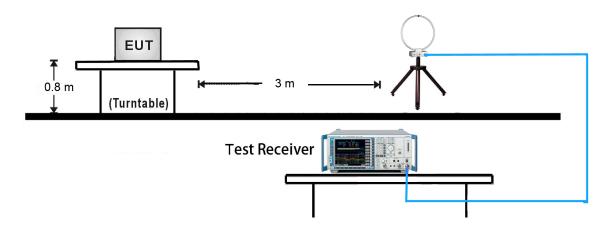


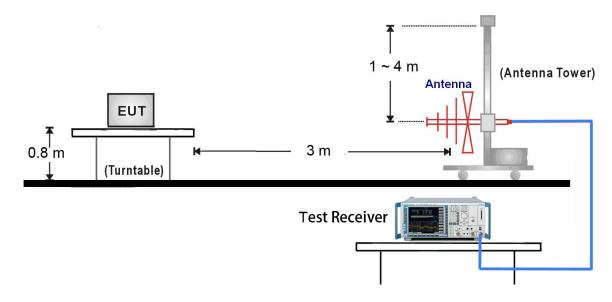


7.6.4. Test Setup

9kHz ~ 30MHz Test Setup:



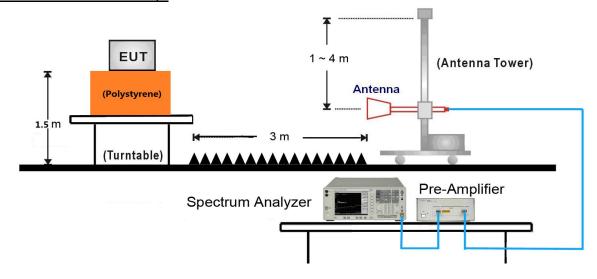
30MHz ~ 1GHz Test Setup:



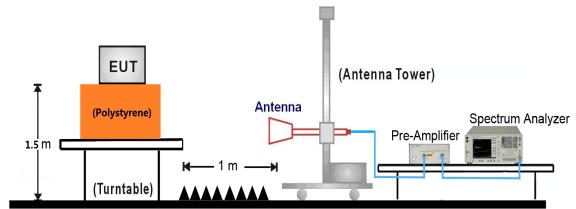


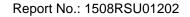


1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:







7.6.5. Test Result

Test Mode:	802.11b	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	3541.5	44.1	-5.4	38.7	79.2	-40.5	Peak	Horizontal
*	4408.5	42.5	-3.6	38.9	79.2	-40.3	Peak	Horizontal
	4825.0	41.5	2.7	44.2	74.0	-29.8	Peak	Horizontal
	7366.5	43.0	1.4	44.4	74.0	-29.6	Peak	Horizontal
*	3584.0	44.0	-5.2	38.8	79.2	-40.4	Peak	Vertical
*	4417.0	42.1	-3.6	38.5	79.2	-40.7	Peak	Vertical
	4825.0	40.9	2.7	43.6	74.0	-30.4	Peak	Vertical
	9313.0	44.5	3.1	47.6	74.0	-26.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (99.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11b	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	3558.5	43.4	-5.3	38.1	75.7	-37.6	Peak	Horizontal
*	4485.0	41.6	-3.4	38.2	75.7	-37.5	Peak	Horizontal
	4876.0	40.9	2.7	43.6	74.0	-30.4	Peak	Horizontal
	7723.5	43.4	1.2	44.6	74.0	-29.4	Peak	Horizontal
*	3592.5	42.9	-5.2	37.7	75.7	-38.0	Peak	Vertical
*	4451.0	42.0	-3.5	38.5	75.7	-37.2	Peak	Vertical
	4876.0	40.0	2.7	42.7	74.0	-31.3	Peak	Vertical
	7273.0	43.1	1.4	44.5	74.0	-29.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.7dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11b	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	3507.5	44.3	-5.5	38.8	82.0	-43.2	Peak	Horizontal
*	4451.0	42.2	-3.5	38.7	82.0	-43.3	Peak	Horizontal
	4927.0	42.8	2.8	45.6	74.0	-28.4	Peak	Horizontal
	7341.0	42.4	1.5	43.9	74.0	-30.1	Peak	Horizontal
*	3567.0	43.3	-5.3	38.0	82.0	-44.0	Peak	Vertical
*	4408.5	42.6	-3.6	39.0	82.0	-43.0	Peak	Vertical
	4927.0	45.5	2.8	48.3	74.0	-25.7	Peak	Vertical
	7341.0	42.8	1.5	44.3	74.0	-29.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (102.0dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11g	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	3575.5	43.3	-5.2	38.1	80.7	-42.6	Peak	Horizontal
*	4442.5	41.7	-3.5	38.2	80.7	-42.5	Peak	Horizontal
	4825.0	38.2	2.7	40.9	74.0	-33.1	Peak	Horizontal
	7341.0	42.4	1.5	43.9	74.0	-30.1	Peak	Horizontal
*	3584.0	43.4	-5.2	38.2	80.7	-42.5	Peak	Vertical
*	4493.5	42.4	-3.4	39.0	80.7	-41.7	Peak	Vertical
	4825.0	38.8	2.7	41.5	74.0	-32.5	Peak	Vertical
	7341.0	42.1	1.5	43.6	74.0	-30.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.7dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11g	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	Average measurement was no limit.	t performed if peak	level lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	3524.5	43.2	-5.4	37.8	81.4	-43.6	Peak	Horizontal
*	4434.0	40.9	-3.5	37.4	81.4	-44.0	Peak	Horizontal
	4876.0	37.8	2.7	40.5	74.0	-33.5	Peak	Horizontal
	7434.5	44.0	1.4	45.4	74.0	-28.6	Peak	Horizontal
*	3499.0	43.3	-5.5	37.8	81.4	-43.6	Peak	Vertical
*	4434.0	40.3	-3.5	36.8	81.4	-44.6	Peak	Vertical
	4876.0	43.3	2.7	46.0	74.0	-28.0	Peak	Vertical
	7681.0	42.2	1.2	43.4	74.0	-30.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.4dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11g	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	3550.0	44.0	-5.3	38.7	77.3	-38.6	Peak	Horizontal
*	4442.5	41.7	-3.5	38.2	77.3	-39.1	Peak	Horizontal
	4918.5	42.2	2.8	45.0	74.0	-29.0	Peak	Horizontal
	9313.0	42.1	3.1	45.2	74.0	-28.8	Peak	Horizontal
*	3592.5	42.9	-5.2	37.7	77.3	-39.6	Peak	Vertical
*	4425.5	40.3	-3.5	36.8	77.3	-40.5	Peak	Vertical
	4927.0	46.7	2.8	49.5	74.0	-24.5	Peak	Vertical
	7375.0	42.9	1.4	44.3	74.0	-29.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11n-HT20	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Roy Cheng					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	3456.5	43.3	-5.8	37.5	80.0	-42.5	Peak	Horizontal
*	4442.5	41.3	-3.5	37.8	80.0	-42.2	Peak	Horizontal
	4825.0	38.1	2.7	40.8	74.0	-33.2	Peak	Horizontal
	7409.0	42.2	1.3	43.5	74.0	-30.5	Peak	Horizontal
*	3575.5	43.0	-5.2	37.8	80.0	-42.2	Peak	Vertical
*	4459.5	40.7	-3.5	37.2	80.0	-42.8	Peak	Vertical
	4825.0	40.9	2.7	43.6	74.0	-30.4	Peak	Vertical
	7315.5	42.0	1.5	43.5	74.0	-30.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.0dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11n-HT20	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	4451.0	41.2	-3.5	37.7	78.7	-41.0	Peak	Horizontal
*	5632.5	42.2	-2.1	40.1	78.7	-38.6	Peak	Horizontal
	7311.0	40.6	1.5	42.1	74.0	-31.9	Peak	Horizontal
	9364.0	42.4	3.2	45.6	74.0	-28.4	Peak	Horizontal
*	3558.5	43.2	-5.3	37.9	78.7	-40.8	Peak	Vertical
*	4442.5	41.0	-3.5	37.5	78.7	-41.2	Peak	Vertical
	4867.5	39.6	2.7	42.3	74.0	-31.7	Peak	Vertical
	7681.0	42.8	1.2	44.0	74.0	-30.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (98.7dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11n-HT20	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Roy Cheng					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	3567.0	42.7	-5.3	37.4	77.3	-39.9	Peak	Horizontal
*	4442.5	40.4	-3.5	36.9	77.3	-40.4	Peak	Horizontal
	4918.5	42.1	2.8	44.9	74.0	-29.1	Peak	Horizontal
	7341.0	42.3	1.5	43.8	74.0	-30.2	Peak	Horizontal
*	3584.0	42.9	-5.2	37.7	77.3	-39.6	Peak	Vertical
*	4451.0	41.5	-3.5	38.0	77.3	-39.3	Peak	Vertical
	4918.5	45.4	2.8	48.2	74.0	-25.8	Peak	Vertical
	7332.5	41.8	1.5	43.3	74.0	-30.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





