

IEEE C95.1**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****RF EXPOSURE REPORT****For****All In One Panel PC****Model: 3365-199****Trade Name:**  **ADLINK**
TECHNOLOGY INC.**Issued for****ADLINK TECHNOLOGY INC.****9F, No. 166, Jian Yi Road, Chungho City, Taipei, Taiwan ZIP:235, R.O.C****Issued by****Compliance Certification Services Inc.****Hsinchu Lab.****NO. 989-1, Wenshan Rd., Shangshan Village,
Qionglin Township, Hsinchu County 30741, Taiwan (R.O.C.)****<http://www.ccsrf.com>****service@ccsrf.com****Issued Date: April 22, 2016**

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	01/05/2016	Initial Issue	All Page	Gloria Chang
01	04/22/2016	Revised Applicant Address & Antenna Information	All Page	Gloria Chang



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1. 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.

2. EUT Specification

Product Name	All In One Panel PC
Model Number	3365-199
Identify Number	T150902D01
Received Date	September 02, 2015
Frequency band (Operating)	☒ 802.11b/g/gn HT20: 2412MHz ~ 2462MHz 802.11gn HT40: 2422MHz ~ 2452MHz 802.11a, 802.11an HT20: 5180 MHz ~ 5240 MHz / 5745 MHz ~ 5825 MHz 802.11an HT40: 5190 MHz ~ 5230 MHz / 5755 MHz ~ 5795 MHz ☐ 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	WiFi (2.4GHz) Antenna 1 Gain 4.24 dBi (Numeric gain: 2.65) WiFi (2.4GHz) Antenna 2 Gain 4.69 dBi (Numeric gain: 2.94) WiFi (5GHz) Antenna 1 Gain 5.84 dBi (Numeric gain: 3.84) WiFi (5GHz) Antenna 2 Gain 7.41 dBi (Numeric gain: 5.51)

Maximum Average output power	IEEE 802.11b Mode: 14.40 dBm (27.542 mW) IEEE 802.11g Mode: 26.12 dBm (409.261 mW) IEEE 802.11n HT 20 Mode: 25.03 dBm (318.420 mW) IEEE 802.11n HT 40 Mode: 24.12 dBm (258.226 mW) 5G UNII Band 1: IEEE 802.11a Mode: 18.32 dBm (67.920 mW) IEEE 802.11n HT 20 Mode: 18.17 dBm (65.615 mW) IEEE 802.11n HT 40 Mode: 18.73 dBm (74.645 mW) 5G UNII Band 3: IEEE 802.11a Mode: 18.36 dBm (68.549 mW) IEEE 802.11n HT 20 Mode: 18.68 dBm (73.790 mW) IEEE 802.11n HT 40 Mode: 16.31 dBm (42.756 mW)
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A

3. Test Results

No non-compliance noted.

Calculation

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

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in watts / meter

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

4. 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:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
2437	27.542	2.94	20	0.0161	1

IEEE 802.11g mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
2437	409.261	2.94	20	0.2394	1

IEEE 802.11gn HT20 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
2437	318.42	2.94	20	0.1863	1

IEEE 802.11gn HT40 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
2437	258.226	2.94	20	0.1511	1

5G UNII Band 1 :

IEEE 802.11a mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5240	67.92	5.51	20	0.0745	1

IEEE 802.11an HT20 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5785	65.615	5.51	20	0.0719	1

IEEE 802.11an HT40 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5230	74.645	5.51	20	0.0818	1

5G UNII Band 3 :**IEEE 802.11a mode:**

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5785	68.549	5.51	20	0.0752	1

IEEE 802.11an HT20 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5785	73.79	5.51	20	0.0809	1

IEEE 802.11an HT40 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
5795	42.756	5.51	20	0.0469	1