RF Exposure Report

Project Number: 4115134

Report Number: 4115134EMC04 **Revision Level:** 0

Client: ARRIS Group, Inc.

Equipment Under Test: Telephone Gateway Modem

Model: TG3452

Applicable Standards: 47 C.F.R. §§ 2.1091 and 2.1093; FCC KDB 447498
FCC OET Bulletin 65 Supplement

Remarks:
This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 *Client Information*

Name:	ARRIS Group, Inc.
Address:	3871 Lakefield Drive, Suite 300
City, State, Zip, Country:	Suwanee, GA 30024, USA

1.2 *Test Laboratory*

Name:	SGS North America, Inc.
Address:	620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country:	Suwanee, GA 30024, USA
Accrediting Body:	A2LA
Type of lab:	Testing Laboratory
Certificate Number:	3212.01

1.3 *General Information of EUT*

Type of Product:	Telephone Gateway Modem
Model Number:	TG3452
Serial Number:	71G2M1222202306 (Conducted) 71G2M1222202391 (Radiated)
Power Supply:	M/N: PA-1500-6AR1, P/N: AREP05678
Frequency Range:	2400-2483.5MHz
Data Modes (2.4GHz):	802.11b, 802.11g, 802.11n (HT20/HT40)
Data Modes (5GHz):	802.11a, 802.11n (HT20/HT40), 802.11ac (VHT20/VHT40/VHT80)
Antenna:	Internal, 3x3 MIMO (2.4GHz) Internal, 4x4 MIMO (5GHz)
Rated Voltage:	100-240Vac, 50/60Hz (AC to 12VDC Adapter)
Test Voltage:	120Vac, 60Hz
Sample Received Date:	08 March 2017
Dates of testing:	08 March - 12 April 2017

1.4 *Operating Modes and Conditions*

For this assessment, the EUT's maximum measured conducted power was considered.

2 RF Exposure

2.1 *Test Result*

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 *Test Method*

Using the maximum measured conducted power, the power density was calculated.

2.3 *Single transmission RF Exposure Levels*

Band of Operation		Conducted Power w/tolerance	Antenna Gain	Cable Loss	Average EIRP		Distance (R)	Power Density $EIRP_{Avg}/(4\pi R^2)$	FCC	% of Limit	Verdict
Type	MHz	dBm			dBm	mW	cm	mW	mW/cm^2		
WLAN 2.4	2400-2483.5	28.0	6.3	0.0	34.3	2716	30	0.240	1.00	24%	Pass
WLAN 5 GHz (UNII-1)	5150-5250	26.5	9.4	0.0	35.9	3926	30	0.347	1.00	35%	Pass
WLAN 5.8 GHz (UNII-3)	5725-5850	26.8	8.7	0.0	35.5	3565	30	0.315	1.00	32%	Pass

Note: Antenna gain values were provided by Arris. The values were maximum measured gains from the EUT. For correlated streams used in legacy 802.11 (b/g/a), the gain is higher because it represents the peak composite gain of all three or four antennas combined, For uncorrelated streams used in MIMO 802.11 (n/ac), the gain is the max peak gain when comparing all three or four antennas. For performing the RF exposure calculations, the legacy correlated gains were used as worst-case.

2.4 *Simultaneous transmission RF Exposure Levels*

	WLAN 2.4	WLAN 5 GHz (UNII-1)	WLAN 5.8 GHz (UNII-3)
WLAN 2.4		59%	56%
WLAN 5 GHz (UNII-1)	59%		
WLAN 5.8 GHz (UNII-3)	56%		

Note: Highlighted color simply aids in identifying the highest level (Percentage of the limit).