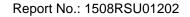
Test Mode:	802.11n-HT40	Test Site:	AC1					
Test Channel:	03	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	4459.5	40.3	-3.5	36.8	77.2	-40.4	Peak	Horizontal
*	5607.0	42.7	-2.1	40.6	77.2	-36.6	Peak	Horizontal
	7366.5	42.3	1.4	43.7	74.0	-30.3	Peak	Horizontal
	8352.5	42.9	1.0	43.9	74.0	-30.1	Peak	Horizontal
*	4408.5	40.9	-3.6	37.3	77.2	-39.9	Peak	Vertical
*	6134.0	41.0	-1.4	39.6	77.2	-37.6	Peak	Vertical
	7400.5	40.4	1.3	41.7	74.0	-32.3	Peak	Vertical
	7681.0	43.0	1.2	44.2	74.0	-29.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11n-HT40	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	4459.5	40.3	-3.5	36.8	76.1	-39.3	Peak	Horizontal
*	6261.5	42.0	-1.2	40.8	76.1	-35.3	Peak	Horizontal
	7349.5	42.0	1.4	43.4	74.0	-30.6	Peak	Horizontal
	10843.0	42.3	4.9	47.2	74.0	-26.8	Peak	Horizontal
*	4459.5	40.2	-3.5	36.7	76.1	-39.4	Peak	Vertical
*	5811.0	41.0	-1.7	39.3	76.1	-36.8	Peak	Vertical
	7349.5	41.7	1.4	43.1	74.0	-30.9	Peak	Vertical
	9330.0	42.9	3.1	46.0	74.0	-28.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)





Test Mode:	802.11n-HT40	Test Site:	AC1					
Test Channel:	09	Test Engineer:	Roy Cheng					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	4451.0	41.3	-3.5	37.8	76.3	-38.5	Peak	Horizontal
*	6635.5	41.9	-0.1	41.8	76.3	-34.5	Peak	Horizontal
	7519.5	42.2	1.6	43.8	74.0	-30.2	Peak	Horizontal
	10630.5	41.4	4.7	46.1	74.0	-27.9	Peak	Horizontal
*	4451.0	42.3	-3.5	38.8	76.3	-37.5	Peak	Vertical
*	6601.5	41.3	-0.1	41.2	76.3	-35.1	Peak	Vertical
	7392.0	42.3	1.4	43.7	74.0	-30.3	Peak	Vertical
	8089.0	42.2	1.7	43.9	74.0	-30.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre-Amplifier Gain (dB)

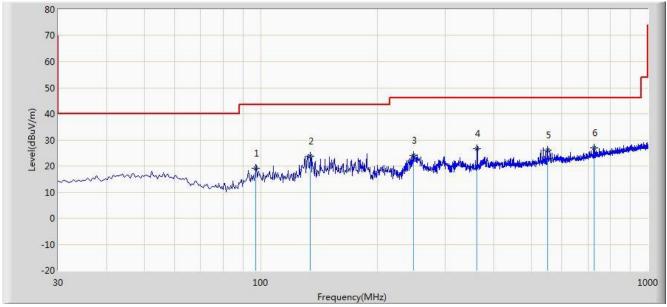


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The worst case of Radiated Emission below 1GHz:

