



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:**

**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**

*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

<b>EUT</b>	FHD Wireless Indoor Camera																														
<b>Model</b>	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)																														
<b>Trade Name</b>	ADT																														
<b>Model Discrepancy</b>	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.																														
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> 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 <input type="checkbox"/> Others																														
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others																														
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )																														
<b>Antenna Specification</b>	<p><b>2.4G</b></p> <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> <p>1. Power Directional Gain: 2.35</p> <p><b>5G</b></p> <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> <p>1. Power Directional Gain: 4.62</p> <p>2.4GHz: Directional Gain : 2.35 dBi (Numeric gain: 1.72) Worst  5GHz: Directional Gain : 4.62 dBi (Numeric gain: 2.90) Worst</p>	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	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> 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

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

Where  $d$  = Distance in cm

$P$  = Power in mW

$G$  = Numeric antenna gain

$S$  = Power density in mW / cm<sup>2</sup>



## 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 / cm<sup>2</sup>

### IEEE 802.11b mode:

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

--End of Test Report--