



RF sensor User Manual

1. Introduction

This SCW-K240 is a detector that is able to detect the moving objects. It is based on the Doppler effect and generated by 24GHz. This module consists of a couple of major parts which are called the RF sensing and signal processing parts.

2. Specification

A. Model: SCW-K240

B. DC Electrical Characteristics

Parameter	Spec			Unit
	Min	Typ.	Max	
Operating voltage (VDD)	3.0	3.3	3.5	V
Operating current (IDD)		16		mA
size		31*16*10		[mm]

Table 2.1

C. Block diagram of RF circuit

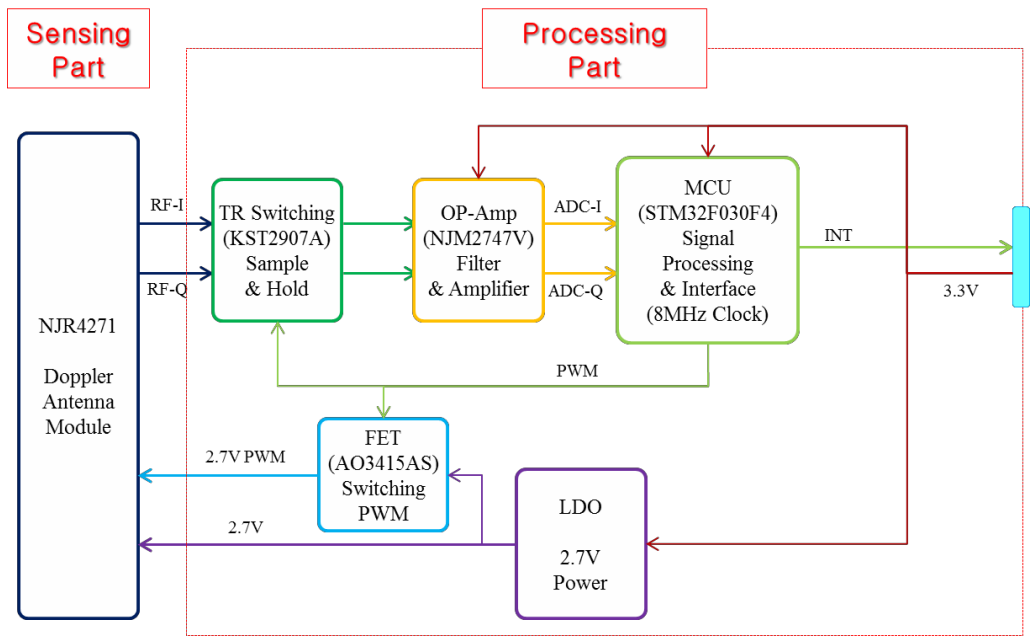


Figure 2.1

3. Operating process

After detecting some movement on the device, the interrupt signal from the sensor is generated. Then, the electrical power is sent to the sensor. Once the sensor is operating, the output of INT will be steady at high level. If the device is detecting some movement, the output of the INT is shortly maintained at low level and goes back to the high level as shown in Figure below.

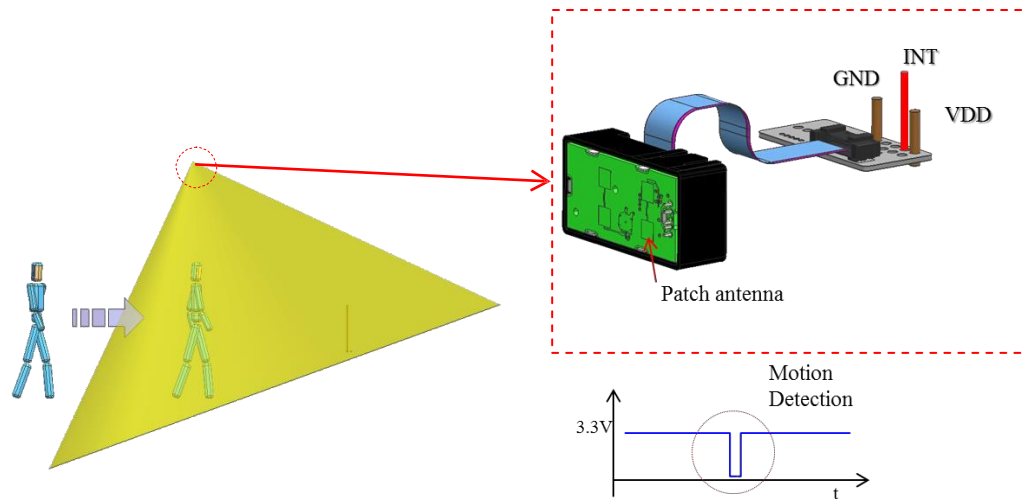


Figure 3.1

4. Package

This module is contained the RF sensing part and the signal processing part which are the green and brown panels respectively represented as a figure below.

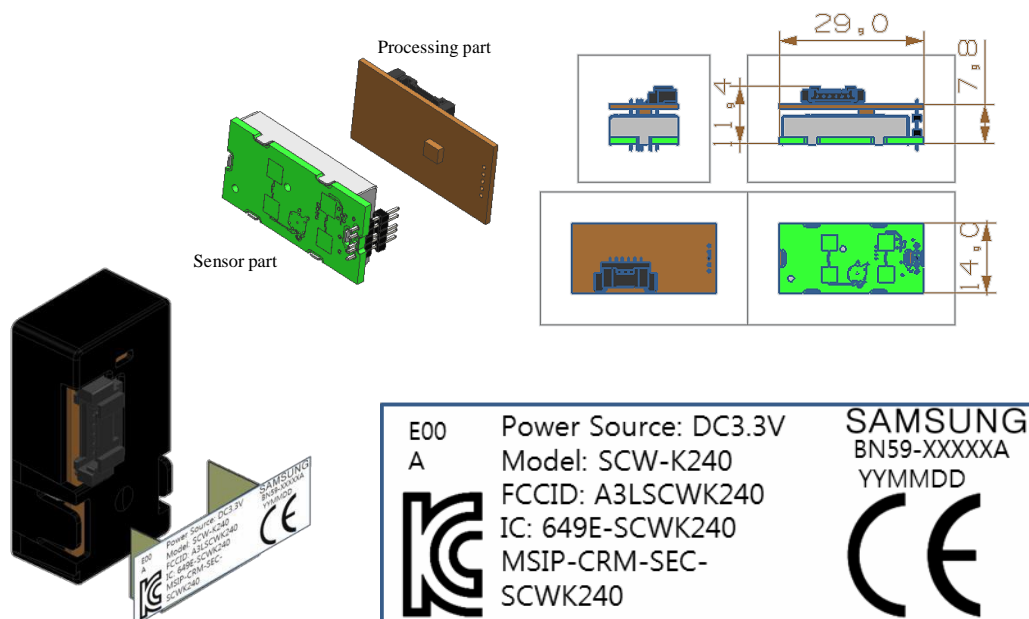


Figure 4.1

FCC GUIDELINES

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

FCC Warning:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference,
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

IC Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

Cet équipement est conforme avec IC RSS-102 des limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

Cet appareil et son antenne (s) ne doivent pas être co-localisés ou fonctionnement en association avec une autre antenne ou émetteur.

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