Worse Case Mode: Transmit by 802.11g at channel 2412MHz					
EUT: Element hub	Power: AC 120V/60Hz				
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Site: AC 1	Time: 2015/09/01 - 16:08				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			97.165	19.163	3.900	-24.337	43.500	12.703	QP
2			134.325	23.821	14.460	-19.679	43.500	9.857	QP
3			248.450	23.932	6.890	-22.068	46.000	13.694	QP
4			362.495	26.789	14.120	-19.211	46.000	16.140	QP
5			550.104	26.206	4.870	-19.794	46.000	19.292	QP
6		*	725.087	26.928	5.840	-19.072	46.000	22.071	QP

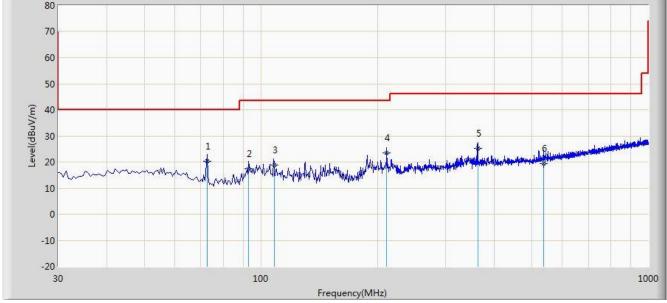
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Worse Case Mode: Transmit by 802.11g at channel 2412MHz					
EUT: Element hub	Power: AC 120V/60Hz				
Probe: VULB9162_0.03-8GHz	Polarity: Vertical				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Site: AC 1	Time: 2015/09/01 - 16:15				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	72.790	20.175	9.870	-19.825	40.000	10.304	QP
2			93.140	17.479	5.340	-26.021	43.500	12.139	QP
3			108.176	18.911	5.780	-24.589	43.500	13.132	QP
4			211.320	23.341	10.760	-20.159	43.500	12.581	QP
5			362.680	25.189	9.050	-20.811	46.000	16.139	QP
6			535.910	19.552	0.540	-26.448	46.000	19.012	QP

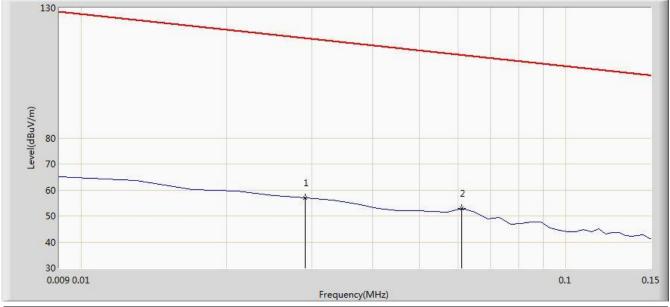
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Note: There is the ambient noise within frequency range 9kHz~30MHz						
EUT: Element hub	Power: AC 120V/60Hz					
Probe: FMZB1519_0.009-30MHz	Polarity: Face on					
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng					
Site: AC1	Time: 2015/09/01 - 09:44					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			0.029	56.893	35.844	-61.463	118.356	21.049	QP
2		*	0.061	52.853	32.542	-59.045	111.898	20.311	QP

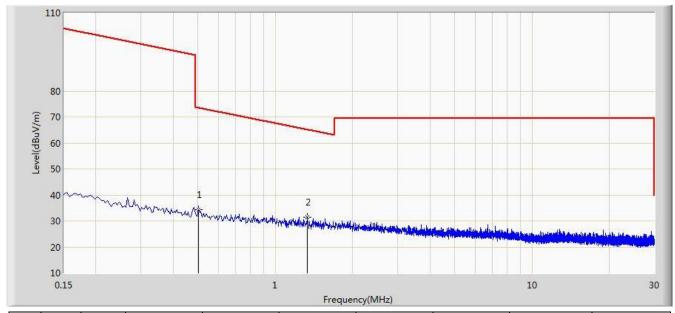
Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)



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Site: AC1	Time: 2015/09/01 - 09:44				
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng				
Probe: FMZB1519_0.009-30MHz	Polarity: Face on				
EUT: Element hub	Power: AC 120V/60Hz				
Note: There is the ambient noise within frequency range 9kHz~30MHz.					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			0.502	34.370	13.947	-39.220	73.590	20.423	QP
2		*	1.334	31.595	11.104	-33.530	65.125	20.491	QP

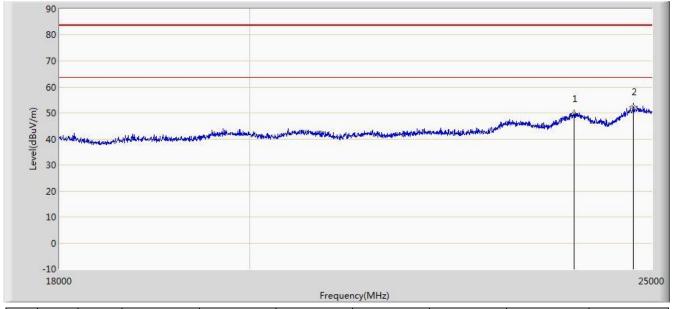
Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)



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Note: There is the ambient noise within frequency range 18GHz-25GHz						
EUT: Element hub	Power: AC 120V/60Hz					
Probe: BBHA9170_18-40GHz	Polarity: Horizontal					
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng					
Site: AC1	Time: 2015/09/01 - 10:21					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			23943.000	49.776	35.866	-33.724	83.500	13.910	PK
2		*	24741.000	52.375	37.681	-31.125	83.500	14.694	PK

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

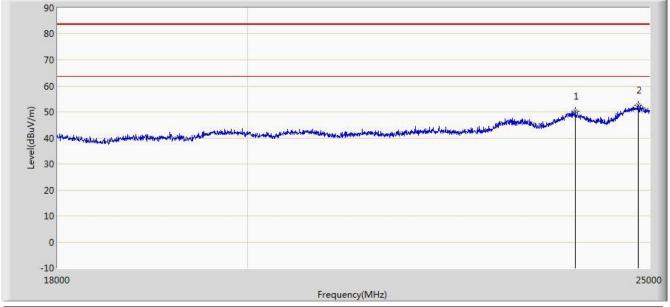
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre-Amplifier Gain (dB)

 $Limit@1m = 20*Log(500uV/m) + 20*Log(3m/1m) = 63.5dB\mu\nu/m \ (Average \ detector), \ and \ 83.5dB\mu\nu/m \ (Peak \ detector).$

