

Report Number :TERF2408002341E2

Test Site :SAC D

Operation Mode :802.11ah 8M

Test Date :2024-08-22

Test Frequency :916 MHz

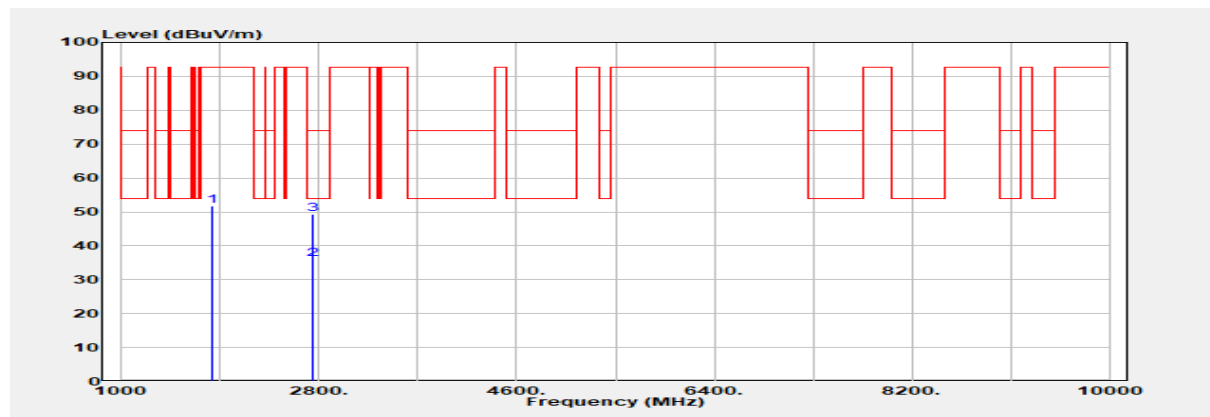
Temp./Humi. :19.5°C/67%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Howard Huang



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode	Reading Level		FS	@3m	
	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
1832.000	Peak	59.43	-7.70	51.73	92.60	-40.87
2748.000	Average	40.20	-4.10	36.10	54.00	-17.90
2748.000	Peak	53.54	-4.10	49.44	74.00	-24.56

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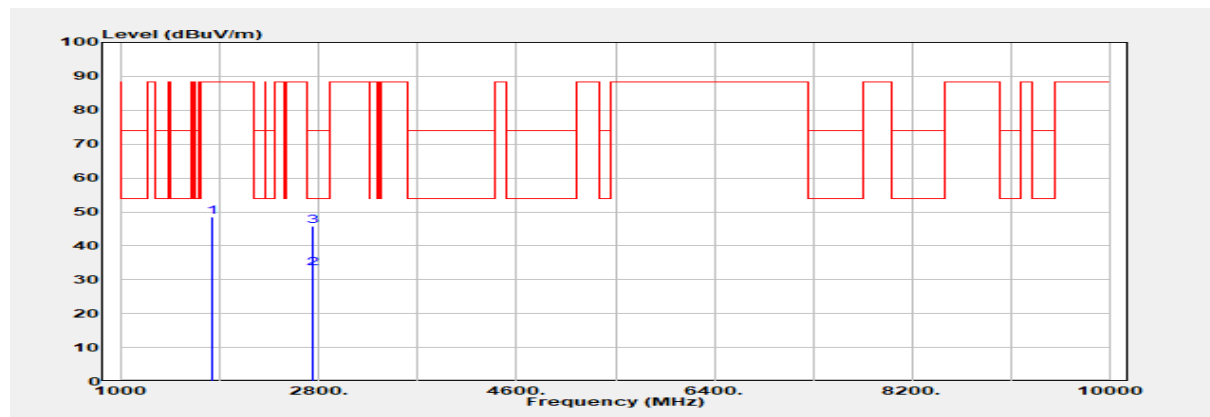
Temp./Humi. :19.5°C/67%

Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Howard Huang



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode	Reading Level		FS	@3m	
	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
1832.000	Peak	56.28	-7.70	48.57	88.22	-39.65
2748.000	Average	37.55	-4.10	33.45	54.00	-20.55
2748.000	Peak	49.99	-4.10	45.89	74.00	-28.11

