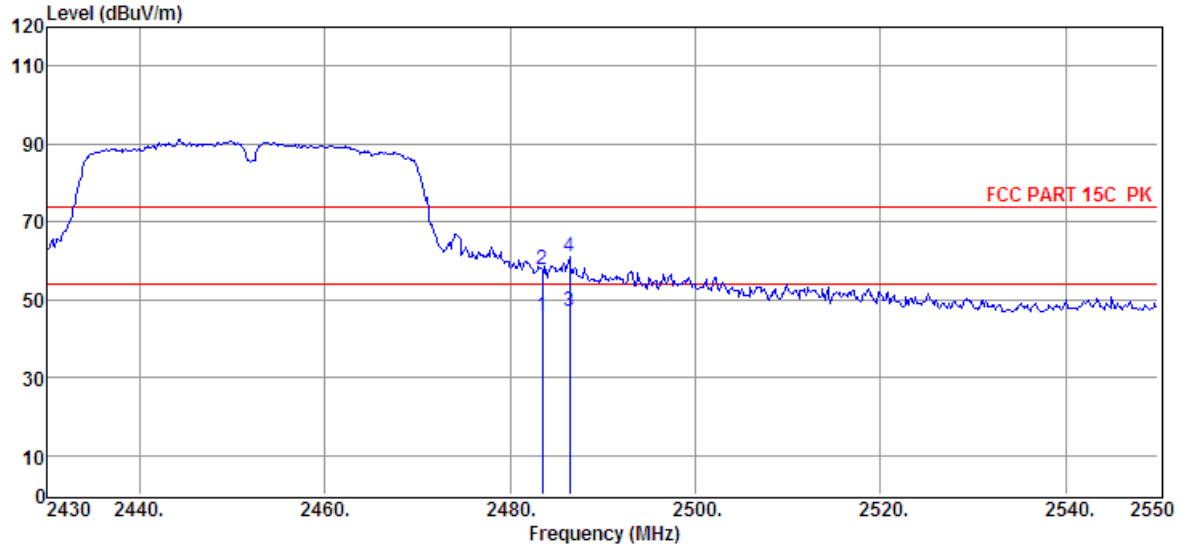
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	39.14	30.14	29.71	6.15	45.72	54.00	-8.28	Average	HORIZONTAL
2	2483.50	47.58	30.14	29.71	6.13	54.14	74.00	-19.86	Peak	HORIZONTAL
3	2485.56	40.62	30.15	29.71	6.13	47.19	54.00	-6.81	Average	HORIZONTAL
4	2485.56	50.62	30.15	29.71	6.13	57.19	74.00	-16.81	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-1G-18G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329B-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 HF907/3m/VERTICAL
Memo	:	11n40 2452MHz			

Data: 40



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	2483.50	39.20	30.14	29.71	6.15	45.78	54.00	-8.22	Average	VERTICAL
2	2483.50	51.07	30.14	29.71	6.13	57.63	74.00	-16.37	Peak	VERTICAL
3	2486.40	40.47	30.15	29.71	6.13	47.04	54.00	-6.96	Average	VERTICAL
4	2486.40	54.47	30.15	29.71	6.13	61.04	74.00	-12.96	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

