

RF Exposure Evaluation Report

APPLICANT : Ademco Inc.
EQUIPMENT : Chandelier 7" Tablet
BRAND NAME : Touch Screen
MODEL NAME : 6290W
FCC ID : CFS8DL6290W
STANDARD : 47 CFR Part 2.1091
FCC KDB 447498 D01 v06

We, Sporton International (Kunshan) Inc., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.



Approved by: Mark Qu / Manager



Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone,
Jiangsu Province 215335, China



Table of Contents

1. ADMINISTRATION DATA	4
1.1. Testing Laboratory	4
2. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	5
3. MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS	6
4. RF EXPOSURE LIMIT INTRODUCTION	7
5. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	8
5.1. Standalone Power Density Calculation	8



History of this test report

Report No.	Version	Description	Issued Date
FA8N0513	Rev. 01	Initial issue of report	Jan. 02, 2019



1. Administration Data

1.1. Testing Laboratory

Testing Laboratory	
Test Site	Sporton International (Kunshan) Inc.
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu Province 215335, China TEL : 86-512-57900158 FAX : 86-512-57900958

Applicant	
Company Name	Ademco Inc.
Address	2 Corporate Center Drive, Melville NY 11747

Manufacturer	
Company Name	Ademco Inc.
Address	2 Corporate Center Drive, Melville NY 11747

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Chandelier 7" Tablet
Brand Name	Touch Screen
Model Name	6290W
FCC ID	CFS8DL6290W
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz
Mode	WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40
HW Version	A6r5d
SW Version	ZQ1981_6280_DVT_20181010
EUT Stage	Production Unit
Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	

3. Maximum RF average output power among production units

<WLAN 2.4GHz>

Mode		Maximum Average Power (dBm)
2.4GHz	802.11b	19.50
	802.11g	18.00
	802.11n-HT20	17.50
	802.11n-HT40	16.00

<WLAN 5GHz>

Mode		Maximum Average Power (dBm)
5.2GHz	802.11a	18.00
	802.11n-HT20	17.50
	802.11n-HT40	16.00
5.3GHz	802.11a	17.50
	802.11n-HT20	17.50
	802.11n-HT40	16.00
5.5GHz	802.11a	18.00
	802.11n-HT20	17.00
	802.11n-HT40	15.50
5.8GHz	802.11a	17.50
	802.11n-HT20	17.00
	802.11n-HT40	15.00

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
WLNA2.4GHz Band	2412.0	3.24	19.50	22.740	0.188	187.932	0.037	1.000
5.2GHz WLAN	5180.0	2.67	18.00	20.670	0.117	116.681	0.023	1.000
5.3GHz WLAN	5260.0	3.05	17.50	20.550	0.114	113.501	0.023	1.000
5.5GHz WLAN	5500.0	3.52	18.00	21.520	0.142	141.906	0.028	1.000
5.8GHz WLAN	5745.0	2.74	17.50	20.240	0.106	105.682	0.021	1.000

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.