

# 1. Radiated Emission Co-location Report

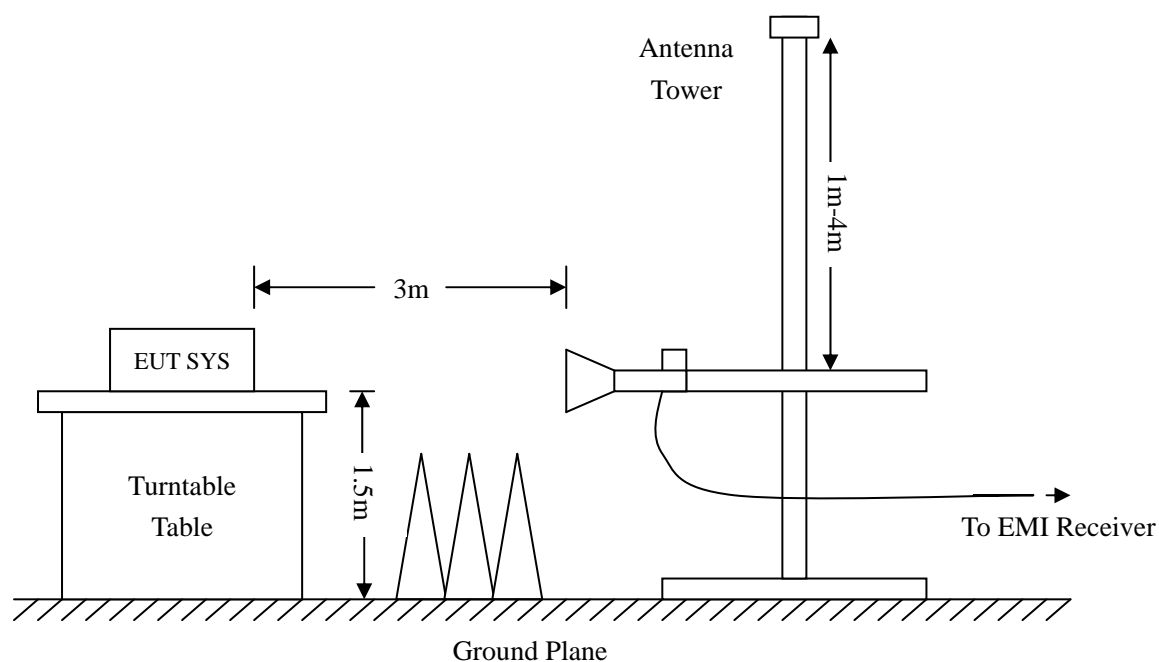
## 1.1 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2015-06-17	2016-06-16
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2015-06-17	2016-06-16
Amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Amplifier	C&D	PAP-1G18	2002	2015-06-17	2016-06-16
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Horn Antenna	ETS	3116B	00088203	2015-06-17	2016-06-16
Loop Antenna	Schwarz beck	FMZB 1516	9773	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-06-17	2016-06-16
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-06-17	2016-06-16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-06-17	2016-06-16

## 1.2 Test Procedure

The EUT could be applied with 2.4GHz WLAN function and 5GHz WLAN function; therefore Co-location maximum permissible exposure and Radiated Emission Co-location tests are added for simultaneously transmit between 2.4GHz WLAN function and 5GHz WLAN function.

## 1.3 Test Setup diagram



Frequency :Above 1GHz  
 RBW=1MHz,  
 VBW=3MHz(Peak), 10Hz(AV)  
 Sweep time= Auto  
 Trace = max hold  
 Detector function = peak, AV

## 1.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

## 1.5 Summary of Test Results/Plots

*Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported. Results of Radiated Emissions for Co-located, Testing is carried out with frequency rang 1GHz to 40GHz*

### Plot of Radiated Emissions Test Data (From 1-40GHz)

EUT: High-Power Wireless AC600 Outdoor Access Point / Repeater  
 Tested Model: 525824  
 Operating Condition: 2.4GHz+5GHz  
 Comment: AC120V/60Hz; Adapter DC 24V

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
1125.532	51.91	-8.71	43.20	74.00	-30.80	H	PK
1125.532	38.89	-8.71	30.18	54.00	-23.82	H	AV
1499.209	57.01	-7.90	49.11	74.00	-24.89	H	PK
1499.209	41.44	-7.90	33.54	54.00	-20.46	H	AV
2099.687	62.57	-4.20	58.37	74.00	-15.63	H	PK
2099.687	38.88	-4.20	34.68	54.00	-19.32	H	AV
5402.601	43.90	1.34	45.24	74.00	-28.76	H	199
5402.601	31.40	1.34	32.74	54.00	-21.26	H	127
1200.526	50.45	-8.56	41.89	74.00	-32.11	V	PK

1200.526	38.13	-8.56	29.57	54.00	-24.43	V	AV
1499.209	54.13	-7.90	46.23	74.00	-27.77	V	PK
1499.209	42.25	-7.90	34.35	54.00	-19.65	V	AV
2099.687	54.76	-4.20	50.56	74.00	-23.44	V	PK
2099.687	36.58	-4.20	32.38	54.00	-21.62	V	AV
4688.910	44.68	0.37	45.05	74.00	-28.95	V	PK
4699.302	31.20	0.38	31.58	54.00	-22.42	V	AV