8.3. SPURIOUS EMISSIONS (1~25GHz)

HARMONICS AND SPURIOUS EMISSION

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
11n20 LCH									
4264.00	34.55	33.62	29.10	7.90	46.97	74.00	-27.03	Peak	VERTICAL
5981.00	34.18	34.99	29.19	9.66	49.64	74.00	-24.36	Peak	VERTICAL
7409.00	34.41	36.53	30.67	10.78	51.05	74.00	-22.95	Peak	VERTICAL
8055.00	35.27	36.54	31.18	11.18	51.81	74.00	-22.19	Peak	VERTICAL
10180.00	33.75	36.72	33.03	12.53	49.97	74.00	-24.03	Peak	VERTICAL
12050.00	33.71	37.67	34.82	14.26	50.82	74.00	-23.18	Peak	VERTICAL
3975.00	35.69	33.33	29.05	7.60	47.57	74.00	-26.43	Peak	HORIZONTAL
5199.00	36.45	34.11	29.33	8.89	50.12	74.00	-23.88	Peak	HORIZONTAL
6355.00	35.01	35.57	29.54	9.87	50.91	74.00	-23.09	Peak	HORIZONTAL
7936.00	35.20	36.69	31.11	11.10	51.88	74.00	-22.12	Peak	HORIZONTAL
9721.00	34.68	36.62	32.80	12.39	50.89	74.00	-23.11	Peak	HORIZONTAL
12985.00	34.70	38.79	35.70	14.67	52.46	74.00	-21.54	Peak	HORIZONTAL
11n20 MCH									
3856.00	35.46	32.99	29.12	7.52	46.85	74.00	-27.15	Peak	VERTICAL
6270.00	34.03	35.44	29.44	9.82	49.85	74.00	-24.15	Peak	VERTICAL
7341.00	35.20	36.48	30.59	10.72	51.81	74.00	-22.19	Peak	VERTICAL
7970.00	34.51	36.69	31.12	11.12	51.20	74.00	-22.80	Peak	VERTICAL
9755.00	33.97	36.66	32.82	12.40	50.21	74.00	-23.79	Peak	VERTICAL
12220.00	33.50	37.91	34.95	14.41	50.87	74.00	-23.13	Peak	VERTICAL
4009.00	35.20	33.41	29.04	7.61	47.18	74.00	-26.82	Peak	HORIZONTAL
6066.00	34.47	35.11	29.24	9.72	50.06	74.00	-23.94	Peak	HORIZONTAL
6950.00	35.06	36.16	30.34	10.39	51.27	74.00	-22.73	Peak	HORIZONTAL
9160.00	34.67	37.14	32.39	12.01	51.43	74.00	-22.57	Peak	HORIZONTAL
10775.00	33.05	37.18	33.59	13.14	49.78	74.00	-24.22	Peak	HORIZONTAL
13104.00	34.03	38.91	35.64	14.70	52.00	74.00	-22.00	Peak	HORIZONTAL
11n20 HCH									
4094.00	36.22	33.48	29.06	7.71	48.35	74.00	-25.65	Peak	VERTICAL
6304.00	33.87	35.49	29.49	9.84	49.71	74.00	-24.29	Peak	VERTICAL
7630.00	35.01	36.63	30.92	10.92	51.64	74.00	-22.36	Peak	VERTICAL
8939.00	34.16	37.24	32.26	11.79	50.93	74.00	-23.07	Peak	VERTICAL
11064.00	32.97	37.66	34.08	13.49	50.04	74.00	-23.96	Peak	VERTICAL
13206.00	34.66	39.01	35.54	14.73	52.86	74.00	-21.14	Peak	VERTICAL
5794.00	37.31	34.88	29.21	9.48	52.46	74.00	-21.54	Peak	HORIZONTAL
7290.00	35.29	36.44	30.55	10.68	51.86	74.00	-22.14	Peak	HORIZONTAL
8004.00	36.12	36.69	31.13	11.13	52.81	74.00	-21.19	Peak	HORIZONTAL
9109.00	33.93	37.26	32.36	11.95	50.78	74.00	-23.22	Peak	HORIZONTAL
11234.00	33.44	37.28	34.25	13.53	50.00	74.00	-24.00	Peak	HORIZONTAL
12815.00	34.53	38.62	35.58	14.66	52.23	74.00	-21.77	Peak	HORIZONTAL