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Note: There is the ambient noise within frequency range 18GHz~25GHz.					
EUT: Element hub	Power: AC 120V/60Hz				
Probe: BBHA9170_18-40GHz	Polarity: Vertical				
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng				
Site: AC1	Time: 2015/09/01 - 10:21				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			23999.000	50.379	36.435	-33.121	83.500	13.944	PK
2		*	24846.000	52.503	37.735	-30.997	83.500	14.768	PK

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre-Amplifier Gain (dB)

 $Limit@1m = 20*Log(500uV/m) + 20*Log(3m/1m) = 63.5dB\mu\nu/m \ (Average \ detector), \ and \ 83.5dB\mu\nu/m \ (Peak \ detector).$



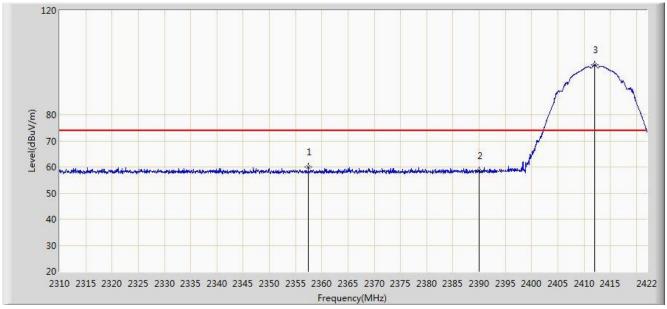
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7.7. Radiated Restricted Band Edge Measurement

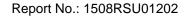
7.7.1. Test Result

Site: AC 1	Time: 2015/08/26 - 10:21
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2357.432	59.980	28.715	-14.020	74.000	31.265	PK
2			2390.000	58.456	27.253	-15.544	74.000	31.203	PK
3		*	2412.032	99.155	67.985	N/A	N/A	31.170	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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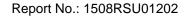


Site: AC 1	Time: 2015/08/26 - 10:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.195	13.992	-8.805	54.000	31.203	AV
2		*	2411.136	94.135	62.964	N/A	N/A	31.171	AV

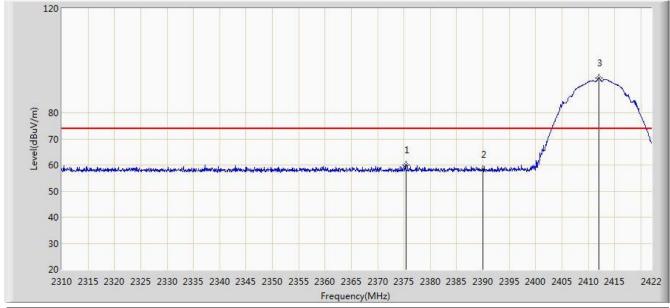
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Site: AC 1	Time: 2015/08/26 - 10:28
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2375.352	59.998	28.768	-14.002	74.000	31.230	PK
2			2390.000	58.355	27.152	-15.645	74.000	31.203	PK
3		*	2412.032	93.310	62.140	N/A	N/A	31.170	PK

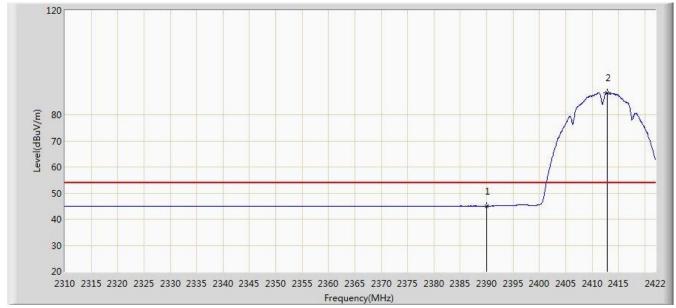
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Site: AC 1	Time: 2015/08/26 - 10:30				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at Channel 2412MHz					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.033	13.830	-8.967	54.000	31.203	AV
2		*	2412.872	88.539	57.371	N/A	N/A	31.168	AV

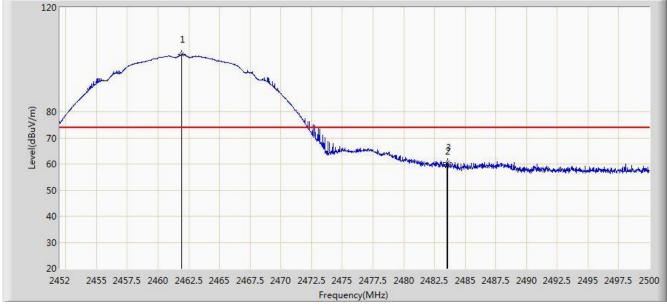
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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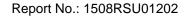


Site: AC 1	Time: 2015/08/26 - 10:37				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at Channel 2462MHz					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2461.912	101.986	70.851	N/A	N/A	31.135	PK
2			2483.500	59.134	27.941	-14.866	74.000	31.194	PK
3			2483.608	60.675	29.481	-13.325	74.000	31.194	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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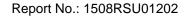


Site: AC 1	Time: 2015/08/26 - 10:35
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2461.168	97.195	69.712	N/A	N/A	27.483	AV
2			2483.500	48.757	17.564	-5.243	54.000	31.194	AV

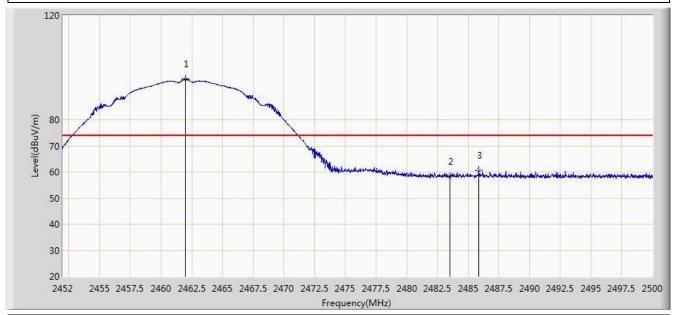
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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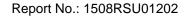


Site: AC 1	Time: 2015/08/26 - 10:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2462.008	95.645	64.510	N/A	N/A	31.135	PK
2			2483.500	58.184	26.991	-15.816	74.000	31.194	PK
3			2485.888	60.543	29.343	-13.457	74.000	31.200	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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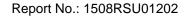


Site: AC 1	Time: 2015/08/26 - 10:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	