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Test Site :SAC D

Operation Mode :802.11ah 8M

Test Date :2024-08-22

Test Frequency :924 MHz

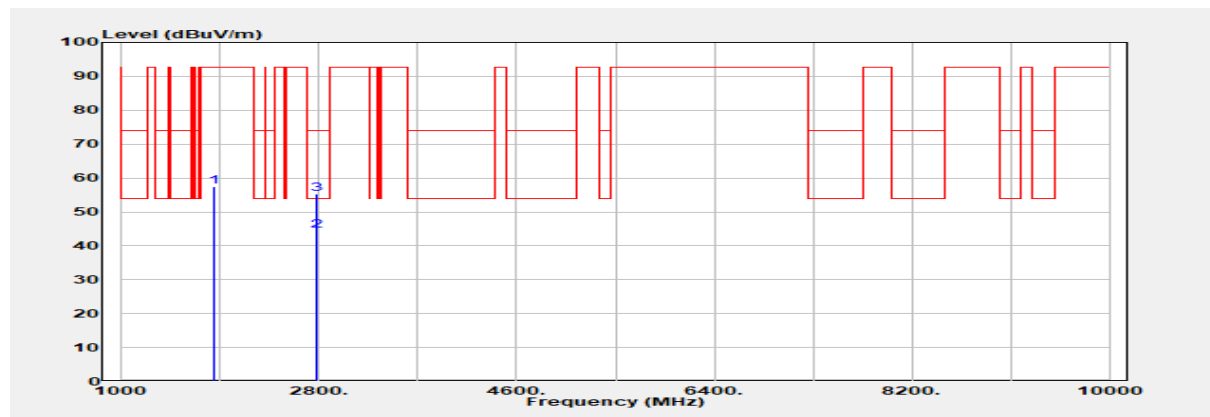
Temp./Humi. :19.5°C/67%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Howard Huang



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
1848.000	Peak	65.20	-7.65	57.55	92.60	-35.05
2772.000	Average	48.54	-4.08	44.47	54.00	-9.53
2772.000	Peak	59.44	-4.08	55.36	74.00	-18.64

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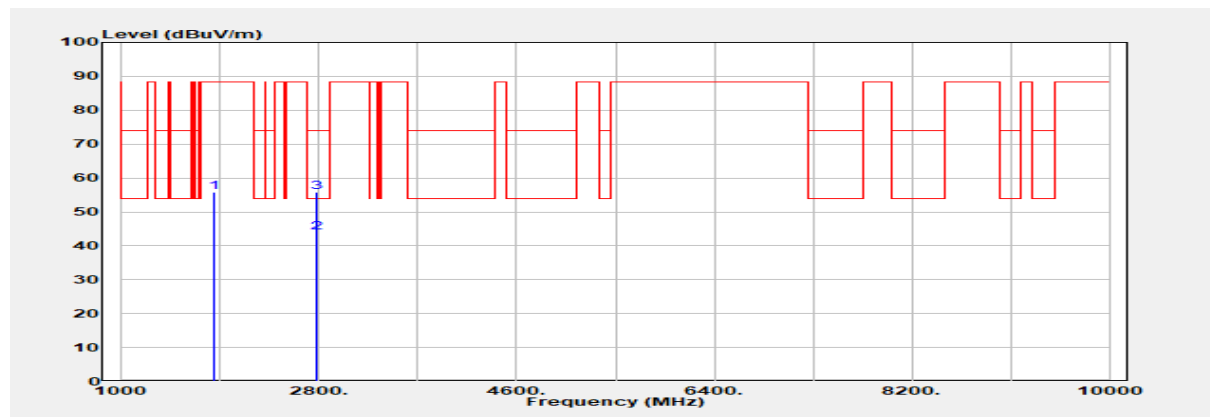
Temp./Humi. :19.5°C/67%

Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Howard Huang



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode	Reading Level		FS	@3m	
	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
1848.000	Peak	63.45	-7.65	55.80	88.22	-32.42
2772.000	Average	48.05	-4.08	43.98	54.00	-10.02
2772.000	Peak	59.81	-4.08	55.73	74.00	-18.27

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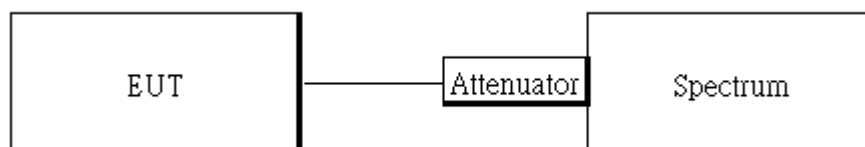
12 POWER SPECTRAL DENSITY

12.1 Standard Applicable:

Per Part 15.247 (e)

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

12.2 Test Setup



12.3 Measurement Procedure:

1. Set analyzer center frequency to DTS channel center frequency.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
3. Set the span to 1.5 times the DTS channel bandwidth.
4. Set the RBW = 3 kHz. & the VBW = 10 kHz
5. Set Detector = 1M Detector = average
2M & 4M & 8M Detector = peak
6. Sweep time = auto couple.
7. Set Trace mode = 1M trace mode = average
2M & 4M & 8M trace mode = max hold
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.