Result: Pass

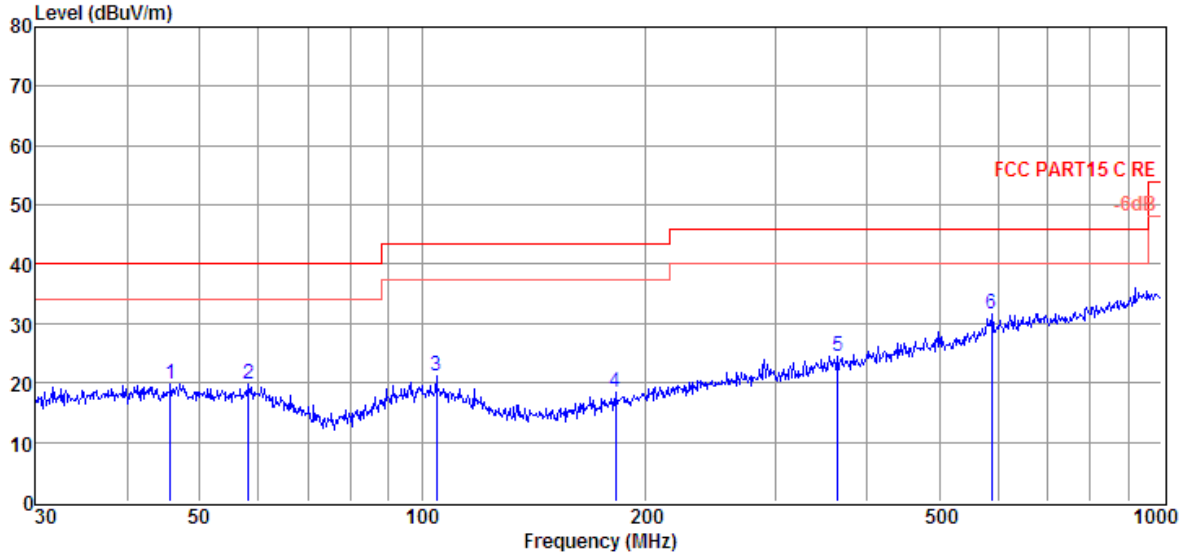
Note :
1. 30MHz~25GHz: (Scan with 11b, 11g and 11n HT20 and 11n HT40, the worst case is 11n20 Mode)
2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.
3. EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

8.4. SPURIOUS EMISSIONS 30M ~ 1 GHz

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-30M-1G.EM6		
Test Date	:	2017-08-17	**Tested By**	:	Sunny
EUT	:	Wireless surveillance camera outdoor IP 66 USA	**Model Number**	:	HG03329A-US
Power Supply	:	AC 120V/60Hz	**Test Mode**	:	TX mode
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	:	2016 VULB9163 1#/3m/HORIZONTAL
Memo	:				

Data: 12



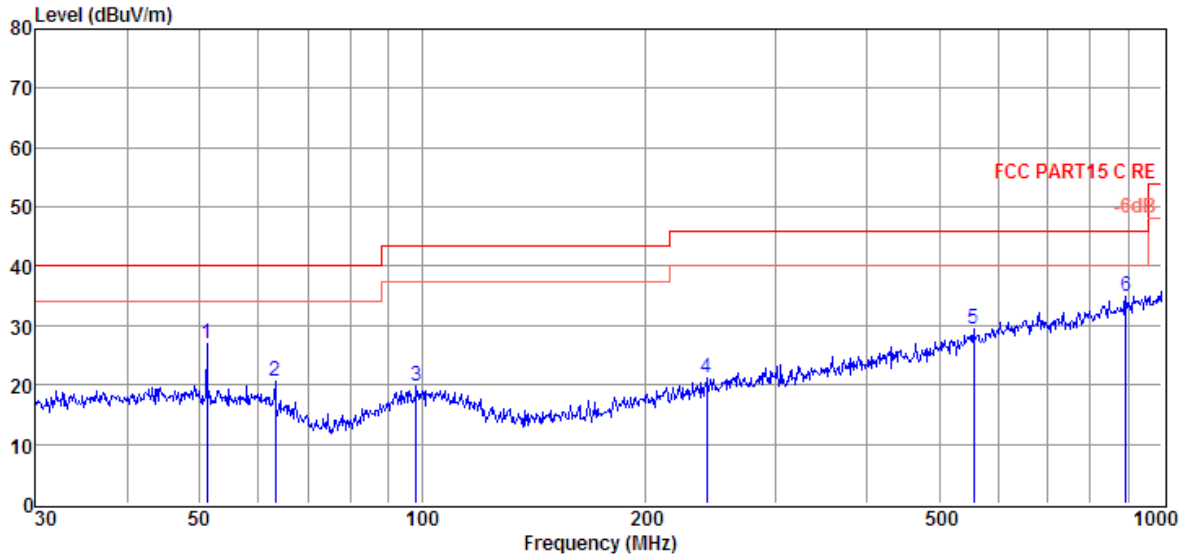
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	45.70	3.73	12.23	3.85	19.81	40.00	-20.19	QP	HORIZONTAL
2	58.20	4.15	11.70	3.96	19.81	40.00	-20.19	QP	HORIZONTAL
3	104.54	5.17	11.64	4.33	21.14	43.50	-22.36	QP	HORIZONTAL
4	182.56	3.99	9.51	4.80	18.30	43.50	-25.20	QP	HORIZONTAL
5	364.26	3.76	15.09	5.65	24.50	46.00	-21.50	QP	HORIZONTAL
6	588.91	6.06	19.10	6.47	31.63	46.00	-14.37	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 1#	D:\2017 RE1# Report Data\QELF170719-002-02E\RF-FCC-30M-1G.EM6	
Test Date	: 2017-08-17	**Tested By**	: Sunny
EUT	: Wireless surveillance camera outdoor IP 66 USA	**Model Number**	: HG03329A-US
Power Supply	: AC 120V/60Hz	**Test Mode**	: TX mode
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**Antenna/Distance**	: 2016 VULB9163 1#/3m/VERTICAL
Memo	:		

