

General

E.U.T.: IntegrAlarm Smoke Detector

Type: IA-SMK1

S/N: Not Designated

Date of Re-tests: May 3, 2004

FCC ID: RUF150705

IC No.: 4937A-150705

MT No.: MT15117

Description of Change in Digital Part

In the original circuit, the battery low voltage detector output was connected to the CPU reset line.

In the new circuit, the battery low voltage detector output is connected to input Port 06 of the CPU and the detection level was increased from 2V (detector P/N NCP303LSN20T) to 2.5V (detector P/N NCP303LSN25T).

The following pages contain the test results after the change.

Radiated Emission

E.U.T Description IntegrAlarm Smoke Detector
Type IA-SMK1
Serial Number: Not designated

Specification: FCC Part 15, Subpart B, Class B

Antenna Polarization: Horizontal/Vertical Frequency range: 30 MHz to 300 MHz
Antenna: 3 meters distance Detectors: Peak, Quasi-peak
Operating Frequency: 916.5 MHz; 926.5 MHz

Frequency	Polarization	Peak Amp	QP Amp	Correction	Specification	Margin
(MHz)		(dBμV/m)	(dBμV/m)	(dB)	(dBμV/m)	(dB)
39.00	V	20.1	16.2	13.4	40.0	-23.8
78.00	V	18.4	15.0	10.5	40.0	-25.0
117.00	V	20.9	20.5	13.4	43.5	-23.0
156.00	H	22.0	18.2	15.2	43.5	-25.3
195.00	H	23.9	22.0	17.1	43.5	-21.5
234.00	H	27.4	21.7	19.3	46.0	-24.3

**Figure 1. Radiated Emission. Antenna Polarization: HORIZONTAL/VERTICAL.
Detectors: Peak, Quasi-peak**

Notes:

- 1. Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.*
- 2. Test Results after change in digital part of the E.U.T.*

Radiated Emission

E.U.T Description IntegrAlarm Smoke Detector
 Type IA-SMK1
 Serial Number: Not designated

Specification: FCC Part 15, Subpart B, Class B

Antenna Polarization: Horizontal/Vertical Frequency range: 300 MHz to 1 GHz
 Antenna: 3 meters distance Detectors: Peak, Quasi-peak
 Operating Frequency: 916.5 MHz

Frequency (MHz)	Polarization	Peak Amp (dBμV/m)	QP Amp (dBμV/m)	Correction (dB)	Specification (dBμV/m)	Margin (dB)
312.00	V	25.8	17.2	15.2	46.0	-28.8
390.00	V	27.1	21.7	16.7	46.0	-24.3
468.00	H	27.9	21.8	19.4	46.0	-24.2
507.00	H	28.3	20.9	20.1	46.0	-25.1
624.00	H	29.7	24.1	25.3	46.0	-21.9
916.52	H	38.3	31.9	27.4	46.0	-14.1

**Figure 2. Radiated Emission. Antenna Polarization: HORIZONTAL/VERTICAL.
 Detectors: Peak, Quasi-peak**

Notes:

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- 2. Test Results after change in digital part of the E.U.T.*

Radiated Emission

E.U.T Description IntegrAlarm Smoke Detector
 Type IA-SMK1
 Serial Number: Not designated

Specification: FCC Part 15, Subpart B, Class B

Antenna Polarization: Horizontal/Vertical Frequency range: 300 MHz to 1 GHz
 Antenna: 3 meters distance Detectors: Peak, Quasi-peak
 Operating Frequency: 926.5 MHz

Frequency (MHz)	Polarization	Peak Amp (dBμV/m)	QP Amp (dBμV/m)	Correction (dB)	Specification (dBμV/m)	Margin (dB)
312.00	V	23.6	17.0	15.2	46.0	-29.0
390.00	V	25.0	20.1	16.7	46.0	-25.9
468.00	H	26.2	21.0	19.4	46.0	-25.0
507.00	H	25.9	20.9	20.1	46.0	-25.1
624.00	H	31.8	24.9	25.3	46.0	-21.1
926.55	H	37.0	33.0	27.6	46.0	-13.0

**Figure 3. Radiated Emission. Antenna Polarization: HORIZONTAL/VERTICAL.
 Detectors: Peak, Quasi-peak**

Notes:

- 1. Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.*
- 2. Test Results after change in digital part of the E.U.T.*