



FCC ID: P27RC845
Report No.: T190503D08-MF

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**IEEE C95.1 2005
KDB 447498 D01 V06
47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091**

RF EXPOSURE REPORT

For

FHD Wireless Indoor Camera

Model:

RC845xxxxxxxxx (the 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose)

Trade Name: ADT

Issued to

**Sercomm Corporation
8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan.**

Issued by

**Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
Issued Date: July 26, 2019**

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部分複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 26, 2019	Initial Issue	ALL	May Lin



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1. TEST RESULT CERTIFICATION

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
IEEE C95.1 2005 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted
Statements of Conformity	
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

Approved by:

Test by:

Kevin Tsai
Deputy Manager
Compliance Certification Services Inc.

May Lin
Report coordinator
Compliance Certification Services Inc.



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2. LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

3. EUT SPECIFICATION

EUT	FHD Wireless Indoor Camera																														
Model	RC845xxxxxxxx (the 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose)																														
Trade Name	ADT																														
Model Discrepancy	All the above models are identical except for the designation of model numbers. The suffix of (The 1st x should be "blank" or "-"; the rest x could be 0 to 9, A to Z, a to z, "blank" or "-") on model number is just for marketing purpose only.																														
Frequency band (Operating)	☒ 802.11b/g/n HT20: 2412MHz ~ 2462MHz 802.11n HT40: 2422MHz ~ 2452MHz 802.11a/n HT20: 5180MHz ~ 5240MHz / 5720MHz ~ 5825MHz 802.11n HT40: 5190MHz ~ 5230MHz / 5755MHz ~ 5795MHz 802.11ac VHT80: 5210MHz / 5775MHz ☐ Others																														
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others																														
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm ²) ☒ General Population/Uncontrolled exposure (S=1mW/cm ²)																														
Antenna Specification	2.4G <table border="1"> <thead> <tr> <th>Ant No.</th><th>Operating Band</th><th>Type</th><th>Material</th><th>Peak Gain</th></tr> </thead> <tbody> <tr> <td>Ant 1</td><td>WiFi 2.4G/5G</td><td>Dipole</td><td>PCB</td><td>2.74 dBi</td></tr> <tr> <td>Ant 2</td><td>WiFi 2.4G/5G</td><td>Dipole</td><td>PCB</td><td>1.93 dBi</td></tr> </tbody> </table> 1. Power Directional Gain: 2.35 5G <table border="1"> <thead> <tr> <th>Ant No.</th><th>Operating Band</th><th>Type</th><th>Material</th><th>Peak Gain</th></tr> </thead> <tbody> <tr> <td>Ant 1</td><td>WiFi 2.4G/5G</td><td>Dipole</td><td>PCB</td><td>4.97 dBi</td></tr> <tr> <td>Ant 2</td><td>WiFi 2.4G/5G</td><td>Dipole</td><td>PCB</td><td>4.24 dBi</td></tr> </tbody> </table> 1. Power Directional Gain: 4.62 2.4GHz: Directional Gain : 2.35 dBi (Numeric gain: 1.72) Worst 5GHz: Directional Gain : 4.62 dBi (Numeric gain: 2.90) Worst	Ant No.	Operating Band	Type	Material	Peak Gain	Ant 1	WiFi 2.4G/5G	Dipole	PCB	2.74 dBi	Ant 2	WiFi 2.4G/5G	Dipole	PCB	1.93 dBi	Ant No.	Operating Band	Type	Material	Peak Gain	Ant 1	WiFi 2.4G/5G	Dipole	PCB	4.97 dBi	Ant 2	WiFi 2.4G/5G	Dipole	PCB	4.24 dBi
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Max tune up Power	2.4GHz		
	IEEE 802.11b Mode:	22.30 dBm	(169.824 mW)
	IEEE 802.11g Mode:	20.30 dBm	(107.152 mW)
	IEEE 802.11n HT 20 Mode:	23.66 dBm	(232.274 mW)
	IEEE 802.11n HT 40 Mode:	22.30 dBm	(169.824 mW)
	5GHz		
	IEEE 802.11a Mode:	24.60 dBm	(288.403 mW)
	IEEE 802.11n HT 20 Mode:	24.70 dBm	(295.121 mW)
	IEEE 802.11n HT 40 Mode:	24.20 dBm	(263.027 mW)
	IEEE 802.11ac VHT 80 Mode:	23.70 dBm	(234.423 mW)
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A		

4. TEST RESULTS

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \textbf{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
11	2462	169.824	1.72	20	0.0581	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
6	2437	107.152	1.72	20	0.0367	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
1	2412	232.274	1.72	20	0.0795	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
3	2422	169.824	1.72	20	0.0581	1

IEEE 802.11a mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
165	5825	288.403	2.9	20	0.1664	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
157	5785	295.121	2.9	20	0.1703	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
159	5795	263.027	2.9	20	0.1518	1

IEEE 802.11ac VHT80 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
155	5775	234.423	2.9	20	0.1353	1

--End of Test Report--