Data: 13



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	51.12	11.25	11.83	3.90	26.98	40.00	-13.02	QP	VERTICAL
2	63.31	6.38	10.22	4.00	20.60	40.00	-19.40	QP	VERTICAL
3	98.14	3.60	11.85	4.28	19.73	43.50	-23.77	QP	VERTICAL
4	242.53	3.97	12.10	5.11	21.18	46.00	-24.82	QP	VERTICAL
5	556.77	4.40	18.64	6.36	29.40	46.00	-16.60	QP	VERTICAL
6	893.86	5.53	22.12	7.40	35.05	46.00	-10.95	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.

Note 2: EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

8.5. SPURIOUS EMISSIONS BELOW 30M

Note: The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

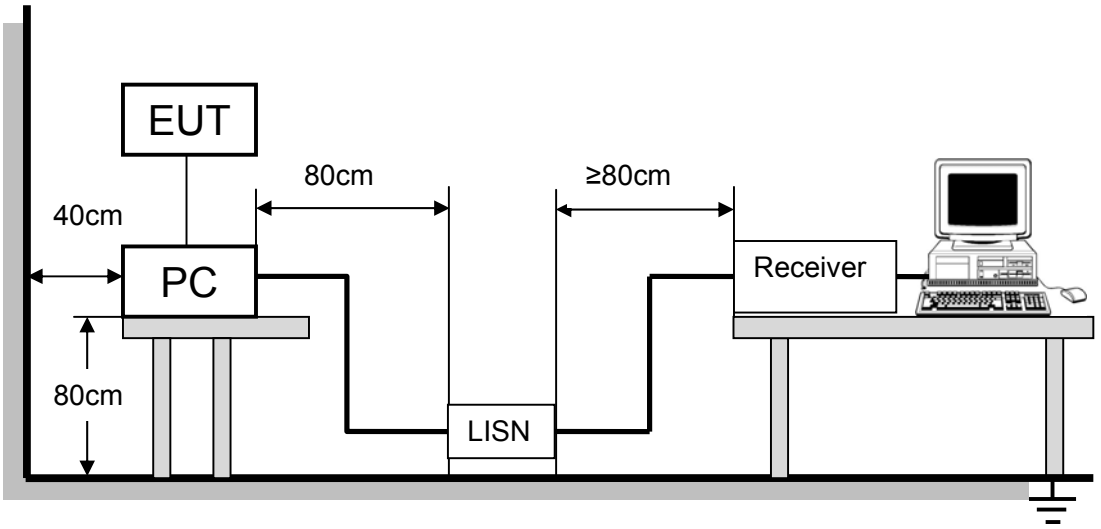
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a) and RSS-Gen Clause 8.8