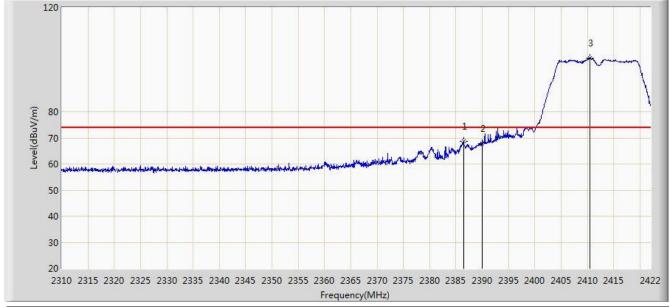
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2461.192	90.967	59.833	N/A	N/A	31.134	AV
2			2483.500	45.524	14.331	-8.476	54.000	31.194	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)





Site: AC 1	Time: 2015/08/26 - 10:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2386.496	68.613	37.404	-5.387	74.000	31.209	PK
2			2390.000	67.819	36.616	-6.181	74.000	31.203	PK
3		*	2410.464	100.654	69.482	N/A	N/A	31.172	PK

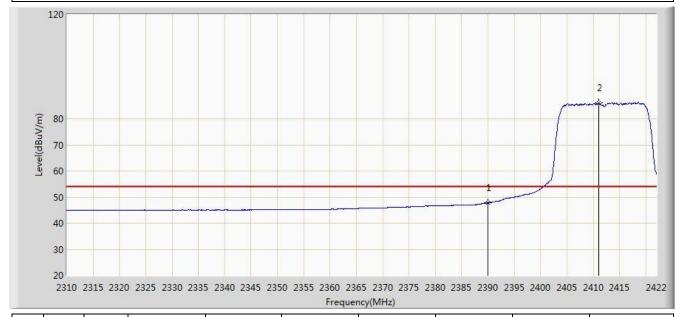
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Site: AC 1	Time: 2015/08/26 - 10:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	47.826	16.623	-6.174	54.000	31.203	AV
2		*	2411.080	85.995	54.824	N/A	N/A	31.171	AV

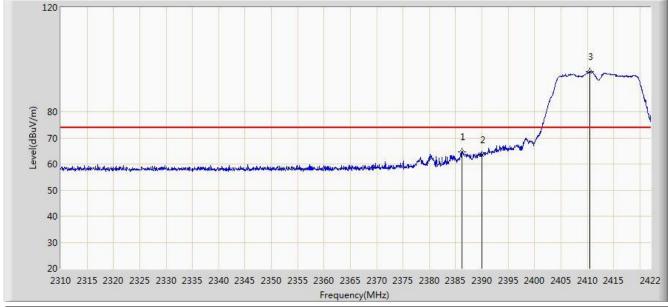
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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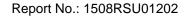


Site: AC 1	Time: 2015/08/26 - 10:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



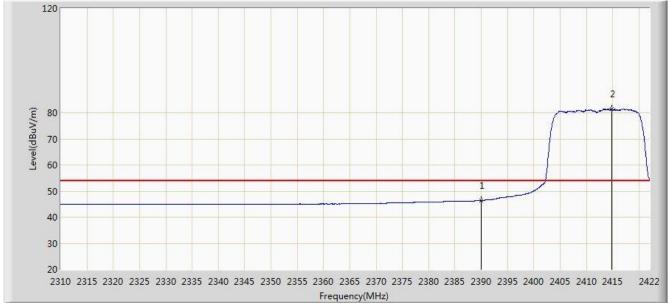
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2386.216	64.771	33.561	-9.229	74.000	31.210	PK
2			2390.000	63.378	32.175	-10.622	74.000	31.203	PK
3		*	2410.464	95.406	64.234	N/A	N/A	31.172	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)





Site: AC 1	Time: 2015/08/26 - 10:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	46.444	15.241	-7.556	54.000	31.203	AV
2		*	2414.776	81.350	50.185	N/A	N/A	31.164	AV

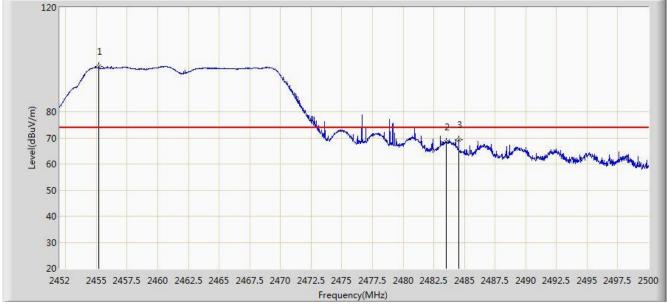
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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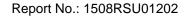


Site: AC 1	Time: 2015/08/26 - 10:51
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Element hub	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2455.168	97.291	66.168	N/A	N/A	31.123	PK
2			2483.500	68.412	37.219	-5.588	74.000	31.194	PK
3			2484.544	69.351	38.155	-4.649	74.000	31.197	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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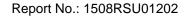


Site: AC 1	Time: 2015/08/26 - 10:54			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at Channel 2462MHz				

120 1 80 70 60 50 40 30 2 2452 2455 2457.5 2460 2462.5 2465 2467.5 2470 2472.5 2475 2477.5 2480 2482.5 2485 2487.5 2490 2492.5 2495 2497.5 2500 Frequency(MHz)

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2455.192	83.892	52.769	N/A	N/A	31.123	AV
2			2483.500	45.985	14.792	-8.015	54.000	31.194	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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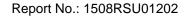


Site: AC 1	Time: 2015/08/26 - 10:56			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at Channel 2462MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2456.728	90.749	59.623	N/A	N/A	31.126	PK
2			2483.500	60.256	29.063	-13.744	74.000	31.194	PK
3			2483.824	62.985	31.791	-11.015	74.000	31.194	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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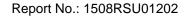


Site: AC 1	Time: 2015/08/26 - 10:58			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at Channel 2462MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2464.024	77.667	46.528	N/A	N/A	31.139	AV
2			2483.500	45.297	14.104	-8.703	54.000	31.194	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)





Site: AC 1	Time: 2015/08/26 - 10:59				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz					

120 2 70 40 30 20 2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380 2385 2390 2395 2400 2405 2410 2415 2422 Frequency(MHz)