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12.4 Measurement Result:**OFDM 1M mode**

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
903.5	1.84	8	PASS
914.5	2.78	8	PASS
926.5	2.45	8	PASS

Note:*1.cable loss as 10.8dB that offsets in the spectrum****OFDM 2M mode**

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
905	6.42	8	PASS
915	6.17	8	PASS
925	5.99	8	PASS

Note:*1.cable loss as 10.8dB that offsets in the spectrum****OFDM 4M mode**

Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
906	3.09	8	PASS
914	3.33	8	PASS
926	2.58	8	PASS

Note:*1.cable loss as 10.8dB that offsets in the spectrum****OFDM 8M mode**

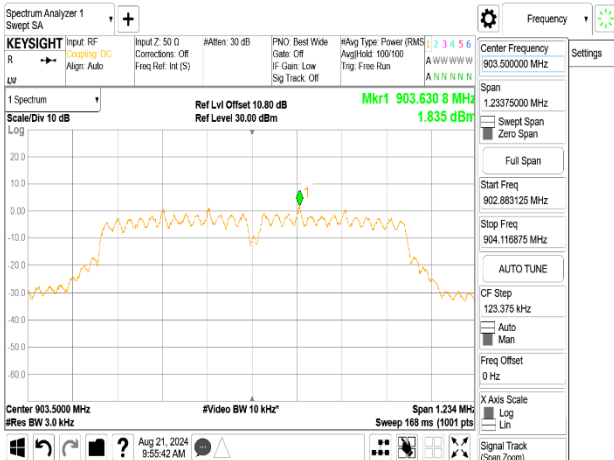
Frequency (MHz)	RF Power Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)	Result
908	0.33	8	PASS
916	1.33	8	PASS
924	0.61	8	PASS

Note:*1.cable loss as 10.8dB that offsets in the spectrum**

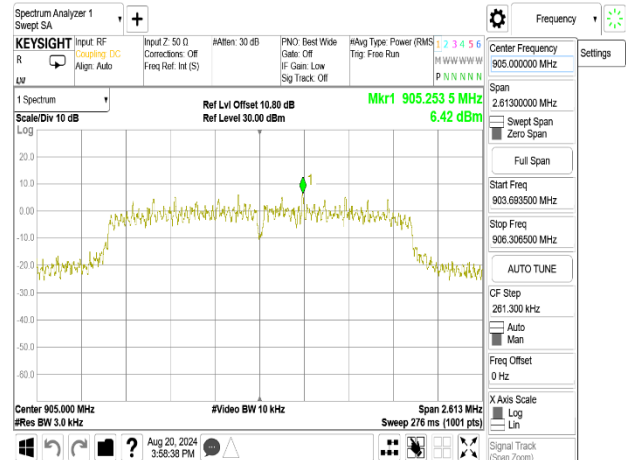
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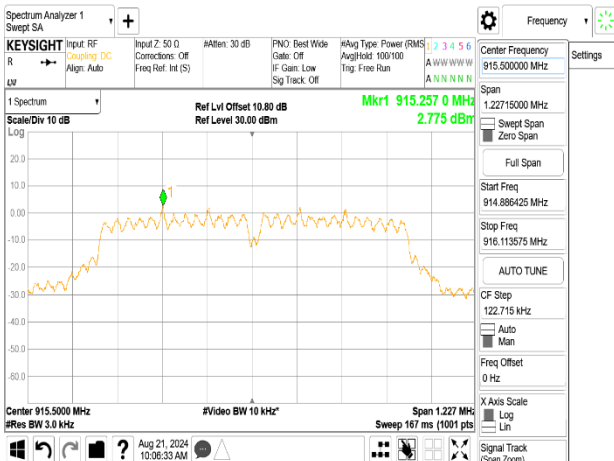
PSD_OFDM_1M_LowCH-903.5



