RF Exposure Evaluation Declaration

FCC ID:	QB8LT5G
APPLICANT:	DragonWave Inc.
Application Type:	Certification
Product:	Microwave Outdoor Unit
Model No.:	Harmony Lite 5GHz
FCC Classification:	Digital Transmission System (DTS)
	Unlicensed National Information Infrastructure (UNII)

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The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date
1401RSU00704	Rev. 01	Initial report	04-24-2014
1401RSU00704	Rev. 02	Revised the test mode description	07-07-2014

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out}*G)/(4*pi*r^2)$

Where

P_d = power density in mW/cm^2

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Result of RF Exposure Evaluation

Product	Microwave Outdoor Unit
Test Item	RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 23.5dBi for 5GHz in logarithm scale.

For 5G ISM Band:

Test Mode	Frequency Band (MHz)	Maximum Average output power (dBm)	Limit of Power Density S(mW/cm²)	Safety Distance (cm)
20MHz	5745 ~ 5825	19.32	1	39.03
40MHz	5755 ~ 5795	19.11	1	38.10

For 5G UNII Band:

Test Mode	Frequency Band (MHz)	Maximum Average output power (dBm)	Limit of Power Density S(mW/cm²)	Safety Distance (cm)
20MHz	5260 ~ 5320	3.67	1	6.44
	5500 ~ 5580	3.68	1	6.45
	5660 ~ 5700	3.38	1	6.23
40MHz	5270 ~ 5310	5.32	1	7.79
	5510 ~ 5550	5.43	1	7.89
	5670	5.63	1	8.07

CONCULISON:

The Safety Distance of this equipment was 39.03 cm.

The End