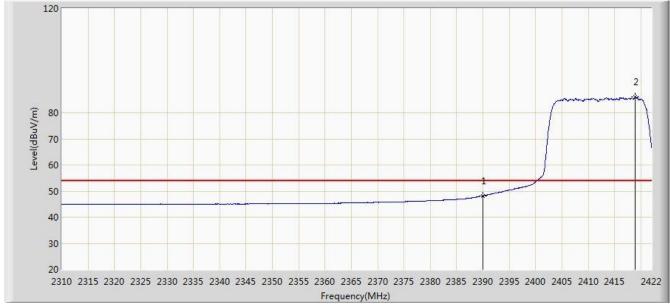
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	69.040	37.837	-4.960	74.000	31.203	PK
2		*	2409.400	100.040	68.866	N/A	N/A	31.173	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

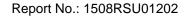




Site: AC 1	Time: 2015/08/26 - 11:00				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	48.210	17.007	-5.790	54.000	31.203	AV
2		*	2418.976	86.158	55.000	N/A	N/A	31.157	AV



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Site: AC 1	Time: 2015/08/26 - 11:01				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz					

120 80 70 40 30 20 2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380 2385 2390 2395 2400 2405 2410 2415 2422 Frequency(MHz)

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2389.464	64.240	33.036	-9.760	74.000	31.204	PK
2			2390.000	63.174	31.971	-10.826	74.000	31.203	PK
3		*	2409.400	93.642	62.468	N/A	N/A	31.173	PK

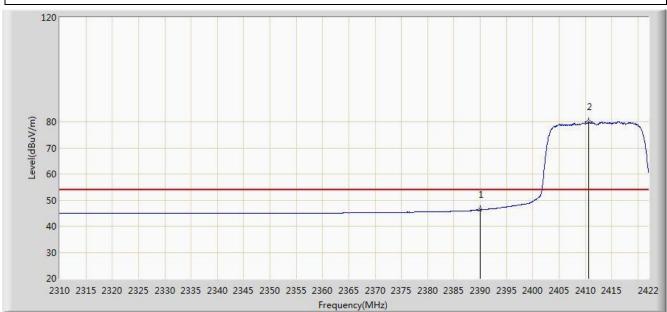
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



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Site: AC 1	Time: 2015/08/26 - 11:03				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz					



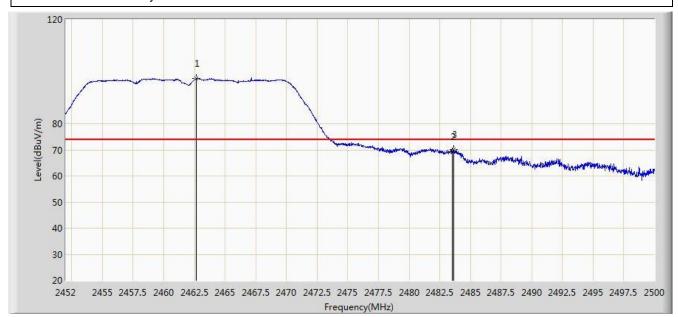
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	46.242	15.039	-7.758	54.000	31.203	AV
2		*	2410.688	80.001	48.829	N/A	N/A	31.172	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

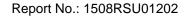




Site: AC 1	Time: 2015/08/26 - 11:07				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz					



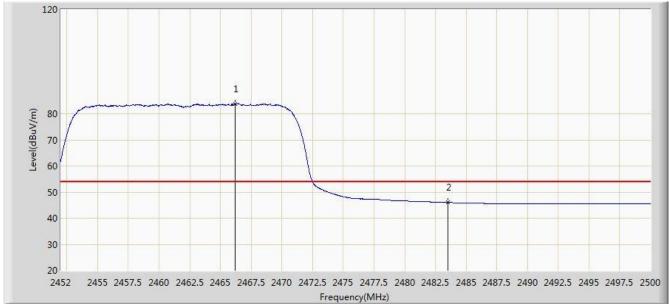
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2462.656	97.294	66.157	N/A	N/A	31.137	PK
2			2483.500	69.334	38.141	-4.666	74.000	31.194	PK
3			2483.632	70.124	38.930	-3.876	74.000	31.194	PK



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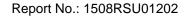


Site: AC 1	Time: 2015/08/26 - 11:08				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz					



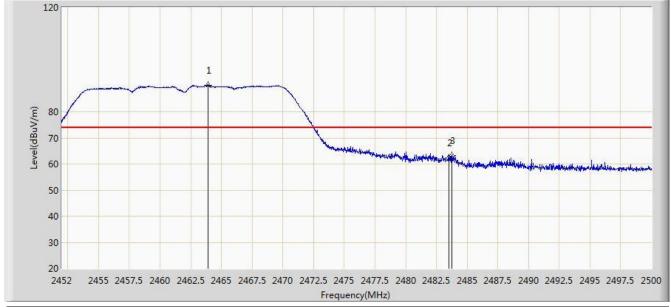
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2466.184	83.880	52.735	N/A	N/A	31.145	AV
2			2483.500	46.012	14.819	-7.988	54.000	31.194	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

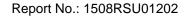




Site: AC 1	Time: 2015/08/26 - 11:09				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.928	90.086	58.947	N/A	N/A	31.139	PK
2			2483.500	62.209	31.016	-11.791	74.000	31.194	PK
3			2483.776	63.299	32.105	-10.701	74.000	31.194	PK



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Site: AC 1	Time: 2015/08/26 - 11:10				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz					



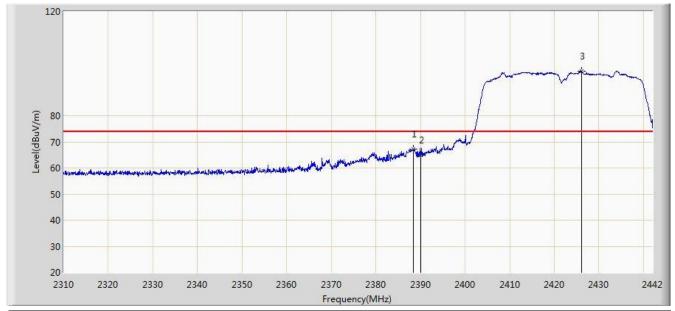
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2466.016	77.648	46.503	N/A	N/A	31.145	AV
2			2483.500	45.272	14.079	-8.728	54.000	31.194	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

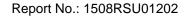




Site: AC 1	Time: 2015/08/26 - 11:12				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz					

