RF Exposure Report

Report No.:	SA160910C09
FCC ID:	ACQ-WVB2R0-34
Test Model:	WVB2
Received Date:	Jul. 28, 2016
Test Date:	Aug. 02 ~ Dec. 27, 2016
Issued Date:	Jan. 03, 2017
Applicant:	ARRIS Group, Inc.
Address:	101 Tournament Drive, Horsham, Pennsylvania, United States, 19044
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
SA160910C09	Original release.	Jan. 03, 2017

1 Certificate of Conformity

Product:	Wireless Gateway
Brand:	Arris
Test Model:	WVB2
Sample Status:	Engineering sample
Applicant:	ARRIS Group, Inc.
Test Date:	Aug. 02 ~ Dec. 27, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 (October 23, 2015) IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Jan. 03, 2017

Polly Chien / Specialist

Approved by : _____ , **Date:** Jan. 03, 2017

Ken Liu / Senior Manager

2 RF Exposure

2.1 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)
Limits For General Population / Uncontrolled Exposure				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = 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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
CDD mode: Mode A (4T1S)					
5180-5240	28.86	1.5	20	0.216	1
5260-5320	23.21	1.1	20	0.054	1
5500-5720	23.86	2.2	20	0.080	1
5745-5825	29.25	2.8	20	0.319	1
CDD mode: Mode E (4T4S)					
5180-5240	28.17	1.5	20	0.184	1
5260-5320	23.97	1.1	20	0.064	1
5500-5720	23.99	2.2	20	0.083	1
5745-5825	27.37	2.8	20	0.207	1
Beamforming mode: Mode A (4T1S)					
5180-5240	24.61	7.5	20	0.323	1
5260-5320	21.48	7.1	20	0.143	1
5500-5720	21.59	8.2	20	0.190	1
5745-5825	26.94	8.7	20	0.729	1
Beamforming mode: Mode E (4T4S)					
5180-5240	28.13	1.5	20	0.183	1
5260-5320	23.96	1.1	20	0.064	1
5500-5720	23.93	2.2	20	0.082	1
5745-5825	27.33	2.8	20	0.205	1

Note:
CDD mode: Mode A (4T1S) & Mode E (4T4S)
5180-5320MHz: Directional gain = 1.5dBi
5260-5320MHz: Directional gain = 1.1dBi
5500~5720MHz: Directional gain = 2.2dBi
5745~5825MHz: Directional gain = 2.8dBi
Beamforming mode: Mode A (4T1S)
5180-5324MHz: Directional gain = 7.5dBi
5260-5320MHz: Directional gain = 7.1dBi
5500~5720MHz: Directional gain = 8.2dBi
5745~5825MHz: Directional gain = 8.7dBi
Beamforming mode: Mode E (4T4S)
5180-5320MHz: Directional gain = 1.5dBi
5260-5320MHz: Directional gain = 1.1dBi
5500~5720MHz: Directional gain = 2.2dBi
5745~5825MHz: Directional gain = 2.8dBi

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