

resideo

SMCO410

Report #: RESI-23004

FCC ID: M7U-410

RF EXPOSURE EVALUATION

Z-Wave Smoke and CO Alarm detector

Issue Date: 2024-11-26

Prepared by and for:

Ademco Inc.

2 Corporate Center Dr.

Suite 100 PO Box 9040

Melville, NY 11747

Testing

NVLAP Lab Code: 600110



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Test Report Revision History

Revision	Prepared By	Reviewed By	Revision Detail	Release Date
V0	Jose Badia	Christian Fouth	Original Release	2024-11-26

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ATTESTATION OF TEST RESULTS

Company Name: Ademco Inc., 2 Corporate Center Dr., Melville, NY 11747, USA

EUT Description: Z-Wave Smoke & Co Alarm detector

Model: SMCO410

Serial Number: Non-Serialized units

Standards

Specification
FCC §1.1310

Report Prepared By:

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1. FCC RULES CONCERNING MAXIMUM PERMISSIBLE RF EXPOSURE:

§ CFR 47 1.1310 Radiofrequency radiation exposure limits.

The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."

NOTE TO INTRODUCTORY PARAGRAPH:

These limits are generally based on recommended exposure guidelines published by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. Copyright NCRP, 1986, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on guidelines recommended by the American National Standards Institute (ANSI) in Section 4.1 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,"

ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers.

2. UUT POWER OUTPUT AND ANTENNA GAIN

The maximum radiated output power is measured as 80.45 dBuV/m at 3 meters which corresponds to a EIRP of -14.78 dBm at 908MHz.

The max antenna gain is -7.59 dBi

The power density limit at 908 MHz is 0.605 mW/cm²



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2.1. MPE CALCULATIONS:

FCC GENERAL POPULATION / UNCONTROLLED EXPOSURE LIMITS:

FOR 300 MHz to 1,500 MHz use F / 1500 mW/cm²

FOR 1,500 to 100,000 MHz use 1 mW/cm²

EQUATIONS:

MAX AVG EIRP (mW) = $10^{\{(MAX\ COND\ PWR. + ANT\ GAIN + DUTY\ FACTOR)/10\}}$

THE FRIIS TRANSMISSION EQUATION = $EIRP \times DUTY\ CYCLE / (4 \times \pi \times 20\ cm^2)$

BANDS AND FCC IDs

BAND	FCC ID
908	M7U-410

BAND:	CH No:	FREQ(Mhz)	TRP dbm	MAX COND. PWR (dBm)	ANTENNA GAIN (dbi):	DUTY FACTOR (dB)	MAX AVG EIRP (mW)	FRIIS mW/CM ² :	EXP LIMIT mW/CM ² :	% OF LIMIT:
908 MHz	N/A	908	N/A		-7.59		0.033	0.000007	0.605	0.0011

MAXIMUM MPE OF THE RF6 MODULE AS % OF LIMIT IS: 0.0011

RESULTS:

TEST RESULT: PASS

In the configuration tested the EUT complied with the standards specified above.