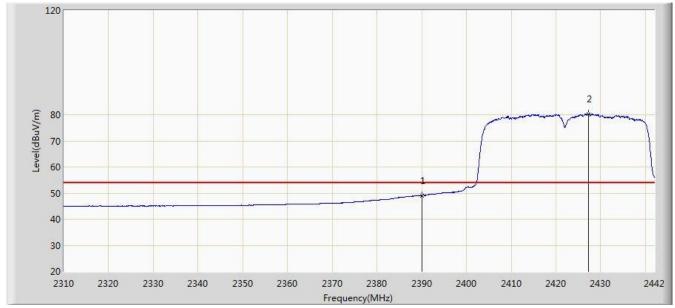


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2388.474	67.222	36.016	-6.778	74.000	31.206	PK
2			2390.000	64.931	33.728	-9.069	74.000	31.203	PK
3		*	2426.094	97.190	66.045	N/A	N/A	31.145	PK





Site: AC 1	Time: 2015/08/26 - 11:13				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz					

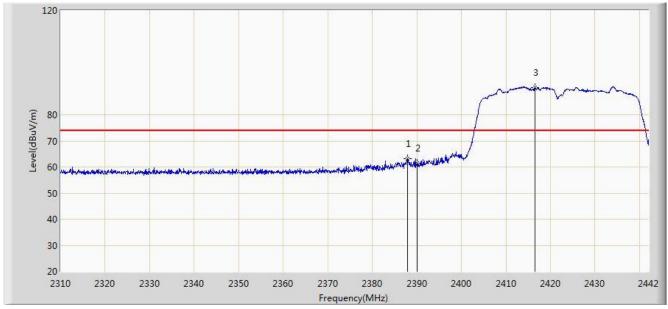


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	49.102	17.899	-4.898	54.000	31.203	AV
2		*	2427.348	80.218	49.075	N/A	N/A	31.143	AV





Site: AC 1	Time: 2015/08/26 - 11:14				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz					

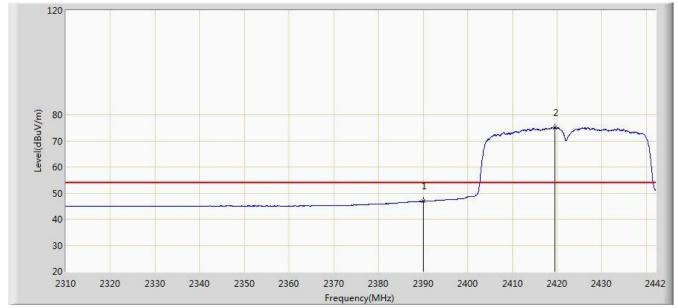


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2387.880	63.181	31.974	-10.819	74.000	31.206	PK
2			2390.000	61.402	30.199	-12.598	74.000	31.203	PK
3		*	2416.458	90.425	59.263	N/A	N/A	31.162	PK

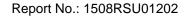




Site: AC 1	Time: 2015/08/26 - 11:16				
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li				
Probe: BBHA9120D_1-18GHz	Polarity: Vertical				
EUT: Element hub	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz					

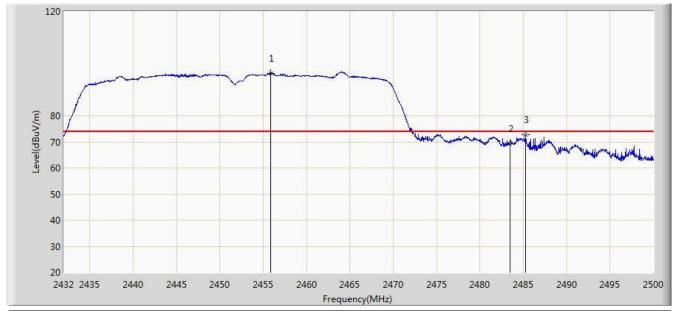


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	46.870	15.667	-7.130	54.000	31.203	AV
2		*	2419.560	75.151	43.994	N/A	N/A	31.157	AV





Site: AC 1	Time: 2015/08/26 - 11:17			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz				

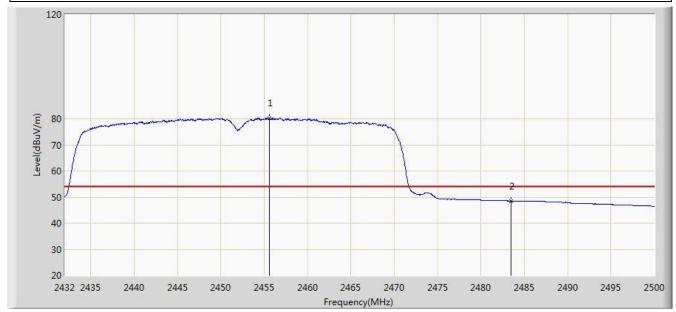


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2455.902	96.341	68.863	N/A	N/A	27.478	PK
2			2483.500	69.279	38.086	-4.721	74.000	31.194	PK
3			2485.244	72.639	41.441	-1.361	74.000	31.198	PK





Site: AC 1	Time: 2015/08/26 - 11:18			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz				

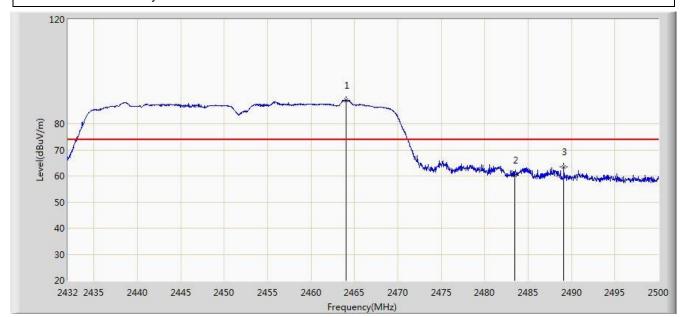


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2455.562	80.225	49.101	N/A	N/A	31.124	AV
2			2483.500	48.513	17.320	-5.487	54.000	31.194	AV





Site: AC 1	Time: 2015/08/26 - 11:19			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz				

