

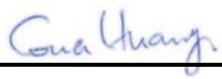


# FCC SAR TEST REPORT

**FCC ID** : HD5-CT30PL0N  
**Equipment** : Mobile computer  
**Brand Name** : Honeywell  
**Model Name** : CT30PL0N  
**Applicant** : Honeywell International Inc.  
9680 Old Bailes Road, Fort Mill, SC 29707 USA  
**Manufacturer** : Honeywell International Inc.  
9680 Old Bailes Road, Fort Mill, SC 29707 USA  
**Standard** : FCC 47 CFR Part 2 (2.1093)

We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample provide by manufacturer and the test data has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been pass the FCC requirement.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

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Approved by: Cona Huang / Deputy Manager



**Sporton International Inc. EMC & Wireless Communications Laboratory**  
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## History of this test report



## 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Honeywell International Inc., Mobile computer, CT30PL0N, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary		
		Head (Separation 0mm)	Body-worn (Separation 15mm)	Extremity (Separation 0mm)
		1g SAR (W/kg)	10g SAR (W/kg)	
DTS	WLAN	2.4GHz WLAN	0.69	0.18
		5GHz WLAN	0.79	1.07
DSS	2.4GHz Band	Bluetooth	0.11	0.03
				0.14

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

Reviewed by: Jason Wang

Report Producer: Daisy Peng

## 2. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards, the below KDB standard may not including in the TAF code without accreditation.

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D07 UMPC Mini Tablet v01r02



### 3. Equipment Under Test (EUT) Information

#### 3.1 General Information

Product Feature & Specification	
Equipment Name	Mobile computer
Brand Name	Honeywell
Model Name	CT30PL0N
FCC ID	HD5-CT30PL0N
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz
Mode	WLAN: 802.11a/b/g/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC: ASK, type A/B/F/V
HW Version	v1.0
SW Version	311.C0.00.0630-N-DEBUG
EUT Stage	Identical Prototype

**Remark:**

1. Based on original filing FCC ID: HD5-CT30PL0N, Sporton Report no.: FA1N0506 to update 2.4GHz WLAN output power and does not affect RF Exposure results, due to update output power was not higher than original report.

For Sale Together				
Battery 1	Brand Name	Honeywell	Model Name	CT30P-BTSC
	Power Rating	3.87 Vdc, 3400 mAh	Type	Li-ion Battery Pack
Hand Strap	Brand Name	Honeywell	Model Name	CT30XP Hand strap
For Not Sale Together				
Holster1	Brand Name	Honeywell	Model Name	CT60 Holster
Holster2	Brand Name	Honeywell	Model Name	CT60 Pouch



## 4. RF Exposure Limits

### 4.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

### 4.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**Limits for Occupational/Controlled Exposure (W/kg)**

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

**Limits for General Population/Uncontrolled Exposure (W/kg)**

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

**5. WiFi Output Power (Unit: dBm)****<2.4GHz WLAN>**

2.4GHz WLAN				Ant 2		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	17.30	17.50	99.20
		6	2437	17.90	18.00	
		11	2462	17.50	17.50	
	802.11g 6Mbps	1	2412	15.70	16.00	98.30
		6	2437	18.10	18.50	
		11	2462	17.10	17.50	
	802.11n-HT20 MCS0	1	2412	15.20	15.50	98.30
		6	2437	18.40	18.50	
		11	2462	17.10	17.50	
	802.11n-HT40 MCS0	3	2422	13.00	13.00	95.00
		6	2437	17.80	18.00	
		9	2452	15.10	15.50	
	802.11ac-VHT20 MCS0	1	2412	15.10	15.50	98.20
		6	2437	18.30	18.50	
		11	2462	17.00	17.00	
	802.11ac-VHT40 MCS0	3	2422	12.90	13.00	95.00
		6	2437	17.70	18.00	
		9	2452	14.90	15.00	



## **6. References**

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.
- [9] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [10] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.