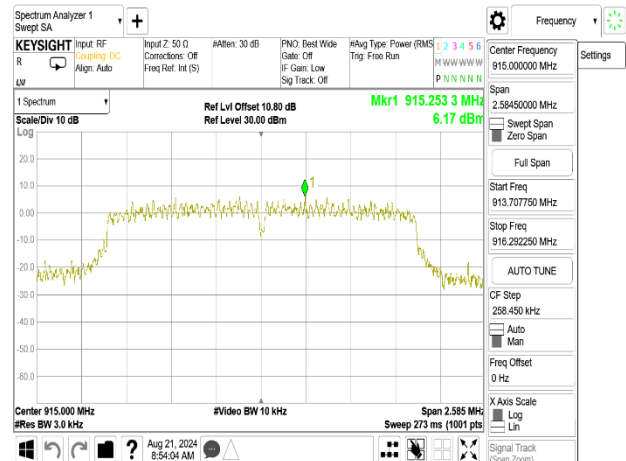
PSD_OFDM_2M_LowCH-905



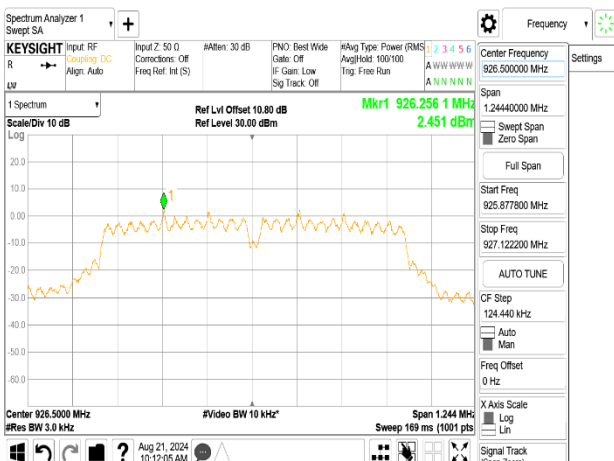
PSD_OFDM_1M_MidCH-915.5



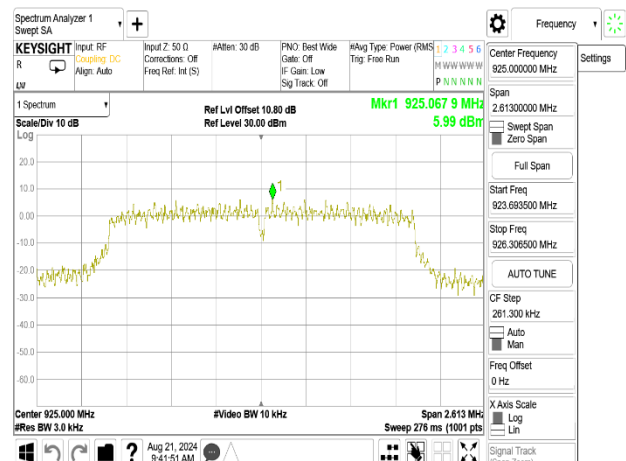
PSD_OFDM_2M_MidCH-915



PSD_OFDM_1M_HighCH-926.5



PSD_OFDM_2M_HighCH-925

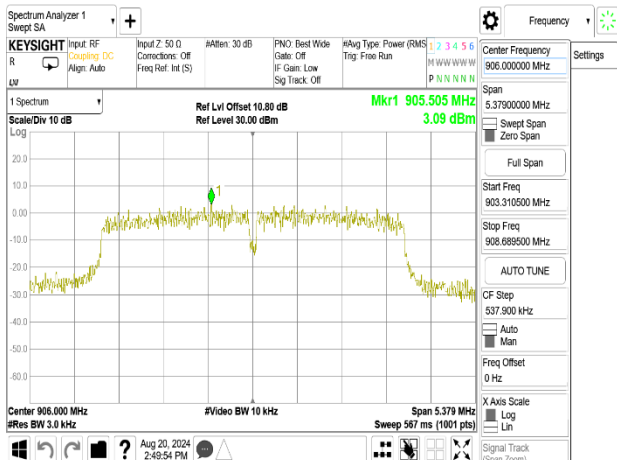


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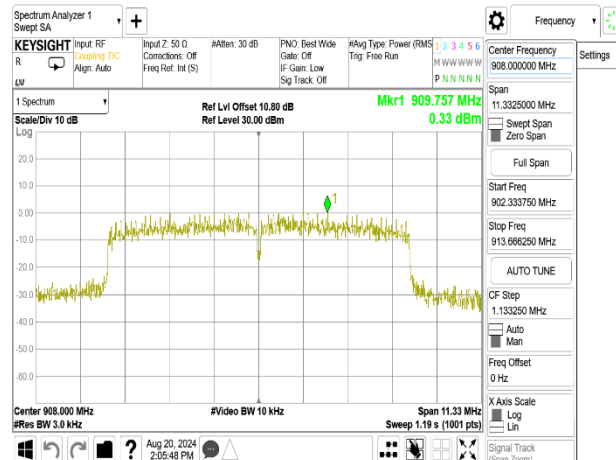
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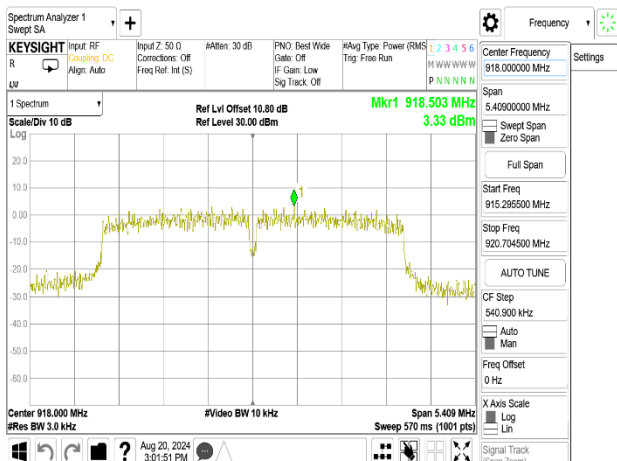
PSD_OFDM_4M_LowCH-906



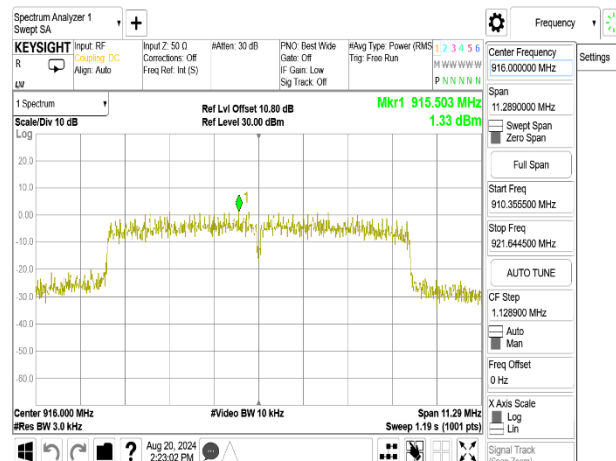
PSD_OFDM_8M_LowCH-908



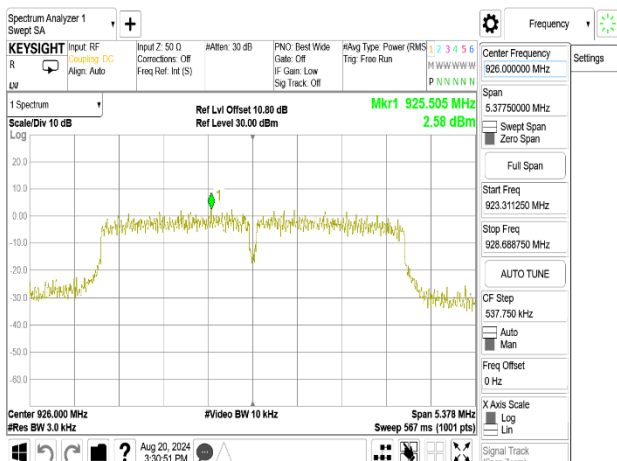
PSD_OFDM_4M_MidCH-914



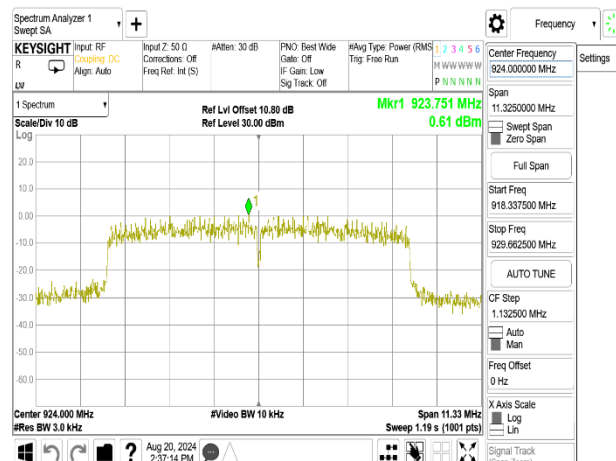
PSD_OFDM_8M_MidCH-916



PSD_OFDM_4M_HighCH-926



PSD_OFDM_8M_HighCH-924



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13 ANTENNA REQUIREMENT

13.1 Standard Applicable:

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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§ 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

13.2 Antenna Connected Construction:

The antenna complies with this requirement and no consideration of replacement. Please see EUT photo for details.

~ End of Report ~

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台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488

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