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

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the C63.10 Clause 6.2 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

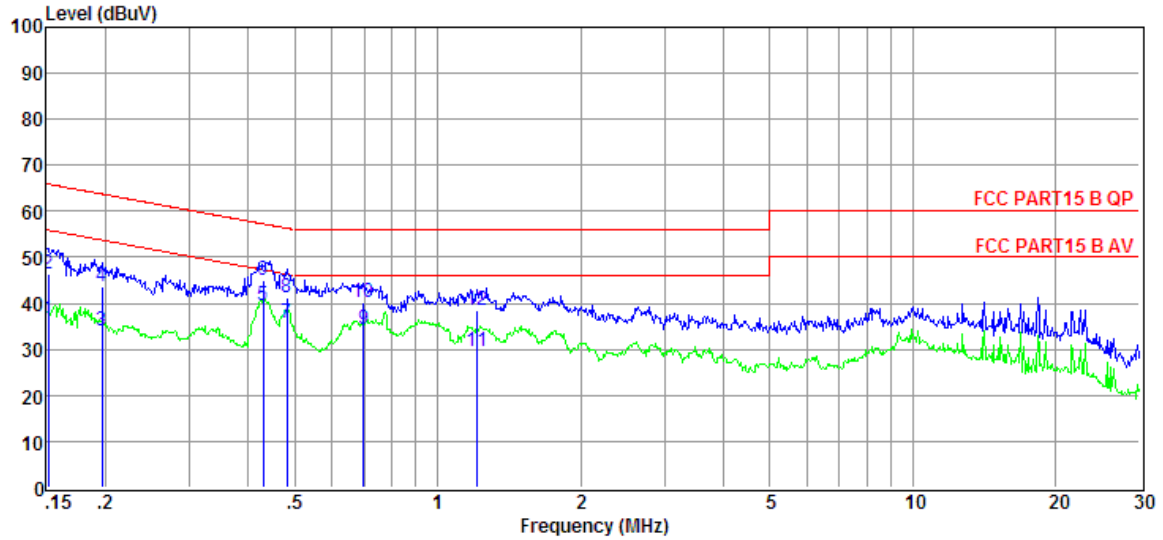
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST RESULTS

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2017 CE report data\QELF170719-002-02E\CE.EM6		
Test Date	: 2017-08-10	**Tested By**	: Xian	
EUT	: Wireless surveillance camera outdoor IP 66 USA	**Model Number**	: HG03329A-US	
Power Supply	: AC 120V/60Hz	**Test Mode**	: TX mode	
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2016 ENV216/LINE	
Memo	:			