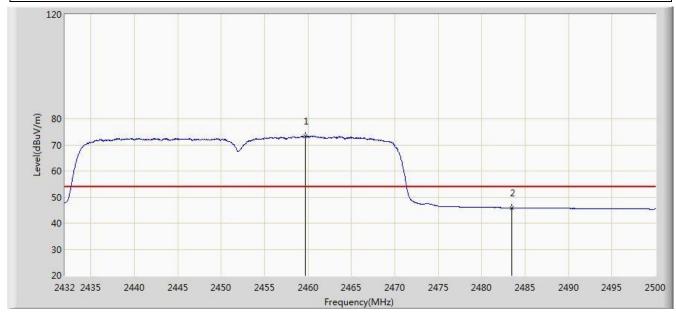


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2464.028	89.117	57.978	N/A	N/A	31.139	PK
2			2483.500	60.384	29.191	-13.616	74.000	31.194	PK
3			2489.120	63.425	32.217	-10.575	74.000	31.208	PK





Site: AC 1	Time: 2015/08/26 - 11:20			
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Element hub	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2459.710	73.403	42.272	N/A	N/A	31.131	AV
2			2483.500	45.857	14.664	-8.143	54.000	31.194	AV





7.8. AC Conducted Emissions Measurement

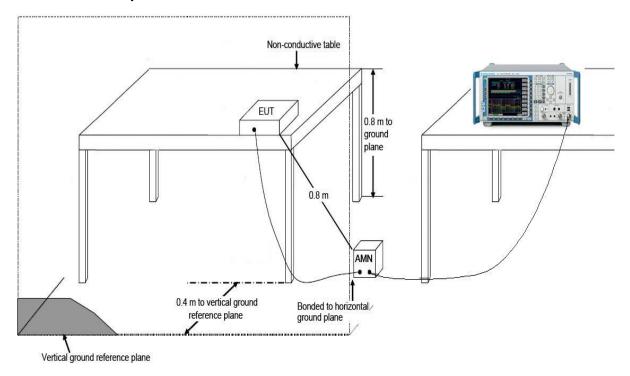
7.8.1. Test Limit

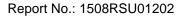
FCC Part 15 Subpart C Paragraph 15.207 Limits							
Frequency (MHz)	QP (dBuV)	AV (dBuV)					
0.15 - 0.50	66 - 56	56 - 46					
0.50 - 5.0	56	46					
5.0 - 30	60	50					

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

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup

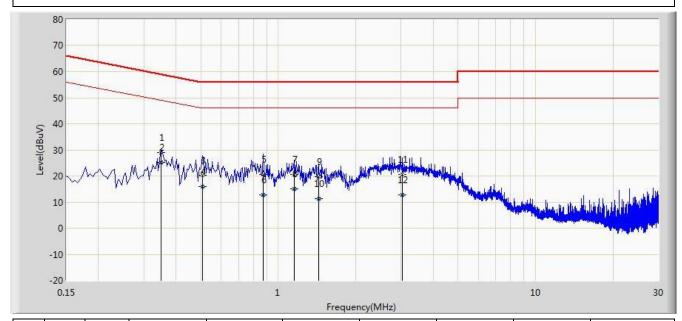






7.8.3. Test Result

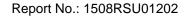
Site: SR2	Time: 2015/09/01 - 10:12
Limit: FCC_Part15.207_CE_AC Power	Engineer: Roy Cheng
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Element hub	Power: AC 120V/60Hz
Note: Mode 1	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.350	29.093	19.049	-29.879	58.973	10.044	QP
2		*	0.350	25.087	15.043	-23.886	48.973	10.044	AV
3			0.506	20.424	10.267	-35.576	56.000	10.157	QP
4			0.506	15.798	5.641	-30.202	46.000	10.157	AV
5			0.874	20.565	10.591	-35.435	56.000	9.974	QP
6			0.874	12.686	2.713	-33.314	46.000	9.974	AV
7			1.150	20.447	10.543	-35.553	56.000	9.904	QP
8			1.150	14.933	5.029	-31.067	46.000	9.904	AV
9			1.434	19.794	9.903	-36.206	56.000	9.892	QP
10			1.434	11.424	1.532	-34.576	46.000	9.892	AV
11			3.042	20.683	10.821	-35.317	56.000	9.862	QP
12			3.042	12.655	2.794	-33.345	46.000	9.862	AV

Note: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

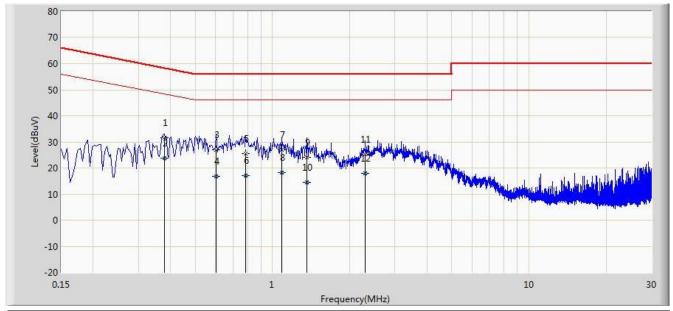
Factor (dB) = Cable Loss (dB) + LISN Factor (dB)



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Site: SR2	Time: 2015/09/01 - 10:17
Limit: FCC_Part15.207_CE_AC Power	Engineer: Roy Cheng
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Element hub	Power: AC 120V/60Hz
Note: Mode 1	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.378	31.650	21.554	-26.673	58.323	10.096	QP
2		*	0.378	23.782	13.686	-24.541	48.323	10.096	AV
3			0.602	26.896	16.766	-29.104	56.000	10.130	QP
4			0.602	16.673	6.543	-29.327	46.000	10.130	AV
5			0.786	25.631	15.603	-30.369	56.000	10.027	QP
6			0.786	17.130	7.103	-28.870	46.000	10.027	AV
7			1.090	26.845	16.940	-29.155	56.000	9.905	QP
8			1.090	18.202	8.297	-27.798	46.000	9.905	AV
9			1.362	24.145	14.250	-31.855	56.000	9.896	QP
10			1.362	14.511	4.615	-31.489	46.000	9.896	AV
11			2.298	25.220	15.354	-30.780	56.000	9.866	QP
12			2.298	18.024	8.158	-27.976	46.000	9.866	AV

Note: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)



8. CONCLUSION

The data collected relate only the item(s)	tested and show that the Element hub FCC ID:
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2ABX8SH-000000011 is in compliance with Part 15C of the FCC Rules.

_____ The End _____