



RF Exposure Evaluation Report

APPLICANT	ADEMCO INC.
ADDRESS	2 CORPORATE CENTER DRIVE SUITE 100 PO BOX 9040 MELVILLE NY 11747
FCC ID	CFS-8DL6CTAR1
MODEL NUMBER	SiXCTA, SiXCT
PRODUCT DESCRIPTION	WIRELESS DOOR/WINDOW CONTACT
DATE SAMPLE RECEIVED	06/04/2019
FINAL TEST DATE	06/07/2019
PREPARED BY	Tim Royer
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Report Version	Description	Issue Date
1422AUT19 MPE_TestReport	Rev1	Initial Issue	07/17/2019

THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.



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GENERAL REMARKS

Summary

The device under test does:

- ☒ Fulfill the general approval requirements as identified in this test report and was selected by the customer.
- ☐ Not fulfill the general approval requirements as identified in this test report

Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.

I attest that the necessary measurements were made at:

Timco Engineering Inc.
849 NW State Road 45
Newberry, FL 32669
Designation #: US1070

Prepared by:



Name and Title	Tim Royer, Project Manager / EMC Testing Engineer
Date	06/7/2019

GENERAL INFORMATION

EUT Description	WIRELESS DOOR/WINDOW CONTACT		
Model Number	SiXCTA, SiXCT		
EUT Power Source	☐ 110–120Vac, 50–60Hz	☐ DC Power	☒ Battery Operated
Test Item	☐ Engineering Prototype	☒ Pre-Production	☐ Production
Type of Equipment	☒ Fixed	☐ Mobile	☐ Portable
Antenna Connector	Integrated		
Test Conditions	The temperature was 26°C Relative humidity of 50%.		
Modification to the EUT	No Modification to EUT.		
Applicable Standards	FCC CFR 47 Part 2.1091		
Test Facility	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070		

ANTENNA INFORMATION

Manufacturer Provides Antenna	Type	Max Gain (dBi)
Yes	Unspecified	0 dBi

SISO Statement

This equipment has two separate outputs meant to be used as SISO for different service areas. For such equipment, FCC KDB 935210 D02 asks for the following grant condition to be used:

“This filing has compliance demonstration information and test data only for SISO (single-input single-output) booster system configurations; additional equipment authorization is required to allow this device to be used in MIMO (multiple-input multiple-output) industrial booster systems.”

MPE CALCULATION

The minimum separation distance is calculated as follows:

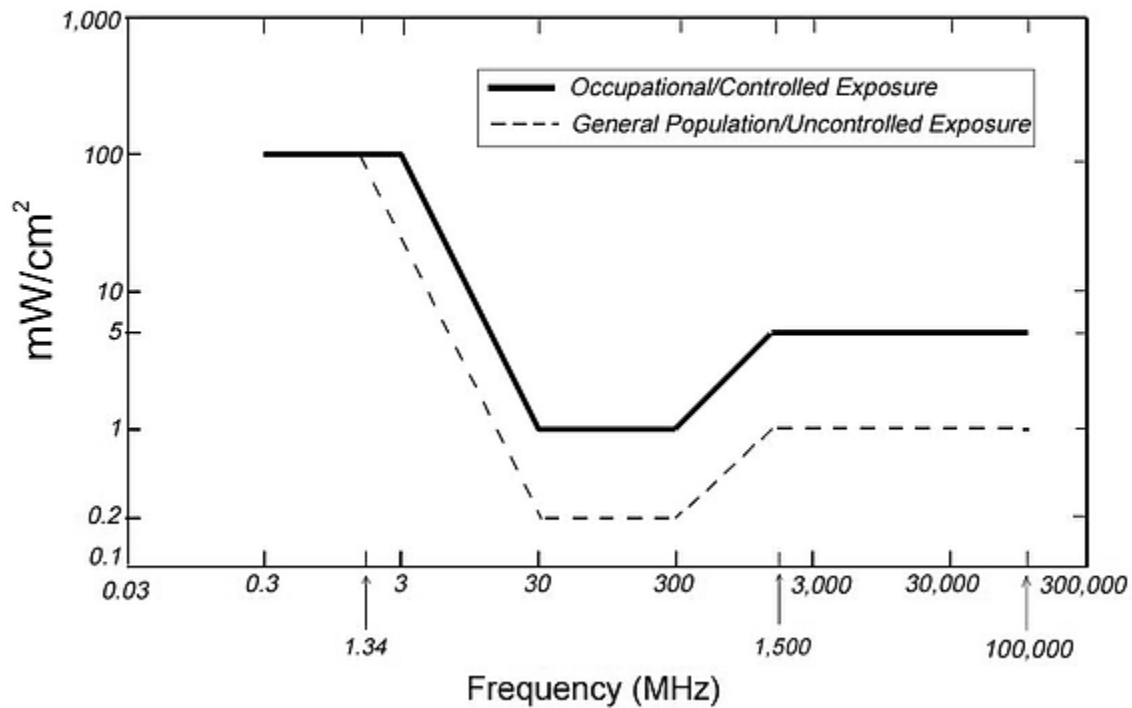
$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

MPE LIMITS

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)

Plane-wave Equivalent Power Density



MPE Table

General Uncontrolled Exposure

The limit for General Uncontrolled Exposure Environment is calculated as shown in FCC Pt. 1.1310, Table B:

Variable	Value
Max Power	0.079 W
Frequency Range	2405 - 2445 MHz
Duty Cycle (at full power)	100%
Max Antenna Gain	0 dB
Coax Loss	0 dB
Power Density	1 mW/cm ²
Minimum Separation Distance	2.51 cm