Data: 6



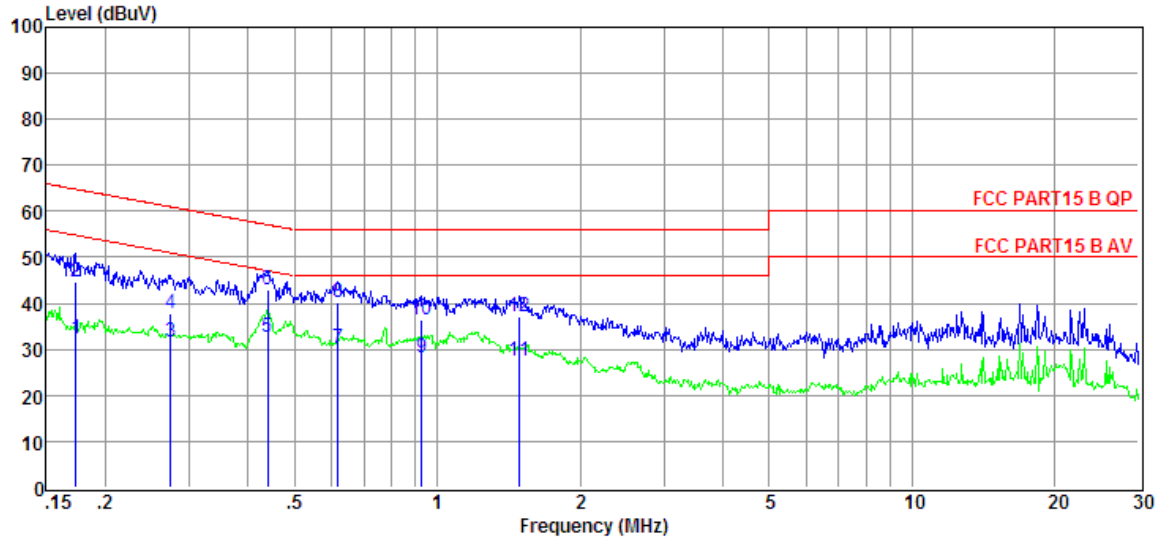
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.15	17.07	9.61	0.02	9.86	36.56	55.91	-19.35	Average	LINE
2	0.15	26.85	9.61	0.02	9.86	46.34	65.91	-19.57	QP	LINE
3	0.20	14.68	9.61	0.02	9.86	34.17	53.76	-19.59	Average	LINE
4	0.20	24.31	9.61	0.02	9.86	43.80	63.76	-19.96	QP	LINE
5	0.43	19.87	9.61	0.02	9.86	39.36	47.26	-7.90	Average	LINE
6	0.43	25.49	9.61	0.02	9.86	44.98	57.26	-12.28	QP	LINE
7	0.48	16.39	9.61	0.02	9.86	35.88	46.32	-10.44	Average	LINE
8	0.48	21.59	9.61	0.02	9.86	41.08	56.32	-15.24	QP	LINE
9	0.70	14.82	9.61	0.03	9.86	34.32	46.00	-11.68	Average	LINE
10	0.70	20.64	9.61	0.03	9.86	40.14	56.00	-15.86	QP	LINE
11	1.21	10.09	9.62	0.03	9.86	29.60	46.00	-16.40	Average	LINE
12	1.21	18.96	9.62	0.03	9.86	38.47	56.00	-17.53	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	E:\2017 CE report data\QELF170719-002-02E\CE.EM6		
Test Date	: 2017-08-10	**Tested By**	: Xian	
EUT	: Wireless surveillance camera outdoor IP 66 USA	**Model Number**	: HG03329A-US	
Power Supply	: AC 120V/60Hz	**Test Mode**	: TX mode	
Condition	: Temp:24.5'C,Humi:55%, Press:100.1kPa	**LISN**	: 2016 ENV216/NEUTRAL	
Memo	:			

Data: 8



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.17	12.69	9.61	0.02	9.86	32.18	54.81	-22.63	Average	NEUTRAL
2	0.17	25.26	9.61	0.02	9.86	44.75	64.81	-20.06	QP	NEUTRAL
3	0.27	12.11	9.61	0.02	9.86	31.60	50.98	-19.38	Average	NEUTRAL
4	0.27	18.45	9.61	0.02	9.86	37.94	60.98	-23.04	QP	NEUTRAL
5	0.44	13.32	9.61	0.02	9.86	32.81	47.07	-14.26	Average	NEUTRAL
6	0.44	23.63	9.61	0.02	9.86	43.12	57.07	-13.95	QP	NEUTRAL
7	0.62	10.64	9.61	0.03	9.86	30.14	46.00	-15.86	Average	NEUTRAL
8	0.62	20.57	9.61	0.03	9.86	40.07	56.00	-15.93	QP	NEUTRAL
9	0.93	8.68	9.61	0.03	9.86	28.18	46.00	-17.82	Average	NEUTRAL
10	0.93	16.93	9.61	0.03	9.86	36.43	56.00	-19.57	QP	NEUTRAL
11	1.49	7.82	9.62	0.03	9.86	27.33	46.00	-18.67	Average	NEUTRAL
12	1.49	17.58	9.62	0.03	9.86	37.09	56.00	-18.91	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

ANTENNA CONNECTOR

EUT has a external photo with reversed polarity non standard antenna port

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT